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# CLEARING CLUSTER MUNITION REMNANTS 2023

A REPORT BY MINE ACTION REVIEW FOR THE ELEVENTH MEETING  
OF STATES PARTIES TO THE CONVENTION ON CLUSTER MUNITIONS

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## Acknowledgements

This report was researched and written by Nick Cumming-Bruce, Rula Daoud, Alex Frost, Emil Hasanov, Lucy Pinches, Frances Smith, Sandra Velasco Pérez, and Louise Wilson. The Mine Action Review project is managed by Lucy Pinches. The report was edited by Stuart Casey-Maslen and laid out by Optima Design in the United Kingdom. The HALO Trust, Mines Advisory Group (MAG), and Norwegian People's Aid (NPA) form the project's Advisory Board. Mine Action Review would like to thank Global Affairs Canada, the Royal Norwegian Ministry of Foreign Affairs, and the Swiss Federal Department of Foreign Affairs for funding its work as well as all those who contributed data and information.

## Other information

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Mine Action Review welcomes comments from national authorities and other relevant stakeholders. Please send any comments to [MineActionReview@npaid.org](mailto:MineActionReview@npaid.org)

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# CLEARING CLUSTER MUNITION REMNANTS

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# KEY FINDINGS

- **Global clearance of cluster munition-contaminated area totalled almost 170.7km<sup>2</sup> in 2022**, an increase of more than 12% on the 151.7km<sup>2</sup> cleared in 2021 and a new annual record. **More than 102,400 unexploded submunitions were destroyed** during clearance and explosive ordnance disposal (EOD) operations in 2022 (a drop of almost 4,000 on the number recorded worldwide in 2021).
- No State Party completed CMR clearance in 2022 or the first half of 2023. Globally, a total of **25 States and three “other areas”<sup>1</sup> were believed to have cluster munition-contaminated area on their territory** as at 1 August 2023, the same number compared to 2022. As a result of progress achieved under the Convention on Cluster Munitions (CCM), of its 111 States Parties, only 10 had cluster munition-contaminated areas still to release: Afghanistan, Bosnia and Herzegovina, Chad, Chile, Germany, Iraq, the Lao People’s Democratic Republic (Lao PDR), Lebanon, Mauritania, and Somalia. In addition, on 4 August 2023, cluster munition-affected **South Sudan deposited its instrument of accession in New York** and on 1 February 2024 it will become the latest State Party with an Article 4 clearance obligation.

Signatory State the Democratic Republic of Congo is believed to have cluster munition-contaminated areas remaining on its territory. The other signatory State, Angola, may soon be removed from the list of affected States as Mine Action Review believes that only a small residual threat from unexploded submunitions remains on its territory and there are no known or suspected cluster munition-contaminated areas.

A further 13 States not party—Armenia, Azerbaijan, Cambodia, Iran, Libya, Serbia, South Sudan, Sudan, Syria, Tajikistan, Ukraine, Vietnam, and Yemen—are affected by cluster munition remnants (CMR), along with three other areas (Kosovo, Nagorno-Karabakh, and Western Sahara).
- **Significant new use of cluster munitions occurred in Ukraine in 2022** following the Russian invasion that began on 24 February. Neither Russia nor Ukraine is a signatory to the CCM; both have used cluster munitions.<sup>2</sup> Russia’s armed forces have used cluster munitions extensively against Ukrainian military objectives, as well as, in serious violation of international law, against the civilian population and civilian objects. The exact number of cluster munition attacks mounted by Russia is unknown, but hundreds have been documented or reported, adding significantly to the existing contamination from CMR. Prior to July 2023, Ukrainian forces had also used cluster munitions in their military operations against Russian forces on Ukrainian territory at least three times. On 7 July 2023, the United States (US) supplied Ukraine with dual-purpose improved conventional munitions (DPICM), a type of cluster munition,<sup>3</sup> which Ukraine began using against Russian forces the same month, resulting in more CMR on its territory.<sup>4</sup>
- Of the 10 affected States Parties to the CCM, only Lao PDR is **massively contaminated** (where cluster munition-contaminated areas cover more than 1,000km<sup>2</sup> of land), while **heavy contamination** exists in Iraq (defined as extending over more than 100km<sup>2</sup>). In the eight other affected States Parties, the extent of contamination is medium or light.
- Clearance in the 10 affected States Parties in 2022 covered a total of more than 74.2km<sup>2</sup> of cluster munition-contaminated area, an increase of 6% on the previous year. Every State Party except for Chad, Chile, and Somalia conducted clearance of cluster munition-contaminated area in 2022. Chile planned finally to undertake clearance for the first time in September 2023, more than 12 years after becoming a State Party to the CCM.

1 These are territories not recognised as States by the Secretary-General of the United Nations (UN) in his capacity as treaty depositary for the CCM.

2 See Mine Action Review’s *Clearing Cluster Munition Remnants 2023* country report on Ukraine for more information.

3 US Department of Defense, “Biden Administration Announces Additional Security Assistance for Ukraine”, Press release, 7 July 2023, at: <https://bit.ly/305Glmw>.

4 “Cluster bombs: Ukraine using munitions ‘effectively’, says US”, BBC, 21 July 2023, at: <https://bbc.in/30t3eL0>.

- Among affected States Parties, only Bosnia and Herzegovina, and possibly also Chile, were on track to meet their respective Article 4 deadlines without the need for further extensions. In 2023, two States Parties, Iraq and Mauritania, submitted a request to extend their respective Article 4 deadlines for consideration at the Eleventh Meeting of States Parties in September 2023. Iraq has asked for the maximum of five years and is likely to need multiple extensions before it completes CMR clearance given the extent of contamination. Mauritania has requested a further two years, having failed during its previous extension request period to secure the international funding it requires to release the remaining cluster munition-contaminated areas.
- The four most heavily contaminated States in the world—Lao PDR, Vietnam, Cambodia, and Iraq—again saw the greatest amount of clearance during the year, together accounting for more than 87% of recorded global clearance in 2022. States Parties Iraq and Lao PDR and States not party Cambodia and Vietnam all increased clearance output significantly. **Lao PDR destroyed the most submunitions (65,293) in 2022**, followed by Vietnam (15,482, a figure that only includes submunitions discovered by international non-governmental organisations, as military and commercial clearance data was not available).
- In total, **ten States Parties and two States not party have been declared free of cluster munition-contaminated area** since 2010, the year the CCM entered into force.<sup>5</sup>
- In **Mine Action Review's assessment of national mine action performance in 2022**, no State Party was ranked as Very Good. **Lebanon was the top scoring State Party** which, along with Germany and Lao PDR, maintained a ranking of Good. Afghanistan, Bosnia and Herzegovina, Chile, Iraq, and Mauritania were ranked as average. Chad remained Poor, while Somalia, despite achieving a small increase in score in information management and reporting, remained Very Poor, a reflection of the unacceptably low performance of the national programme in implementing its Article 4 obligations of survey and clearance.
- Every mine action programme should be considering the **environmental impact of both contamination and clearance**. Clearance programmes have a responsibility to “do no harm” to the communities in which they work, which includes mitigating the negative environmental impact of their activities and systematically integrating environmental assessments into the planning process. A policy brief, ***Mitigating the Environmental Impacts of Explosive Ordnance and Land Release***, published in 2021, is available for download on the Mine Action Review website. Mine Action Review has also included a section on Environmental Policies and Action in each of our country reports.
- **The Lausanne Action Plan (LAP)** was adopted by Part Two of the Second Review Conference of the CCM in September 2021. Mine Action Review has assessed implementation of the LAP actions related to survey and clearance and will assess progress annually, through to the Convention's Third Review Conference in 2026. The results of Mine Action Review's 2023 monitoring can be found on the Mine Action Review website.<sup>6</sup> We welcome feedback from States Parties and other stakeholders on the results of the assessment. Please email [MineActionReview@npaid.org](mailto:MineActionReview@npaid.org) with any feedback or additional information for Mine Action Review's consideration.
- **While progress is uneven across affected States and other areas, overall the pace of global clearance is increasing significantly.** By 2030, clearance of all cluster munition-contaminated area could be completed in every affected State apart from States Parties Iraq and Lao PDR and States not party Cambodia, Syria, Ukraine (where use of cluster munitions was ongoing at the time of writing), Vietnam, and Yemen.<sup>7</sup> To achieve this will, however, require political will from the affected States, together with application of efficient and effective land release methodology supported by strong national standards and information management systems, as well as sufficient and sustained funding.

<sup>5</sup> States Parties: Croatia, Colombia, Republic of Congo, Grenada, Guinea-Bissau, Montenegro, Mozambique, Norway, United Kingdom, and Zambia (which completed CMR clearance in June 2010 prior to entry into force of the CCM on 1 August 2010). States not Party Georgia and Thailand have also completed CMR clearance.

<sup>6</sup> See the *Guide to the Lausanne Action Plan and Provisional Results of 2023 Monitoring*, available on the Mine Action Review website.

<sup>7</sup> Afghanistan has the capacity to achieve completion if donors support the implementing partners able to deliver it. Kosovo may also meet the milestone of completed clearance before the end of the decade, along with other areas Nagorno-Karabakh and Western Sahara.

# OVERVIEW

## SUMMARY OF PROGRESS

Global clearance of cluster munition-contaminated area totalled almost 170.7km<sup>2</sup> in 2022, an increase of more than 12% on the 151.7km<sup>2</sup> cleared in 2021 and a new annual record. More than 102,400 unexploded submunitions were destroyed during clearance and explosive ordnance disposal (EOD) operations in 2022 (a drop of almost 4,000 on the number recorded worldwide in 2021). Submunitions were destroyed in 20 States and 2 "other areas"<sup>1</sup> in 2022,<sup>2</sup> although in some States, notably Syria and Yemen, submunitions were destroyed only during spot tasks and not during area clearance. The total recorded figure of clearance for 2022 also understates the true level of clearance of cluster munition remnants (CMR) given that detailed results for Iran and Ukraine are not available.

As at 1 August 2023, 111 States were party to the Convention on Cluster Munitions (CCM), an increase of one State from a year earlier, following Nigeria's ratification in February 2023. On 4 August 2023, South Sudan deposited its instrument of accession in New York becoming the 112<sup>th</sup> State Party on 1 February 2024. Of the remaining 85 States not party, 12 were signatories, which are thereby prohibited under international law from ever using cluster munitions.

No State Party completed CMR clearance in 2022 or the first half of 2023. As a consequence, as at 1 August 2023, 10 States Parties had cluster munition-contaminated areas on territory under their jurisdiction or control still to release: Afghanistan, Bosnia and Herzegovina, Chad, Chile, Germany, Iraq, the Lao People's Democratic Republic (Lao PDR), Lebanon, Mauritania, and Somalia. Bosnia and Herzegovina, though, expected to complete clearance before its extended Article 4 deadline of 1 September 2023. South Sudan also has CMR with a ten-year deadline for clearance from 2024. No CMR

clearance was recorded in 2022 in States Parties Chad, Chile, and Somalia.

Globally, 25 States and 3 other areas were believed to be contaminated with CMR as at 1 August 2023, the same as the previous year. Of this total, Angola may soon be removed from the list of affected States as Mine Action Review believes that only a small residual threat from unexploded submunitions remains on its territory, and no known or suspected cluster munition-contaminated areas. In 2023, two States Parties, Iraq and Mauritania, submitted a request to extend their respective Article 4 deadlines for clearance, which were due to be considered at the Eleventh Meeting of States Parties in Geneva on 11–14 September 2023. Iraq requested an additional five years and Mauritania two years.

Significant new use of cluster munitions occurred in Ukraine in 2022 following the Russian invasion that began on 24 February. Neither Russia nor Ukraine is a signatory to the CCM; both have used cluster munitions.<sup>3</sup> Russia's armed forces have used cluster munitions extensively against Ukrainian military objectives, as well as, in serious violation of international law, against the civilian population and civilian objects. The exact number of cluster munition attacks mounted by Russia is unknown, but hundreds have been documented or reported, adding significantly to the existing contamination from CMR. Prior to July 2023, Ukrainian forces had also used cluster munitions in their military operations against Russian forces on Ukrainian territory at least three times. On 7 July 2023, however, the United States (US) supplied Ukraine with dual-purpose improved conventional munitions (DPICM), a type of cluster munition,<sup>4</sup> which Ukraine began using against Russian forces the same month, resulting in more CMR on its territory.<sup>5</sup>

## GLOBAL CMR CONTAMINATION

Globally, 25 States and three "other areas" were cluster munition-contaminated as at 1 August 2023, the same number as a year earlier. In addition to the 10 CCM States Parties with areas containing CMR on territory under their jurisdiction or control, 2 signatory States, and a further 13 States not party are also contaminated. All affected States and other areas are listed in Table 1. On 1 February 2024, South Sudan will become the latest State Party with an Article 4 clearance obligation.

<sup>1</sup> These are territories not recognised as States by the Secretary-General of the United Nations (UN) in his capacity as treaty depositary for the CCM.

<sup>2</sup> States Parties Afghanistan, Bosnia and Herzegovina, Germany, Iraq, Lao PDR, Lebanon, and Mauritania; signatory State Angola; States not party Azerbaijan, Cambodia, Iran, Libya, Serbia, South Sudan, Sudan, Syria, Tajikistan, Ukraine, Vietnam, and Yemen; and other areas Kosovo and Nagorno-Karabakh. The CCM was entering into force for South Sudan on 1 February 2024.

<sup>3</sup> See Mine Action Review's *Clearing Cluster Munition Remnants 2023* country report on Ukraine for more information.

<sup>4</sup> US Department of Defense, "Biden Administration Announces Additional Security Assistance for Ukraine", Press release, 7 July 2023, at: <https://bit.ly/305Glvz>.

<sup>5</sup> "Cluster bombs: Ukraine using munitions 'effectively', says US", BBC, 21 July 2023, at: <https://bbc.in/30t3eL0>.

By far the world's most contaminated nation is State Party Lao PDR. While a national baseline survey continues to be conducted, and contamination is massive, the figure the survey eventually produces will certainly be a huge reduction on the 87,000km<sup>2</sup> Lao PDR continues to report in its annual Article 7 transparency reports, and likely also below the 8,470km<sup>2</sup> reported in its 2019 Article 4 deadline extension request. As at the end of 2022, a total of 1,745km<sup>2</sup> of confirmed hazardous area (CHA) had been identified through survey, a significant increase on the 1,530km<sup>2</sup> recorded at the end of 2021. However, the annual rate at which CMR-contaminated area is confirmed is slowing, due to the increased focus on clearing CHAs already identified. State not party Vietnam also has massive contamination on its territory. The national authorities in Vietnam are putting in place the systems and structures to collate data on survey and clearance efforts on a more systematic basis.

Also heavily contaminated—with CMR spreading over several hundred square kilometres—are State not party Cambodia (also a legacy of the Vietnam War) and State Party Iraq. In both States, clearance is expected to take more than a decade to accomplish. The precise extent of CMR

contamination in Syria and Yemen has still to be clarified but is undoubtedly heavy. In Ukraine, new and significant use by the Russian forces is also greatly increasing the extent of CMR contamination across the country. Ukraine had used cluster munitions on its territory on a small number of occasions following Russia's invasion in February 2022, but that use was increasing following the transfer of a significant quantity of DPICMs by the United States in July 2023. The United Nations (UN) Secretary-General, in support of the CCM, expressed his concern regarding continued use of cluster munitions,<sup>6</sup> while around a dozen States Parties have expressed particular concern over US supply.<sup>7</sup> Russia, Ukraine, and the United States are not party to the CCM.

At least 18 affected States and 3 other areas could be freed of unexploded submunitions by 2030, meeting the date for the fulfilment of the UN Sustainable Development Goals (SDGs) (as well as, in part, a target set by States Parties to the CCM for all clearance of CMR worldwide in the political declaration agreed upon at the Sixth Meeting of States Parties in 2016). While CMR affect many SDGs, especially important are SDG 1 on the ending of poverty, and the promotion of just, peaceful, and inclusive societies under SDG 16.<sup>8</sup>

**Table 1: CMR-affected States and other areas (at 1 August 2023)**

States Parties	Signatory States	Other States not party	Other areas
Afghanistan	Angola	Armenia	Kosovo
Bosnia and Herzegovina	DR Congo	Azerbaijan	Nagorno-Karabakh
Chad		Cambodia	Western Sahara
Chile		Iran	
Germany		Libya	
Iraq		Serbia	
Lao PDR		South Sudan*	
Lebanon		Sudan	
Mauritania		Syria	
Somalia		Tajikistan	
		Ukraine	
		Vietnam	
		Yemen	
<b>10 States Parties</b>	<b>2 Signatory States</b>	<b>13 States not party</b>	<b>3 other areas</b>

\* South Sudan becomes a State Party on 1 February 2024.

6 UN, "Daily Press Briefing by the Office of the Spokesperson for the Secretary-General", 7 July 2023, available at: <https://bit.ly/448QWgq>.

7 Human Rights Watch (HRW), "Ukraine: Civilian Deaths from Cluster Munitions", 6 July 2023, at: <https://bit.ly/3rHBgmN>.

8 See also Geneva International Centre for Humanitarian Demining (GICHD) and the United Nations Development Programme (UNDP), "Leaving no one behind: Mine Action and the Sustainable Development Goals", Report, 2017.

Table 2 summarises what is known or reasonably believed about the extent of contamination in affected CCM States Parties. It is therefore an assessment by Mine Action Review of the extent of CMR contamination based on available evidence, as opposed to the claims of governments or mine action programmes, some of which do not stand up to scrutiny. By adhering to the Convention, States are formally expressing a determination to rid their territory of CMR within a time-bound deadline.

Table 2: Extent of CMR-contaminated areas in affected CCM States Parties (at 1 August 2023)

Massive (>1,000km <sup>2</sup> )	Heavy (100–1,000km <sup>2</sup> )	Medium (5–99km <sup>2</sup> )	Light (<5km <sup>2</sup> ) or extent unclear
Lao PDR	Iraq	Afghanistan	Bosnia and Herzegovina
		Chile	Chad
		Germany	Somalia
		Lebanon	
		Mauritania	

## CMR CLEARANCE IN 2022

A total of 170.68km<sup>2</sup> of cluster munition-contaminated area was cleared globally in States Parties, States not party (including signatories), and other areas in 2022 (see Table 3). This is an increase of 19km<sup>2</sup> (nearly 13%) on the 151.7km<sup>2</sup> cleared in 2021 and a new annual record. In the course of 2022, a total of 102,427 unexploded submunitions were destroyed worldwide during clearance, survey, and spot tasks, a drop on the 106,331 destroyed the previous year.<sup>9</sup>

The four most heavily contaminated States in the world—Lao PDR, Vietnam, Cambodia, and Iraq—again saw the greatest amount of clearance during the year, together accounting for more than 87% of recorded global clearance. States Parties Iraq and Lao PDR and States not party Cambodia and Vietnam all increased clearance output significantly in 2022. Lao PDR destroyed the most submunitions (65,293) in 2022, followed by Vietnam (15,482, a figure that only includes submunitions discovered by international non-governmental organisations (NGOs), as military and commercial clearance data was not available).

Of the 10 affected States Parties, all but Chad, Chile, and Somalia conducted clearance of cluster munition-contaminated area in 2022. With its compliance with the CCM in doubt, Chile planned finally to undertake clearance for the first time in September 2023, more than 12 years after becoming a State Party to the CCM. The aggregate clearance in States Parties for 2022 was more than 74.2km<sup>2</sup> (see Table 3)—a 6% increase on the 2021 figure of 63.9km<sup>2</sup> (which was revised down from 67.5km<sup>2</sup> reported by Mine Action Review last year, due to the subsequent correction to the 2021 clearance output for Iraq)—and represented approx. 43% of the global total in 2022. The total number of submunitions destroyed by States Parties in 2022 (75,617) dropped by more than 6,500 compared to the previous year (down from 82,284). Significant increases in clearance output were recorded in 2022 in Iraq (6.42km<sup>2</sup>) and Lao PDR (4.04km<sup>2</sup>).

The output of States not party (including signatories) and other areas in 2022 equated to the remaining 57% of the global total for the year. Clearance in 11 States not party and two other areas in 2022 amounted to 96.5km<sup>2</sup>, an increase of 11% on the 2021 figure of 87.2km<sup>2</sup> (which was revised up from 84.3km<sup>2</sup> reported last year, due to Cambodia subsequently amending its 2021 clearance output retrospectively). Significant increases in clearance output were recorded in 2022 in Cambodia (6.9km<sup>2</sup>) and Vietnam (3.2km<sup>2</sup>). No submunitions were reported to have been destroyed in 2022 in CCM signatory DR Congo or in other area of Western Sahara, and CMR clearance data for Armenia had not been reported to Mine Action Review by the national authorities as at time of writing. Figures for Sudan were provided by the UN Mine Action Service (UNMAS) rather than the national authorities, owing to the chaos resulting from the 2023 armed conflict, still ongoing at the time of writing.

<sup>9</sup> The global total of CMR clearance in 2022 is likely to be higher, given that several States not party have either not reported at all on clearance progress or have done so only partially or inaccurately. Mine Action Review figures are, though, conservative, to avoid exaggerating progress.

Table 3: Global CMR clearance in 2022

States Parties	Area cleared (km <sup>2</sup> )	Submunitions destroyed*	Comparison to 2021 clearance (+/- km <sup>2</sup> )	Comments
Afghanistan	3.36	240	- 0.24	
Bosnia and Herzegovina	0.64	1,620	+ 0.02	
Chad	0	0	- 0.74	
Chile	0	0	No change	
Germany	1.34	1,187	+ 0.49	
Iraq	16.62	4,697	+ 6.42	2021 clearance output reported by Mine Action Review as 13.8km <sup>2</sup> in last year's report, but subsequently corrected down to 10.2km <sup>2</sup> .
Lao PDR	50.72	65,293	+ 4.04	Excludes reported commercial clearance.
Lebanon	1.15	2,556	+ 0.15	
Mauritania	0.39	24	+ 0.21	
Somalia	Not reported	Not reported	No change	
<b>Subtotals</b>	<b>74.22</b>	<b>75,617</b>	<b>+ 10.35</b>	
States not party (including signatories) and other areas	Area cleared in 2022 (km <sup>2</sup> )	Submunitions destroyed in 2022	Comparison to 2021 clearance (+/- km <sup>2</sup> )	Comments
Angola	0	7	- 0.55	CCM signatory. All submunitions were destroyed during spot tasks.
Armenia	0.05	Not reported	- 0.05	At least 11,052m <sup>2</sup> was reported by the UN Development Programme (UNDP) as release through technical survey and clearance in Armenia but comprehensive and disaggregated data were not disclosed.
Azerbaijan	5.00	738	+ 2.00	Mine Action Review estimation of clearance, based on data provided by national authority.
Cambodia	30.36	5,254	+ 6.90	2021 clearance output reported by Mine Action Review as 20.58km <sup>2</sup> in last year's report, but subsequently corrected up by the Cambodian Mine Action Authority (CMAA) to 23.46km <sup>2</sup> .
DR Congo	0	0	No change	CCM signatory.
Iran	Not reported	13	Not reported	
Kosovo	1.32	161	+ 0.02	
Libya	0.02	28	+ 0.02	
Nagorno-Karabakh	2.85	388	- 1.15	Other area. Almost all submunitions (339) were destroyed as spot tasks.
Serbia	0.28	2	- 0.6	
South Sudan	4.3	3,320	+ 0.89	South Sudan acceded to the CCM in August 2023, becoming a State Party on 1 February 2024. Its Article 4 deadline will thus be 1 February 2034.
Sudan	0.19	444	+ 0.12	Data from UNMAS. Almost all submunitions (440) destroyed as spot tasks.
Syria	0	510	No change	Destruction of submunitions did not occur during systematic CMR area clearance.

States not party (including signatories) and other areas	Area cleared in 2022 (km <sup>2</sup> )	Submunitions destroyed in 2022	Comparison to 2021 clearance (+/- km <sup>2</sup> )	Comments
Tajikistan	0.61	122	- 1.26	
Ukraine	0.33	70	- 0.24	
Vietnam	51.2	15,482	+ 3.2	Based on INGO clearance data and excludes military and commercial clearance output which was not available for 2022.
Western Sahara	0	0	No change	
Yemen	0	271	No change	Destruction of submunitions did not occur during systematic CMR area clearance.
<b>Subtotals</b>	<b>96.46</b>	<b>26,810</b>	<b>+ 9.3</b>	
<b>TOTALS</b>	<b>170.68</b>	<b>102,427</b>	<b>19.65</b>	

\* Includes submunitions destroyed during technical survey and spot tasks.

## STATES THAT HAVE COMPLETED CMR CLEARANCE

A total of 12 States—all but two of them States Parties to the CCM—have completed survey and clearance of cluster munition-contaminated area in territory under their jurisdiction or control since 2010. None did so in 2022. Zambia completed CMR clearance two months ahead of the Convention's entry into force on 1 August 2010, and the remaining States Parties all completed survey and clearance within their original ten-year treaty deadlines (see Table 4). Four of the States that have completed clearance are from Africa, five are from Europe and the Caucasus, two are from the Americas, and one is from Asia. Georgia and Thailand are the only States not party to have completed CMR clearance on their territory since 2010.

**Table 4: States that have completed CMR clearance since 2010 (at 1 August 2023)**

State	Year of Completion	Observations
Georgia	2022	State not party to the CCM. All known and suspected cluster munition-contaminated areas have been released.
Croatia	2020	
Montenegro	2020	
United Kingdom	2020	The United Kingdom did not consider itself to have an unfulfilled obligation under Article 4 of the CCM and therefore did not formally declare completion.
Colombia	2017	
Mozambique	2016	
Norway	2013	
Grenada	2012	
Rep. of Congo	2012	
Guinea-Bissau	2012	
Thailand	2011	State not party to the CCM.
Zambia	2010	Completed clearance in June 2010 two months prior to the entry into force of the CCM.
<b>Total</b>	<b>12 States</b>	

Bosnia and Herzegovina expected to complete clearance before its extended deadline of 1 September 2023, having failed to meet its original extended deadline of September 2022. It is also expected that signatory State Angola may be in a position to declare it is fully compliant with the requirements of Article 4 of the Convention.

## CLEARANCE DEADLINES AND PROGRESS IN ARTICLE 4 IMPLEMENTATION IN AFFECTED STATES PARTIES

While all affected States and territories are obligated under international human rights law to clear unexploded submunitions as soon as possible on the basis of their duty to protect life, States Parties to the CCM have specific time-bound deadlines. Article 4 of the CCM requires affected States Parties to complete CMR clearance **as soon as possible, but not later than ten years** from becoming party to the Convention.

The first of the original ten-year deadlines expired in 2020. Extensions were granted to two States Parties at the Ninth Meeting of States Parties in 2019, with Germany and Lao PDR each given the maximum single extension period possible under the Convention: five years. At Part 1 of the Second CCM Review Conference in 2020, Bosnia and Herzegovina was given an 18-month extension to its deadline; Chile was given a one-year interim extension; and Lebanon was granted a five-year extension. At Part 2 of the Second Review Conference in 2021, Afghanistan was granted a four-year extension to its deadline; Chile was granted a second one-year interim extension; and Mauritania was granted a two-year extension. At the Tenth Meeting of States Parties

in 2022, three other extension requests were granted: for a further one year to Bosnia and Herzegovina; a thirteen-month interim extension to Chad; and a further three-year extension for Chile.

In 2023, two States Parties, Iraq and Mauritania, submitted a request to extend their respective Article 4 deadlines for consideration at the Eleventh Meeting of States Parties in September 2023. Iraq has asked for the maximum of five years and is likely to need multiple extensions before it completes CMR clearance given the extent of contamination. Mauritania has requested a further two years, having failed during its previous extension request period to secure the international funding it requires to release the remaining cluster munition-contaminated areas.

Table 5 sets out the details of progress towards fulfilment of the survey and clearance obligations under the Convention. Among States Parties, only Bosnia and Herzegovina, and possibly also Chile, were on track to meet their respective Article 4 deadlines without the need for further extensions.

**Table 5: Progress in Implementing CCM Article 4 Obligations**

State	Article 4 deadline	Status of Progress	Observations
<b>Afghanistan</b>	1 March 2026	Unclear whether on track to meet extended deadline.	The change in regime following the takeover by the Taliban in August 2021 has led to the imposition of international sanctions and some disarray in management of the national mine action programme. The new government has committed to complying with the CCM, including its Article 4 clearance obligations, but financial reality may make that impossible.
<b>Bosnia and Herzegovina</b>	1 September 2023	On track to meet extended deadline.	Despite pledging to meet its extended deadline of September 2022, Bosnia and Herzegovina failed to do so and secured a further year to fulfil its CCM clearance obligations. Bosnia and Herzegovina is likely to face residual CMR contamination even after it declares fulfilment of Article 4.
<b>Chad</b>	1 October 2024	Not on track to meet extended (interim) deadline.	Chad prematurely announced in 2021 that it had completed clearance of all known cluster munition-contaminated areas. It later acknowledged it had been unable to conduct survey in Tibesti province and in 2022 Chad requested a thirteen-month interim extension to its Article 4 deadline in order to do so. The 2022 request acknowledged a "high probability" of finding CMR in the northern province. But the conduct of the survey appears to be dependent on donor funding that has not yet been secured.
<b>Chile</b>	1 June 2026	On track to meet extended deadline.	Chile conducted no release of cluster munition-contaminated area in 2022, but was planning to initiate clearance in September 2023. Failure to do so would again put its compliance with the CCM in serious doubt.
<b>Germany</b>	1 August 2025	Not on track to meet extended deadline.	Clearance output in 2022 was a significant increase on the previous years, but still fell short of Germany's target for the year. Increased clearance capacity in 2022 was due to drop in 2023 which would leave Germany with more than 4km <sup>2</sup> to clear by August 2025, far exceeding the annual clearance outputs it has achieved so far.

State	Article 4 deadline	Status of Progress	Observations
<b>Iraq</b>	1 November 2023	Not on track to meet deadline. Five-year extension requested to 1 November 2028.	Iraq will not meet its original Article 4 deadline and will need multiple extensions in order to do so. Clearance increased by more than 60% in 2022 compared to the previous year, but at the same time significant newly discovered areas of CMR were added to the database. In addition, Iraq released a national mine action strategy for 2023–28, which for the first time was prepared in consultation between the two authorities – Federal Iraq’s Directorate for Mine Action (DMA) and the Iraqi Kurdistan Mine Action Authority (IKMAA).
<b>Lao PDR</b>	1 August 2025	Not on track to meet deadline. Lao PDR will require multiple extensions.	The national programme in Lao PDR made solid progress in both survey and clearance of CMR in 2022. Clearance output was higher than the previous year and a new annual record for the country, but the amount of CMR-contaminated area confirmed through technical survey in 2022 was a decrease on 2021. This is due to greater focus on clearance, in order to clear the CHAS identified thus far during the CMRS. Lao PDR is still many years away from establishing a robust baseline of CMR contamination.
<b>Lebanon</b>	1 May 2026	Not on track to meet deadline.	CMR clearance output in 2022 was an increase on the previous year, and increased technical survey improved operational efficiency. However, Lebanon has seen a significant drop in CMR clearance capacity, the result of less international funding and no national funding for CMR clearance. Due to the funding shortfalls, it is unlikely that Lebanon will meet its extended Article 4 deadline of May 2026.
<b>Mauritania</b>	1 August 2024	Not on track to meet deadline. Two-year extension requested.	Mauritania completed clearance of two contaminated areas using national funding, but had still to secure the international funding and operational support it needs to initiate large-scale clearance of the remaining CMR contamination, estimated to cover more than 14km <sup>2</sup> . It is therefore seeking a second two-year extension to its clearance deadline.
<b>Somalia</b>	1 March 2026	Not on track to meet deadline.	Somalia has made little progress in establishing a baseline of CMR contamination since becoming a State Party in 2016. It has no plan for implementing its obligations under Article 4 despite significant support over many years from the United Nations and leading non-governmental mine action organisations.

## PROGRAMME PERFORMANCE IN AFFECTED STATES PARTIES

To help affected States Parties and their partners focus their capacity building and technical assistance efforts on areas of need, and to improve the efficiency and effectiveness of survey and clearance programmes, a performance scoring system is used by Mine Action Review. The scoring criteria were developed in consultation with the Mine Action Review’s Advisory Board Members (The HALO Trust, Mines Advisory Group (MAG), and Norwegian People’s Aid (NPA)), and with input from the Geneva International Centre for Humanitarian Demining (GICHD).

For their survey and clearance work in 2022, each of the ten affected States Parties was scored on the basis of seven criteria. These are: Understanding of contamination; National ownership and programme management; Gender and diversity; Information management and reporting; Planning and tasking; Land release system; and Land release outputs and Article 4 compliance. In the scoring, given their relative importance, double weighting is accorded to Understanding of contamination; Land release system; and Land release outputs and Article 4 compliance. An average is then calculated that determines the overall score. The text box below outlines the seven programme performance criteria and key factors affecting scoring in detail.

A score of 8 or more is ranked Very Good. A score of 7.0–7.9 is ranked Good. A score of 5.0–6.9 is ranked Average. A

score of 4.0–4.9 is ranked Poor. A score of less than 4 is ranked Very Poor. The results of the scoring for 2022 are summarised in Table 6. The country-specific assessments of the seven criteria, which should be viewed alongside the recommendations for action in the country reports, are intended as an implementation tool to assist States Parties to identify and overcome challenges and fulfil their Article 4 obligations as efficiently as possible.

With respect to performance in 2022, no State Party was ranked as Very Good. Lebanon was the top scoring State Party which, along with Germany and Lao PDR, maintained a ranking of Good. Afghanistan, Bosnia and Herzegovina, Chile, Iraq, and Mauritania were ranked as average. Chad remained Poor, while Somalia, despite achieving a small increase in score in information management and reporting, remained Very Poor, a reflection of the unacceptably low performance of the national programme in implementing its Article 4 obligations of survey and clearance.

Overall, only three States Parties increased their scoring for their CMR survey and clearance programmes in 2022 compared to the previous year (Germany, Lebanon, and Somalia) while four (Bosnia and Herzegovina, Iraq, Lao PDR, and Mauritania) were unchanged. Performance in the other three States Parties (Afghanistan, Chad, and Chile) declined in 2022.

Table 6: Mine Action Programme Performance in Affected States Parties

State Party	Ranking in 2022	Score in 2022	Score in 2021	Change in score
Lebanon	Good	7.6	7.5	+ 0.1
Germany	Good	7.4	7.3	+ 0.1
Lao PDR	Good	7.1	7.1	No change
Iraq	Average	6.5	6.5	No change
Chile	Average	5.9	6.2	- 0.3
Afghanistan	Average	5.6	5.9	- 0.3
Bosnia and Herzegovina	Average	5.3	5.3	No change
Mauritania	Average	5.3	5.3	No change
Chad	Poor	4.3	4.6	+ 0.3
Somalia	Very Poor	3.9	3.8	+ 0.1

### MINE ACTION REVIEW CRITERIA TO ASSESS NATIONAL PROGRAMME PERFORMANCE OF STATES PARTIES TO THE CONVENTION ON CLUSTER MUNITIONS

Criterion	Key Factors Affecting Scoring
<b>UNDERSTANDING OF CLUSTER MUNITION CONTAMINATION</b> (20% of overall score)	<ul style="list-style-type: none"> <li>■ Has a national baseline of CMR contamination been established and is it up to date and accurate?</li> <li>■ If no national baseline, or only a partial or inaccurate baseline, exists, is survey and/or re-survey being conducted or is it planned?</li> <li>■ Are CMR-contaminated areas disaggregated from areas with other types of explosive ordnance (e.g. other explosive remnants of war (ERW) or mines)?</li> <li>■ Is CMR contamination classified into suspected hazardous areas (SHAs) and confirmed hazardous areas (CHAs), based on whether there is indirect or direct evidence of CMR respectively?</li> <li>■ Is there a high ratio of CHAs to SHAs?</li> </ul>
<b>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</b> (10% of overall score)	<ul style="list-style-type: none"> <li>■ Is there a national entity, such as a national mine action authority, overseeing mine action?</li> <li>■ Is there a national mine action centre coordinating operations?</li> <li>■ Are the roles and responsibilities in mine action clear and coherent within the national programme?</li> <li>■ Is the mine action centre adequately staffed and skilled?</li> <li>■ Are clearance operators involved in key decision-making processes?</li> <li>■ Does national legislation, or other suitable administrative measures, effectively underpin the mine action programme?</li> <li>■ Have the authorities created an enabling environment for mine action?</li> <li>■ Has the government facilitated the receipt and efficient use of international assistance?</li> <li>■ Is there political will for timely and efficient implementation of Article 4 of the CCM?</li> <li>■ Does the affected State contribute national resources to support the cost of the mine action centre and/or survey and clearance of CMR-contaminated areas?</li> <li>■ Does the affected State have a resource mobilisation strategy in place for Article 4 implementation?</li> </ul>

Criterion	Key Factors Affecting Scoring
<b>GENDER AND DIVERSITY</b> (10% of overall score)	<ul style="list-style-type: none"> <li>■ Does the national mine action programme have a gender policy and implementation plan? Do the main mine action operators have one?</li> <li>■ Is gender mainstreamed in the national mine action strategy and national mine action standards?</li> <li>■ Are women and children in communities affected by CMR-contaminated areas consulted during survey and community liaison activities?</li> <li>■ Are survey and community liaison teams inclusive and gender balanced, to facilitate access and participation by all groups, including women and children?</li> <li>■ Are the needs of women and children in communities affected by CMR-contaminated areas considered in the prioritisation, planning, and tasking of survey and clearance activities?</li> <li>■ Are ethnic or minority groups in communities affected by CMR-contaminated areas consulted during survey and community liaison activities?</li> <li>■ Do survey, clearance, and community liaison teams include representatives from different ethnic or minority groups, to facilitate access and participation by all groups?</li> <li>■ Are the needs of ethnic or minority groups in communities affected by CMR-contaminated areas considered in the prioritisation, planning, and tasking of survey and clearance activities?</li> <li>■ Is relevant mine action data disaggregated by gender and age?</li> <li>■ Is there equal access to employment for qualified women and men in survey and clearance teams, including for managerial level/supervisory positions?</li> </ul>
<b>INFORMATION MANAGEMENT AND REPORTING</b> (10% of overall score)	<ul style="list-style-type: none"> <li>■ Is there a national information management system in place (e.g. IMSMA), and is the data accurate and reliable?</li> <li>■ Are data collection forms consistent and do they enable collection of the necessary data?</li> <li>■ Is data in the information management system disaggregated by type of contamination and method of land release?</li> <li>■ Is the data in the information management system accessible to all operators?</li> <li>■ Are ongoing efforts being made to ensure or improve the quality of data in the mine action database?</li> <li>■ Does the affected State Party to the CCM submit accurate and timely annual Article 7 reports on Article 4 progress?</li> <li>■ Are Article 4 extension requests of a high-quality and submitted in a timely manner?</li> <li>■ Is the survey and clearance data reported by the affected State Party (e.g. in Article 7 reporting) accurate and disaggregated by type of contamination (i.e. CMR from other ERW and landmines) and method of land release?</li> <li>■ Does the affected State Party report on progress in Article 4 implementation at the Meetings of States Parties and is reporting accurate and consistent between reporting periods?</li> </ul>
<b>PLANNING AND TASKING</b> (10% of overall score)	<ul style="list-style-type: none"> <li>■ Is there a national mine action strategy in place and does it include realistic goals for land release?</li> <li>■ Is there a realistic annual work plan in place for land release?</li> <li>■ Are there agreed and specified criteria for prioritisation of tasks?</li> <li>■ Are key stakeholders meaningfully consulted in planning and prioritisation?</li> <li>■ Is clearance of CMR tasked in accordance with agreed prioritisation?</li> <li>■ Are task dossiers issued in a timely and effective manner?</li> <li>■ Where relevant, is there a plan for dealing with residual risk and liability? Is it realistic and sustainable?</li> </ul>
<b>LAND RELEASE SYSTEM</b> (20% of overall score)	<ul style="list-style-type: none"> <li>■ Does the affected State have national mine action standards in place for land release?</li> <li>■ Do the standards enable or impede efficient evidence-based survey and clearance?</li> <li>■ Are national standards reflected in SOPs?</li> <li>■ Are standards and SOPs periodically reviewed against IMAS and international best practice, in consultation with clearance operators?</li> <li>■ Is there an effective and efficient: i) <b>non-technical survey</b> capacity, ii) <b>technical survey</b> capacity, iii) <b>clearance</b> capacity in the programme? Does this include national capacity?</li> <li>■ Are areas being cleared that prove to have no CMR contamination?</li> <li>■ Where relevant, is there national survey and clearance capacity in place to address CMR contamination discovered after the release of CMR-contaminated areas or post completion?</li> <li>■ Is there an appropriate range of demining assets (manual, mechanical, and animal detection systems) integrated into land release operations?</li> <li>■ Is there an effective quality management system in place for survey and clearance operations?</li> <li>■ Where an accident has occurred within a mine action programme, was there an effective investigation? Were lessons learned shared between operators?</li> </ul>

Criterion	Key Factors Affecting Scoring
<b>LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE</b> (20% of overall score)	<ul style="list-style-type: none"> <li>■ Is the affected State seeking to clear all CMR from territory under its jurisdiction or control, including along national borders, in and around military installations, and in hard-to-access areas, etc.?</li> <li>■ Have national mine action authorities set a target date for the completion of CMR clearance and is this within the State Party's Article 4 deadline?</li> <li>■ Is the target date for completion realistic based on existing capacity?</li> <li>■ Is the target date sufficiently ambitious?</li> <li>■ What were the outputs of survey and clearance of CMR-contaminated area in 2022, and were they greater or lesser than the previous year and why?</li> <li>■ Are survey and clearance outputs in line with plans and Article 4 obligations?</li> <li>■ Is the affected State on track to meet the target completion date and/or Article 4 deadline?</li> </ul>

## THE LAUSANNE ACTION PLAN

Due to restrictions posed by COVID-19, the Second Review Conference of the Convention took place in two parts: on 25–27 November 2020 in virtual format and on 20–21 September 2021 in hybrid format. The Review Conference took stock of the significant progress in Article 4 implementation since the Convention's entry into force in 2010, but also sought to increase the slow pace of survey and clearance in many States Parties. In many cases, States Parties could have fulfilled their Article 4 obligations within the initial 10-year clearance deadline, had there been sufficient commitment, both nationally from affected States and internationally from donors, to do so.

The five-year Lausanne Action Plan adopted by States Parties at the Review Conference supports States Parties and their implementing partners get to completion as soon and as safely as possible. The Action Plan has actions with measurable indicators. A baseline of the current status of implementation has been established, against which progress is being measured year-on-year up to the next Review Conference in 2026. It is essential for national authorities to have the systems in place to support implementation of the Treaty and of the Action Plan. This means ensuring that the obligations in Article 4 and the guidance provided by the Action Plan are integrated into national strategies, annual work plans, information management systems, and national mine action standards. National ownership, the subject of the first Action, is of course critical to successful Article 4 implementation.<sup>10</sup>

### MONITORING THE LAUSANNE ACTION PLAN

In addition to the official CCM monitoring of the Lausanne Action Plan, Mine Action Review is providing civil society monitoring and analysis of its implementation with respect to survey and clearance. This is based on our broader research, which includes not only official treaty reporting (Article 7 reports and official government statements and updates under the Convention), but also liaison with national authorities, clearance operators, UNMAS, the UN Development Programme (UNDP), the Organization for Security and Co-operation in Europe (OSCE), and the GICHD.

This year's results of Mine Action Review's 2023 monitoring of survey- and clearance-related indicators can be found on the Mine Action Review website.<sup>11</sup> This separate publication, also includes a guide describing the Lausanne Action Plan actions and indicators relevant for survey and clearance, along with supporting commentary on the meaning and importance of each action, with regards to efficient and effective Article 4 implementation.

As the results of the 2023 assessment of relevant indicators illustrates, States Parties have not yet fully implemented the actions applicable to them. But the hope is that through the efforts of national authorities, with the support of implementing partners, they can identify where there are gaps and make progress in addressing them, which will then be reflected in progress in the indicators each year between now and the Third Review Conference in 2026.

Mine Action Review welcomes feedback from States Parties and other stakeholders on the results of the 2023 assessment. Please send an email with any feedback or additional information for Mine Action Review's consideration to [MineActionReview@npaid.org](mailto:MineActionReview@npaid.org).

<sup>10</sup> National ownership, according to the Lausanne Action Plan, entails the following: 'maintaining interest at a high level in fulfilling Convention obligations; empowering and providing relevant State entities with the human, financial and material capacity to carry out their obligations under the Convention; articulating the measures its State entities will undertake to implement relevant aspects of Convention in the most inclusive, efficient and expedient manner possible and plans to overcome any challenges that need to be addressed; and making a regular significant national financial commitment to the State's programmes to implement the Convention'.

<sup>11</sup> See the *Guide to the Lausanne Action Plan and Provisional Results of 2023 Monitoring*, available on the Mine Action Review website.

## GENDER AND DIVERSITY

Progress to mainstream gender and diversity in mine action was recorded in several CMR-affected States Parties in 2022. Policies and strategies are typically supportive of gender equality in recruitment, but overall the picture remains a work in progress. Examples of some of the positive developments are included below, but for additional information please see the *Gender and Diversity* section of the report for each State Party.

Iraq's mine action strategy for 2023–28 acknowledges the importance of gender and diversity to the sector. Despite conservative social attitudes to women's employment in what has been a male-dominated sector, the number of women working for demining organisations continued to rise in 2022, including in supervisory positions and in survey, community liaison, and clearance teams as well as in office roles. Among implementing partners operating in the south of the country, NPA's 61 operations staff included 7 women working mainly in non-technical survey. NPA Iraq experienced some interference with recruitment notices put up in Basrah encouraging female applicants but perceives that the slowly increasing participation of women in the sector is finding widening community acceptance of their role. Danish Refugee Council (DRC) set improving gender representation as one of its priorities in 2022 and recruited six female deminers from Basrah and surrounding villages without previous experience who underwent training in 2022 and started operations in May 2023.

In Lao PDR, in addition to support for action on gender mainstreaming within the National Regulatory Authority (NRA), individual operators have been active. In particular, The HALO Trust has continued to prioritise the hiring of women into operations roles—by setting quotas during recruitment drives—to ensure that the proportion of men to women remained equal. As at the end of March 2022, HALO Laos employed 565 female staff (54%) out of a total of 1,039. Women also made up 45% of staff in managerial or supervisory positions and just over half of HALO's operations staff.

In Lebanon, gender and diversity considerations are included in the National Mine Action Strategy 2020–25. The Lebanon Mine Action Centre (LMAC) finalised a code of conduct for the programme in 2022, which aims to promote gender and diversity inclusion in all aspects of the work undertaken by LMAC and its implementing partners. In addition, MAG assisted LMAC in establishing a Gender Diversity and Inclusion Steering Committee led by LMAC's gender focal point with key stakeholders from all clearance NGOs.

In other States Parties' programmes, however, there was either no significant progress or even a deterioration in the situation of women in the programme. In Bosnia and Herzegovina, the Bosnia and Herzegovina Mine Action Centre (BHMIC) has stated that, under its leadership, relevant

actors will reflect gender considerations in all phases of their mine action activities. Yet, within BHMIC's own programme, and those of clearance operators too, women make up only a small proportion of the total number of staff, and an even smaller proportion of operations staff in the field. Only 23% of BHMIC's employees were female in 2022, with women employed in 20% of managerial or supervisory positions and 17% of operational positions.

Despite equal access to employment, women also make up only a small proportion of the EOD sector in Germany. There was some progress on this issue in 2022. As at the end of the year, the proportion of women in operational roles was between 10% and 17%, while IB Winkelmann, the on-site project management/clearance supervision company had 40% female staff. These are slightly higher proportions of women employed than was the case in 2021.

Significant regression continued to occur in Afghanistan in 2022 following the change in regime. Until August 2021, most implementing partners had appointed gender focal points, had hired some women in community liaison and risk education, and in rare cases also employed women in clearance. Commitments to mainstreaming gender in mine action made under the previous administration in Afghanistan have not been honoured by the Taliban government. After the Taliban takeover, stringent regulations sharply reduced public space for women, banning women from working for foreign NGOs in December 2022 and from working for the UN in April 2023. Some exceptions have remained for humanitarian work, including mine action. Implementing partners continued to employ some female staff working from home and, in some locations where local authorities agreed, women were able to visit communities for risk education on an ad hoc basis.

Progress in mainstreaming diversity into mine action programmes lags some way behind action on gender. In Lao PDR, international operators reported putting measures in place to take into account diversity considerations in their survey and clearance programming, such as inclusion of minority ethnic groups and language groups, older people, and persons with disabilities. For example, HALO has continued its relationship with ARMI (Association for Rural Mobilisation and Improvement) in Savannakhet province to provide employment opportunities to persons with disabilities. Humanity and Inclusion (HI) considers older persons with disabilities as an under-represented group and efforts are made to collaborate with local partners to ensure their rights are appropriately addressed. NPA continued its efforts to broaden inclusivity with the support of "Proud To Be Us Laos", a national organisation campaigning for the rights and non-discrimination of all persons regardless of sexual orientation, gender, identity, and expression (SOGIE).

## ENVIRONMENTAL POLICIES AND ACTION IN AFFECTED STATES PARTIES

Every mine action programme should be considering the environmental impact of both contamination and clearance. Clearance programmes have a responsibility to “do no harm” to the communities in which they work, which includes mitigating the negative environmental impact of their activities and systematically integrating environmental assessments into the planning process. A policy brief, *Mitigating the Environmental Impacts of Explosive Ordnance and Land Release*, published in 2021, is available for download on the Mine Action Review website. Mine Action Review also moderated a plenary session on “Mine Action, Climate and the Environment” at the 26th International Meeting of Mine Action National Directors and United Nations Advisors (NDM) in June 2023. The panel discussion, a recording of which is available online,<sup>12</sup> explored why this topic is of utmost importance for national authorities, implementing partners and donors alike. Panellists included NPA, on behalf of the Environmental Issues in Mine Action (EIMA) Working Group; the Director of PM/WRA in the US Department of State; the Director of BHMAG; and Chief, Policy, Advocacy, Donor Relations and Outreach, UNMAS.

International Mine Action Standard (IMAS) 07.13 concerns environmental management in mine action. As the IMAS notes, the protection of the environment is receiving growing attention from national governments and international institutions, which is reflected in the increasingly rigorous demands of national legislation in many countries and the terms of international treaties on the environment. Poor environmental management during mine action operations can generate short- and long-term adverse impacts on land, water, soil, and air, with potentially harmful effects on the communities living in the vicinity of mine action work sites. First published in 2017, IMAS 7.13 is currently being reviewed and revised by the IMAS review board. The existing IMAS 7.13 only has one small reference to climate change, but the updated IMAS, expected to be adopted by the end of 2023, is planned to include several climate change considerations and be accompanied by a Technical Note on Mine Action (TNMA) to support its implementation.

The consequences of mine action for the environment should be taken into consideration before land release takes place (during planning and tasking); during survey and clearance; and after completion of land release. Clearing ordnance inevitably has an environmental impact, but employing efficient and effective land release methods minimises this impact by making sure that survey is used to confirm contaminated areas and release those areas not found to be contaminated, ensuring that full clearance is only conducted on contaminated land.

Every State Party seeking an extension to its Article 4 deadline is required to describe the environmental implications of that extension.<sup>13</sup> While some Article 4 deadline extension requests considered and granted by States Parties have briefly referred to how contamination affects the environment, most make little or no reference to the environmental implications of land release operations. We encourage States seeking an extension to include, for example, how environmental considerations will be

addressed during planning and tasking for CMR survey and clearance, in order to minimise potential harm from land release activities or how climate change may impact planned operations or the affected country's prioritisation for clearance. Nonetheless, there has been considerable progress recorded either in national programmes as a whole or at the least among individual clearance operators. Examples of some of the positive developments are included below, but for additional information please see the *Environmental Policies and Action* sub-section of the report for each State Party.

In Bosnia and Herzegovina, the use of certain machines has been banned from clearing agricultural areas, because they disturb soil deeper than 20cm and compact it, leaving it impermeable to water and preventing sowing for up to three years. Machines are also not used on mountain pastures in order to protect against removal of layers of grasses that have taken many years to grow (and which do not renew fully after machines have been used).

In Germany, at the former Soviet military training area of Wittstock, the burning of the heath is a necessary step before any clearance can take place, and strict environmental regulations are enforced. These include burning only outside bird breeding seasons, and when the ground fauna, such as insects and lizards, are in their hibernation habitats. The burning, followed by the ploughing of the topsoil, deprives the vegetation of nutrients. However, there are also environmental implications of vegetation burning, including the resultant carbon emissions.

Lao PDR has a national mine action standard (NMAS) on environmental management, although it is in need of revision. NPA has developed tools to assess and monitor its environmental footprint covering eight key areas: green office policy and management; communications and engagement; energy use; solid waste management; air quality; travel emissions; green activities; and water and wastewater management. Since 2020, NPA's Vientiane Office has reduced its waste generation by more than half. HALO has installed solar panels at its Sepon headquarters that will power the entire site during daylight hours. MAG is also starting to reduce the environmental impact of its work in Lao PDR through solar power. In June 2023, HI completed a dedicated environment SOP for its operations in Lao PDR.

Lebanon has an NMAS on Safety and Occupational Health – Protection of the Environment (10.70), which aims to ensure that demining operations are conducted responsibly and efficiently while also minimising the impact on the environment. In Lebanon, the increased application of non-technical and technical survey in land release for CMR tasks will lead to a greater proportion of uncontaminated land being released through cancellation or reduction, rather than through clearance, therefore decreasing the use of finite resources and reducing the environmental impact of unnecessary clearance. This will have a significant positive impact on the environment.

12 UN, 26th International Meeting of Mine Action National Directors and United Nations Advisors (NDM) webpage, available at: <https://bit.ly/3YFCGdR>.

13 Art. 4(6)(h), CCM.

Some States not Party to the CCM are also making progress to take the environment into consideration during mine action activities. For example, Cambodia issued a national Cambodian standard, CMAS 20, on “Environmental Management in Mine Action” in 2022. In planning clearance, operators are required to take account of potential erosion or soil degradation; pollution of air, water, or soil; and damage to infrastructure, wildlife, and vegetation, while also dealing with litter, debris, and other waste as well as damage to heritage sites or objects.

In Vietnam, a sub-task force on the environment was created in 2022 under the Mine Action Working Group (MAWG). NPA has developed a green-field tool that assesses environmental impact of mine action operations and includes guidelines for field operators to minimise negative environmental impacts, as well as ways to enhance positive contributions

to the ecosystem. The tool is currently being piloted by NPA Vietnam and is scheduled to be implemented across all NPA programmes in 2024. Furthermore, in Thua Thien Hue province, NPA has integrated questions on climate change and the environment into its non-technical survey methodology through the implementation of a new survey approach NPA calls “Total Mine Action Survey” (TMAS). This new approach enables NPA to collect data and assess the impact of explosive ordnance and planned land release operations on the environment. It also enables NPA to collate information on the potential impact of climate change on contaminated areas. NPA has also been developing new methodologies for soil sampling with a view to better identifying environmental effects from any leaking into the ground of dangerous substances from unexploded ordnance.

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## OUTLOOK

While progress is uneven across affected States and other areas, overall the pace of global clearance is increasing significantly. By 2030, clearance of all cluster munition-contaminated area could be completed in every affected State apart from States Parties Iraq and Lao PDR and States not party Cambodia, Syria, Ukraine (where use of cluster munitions was ongoing at the time of writing), Vietnam, and Yemen.<sup>14</sup> To achieve this will, however, require political will from the affected States, together with application of efficient and effective land release methodology supported by strong national standards and information management systems, as well as sufficient and sustained funding. The remainder of the decade needs to see continued momentum from all concerned governments and sustained support from donor States if lives and livelihoods are to be protected as international law demands.

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<sup>14</sup> Afghanistan has the capacity to achieve completion if donors support the implementing partners able to deliver it. Kosovo may also meet the milestone of completed clearance before the end of the decade, along with other areas Nagorno-Karabakh and Western Sahara.

**STATES PARTIES**

The background of the page is composed of several large, overlapping geometric shapes in various shades of purple and blue. The shapes are angular and create a sense of depth and movement. The colors range from a deep, dark blue to a lighter, lavender purple. The overall effect is a modern, abstract design.

# AFGHANISTAN

MINE  
ACTION  
REVIEW

## CLEARING CLUSTER MUNITION REMNANTS 2023

**ARTICLE 4 DEADLINE: 1 MARCH 2026**  
ON TRACK TO MEET DEADLINE: UNCLEAR

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION: LIGHT

NATIONAL ESTIMATE

**10<sub>km<sup>2</sup></sub>**

SUBMUNITION  
CLEARANCE IN 2022

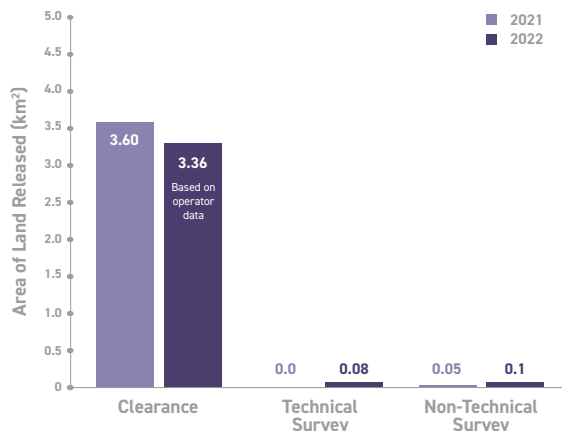
**3.36<sub>km<sup>2</sup></sub>**

SUBMUNITIONS  
DESTROYED IN 2022

**240**

(INCLUDING 77 DESTROYED  
IN SPOT TASKS)

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

Mine action in Afghanistan continued to experience upheavals which persisted into 2023 as the Directorate of Mine Action Coordination (DMAC) sought to maintain its role managing and coordinating the sector in the face of sanctions and a loss of funding that forced it to stand down all but a handful of staff. The United Nations Mine Action Service (UNMAS) provided interim coordination, initially through the UN Humanitarian Mine Action Coordination for Afghanistan (UNHMACCA). This shut down in April 2022 over disagreements with DMAC on its role. A Liaison Office supported by UNMAS opened in June but closed again in November after exhausting available funding. It received new funding and resumed work in January 2023 but closed in April 2023 after the Islamic Emirate of Afghanistan (IEA)

required it to collocate with DMAC, an arrangement that was not permitted under international sanctions against the IEA.

DMAC obtained government funding to employ some information management staff and took back management of the national mine action database in February 2023 and submitted a Convention on Cluster Munitions (CCM) Article 7 report at the end of May 2023. UNMAS decided in November 2022 that the Voluntary Trust Fund (VTF) would no longer support funding for operations which has principally benefitted national implementing partners (IPs) and would only fund coordination. As a result of declining international funding, Mine Action Programme of Afghanistan (MAPA) IPs have stood down hundreds of deminers in 2023.

## RECOMMENDATIONS FOR ACTION

- In order to avert a collapse in clearance of cluster munition remnants (CMR) and other explosive hazards, the Afghan government and DMAC should work constructively with UNMAS on creating a mechanism for it to deliver support to the national mine action programme, within the limits imposed by international donors.
- The IEA and DMAC should ensure participation of women in mine action.
- UNMAS should restore VTF funding for operations at least pending agreement among donors on alternative means of supporting mine action.
- Afghanistan should accelerate survey of areas that were previously inaccessible due to insecurity to establish a definitive baseline estimate of remaining CMR contamination.

- DMAC should update its programme of work for fulfilling its CCM Article 4 obligations and completing clearance of remaining contamination.
- DMAC should ensure its Article 7 reports contain comprehensive data on the outstanding level of contamination, disaggregated by province.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2022)	Score (2021)	Performance Commentary
<b>UNDERSTANDING OF CMR CONTAMINATION</b> (20% of overall score)	8	8	Afghanistan has a small amount of known CMR contamination but continues to identify significant previously unrecorded cluster munition-contaminated areas. The change of government in 2021 has opened up areas previously inaccessible due to insecurity raising the possibility operators will find more contamination. Operators also encounter scattered "legacy" submunitions in the course of other tasks.
<b>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</b> (10% of overall score)	4	4	The MAPA is nationally managed but heavily dependent on international funding and international sanctions since the August 2021 Taliban takeover left DMAC with a skeleton team unable to discharge its former management and coordination functions. Negative donor reaction to Taliban policies, particularly towards women, exacerbated the problem. The IEA provided limited funding to support DMAC in 2022 but it still needed substantial management and technical support from UNMAS and in 2023 imposed conditions that exacerbated the challenges for the MAPA by causing the shut-down of a joint liaison office.
<b>GENDER AND DIVERSITY</b> (10% of overall score)	3	5	Draconian Taliban policies towards employment of women have eclipsed DMAC's pre-2021 commitment to mainstreaming gender in mine action which featured in the 2016–20 strategic plan and DMAC's initial flexibility on the issue. IPs continued to employ some female staff working from home and in some locations where local authorities agreed women continued to visit communities for risk education on an ad hoc basis.
<b>INFORMATION MANAGEMENT AND REPORTING</b> (10% of overall score)	4	4	Information management suffered disruption after the change of government. DMAC has an Information Management System for Mine Action (IMSMA) database but lost most of its information management personnel after the end to international funding. IPs, which had continued to report operating results to DMAC, largely halted doing so after August. UN-HMACCA resumed data processing early in 2022 but this was terminated at the end of March. DMAC subsequently agreed that a liaison office set up with UNMAS would manage the IMSMA database but it closed in November 2022 due to lack of funding. The liaison office resumed work in January 2023 but DMAC did not permit it to resume data processing, which remained suspended until February 2023 when DMAC restarted information management under its direct supervision and the Liaison Office closed again in March. DMAC submitted a CCM Article 7 report in May 2023.
<b>PLANNING AND TASKING</b> (10% of overall score)	3	4	Mine action sector planning was disrupted by the change of regime, international sanctions, and post-regime-change discord between DMAC and UNMAS. Afghanistan never had a strategic plan for cluster munition clearance but a CCM Article 4 deadline extension request submitted in August 2021 before the Taliban took over set timelines for clearance of all remaining CMR hazardous areas by 2026. The additional time requested appeared more than sufficient for the tackling the contamination but implementation remains dependent on international donor support, which dropped after the Taliban takeover.
<b>LAND RELEASE SYSTEM</b> (20% of overall score)	6	6	The MAPA has national mine action standards in Dari and English that were previously subject to regular review. International experts believe the Afghanistan Mine Action Standards (AMAS) need comprehensive updating. Upheavals in DMAC after August 2021 disrupted its quality management, which has continued but only sporadically.
<b>LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE</b> (20% of overall score)	7	7	Regime change in August 2021 and international sanctions did not halt CMR clearance operations in 2022 but the downturn in international donor support threatens to bring it close to a standstill in 2023. DAFA continued CMR clearance in 2022 at close to the same level as in 2023 but lacked funding to sustain operations in 2023.
<b>Average Score</b>	<b>5.6</b>	<b>5.9</b>	<b>Overall Programme Performance: AVERAGE</b>

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

## MANAGEMENT

- Afghanistan National Disaster Management Authority (ANDMA)
- Directorate of Mine Action Coordination (DMAC)

## NATIONAL OPERATORS

- Afghan Technical Consultants (ATC)
- Agency for Rehabilitation and Energy Conservation in Afghanistan (AREA)
- Demining Agency for Afghanistan (DAFA)
- Mine Clearance Planning Agency (MCPA)
- Mine Detection and Dog Centre (MDC)
- Organisation for Mine Clearance and Afghan Rehabilitation (OMAR)

## INTERNATIONAL OPERATORS

- Danish Refugee Council Humanitarian Disarmament and Peacebuilding sector (formerly known as Danish Demining Group (DRC))
- The HALO Trust (HALO)
- FSD

## OTHER ACTORS

- United Nations Mine Action Service (UNMAS)
- Norwegian People's Aid (NPA)

## UNDERSTANDING OF CMR CONTAMINATION

Afghanistan has limited CMR contamination compared with its much greater challenge from landmines and other explosive remnants of war (ERW) but persistent discoveries of previously unrecorded hazardous areas in recent years resulted in fluctuating estimates of the extent of CMR contamination.

Afghanistan informed the CCM intersessional meetings in May 2022 that contamination amounted to 16 hazardous areas affecting 9.9km<sup>2</sup>.<sup>1</sup> The Article 7 report submitted by DMAC at the end of May 2023 referred to “almost 10km<sup>2</sup>” of CMR, but this appears not to take into account previously unknown cluster munition-contaminated areas discovered in 2022. DMAC did not provide details or a breakdown by province but the total was marginally less than the estimated contamination at the end of 2021 (see Table 1).<sup>2</sup>

Table 1: Cluster munition-contaminated area (at end 2021)<sup>3</sup>

Province	CHAs	Area (m <sup>2</sup> )
Bamyan	2	258,887
Nangarhar	5	4,233,907
Paktya	10	5,522,391
Samangan	2	11,715
Totals	19	10,026,900

Afghanistan was unable to produce a definitive assessment of its CMR challenge in a period of conflict which denied IPs access to affected districts. New discoveries of previously unrecorded hazardous areas have seen estimates of contamination rise from 4.18km<sup>2</sup> at the end of 2018 to 7.54km<sup>2</sup> at the end of 2020. In 2021, Quick Response Teams identified another 11 previously unrecorded confirmed hazardous areas (CHAs) totalling 5.66km<sup>2</sup>, mainly in a district of Paktya province that had not been surveyed because of insecurity, raising the estimate of contamination to 10km<sup>2</sup> as at the end of 2021 (see Table 1).<sup>4</sup> Improved security and access in the provinces since the Taliban takeover in August 2021 raise the likelihood of further CMR hazard discoveries. In 2022, DMAC reported discovery of an additional 12 CHAs with a total area of 8.1km<sup>2</sup> (see Table 2).<sup>5</sup>

Table 2: Cluster munition-contaminated area newly recorded in 2022<sup>6</sup>

Province	CHAs	Area (m <sup>2</sup> )
Bamyan	2	1,097,364
Paktya	9	6,983,484
Samangan	1	3,864
Totals	12	8,084,712

1 Statement of Afghanistan, CCM Intersessional meetings, Geneva, 16 May 2022.

2 Article 7 Report (covering 2022), Form F, #10.

3 Email from Olivier Demars, Information Management Advisor, UNMAS, 24 April 2022.

4 Email from Mohammad Akbar Oriakhil, Head of Planning and Programme, DMAC, 11 April 2021. CHAs identified in 2021 included seven in Paktya covering 5.26km<sup>2</sup>, two in Bamyan affecting 0.39km<sup>2</sup>, and two in Samangan affecting 0.01km<sup>2</sup>. 2021 Article 4 deadline Extension Request, p. 10.

5 Email from Abdul Habib Rahimi, Chief of Operations and Deputy Director, DMAC, 11 June 2023. The newly recorded hazardous areas exceeded the amount of land released suggesting total CMR contamination increased in 2022.

6 Email from Abdul Habib Rahimi, DMAC, 11 June 2023.

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

CMR make up only a small part of Afghanistan's extensive explosive ordnance contamination. This includes 387km<sup>2</sup> identified as mined area<sup>7</sup> and a wide range of ERW. Afghanistan had extensive contamination by unexploded ordnance (UXO) on 39 former North Atlantic Treaty Organization (NATO) firing ranges which in early 2022 was estimated to cover 681km<sup>2</sup>.<sup>8</sup> Most explosive ordnance casualties in Afghanistan in 2022 were reportedly caused by UXO.<sup>9</sup>

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Taliban takeover of Afghanistan's government in August 2021 brought little formal change to the Mine Action Programme of Afghanistan (MAPA) management structure but disrupted its ability to function. The Islamic Emirate of Afghanistan (IEA) retained Afghanistan's National Disaster Management Authority in the role of a mine action authority setting policy while DMAC was responsible for managing and coordinating operations, information management, and quality management (QM). The only change resulting from the change of government was the director appointed by the IEA to run it. All other staff were previously employed by DMAC.<sup>10</sup> The lack of international recognition of the IEA and financial sanctions imposed by Western governments left DMAC acutely short of funding and staff and imposed severe constraints on the role of UNMAS.

DMAC had completed the transition from being a project of UNMAS to national management in June 2018. From its headquarters in Kabul and seven regional offices, DMAC coordinated the work of national and international implementing partners, prepared strategic plans and annual workplans, set priorities and standards, accredited operators, conducted quality assurance (QA), managed the mine action database, and liaised with international donors.<sup>11</sup> However, DMAC remained almost entirely dependent on international financing. By 2021, the Government of Afghanistan paid salaries of only 15 of DMAC's 155 staff, the rest were paid by UNMAS and ITF Enhancing Human Security.<sup>12</sup> After August 2021, international sanctions imposed on the IEA halted UNMAS support for DMAC, and DMAC staff on internationally funded salaries transferred to UNMAS. In June 2022, DMAC's active staff consisted of the director and 15 other staff, including the heads of planning and operations and an information management officer.<sup>13</sup>

DMAC's director maintained close contact with IPs and engaged proactively to facilitate MAPA operations, intervening to resolve occasional difficulties between IPs and local authorities or to facilitate equipment imports, but DMAC acknowledged it lacked capacity to conduct previous levels of coordination and management. DMAC's regional offices closed and quality management staff were able to conduct only sporadic visits to IP operating sites to accredit teams

and mechanical assets. IPs continued to submit progress reports to DMAC but the Directorate lacked capacity to upload them into the database.<sup>14</sup>

To maintain some continuity in MAPA operations, DMAC and UNMAS reached agreement on setting up an emergency coordination mechanism independent of the government and identified from November 2021 as the UN Humanitarian Mine Action Coordination Centre for Afghanistan (UN-HMACCA). The mechanism was agreed as a "temporary project" pending international recognition of the IEA. DMAC would remain responsible for mine action sector governance, strategy, and accreditation, and international treaty compliance. UN-HMACCA would take on planning, prioritisation and land release, data collection and information management, accreditation, training, and public relations, including resource mobilisation.<sup>15</sup> The formula proved unacceptable to DMAC, and UN-HMACCA was terminated at the end of March 2022, ending the employment of 118 national staff.<sup>16</sup>

In June 2022, DMAC and UNMAS agreed on the creation of a Liaison Office providing coordination for the MAPA, tasking for IPs, external quality management for IPs, and managing the Information Management System for Mine Action (IMSMA) database. The Liaison Office suspended operations in November 2022 because of a shortage of funding. UNMAS obtained international funding for the Liaison Office for 2023 and resumed operations in January 2023. In February 2023, DMAC took back responsibility for information management and running the IMSMA database and suspended the Liaison Office with effect from the start of April.<sup>17</sup> A directive subsequently issued by the Office of the Prime Minister required DMAC and the Liaison Office to work from the same building. Donor restrictions did not allow UNMAS to comply, causing the Liaison Office to close.<sup>18</sup>

UNMAS decided in November 2022 that it would cease providing funding through the VTF for operations from 1 April 2023 and VTF funding would only support coordination. IPs criticised the decision which they said would severely impact national demining organisations that lacked direct contact with international donors. It added to the financial pressures resulting from the downturn in donor support and which has already led to significant deminer lay-offs.<sup>19</sup>

7 Email from Olivier Demars, UNMAS, 24 April 2022.

8 UNMAS, "Humanitarian Mine Action in Afghanistan", 10 February 2022.

9 Email from Mohammad Wakil Jamshidi, Deputy Programme Manager and Chief of Operations, UNMAS, 12 July 2023.

10 Interview with Qari Nooruddin Rustamkhail, Director, DMAC, 4 June 2022; and email, 22 June 2023.

11 Email from Mohammad Wakil Jamshidi, Chief of Staff, UNMAS/DMAC, 16 May 2017.

12 Email from Mohammad Akbar Oriakhil, DMAC, 17 March 2021.

13 Interview with Qari Nooruddin Rustamkhail, DMAC, 4 June 2022; and email, 15 June 2022.

14 Interviews with international and national implementing partners, Kabul, 4–10 June 2022.

15 UNMAS, "Humanitarian Mine Action in Afghanistan", 10 February 2022.

16 Interview with Paul Heslop, Chief of Mine Action Programme, UNMAS, 7 June 2022; and UNMAS, "Humanitarian Mine Action in Afghanistan", 9 April 2022.

17 Email from Mohammad Wakil Jamshidi, UNMAS, 20 March 2023.

18 Email from Mohammad Wakil Jamshidi, UNMAS, 7 May 2023.

19 Joint statement of the MAPA implementing partners, 23 January 2023.

## ENVIRONMENTAL POLICIES AND ACTION

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Afghanistan has a national standard on environmental management in mine action. In addition, individual operators, such as The HALO Trust (HALO) and the Danish Refugee Council Humanitarian Disarmament and Peacebuilding sector (DRC), have institutional policies in place at headquarters level. Use of intrusive technologies such as flails by some operators has caused friction with local communities in past years.

HALO employs manual teams to remove dense vegetation while mechanical assets used for anti-personnel mine (including improvised mine) clearance, including ploughs and cultivators, which excavate to a depth of 30 centimetres, are broadly welcomed by local communities which take advantage of area clearance to irrigate land and plant crops.<sup>20</sup> IPs commented that farmers welcomed use of assets such as rippers which softened land that had hardened as a result of long non-use due to mine or UXO contamination.<sup>21</sup>

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## GENDER AND DIVERSITY

Plans to increase the role of women in mine action in Afghanistan have mostly stalled in the face of Taliban bans on women's employment. Before the Taliban takeover of August 2021, DMAC's 2016–20 strategic plan included gender mainstreaming as one of four main goals. It stated that "achievable targets, reflecting prevailing circumstances and conditions, will be adopted to support and encourage progress wherever possible."<sup>22</sup> Levels of female employment in the sector remained low but by the start of 2021, the MAPA's workforce included over 200 women.<sup>23</sup> After August 2021, Taliban imposed progressively stricter regulation on women and girls, banning women from working for foreign non-governmental organisations (NGOs) in December 2022<sup>24</sup> and from working for the United Nations in April 2023.<sup>25</sup>

Some exceptions have remained for humanitarian work, including mine action. In 2022, DMAC said it remained possible for women to work in the MAPA<sup>26</sup> and some IPs reported employing more women in 2022 than before the Taliban takeover. UNMAS convened the first post-regime-change meeting of a Gender and Diversity Technical Working Group in February 2022<sup>27</sup> and IPs continued to employ female staff in office and field jobs.<sup>28</sup> UNMAS also provided grants to four Afghan IPs (AREA, DAFA, MDC, and OMAR) early in 2022 to support equality and inclusion mainstreaming.<sup>29</sup>

In 2023, IPs say female office staff have worked from home and in a number of areas some women have been able to conduct risk education field visits but access depends on relations between individual IPs and local authorities.<sup>30</sup> National IPs, forced to lay off hundreds of deminers as a result of funding cuts, have sharply reduced the number of their female staff. DAFA employed 12 women in 2022, including a gender mainstreaming officer and four explosive ordnance risk education (EORE) staff but in 2023 it has only one female employee working from home.<sup>31</sup> OMAR said it employed 53 women in 2022 but in 2023 had reduced the number to three.<sup>32</sup>

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20 Interviews with Farid Homayoun, Country Director, HALO, 4 June 2022; and Søren Adser Sørensen, Head of Humanitarian Disarmament in Afghanistan, DRC, 6 June 2022.

21 Email from Mir Mohammad, Executive Operation Manager, MCPA, 12 April 2023.

22 DMAC, "National Mine Action Strategic Plan 1395–1399 (2016–2020)", State Ministry for Disaster Management and Humanitarian Affairs, undated but 2016, p. 17.

23 Email from Mohammad Akbar Oriakhil, DMAC, 17 March 2021.

24 UNMAS estimated the ban would result in 150 women working in mine action losing their jobs, 456,300 women and girls being deprived of EORE and 8,700 women would not benefit from VA, including physical rehabilitation, psychosocial support and social/economic inclusion. Participant notes from UNMAS meeting with MAPA directors, 3 January 2023.

25 "Taliban bans female NGO workers, jeopardising aid efforts," *Reuters*, 24 December 2022; and "Taliban ban on women working for the UN an 'internal' issue," *Reuters*, 12 April 2023.

26 Interviews with Qari Nooruddin Rustamkhail, DMAC, 4 June 2022; Søren Adser Sørensen, DRC, 6 June 2022; Farid Homayoun, HALO, 4 June 2022; and with Awal Khan, QA Manager, OMAR, and Zarina Omar, EORE Manager & Gender Focal Point, OMAR, 8 June 2022.

27 Email from Sohaila Hashemi, UNMAS, 23 February 2022.

28 Interviews with international and national implementing partners, Kabul, 4–10 June 2022.

29 Email from Sohaila Hashemi, UNMAS, 6 March 2022.

30 Email from MAPA Implementing Partner, May 2023.

31 Email from Bismillah Haqmal, Operations and Planning Manager, DAFA, 10 April 2023.

32 Email from Abid K. Fazel, Deputy Director Programme, OMAR, 6 April 2023.

## INFORMATION MANAGEMENT AND REPORTING

Prior to the August 2021 change of government, DMAC had embarked on upgrading the MAPA's IMSMA database from New Generation to IMSMA Core. Since the Taliban takeover, information management for the MAPA has suffered severe disruption as a result of the financial crisis and diplomatic isolation facing the IEA, DMAC's loss of staff, and upheavals in the working arrangements between DMAC and UNMAS.<sup>33</sup>

IPs reported their operating results to be checked by the Liaison Office and they were then approved by DMAC, but for extended periods their reports were not uploaded and the database was not up to date. DMAC, resumed management of the IMSMA database in February 2023 after receiving government funding to pay salaries of IM staff and IPs reported directly to DMAC. It submitted an Article 7 report covering 2022 at the end of May 2023 underscoring its commitment to fulfil its CCM obligations but the report lacked significant detail previously available.<sup>34</sup>

## PLANNING AND TASKING

Afghanistan did not have a CMR-specific strategic plan before August 2021 but the Article 4 deadline extension request released in that month, days before the collapse of the government, by the requested new deadline of March 2026.<sup>35</sup> The IEA has repeatedly committed to fulfilling Afghanistan's obligations under the CCM and the Anti-Personnel Mine Ban Convention (APMBC)<sup>36</sup> but prospects for achieving completion are uncertain due to funding constraints.

The US Office of Weapons Removal and Abatement (PM/WRA) has been the main source of funding for CMR clearance and before August 2021 had committed to funding clearance of the remaining CMR contamination.<sup>37</sup> The future of US funding for Afghanistan is unclear at a time when IEA policies, particularly towards women, have prompted many

to donors to reassess their support. Early in 2022, UNMAS set ambitious resource mobilisation targets with a view to increasing the number of Quick Response Teams matching post-conflict needs for emergency explosive ordnance disposal (EOD) call-outs, survey and clearance.<sup>38</sup> Operators say UNMAS's late 2022 decision to halt funding for clearance has particularly affected national IPs, adding to uncertainty over the MAPA's prospects.

DMAC continued regular contact with implementing partners in 2022 although constrained by a shortage of staff. DMAC reportedly set monthly targets for clearance of different types of explosive hazard based on teams' productivity in the previous year and encouraged operators to focus on hazardous areas ranked as very high or high priority.<sup>39</sup>

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Afghanistan has comprehensive national mine action standards that are International Mine Action Standard (IMAS)-compatible and before August 2021 were subject to regular review. CMR survey and clearance are addressed in Afghanistan Mine Action Standard (AMAS) 06.02 (Battle Area Clearance).<sup>40</sup>

A Geneva International Centre for Humanitarian Demining (GICHD) capacity assessment in 2019 noted that DMAC is "proactive in introducing new AMAS as and when needed" but commented that it had not updated them regularly and that most of the AMAS were developed between 2011 and 2013. It called attention to persistently high percentage of land released through full clearance and said some chapters needed to be reviewed and updated to promote greater efficiency.<sup>41</sup>

33 Interviews with international and national implementing partners, Kabul, 4–10 June 2022; and emails from IPs, April–May 2023.

34 Emails from Mohammad Wakil Jamshidi, UNMAS, 7 May 2023; and Abdul Habib Rahimi, DMAC, 3 May 2023; and Article 7 Report (covering 2022), 31 May 2023.

35 Afghanistan submitted an initial draft of its extension request to the CCM Implementation Support Unit on 29 July 2021 and its official request for an extension on 3 August 2021. After consultations with the CCM Analysis Group, Afghanistan submitted a text containing further revisions on 10 August 2021.

36 Statement of Afghanistan, CCM Intersessional meetings, 16–17 May 2022; and interview with Qari Nooruddin Rustamkhail, DMAC, 4 June 2022.

37 Article 4 deadline Extension Request, 3 August 2021, p. 12.

38 Interview with Paul Heslop and Malcom MacDonald, Senior Technical Advisor, UNMAS, Kabul, 6 June 2022.

39 Email from Søren Adser Sørensen, DRC, 21 May 2023.

40 Statement by Mohammed Shafiq, Director, DMAC, GICHD workshop, Geneva, 26 March 2019.

41 GICHD, Integrated Capacity Assessment Report, 5 July 2019 (draft), p. 7.

OPERATORS AND OPERATIONAL TOOLS

Afghanistan's Article 4 deadline extension request indicated that 10 demining NGOs and 23 commercial companies are capable of conducting CMR clearance.<sup>42</sup> In practice, only one IP, DAFA, has conducted significant recent CMR clearance, while two others, HALO and MCPA, have conducted survey of cluster munition-contaminated areas.

Most CMR clearance was conducted by DAFA which had 341 personnel in operations out of total staff of around 400 working in 2022, but the number has fallen sharply in 2023 as a result of the fall in international donor funding and UNMAS's decision to halt VTF funding for operations. DAFA had four operational contracts in 2022 and employed seven BAC teams with 117 personnel working on clearance of CMR and other UXO, 8 manual demining teams with 136 personnel deployed mainly in Paktika and Baghlan provinces, and 16 small teams with a total of 64 people working on improvised mines in Kandahar. DAFA also operated three mechanical teams and five EORE teams. After completing the last of its four projects at the end of January 2023 DAFA reported it no longer had any active projects and faced significant cuts in the workforce.<sup>43</sup>

The US Department of State funded CMR clearance by DAFA in 2021 and before August 2021 had committed to funding clearance of the remaining CMR contamination.<sup>44</sup> International sanctions complicated financial transfers to Afghanistan and caused uncertainty about US financing for national IPs that lacked overseas bank accounts,<sup>45</sup> but DAFA reported that it continued to receive US funding directly in 2022.<sup>46</sup>

Norwegian People's Aid (NPA) had a team of 18 people consisting of six international staff (a country director, finance manager, and four senior technical advisers) and seven national technical advisers), and provides third-party monitoring of all US grants to IPs in Afghanistan.<sup>47</sup> In 2022, NPA monitored 19 grants to nine IPs worth \$14.63 million that spanned mine and CMR clearance as well as weapons and ammunition disposal, conventional weapons destruction, and community survey. In 2023, NPA was monitoring 12 grants amounting to \$12.25 million.<sup>48</sup>

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2022

Afghanistan appears to have released more than 3km<sup>2</sup> of CMR-contaminated land in 2022 but inconsistencies in the data prevented a clear determination of the progress in 2022. The CCM Article 7 report DMAC submitted for 2022 does not record any land released through survey but shows the MAPA released a total of 5,071,865m<sup>2</sup> through clearance.<sup>49</sup> That appeared to represent a roughly 40% increase over the total CMR area amounting to 3.6km<sup>2</sup> reportedly released through survey and clearance in 2021.<sup>50</sup> However, DMAC's data included two tasks totalling almost 2.0km<sup>2</sup> conducted mostly in the previous 2022 year and differed in some details from results reported by IPs.<sup>51</sup>

SURVEY IN 2022

DAFA was the only IP that reported conducting CM-focused survey and clearance in 2022 (see Table 3), concentrating on the province identified as the most heavily CMR-contaminated.<sup>52</sup>

Table 3: NTS/TS of cluster munition-contaminated area by DAFA in 2022<sup>53</sup>

Province / Region / District	Area surveyed (m <sup>2</sup> )	Area cancelled through NTS (m <sup>2</sup> )	Area reduced through TS (m <sup>2</sup> )
Paktya/Zurmat	3,250,191	76,429	104,100
Total	3,250,191	76,429	104,100

42 Article 4 deadline extension request, 3 August 2021, Executive Summary.  
43 Email from Bismillah Haqmal, DAFA, 10 April 2022; and interview, Kabul, 8 June 2022.  
44 Article 4 deadline Extension Request, 3 August 2021, p. 12.  
45 Interview with Paul Heslop and Malcom MacDonald, UNMAS, 6 June 2022.  
46 Emails from Bismillah Haqmal, DAFA, 23 and 26 June 2022.  
47 Emails from Mats Hektor, Senior Technical Adviser, NPA, 12 and 19 June 2023.  
48 Email from Sayed Wali, Information Management Officer, NPA, 21 June 2023.  
49 CCM Article 7 Report (for 2022), Form F(2).  
50 Email from Olivier Demars, UNMAS, 24 April 2022.  
51 The CCM Article 7 Report includes two tasks in the Zurmat district of Paktya district, one of 601,450m<sup>2</sup> and the second covering 1,373,082m<sup>2</sup> started in March 2021 and completed in April 2022.  
52 Email from Bismillah Haqmal, DAFA, 10 April 2023.  
53 Ibid.

## CLEARANCE IN 2022

Afghanistan's CCM Article 7 Report for 2022 recorded clearance of 5.1km<sup>2</sup> of CMR-affected land resulting in destruction of 327 submunitions. It did not provide details of items destroyed in the course of implementing partners' EOD operations.<sup>54</sup>

The clearance results, however, included two tasks in Paktya province accounting for almost 2km<sup>2</sup> where operations started in April 2021 and clearance would have occurred mostly in 2021. At the same time, DAFA, the only IP conducting CMR area clearance, reported that it released 3.4km<sup>2</sup> of CMR hazardous areas through clearance in 2022, destroying 163 submunitions. This was marginally less than the 3.6km<sup>2</sup> area DAFA cleared in 2022 when it destroyed 280 submunitions. HALO noted it has encountered scattered submunitions, particularly Russian items, in the course of BAC and EOD tasks but did not destroy any CMR in 2022.<sup>55</sup> DRC destroyed 77 submunitions in the course of spot EOD tasks conducted in 2022, nearly half of them in Kabul province.<sup>56</sup>

**Table 4: CMR clearance by DAFA in 2022\***

Province / Region / District	Area cleared (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed
Paktya/Zurmat	2,037,239	115	16
Nangarhar/Pachir Agam	1,326,490	48	50
<b>Totals</b>	<b>3,363,729</b>	<b>163</b>	<b>66</b>

\* Figures for items destroyed include destruction during clearance and technical survey.

## ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM, Afghanistan is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 March 2026. In a statement to the CCM intersessional meetings in May 2022, Afghanistan said it "commits itself to fulfilling its obligations in relation to the Convention on Cluster Munitions and other international conventions to which Afghanistan is already a state party."<sup>57</sup>

The MAPA has more than sufficient capacity to complete clearance of known CMR contamination but prospects for realising that ambition are already in jeopardy, principally because of lack of funding by international donors. Afghanistan's Article 4 deadline extension request included clearance targets that provided for completing clearance of Nangahar province by the end of 2023.<sup>58</sup> The lack of CMR clearance in the first half of 2023 makes clear that target will be missed, undermining the Article 4 request's timeline for completion.

A second risk is the possibility that the estimate of contamination will continue to rise as survey of areas that were inaccessible to IPs before the Taliban takeover because of insecurity finds significant, previously unrecorded cluster munition-contaminated areas. Survey between 2018 and 2022 added nearly 19km<sup>2</sup> of CMR contamination to the database,<sup>59</sup> significantly exceeding the area released by clearance (see Table 5) and raising the overall contamination estimate from 4km<sup>2</sup> at the end of 2018 to 10km<sup>2</sup> at the end of 2021. Despite clearance of 3.4km<sup>2</sup> in 2022, the Article 7 report submitted by DMAC for 2022 still identified contamination at the end of the year of close to 10km<sup>2</sup>,<sup>60</sup> and this appears not to take into account the previously unknown cluster munition-contaminated areas discovered in 2022.

<sup>54</sup> CCM Article 7 Report (for 2022), Form F(2).

<sup>55</sup> Emails from Farid Homayoun, HALO, 5 and 22 June 2023.

<sup>56</sup> Email from Søren Adser Sørensen, DRC, 21 May 2023.

<sup>57</sup> Statement of Afghanistan, CCM Intersessional meetings, Geneva, 16–17 May 2022.

<sup>58</sup> Article 4 deadline Extension Request, August 2021, Annex.

<sup>59</sup> See Mine Action Review reports for 2018 to 2022.

<sup>60</sup> Article 7 Report (for 2022), Form F(5), footnote.

Table 5: Five-year summary of CMR clearance

Year	Area cleared (km <sup>2</sup> )
2022	3.4
2021	3.6
2020	0
2019	2.7
2018	4.2
Total	13.9

With respect to Table 5, Afghanistan's Article 7 report for 2019 recorded CMR clearance in 2018 of 3.62km<sup>2</sup>. DMAC explained that this might include tasks started in 2018 and that 2.72km<sup>2</sup> represented clearance conducted in 2019. This total included clearance of 1.07km<sup>2</sup> which resulted in clearance of only 2 submunitions but 1,205 items of UXO. Mine Action Review consequently assessed this task as BAC and excluded it from its summary of CMR clearance, which it reported as amounting to 1.65km<sup>2</sup>. DMAC has since confirmed that due to the suspected presence of CMR the task was cleared applying cluster munition clearance protocols, not BAC.<sup>61</sup> Accordingly, Mine Action Review has accepted CMR clearance for 2019 of 2.72km<sup>2</sup>.

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

There is no active planning for the management of residual contamination.

61 Email from Mohammad Akbar Oriakhil, DMAC, 23 June 2021.

# BOSNIA AND HERZEGOVINA

MINE  
ACTION  
REVIEW

CLEARING CLUSTER  
MUNITION REMNANTS  
2023

ARTICLE 4 DEADLINE: 1 SEPTEMBER 2023  
ON TRACK TO MEET DEADLINE

## KEY DATA

CLUSTER MUNITION  
CONTAMINATION: LIGHT

NATIONAL ESTIMATE

<0.5 km<sup>2</sup>

SUBMUNITION  
CLEARANCE IN 2022

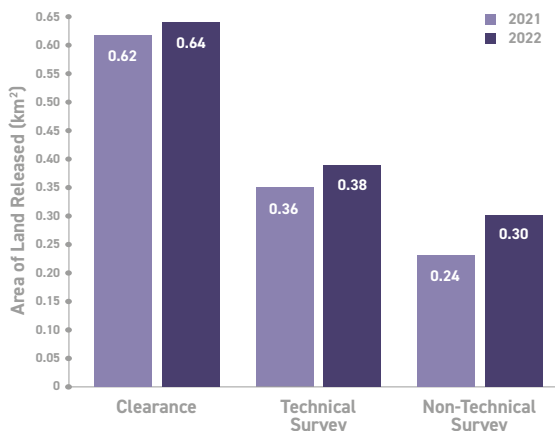
0.64 km<sup>2</sup>

SUBMUNITIONS  
DESTROYED IN 2022

1,620

(INCLUDING 21 DESTROYED  
DURING SPOT TASKS)

## LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

Bosnia and Herzegovina (BiH) was not able to complete clearance of cluster munition remnants (CMR) by 1 September 2022, due to the discovery of five previously unknown cluster munition-contaminated areas during 2022. BiH was granted a second, hopefully final, one-year extension to its deadline and at the time of writing was on track to complete clearance in time.

## RECOMMENDATIONS FOR ACTION

- The Bosnia and Herzegovina Mine Action Centre (BHMAC) should ensure it completes clearance of the remaining CMR-contaminated area without delay and well in advance of BiH's requested extended clearance deadline of 1 September 2023.
- BHMAC should provide details of its plans for addressing the discovery of any previously unknown CMR following completion.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2022)	Score (2021)	Performance Commentary
<b>UNDERSTANDING OF CMR CONTAMINATION</b> (20% of overall score)	7	7	BiH's baseline of CMR contamination totalled less than 0.5km <sup>2</sup> at the end of 2022, with five previously unknown contaminated areas added to the database during the year. That previously unknown CMR contamination continues to be discovered so close to BiH's fulfilment of its Article 4 obligations suggests that BiH will face a residual CMR threat.
<b>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</b> (10% of overall score)	5	5	National ownership of mine action in BiH falls under the responsibility of the Demining Commission and BHMIC, with a new Commission appointed in July 2022. The process to adopt the amended demining law (2017) was restarted in 2022 but, as at March 2023, had not yet concluded. Governance of the national mine action programme still needs to be strengthened and Article 4 implementation should be better coordinated if completion in time is to be ensured.
<b>GENDER AND DIVERSITY</b> (10% of overall score)	4	4	BHMIC has stated that, under its leadership, relevant actors will reflect gender considerations in all phases of their mine action activities. Yet, within BHMIC's own programme, and those of clearance operators too, women make up only a small proportion of the total number of staff, and an even smaller proportion of operations staff in the field.
<b>INFORMATION MANAGEMENT AND REPORTING</b> (10% of overall score)	4	5	BHMIC is in the process of migrating from its own information management system to the new web-based IMSMA (Information Management System for Mine Action) Core. A new project to migrate the remaining data began in February 2023. BHMIC does not report accurately and consistently on the extent of CMR contamination and on land release output.
<b>PLANNING AND TASKING</b> (10% of overall score)	4	5	According to the work plan submitted with BiH's Article 4 deadline extension request, CMR clearance was due to be completed by the end of 2022. An updated work plan was submitted at the Tenth Meeting of States Parties to the Convention on Cluster Munitions with the same deadline, which was not met.
<b>LAND RELEASE SYSTEM</b> (20% of overall score)	6	6	BHMIC has in place national standards and standing operating procedures (SOPs) for CMR survey and clearance. Capacity is sufficient, with the BiH Armed Forces, entity Civil Protections, NPA, and other operators all accredited, but release of CMR-contaminated area has been insufficiently prioritised.
<b>LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE</b> (20% of overall score)	5	4	There was a small increase in clearance and survey output in 2022 compared to 2021. BHMIC has reported it is on track to achieve completion by its extended Article 4 deadline and, as at March 2023, five tasks were still in progress, due to be completed in May 2023, and one task, which was said to be "in preparation", had been assigned to the BiH Armed Forces.
<b>Average Score</b>	<b>5.3</b>	<b>5.3</b>	<b>Overall Programme Performance: AVERAGE</b>

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- The Demining Commission (representatives from three ministries (Civil Affairs, Security, and Defence) elected to represent BiH's three main ethnic groups (Bosniaks, Croats, and Serbs))
- Bosnia and Herzegovina Mine Action Centre (BHMIC)

### NATIONAL OPERATORS

- Armed Forces of BiH
- BHMIC
- Civil Protection Administration of Republika Srpska (CPA RS)
- Federal Administration of Civil Protection (FACP)

### INTERNATIONAL OPERATORS

- Norwegian People's Aid (NPA)

### OTHER ACTORS

- European Union Force Bosnia and Herzegovina (EUFOR)
- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Development Programme (UNDP)

## UNDERSTANDING OF CMR CONTAMINATION

As at the end of 2022, BHMIC reported that the total cluster munition-contaminated area was 0.45km<sup>2</sup>.<sup>1</sup> This is a significant reduction from the 1.45km<sup>2</sup> of CMR-contaminated area reported as at the end of 2021. The 2021 total was inflated as it included both the remaining CMR tasks as well as completed tasks for which final documentation had yet to be issued.<sup>2</sup> During 2022, five previously unknown cluster munition-contaminated areas were added to the database totalling 246,230m<sup>2</sup>. Of these five hazardous areas, one totalling 50,258m<sup>2</sup> was released by Norwegian People's Aid (NPA) in 2022 and the remaining four hazardous areas were due to be released in 2023.<sup>3</sup>

According to NPA, the baseline estimate is subjected to evidence-based adjustment through a coordination mechanism involving NPA, BHMIC, the European Union Force Bosnia and Herzegovina (EUFOR), the Armed Forces of BiH, and Federal Administration of Civil Protection (FACP).<sup>4</sup>

**Table 1: Cluster munition-contaminated area by canton (at end 2022)<sup>5</sup>**

Canton	Municipality	CHAs	Area (m <sup>2</sup> )	SHAs	Area (m <sup>2</sup> )	Total areas	Total area (m <sup>2</sup> )
Zenica-doboj	Kopljari	1	3,309	1	*42,830	2	46,139
Canton 10	Paljenica	1	58,099	1	86,890	2	144,989
Tuzla	Bešići-Munjača	1	18,421	1	51,140	2	69,561
Republika Srpska	Kozila	0	0	1	*129,252	1	129,252
Tuzla	Sapna-Vitinica	0	0	1	*2,540	1	2,540
Tuzla	Sapna-Međeđa	1	22,798	1	*39,350	2	62,148
<b>Totals</b>		<b>4</b>	<b>102,627</b>	<b>6</b>	<b>352,002</b>	<b>10</b>	<b>454,629</b>

\* CMR tasks added in 2022. SHAs = suspected hazardous areas CHAs = confirmed hazardous areas

CMR contamination dates back to the conflicts of 1992–95 related to the break-up of the Socialist Federal Republic of Yugoslavia.<sup>6</sup> A survey and initial general assessment of cluster munition contamination was jointly conducted by BHMIC and NPA in 2011, which estimated the total area containing CMR at more than 12km<sup>2</sup>, scattered across 140 areas. This estimate was subsequently revised upwards to 14.6km<sup>2</sup> following the start of land release operations in 2012.<sup>7</sup> Of this, around 5km<sup>2</sup> was deemed actually contaminated and marked for clearance.<sup>8</sup>

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

BiH is also contaminated by unexploded ordnance (UXO) other than unexploded submunitions and by anti-personnel and anti-vehicle mines (see Mine Action Review's *Clearing the Mines* report on BiH for further information on the mine problem).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Demining Commission, under the BiH Ministry of Civil Affairs, supervises the State-wide BHMIC and represents BiH in its relations with the international community on mine-related issues.<sup>9</sup> The Demining Commission is composed of representatives from three ministries (Civil Affairs, Defence, and Security) elected to represent BiH's three main ethnic groups (Bosniaks, Croats, and Serbs). Whereas the Minister for Civil Affairs remains ultimately

responsible for mine action, the Demining Commission is the body responsible for setting mine action policy for considering the periodic re-accreditation of field operators, following the recommendation from BHMIC. It also proposes the appointment of BHMIC senior staff, for approval by the Council of Ministers.<sup>10</sup> The mandate of the most recent Commission ended on 30 April 2022, and a new Commission was appointed on 28 July 2022.<sup>11</sup>

1 Email from Ljiljana Ilić, Interpreter, BHMIC, 23 March 2023.

2 Email from Ljiljana Ilić, BHMIC, 22 March 2022; and CCM Article 7 Report (covering 2021), Form F.

3 Email from Ljiljana Ilić, BHMIC, 23 March 2023.

4 Email from Valerie Warmington, Country Director, NPA, 6 April 2023.

5 Email from Ljiljana Ilić, BHMIC, 23 March 2023. This differs from the figures provided in the Article 7 report where only the area of the SHAs has been provided, giving a total of 0.352km<sup>2</sup>.

6 BHMIC website, "Mine Action Report in BiH for 2015 approved by the BH Ministry Council", 16 May 2016.

7 Statements of BiH, First CCM Review Conference, Dubrovnik, 9 September 2015; High-level Segment, First CCM Review Conference, 7 September 2015; CCM Ninth Meeting of States Parties, Geneva, 2–4 September 2019; CCM Intersessional meetings, Geneva, 16 May 2022; and 2022 CCM Article 4 deadline Extension Request, p. 5.

8 Statement of BiH, High-level Segment, First CCM Review Conference, Dubrovnik, 7 September 2015.

9 BHMIC Organisational chart, accessed 6 May 2022 at: <http://bit.ly/2Ycj4xl>.

10 UNDP, Draft Mine Action Governance and Management Assessment for BiH, 13 May 2015, p. 22.

11 Email from Mirjana Marić, BHMIC, 21 September 2022.

BHMAC is responsible for regulating mine action and implementing BiH's survey and clearance plans.<sup>12</sup> BHMAC operates from its headquarters in Sarajevo, and two main offices in Sarajevo and Banja Luka, and eight regional offices (Banja Luka, Bihac, Brčko, Mostar, Pale, Sarajevo, Travnik, and Tuzla).<sup>13</sup>

Since 2008, efforts have been made to adopt new mine action legislation in BiH with a view to creating a stable platform for mine action funding by the government and local authorities. The process was restarted again in 2022 after being suspended the previous year but, as at March 2023, is not yet concluded.<sup>14</sup> The Geneva International Centre for Humanitarian Demining (GICHD) believes the amended demining law should be revised further and re-submitted for adoption, with the topics of "all reasonable effort" and liability discussed in parallel to the revision.<sup>15</sup> Clearer legislation on liabilities related to mine action activities would be beneficial to all mine action stakeholders in BiH.

Since 2010, NPA has been helping to build the capacity of the Armed Forces of BiH Demining Battalion.<sup>16</sup> National capacity development remains NPA's strategic commitment, and in close cooperation with national stakeholders, it elaborated a Capacity Development plan for 2022–25. The plan, which will depend on available funding, focuses on capacity development of the BiH Demining Battalion as a key national stakeholder in implementation of BiH's Mine Action Strategy. NPA provides direct operational support for the Demining Battalion's clearance tasks, and in 2022 conducted an assessment of the Demining Battalion's information management system which identified a need to enhance the Battalion's data collection, processing, and analysis to improve the efficiency of its mine action activities. These activities were continuing into 2023.<sup>17</sup>

In 2022, the GICHD and the United Nations Development Programme (UNDP) delivered training on mine action and the sustainable development goals (SDGs) to BHMAC, the Demining Commission, the Ministry of Civil Affairs, demining operators, EUFOR, and the International Organization for Migration (IOM) in BiH. In addition, the GICHD and UNDP co-authored a study, "The Sustainable Development Outcomes of Mine Action in Bosnia and Herzegovina", which was launched in June 2022.<sup>18</sup>

UNDP BiH, through the "MAGMA" project that aims to complete clearance,<sup>19</sup> supported mine action in BiH during 2022 by providing training for BHMAC quality inspectors, procuring batteries for the Armed Forces of BiH, and conducting training on GPS system for BHMAC personnel.<sup>20</sup>

It had been hoped that the "Country Coalition" established between BiH and Germany would provide a forum for regular dialogue among all mine action stakeholders, help demonstrate national ownership, strengthen coordination of Anti-Personnel Mine Ban Convention (APMBC) Article 5 and Convention on Cluster Munitions (CCM) Article 4 implementation, and identify and overcome challenges, and monitor progress against the 2018–25 strategy. The first Country Coalition meeting, convened jointly by BiH and Germany, took place in October 2020 and was attended by representatives from a wide range of mine action stakeholders, including non-governmental organisations (NGO) clearance operators and donors.<sup>21</sup> Regrettably, as at March 2023, no further Country Coalition meetings had been convened.<sup>22</sup>

National funding supports BHMAC and CMR survey and clearance. Operations of the BiH Armed Forces are supported by the Council of Ministers from the BiH national budget, while the Government of the Federation of BiH finances the operations of FACP.<sup>23</sup> The Civil Protection Administration of Republika Srpska (CPA RS) is financed by the Government of Republika Srpska.<sup>24</sup> BiH stated that addressing the remaining CMR contamination between September 2022 and September 2023 would cost 0.7 million BAM (approximately €400,000), which had already been secured from national and international funding.<sup>25</sup>

12 Bosnia and Herzegovina Official Gazette, Sarajevo, 17 March 2002.

13 BiH, National Mine Action Strategy 2018–2025, p. 8.

14 Email from Ljiljana Ilić, BHMAC, 23 March 2023.

15 Email from GICHD, 14 May 2021.

16 Email from Jonas Zachrisson, NPA, 14 March 2021.

17 Email from Valerie Warmington, NPA, 6 April 2023.

18 Email from Stanislav Damjanovic, Advisor, GICHD, 25 May 2023.

19 See: <https://bit.ly/3qELnYZ>.

20 Email from Sanja Corovic, UNDP, 14 June 2023.

21 BHMAC website, "Embassy of the Republic of Germany in Bosnia and Herzegovina in cooperation with the BiH Ministry of Civil Affairs, organized online Country Coalition conference", 14 October 2020, at: <http://bit.ly/2NwxatH>; and Statement of Germany, Second CCM Review Conference (Part 1), virtual format, 25–27 November 2020.

22 Email from Ljiljana Ilić, BHMAC, 23 March 2023.

23 Email from Ljiljana Ilić, BHMAC, 22 March 2022.

24 Email from Suad Baljak, UNDP, 18 September 2020.

25 2022 CCM Article 4 deadline Extension Request, pp. 5 and 12.

## ENVIRONMENTAL POLICIES AND ACTION

BiH does not have a national mine action standard (NMAS) on environmental management. BHMAL, however, said that, in general, existing humanitarian demining procedures (e.g. methods for vegetation removal, removal of metals and waste, and use of machinery) contribute to the management and protection of the environment. BHMAL also said that, in certain cases, procedures are modified in order to protect the environment and that when approving demining execution plans, it consults the local community as and where necessary.

The use of threshing machines has been banned on agricultural areas because the machines disturb soil deeper than 20cm and compacts the soil, leaving it impermeable to water and preventing sowing for up to three years. BHMAL also does not use machines on mountain pastures in order to help protect against removal of layers of grasses that have taken many years to grow and which do not renew fully after machines have been used. In forested areas, as part of its procedures to ensure the use of metal detectors at the required height, BHMAL consults landowners regarding which vegetation can be removed, and what density and type of trees should be left untouched.<sup>26</sup>

The 2022 study on SDGs and mine action in Bosnia identified the direct contribution of land release to 12 SDGs and 35 of their associated targets, including relating to flood prevention.<sup>27</sup> Following the 2014 flood in BiH, a recovery

needs assessment was initiated by the government which found that landmines contaminated over 70% of the flood-affected zone and were a major safety hazard to implementing recovery efforts.<sup>28</sup> In Donji Svilaj and Novi Grad (FBiH) along the border with Croatia, mine contamination along the Sava River and very close to the road hindered flood protection and safe mobility. Contamination also presented an obstacle to accessing the land for the purpose of undergoing flood prevention measures. Thanks to clearance, these channels could be accessed to allow the construction of the first major motorway in BiH, connecting the country with Croatia and which also serves as a flood protection barrier.<sup>29</sup>

NPA is implementing an Environmental Assessment and Management System (EAM) for its country programmes, starting with assessing offices and administration. In addition, NPA's BiH country programme has an Environment and Climate Country Policy in place.<sup>30</sup> NPA BiH is advocating for increased inclusion of environmental impacts in the forthcoming updates to the national mine action strategy. In 2022, NPA BiH staff attended training on environmental safeguarding in operations and promoted waste separation and litter removal at task sites. NPA BiH also worked to eradicate single-use plastic packaging waste among all personnel.<sup>31</sup> The FACP takes the environment into consideration when drafting operational plans for the destruction of mines and UXO on site.<sup>32</sup>

## GENDER AND DIVERSITY

The National Mine Action Strategy 2018–2025 specifies that: "Under the leadership of BHMAL, relevant actors will include gender and diversity into all phases of planning, realisation and follow-up of all mine activities".<sup>33</sup> The mine action strategy considered and supported the 2003 Law on Gender Equality in BiH, which includes equal treatment of the genders and equality of opportunity, and prohibits direct and indirect discrimination on the ground of gender. The Law on Gender Equality determines that equal representation of men and women exists when the percentage of either gender in bodies at all levels in BiH (State, entity, cantonal, and municipality level) is at least 40%. BiH's national mine action strategy also considered the 2017 Gender Equality Action Plan.<sup>34</sup>

26 Email from Ljiljana Ilić, BHMAL, 22 March 2022.

27 GICHD and UNDP, "The Sustainable Development Outcomes of Mine Action in Bosnia and Herzegovina", 2 June 2022, at: <https://bit.ly/3X9qv8z>.

28 Ibid. p. 59.

29 Ibid. pp. 60–61.

30 Email from Charles Frisby, NPA, 19 March 2022.

31 Email from Valerie Warmingston, NPA, 6 April 2023.

32 Email from Muamer Husilović, FACP, 23 March 2023.

33 BiH, National Mine Action Strategy 2018–2025, p. 14.

34 Ibid.

**Table 2: Gender composition of operators in 2022<sup>35</sup>**

Organisation	Total staff	Women employed	Total staff in managerial or supervisory positions	Women in managerial or supervisory positions	Total staff in operational positions	Women in operational positions
BHMAC	157	36	20	4	121	20
FACP	201	43	9	5	148	16
NPA	124	15	18	4	102	8

As at the end of 2022, however, as Table 2 illustrates, only 23% of BHMAC's employees were female, with women employed in 20% of managerial or supervisory positions and 11% of operational positions.<sup>36</sup> Largely the same proportion as 2021. BHMAC reported having a gender and diversity policy in place and stated that BHMAC upholds the Law on Gender Equality and routinely includes it in the development of strategies and standards.<sup>37</sup> A new Demining Commission was appointed on 28 July 2022, in which one of the three new members is female.<sup>38</sup>

BHMAC has reported that it consults all groups affected by CMR, including women and children, during survey and community liaison activities, and BHMAC's survey and community liaison teams are inclusive with a view to facilitating this. Relevant mine action data are disaggregated by gender and age.<sup>39</sup> However, except for one reference to the provision of adequate gender- and age-sensitive mine risk education,<sup>40</sup> there was no mention of either gender or diversity in BiH's Article 4 deadline extension request submitted in June 2022.

As at July 2022, the Demining Battalion of the Armed Forces of BiH had a workforce of 455 personnel, including 28 women (6% of the total). This included 1 (2%) of the 55 managerial/supervisory positions and 27 (7%) of the 391 operations positions.<sup>41</sup> FACP reported that 21% of its employees are female, with women filling 56% of managerial/supervisory positions and 11% of operational positions.<sup>42</sup>

NPA reported that the overall gender split of its staff in 2022 was 12% female, with eight (8%) women employed in operational roles and four (22%) women holding managerial positions.<sup>43</sup> This is largely the same as the proportion of women overall working for NPA in 2021. In 2022, NPA BiH continued implementing NPA's Global Gender Equality Policy through its annual workplans, with access to equal opportunities for all staff regardless of gender, age, ethnic and religious background. NPA BiH remains the only demining organisation in BiH with a woman deminer in its clearance teams. NPA BiH gender focal points undertook a capacity development programme and NPA encouraged women to apply to join the Council of Employees, a labour union, which led to a 30% rise in female membership.<sup>44</sup>

## INFORMATION MANAGEMENT AND REPORTING

BHMAC currently uses its own paradox-based information management system, the Bosnia and Herzegovina Mine Action Information System (BHMAIS),<sup>45</sup> but implementation of the Information Management System for Mine Action (IMSMA) Core has been ongoing since 2019. The first phase of IMSMA Core implementation was completed in May 2020.<sup>46</sup> A new project to migrate the remaining data and workflows from BHMAIS to IMSMA Core, funded by the German Federal Foreign Office (GFFO) and in partnership with the GICHD and NPA, started in February 2023 and is due to be completed by mid 2024.<sup>47</sup>

<sup>35</sup> Emails from Ljiljana Ilić, BHMAC, 23 March 2023; Muamer Husilović, FACP, 23 March 2023; and Valerie Warmington, NPA, 6 April 2023.

<sup>36</sup> Email from Ljiljana Ilić, BHMAC, 23 March 2023.

<sup>37</sup> Email from Ljiljana Ilić, BHMAC, 24 April 2019.

<sup>38</sup> Email from Mirjana Marić, BHMAC, 6 October 2022.

<sup>39</sup> Emails from Ljiljana Ilić, BHMAC, 24 April 2019; Goran Šehić, Deputy Programme Manager, NPA, 25 February 2019; and GICHD, 27 April 2022; and BiH, National Mine Action Strategy 2018–2025, p. 52.

<sup>40</sup> Article 4 deadline Extension Request, June 2022, p. 8.

<sup>41</sup> Email from Brig. Dzevad Zenunovic, Demining Battalion of the Armed Forces of BiH, 13 July 2022.

<sup>42</sup> Email from Muamer Husilović, FACP, 23 March 2023.

<sup>43</sup> Email from Valerie Warmington, NPA, 29 June 2023.

<sup>44</sup> Email from Valerie Warmington, NPA, 6 April 2023.

<sup>45</sup> Email from Ljiljana Ilić, BHMAC, 22 March 2022.

<sup>46</sup> 2020 APMBC Article 5 deadline Extension Request, p. 5; and email from GICHD, 27 April 2022.

<sup>47</sup> Emails from Ljiljana Ilić, BHMAC, 23 March 2023; Valerie Warmington, NPA, 6 April 2023; Stanislav Damjanovic, GICHD, 25 May 2023; and Henrik Rydberg, GICHD, 29 June 2023.

BiH's national information management system needs to improve in terms of accuracy and sustainability. During the implementation and migration from BHMAIS to IMSMA Core, data quality will be checked and improved wherever feasible. Data-collection forms will be also reviewed and improved as part of the process.<sup>48</sup> NPA believes that IMSMA Core will help to ensure BiH has accurate, transparent, and reliable mine action data, all of which are stored and managed by BHMAL. It will also contribute to better operational planning, including for fulfilment of BiH's APMBC and CCM obligations.<sup>49</sup>

In addition, UNDP developed a Geographic Information System (GIS) mobile application, which allows the general public to access information on the location of hazardous areas through their mobile electronic devices.<sup>50</sup>

In the revised 2022 Article 4 deadline extension request, BHMAL provided detailed information on the location and size of the remaining CMR-contaminated area and a clear work plan for their release, although the tasks were not completed in the timeframes in the request.<sup>51</sup> There continue, however, to be inaccuracies in BHMAL reporting on land release, with unexplained differences in data reported by BHMAL compared to the same data reported by clearance operators. In its CCM Article 7 report covering 2022, BHMAL did not report CMR contamination by SHAs and CHAs, in a manner consistent with IMAS and only reported the SHA contamination. Although BHMAL did disaggregate land release output by non-technical survey (NTS), technical survey (TS), and clearance.

## PLANNING AND TASKING

BiH's national mine action strategy for 2018–25 addresses all mine and CMR contamination. The strategy contained a strategic goal on survey and clearance that included a commitment to complete CMR clearance obligations by 1 March 2021, in line with BiH's initial CCM Article 4 deadline.<sup>52</sup> However, the strategy did not contain an action plan or concrete milestones towards completion of CMR clearance.<sup>53</sup> BHMAL also elaborates annual work plans.<sup>54</sup>

BHMAL is working in collaboration with donors and implementing agencies, including EUFOR, BiH Armed Forces, NPA, and FACP, to implement Article 4. Allocation of the remaining CMR tasks has been split between the BiH Armed Forces, FACP, and NPA, and BHMAL said that it was holding monthly meetings with NPA and government institutions to report on progress and plan CMR operations.<sup>55</sup>

BiH submitted work plans for completion of all remaining tasks as part of its 2022 Article 4 deadline extension request. As five previously unknown cluster munition-contaminated areas were discovered during 2022, the work plans were updated and resubmitted. At the Tenth Meeting of States Parties to the CCM in August 2022, BiH submitted a work plan to address total contaminated area of 611,465m<sup>2</sup> with six tasks in progress and one task "in preparation" and all but one task due to be completed by November 2022.<sup>56</sup> As at March 2023, however, BHMAL reported that five tasks were still in progress, all of which were due to be completed in May 2023, with one task "in preparation" that has been assigned to the BiH Armed Forces.<sup>57</sup>

According to BHMAL, cluster munition-contaminated areas are prioritised for clearance based on agreement with local communities and municipalities.<sup>58</sup>

48 Email from GICHD, 27 April 2022.

49 Email from Valerie Warmington, NPA, 6 April 2023.

50 Email from Suad Baljak, UNDP, 18 February 2021.

51 2022 APMBC Article 4 deadline Extension Request, May 2022, p. 10 and Annex 2.

52 BiH, National Mine Action Strategy 2018–2025, p. 26.

53 Ibid., pp. 21–26.

54 Email from Ljiljana Ilić, BHMAL, 22 March 2022.

55 Statement of BiH, CCM 10MSP, Geneva, 30 August 2022.

56 Current task status, CCM 10MSP, Geneva, 30 August 2022.

57 Email from Ljiljana Ilić, BHMAL, 23 March 2023.

58 Email from Ljiljana Ilić, BHMAL, 24 April 2019.

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

In 2016, the Demining Commission formally adopted three revised chapters of the NMAS on land release, NTS, and TS, drafted in cooperation with EU technical assistance through the Land Release pilot project, UNDP, and the GICHD.<sup>59</sup> The Demining Commission adopted new standards for CMR at the beginning of 2017.<sup>60</sup> Plans for revising the NMAS and further development of relevant chapters was planned by BHMAL for 2020. As at June 2023, the NMAS had been updated and they were under review by BHMAL.<sup>61</sup>

BHMAL reported that survey or resurvey of hazardous areas suspected to contain CMR is conducted systematically in all land release operations.<sup>62</sup>

## OPERATORS AND OPERATIONAL TOOLS

Technical survey and clearance of CMR-contaminated area in 2022 were conducted by NPA, the BiH Armed Forces and the FACP, and NTS were conducted by BHMAL and NPA.<sup>63</sup>

**Table 3: Operational NTS, TS, and clearance capacities deployed in 2022<sup>64</sup>**

Operator	NTS teams	Total NTS personnel*	TS and clearance teams	Total TS and clearance personnel*
BHMAL	4	8	0	0
NPA	1	2	2	12
BiH Armed Forces	0	0	2	12
FACP	0	0	2	12
Totals	5	10	6	36

\* Excluding team leaders, medics, drivers, etc.

Quality control (QC) and quality assurance (QA) are conducted by BHMAL.<sup>65</sup>

No animal detection systems or mechanical assets are used in CMR survey or clearance operations in BiH. This is despite the fact that in 2017, BiH announced that TS and CMR clearance would also be conducted with the use of special detection dogs (SDDs), through NPA.<sup>66</sup> In 2014, NPA successfully piloted the use of SDDs for technical survey and clearance of CMR-contaminated areas.<sup>67</sup> It recommended using detection dogs in TS (both targeted and systematic investigation), which it believes can be extremely beneficial.<sup>68</sup> However, as at April 2023, BHMAL had yet to make the necessary amendments to the national standards.

Following the use of drones to assist in the EU-funded “country assessment” project, BHMAL has begun to integrate procedures for the use of drones in NTS for all its NTS teams. BHMAL’s use of drones during survey is proving to be useful as it reduces time to revisit some of the remotely located hazardous areas.<sup>69</sup>

59 BHMAL, “Report on Mine Action in BiH for 2016”, February 2017, p. 18; and Audit Office of the Institutions of Bosnia and Herzegovina, “Performance Audit Report. Efficiency of the Demining System in Bosnia and Herzegovina”, No. 01-02-03-10-16-1-1101/16, October 2016, p. 26; BHMAL, “Adoption of three new chapters of Mine Action Standard for land release, the new approach for solving the mine problem”, 28 January 2016; and email from Fotini Antonopoulou, EU, 18 September 2017.

60 Interview with Saša Obradovic, Director, BHMAL, Sarajevo, 10 May 2017.

61 Email from Ljiljana Ilić, BHMAL, 7 June 2023.

62 Email from Ljiljana Ilić, BHMAL, 24 April 2019.

63 Email from Ljiljana Ilić, BHMAL, 23 March 2023.

64 Ibid.

65 2020 APMBC Article 5 deadline Extension Request, p. 8.

66 Statement of BiH, CCM Seventh Meeting of States Parties, Geneva, 4–6 September 2017.

67 Email from Amela Batic, NPA Bosnia, 15 April 2015.

68 Emails from Jonas Zachrisson, NPA, 5 June 2019; and Charles Frisby, NPA, 19 March 2022.

69 Email from GICHD, 27 April 2022.

## LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

### LAND RELEASE OUTPUTS IN 2022

Based on data reported by BHMAL to Mine Action Review, a total of nearly 1.33km<sup>2</sup> of CMR-contaminated area was released in 2022: more than 0.30km<sup>2</sup> through NTS, more than 0.38km<sup>2</sup> through TS, and over 0.64km<sup>2</sup> through clearance, during which a total of 1,599 submunitions were destroyed. A further 21 submunitions were destroyed in spot tasks.

### SURVEY IN 2022

In 2022, 0.30km<sup>2</sup> was cancelled through NTS (see Table 4) and 0.38km<sup>2</sup> of CMR-contaminated area was reduced through TS (see Table 5), as reported by BHMAL to Mine Action Review.<sup>70</sup> This is an increase from the 0.24km<sup>2</sup> of CMR-contaminated area cancelled through NTS and 0.36km<sup>2</sup> of CMR-contaminated area reduced through TS in 2021.<sup>71</sup>

**Table 4: Cancellation through NTS in 2022<sup>72</sup>**

Canton	Operator	Area reduced (m <sup>2</sup> )
Tuzla	BHMAL/NPA	20,160
Tuzla	BHMAL/NPA	39,300
Canton 10	BHMAL/NPA	143,177
Canton 10	BHMAL/NPA	100,607
<b>Total</b>		<b>303,244</b>

**Table 5: Reduction through TS in 2022<sup>73</sup>**

Canton	Operator	Area reduced (m <sup>2</sup> )
Hercegovacko Neretvanski	FACP	7,492
Zanicko-Dobojski	BiH Armed Forces	97,761
Tuzla	BiH Armed Forces	79,932
Tuzla	NPA	126,827
Republika Srpska	NPA	64,235
<b>Total</b>		<b>376,247</b>

### CLEARANCE IN 2022

In 2022, over 0.64km<sup>2</sup> of CMR-contaminated area was cleared, with the destruction of 1,599 submunitions (see Table 6).<sup>74</sup> This is an increase from the nearly 0.62km<sup>2</sup> of CMR-contaminated area cleared in 2021, with the destruction of 704 submunitions.<sup>75</sup> In addition, FACP reported destroying 21 submunitions during explosive ordnance disposal (EOD) spot tasks in 2022, which were not reported by BHMAL. The FACP believes this is because BHMAL reports these as UXO.<sup>76</sup>

According to BHMAL, there was one CMR task in Canton 10 in the municipality of Glamoč, at a shooting range, totalling 33,740m<sup>2</sup> which was cleared in 2022 and in which no submunitions were found.<sup>77</sup> The FACP reported that they released through a mixture of TS and clearance one task of 9,996m<sup>2</sup> in the Herzegovina-Neretva canton in the municipality of Mostar with no submunitions found.<sup>78</sup>

70 Email from Ljiljana Ilić, BHMAL, 23 March 2023.

71 Email from Ljiljana Ilić, BHMAL, 22 March 2022.

72 Email from Ljiljana Ilić, BHMAL, 23 March 2023; and Article 7 report (covering 2022), Form F. NPA reported cancelling 244,678m<sup>2</sup> in Republika Srpska. To NPAs knowledge, survey data is still not entered accurately into the BHMAL database.

73 Email from Ljiljana Ilić, BHMAL, 23 March 2023; and Article 7 report (covering 2022), Form F. NPA reported reducing 89,800m<sup>2</sup> in Republika Srpska. The difference is due to the slow process of certification of completed projects by BHMAL.

74 Email from Ljiljana Ilić, BHMAL, 23 March 2023.

75 Email from Ljiljana Ilić, BHMAL, 22 March 2022.

76 Email from Muamer Husilović, FACP, 23 March 2023.

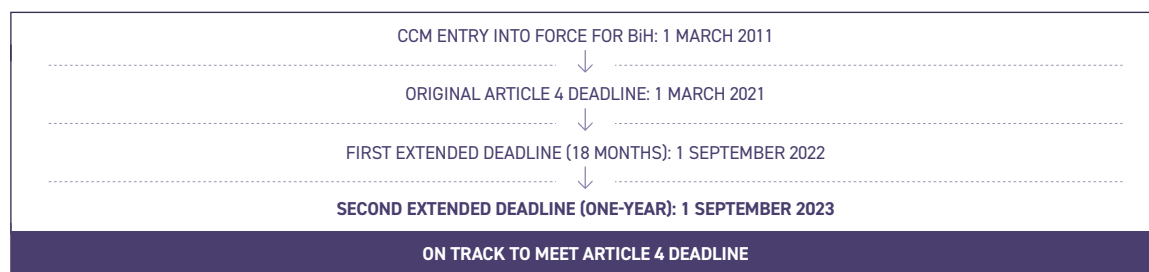
77 Email from Ljiljana Ilić, BHMAL, 23 March 2023.

78 Emails from Muamer Husilović, FACP, 23 March and 8 June 2023.

**Table 6: CMR clearance in 2022<sup>79</sup>**

Canton	Operator	Area cleared (m <sup>2</sup> )	Submunitions destroyed
Herzegovina-Neretva	FACP	2,503	0
Zenica-Doboj	NPA/BiH Armed Forces	202,252	715
Tuzla Canton	NPA	149,831	56
Tuzla Canton	BiH Armed Forces	135,330	725
Canton 10	NPA	41,909	88
Republic of Srpska	NPA	108,539	15
<b>Sub totals</b>		<b>640,364</b>	<b>1,599</b>
<b>Spot tasks</b>			<b>21</b>
<b>Totals</b>		<b>640,364</b>	<b>1,620</b>

## ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM, BiH is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 September 2023, having been granted a one-year extension. BHMIC has reported that it is currently on track to achieve completion by the extended deadline, with three of the six remaining tasks completed as at 5 June 2023, with two remaining tasks due to be completed by the end of June and the final task by the end of July.<sup>80</sup> BHMIC has been holding regular coordination meetings with NPA, the BiH Armed Forces, and FACP, supported by EUFOR, to follow up on potential risks to task completion and NPA was standing ready with operational capacity support as needed in 2023.<sup>81</sup>

BiH's first request to extend its Article 4 deadline was granted by States Parties in February 2021.<sup>82</sup> Prior to the unexpected discovery of the five new CMR-contaminated areas, BHMIC had been aiming to complete CMR clearance by September 2022, however, a further one-year extension to its clearance deadline was sought.<sup>83</sup> However, even if the previously unknown additional CMR-contaminated areas had not been discovered, BiH's 2022 deadline would still have been extremely tight, leaving no margin for unforeseen delays or for BHMIC to prepare final documentation and issue land release certificates. This issue highlights the importance of affected states establishing evidence-based and accurate baselines as soon as possible in order to be able to plan for completion concretely and successfully. It also highlights the importance of affected states having an accurate national information management system, as well as sustainable national capacity to deal with residual contamination post-completion.

<sup>79</sup> Email from Ljiljana Ilić, BHMIC, 23 March 2023 and Article 7 report (covering 2022), Form F. NPA did not report any clearance in Zenica-Doboj canton in 2022. In Canton 10, FACP reported clearing 77,365m<sup>2</sup> and destroying 440 submunitions although BHMIC have not included this as CMR clearance as they report that the 440 items found were not submunitions. In Republika Srpska, NPA reported clearing 41,700m<sup>2</sup> and destroying 8 submunitions.

<sup>80</sup> Emails from Ljiljana Ilić, BHMIC, 23 March and 7 June 2023.

<sup>81</sup> Email from Valerie Warmington, NPA, 6 April 2023.

<sup>82</sup> Email from the CCM Secretariat to States Parties to the CCM, 1 March 2021.

<sup>83</sup> Email from Ljiljana Ilić, BHMIC, 22 March 2022.

Given the relatively small scale of CMR contamination in BiH, especially compared to the far greater contamination from mines, BiH could have completed clearance within its original 10-year Article 4 deadline (1 March 2021), had there been greater political will, national ownership, and commitment from BHMAL, the Demining Commission, and their superiors in the government. Only 2.5km<sup>2</sup> of CMR-contamination has been cleared in the last five years (see Table 7).

**Table 7: Five-year summary of CMR clearance**

Year	Area cleared (km <sup>2</sup> )
2022	0.64
2021	0.62
2020	0.35
2019	0.45
2018	*0.44
<b>Total</b>	<b>2.50</b>

\*Includes area released through both clearance and TS

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

The National Mine Action Strategy for 2018–2025 required the development of a strategy for the management of residual contamination by 2022. As at April 2023, the strategy had still to be elaborated but according to BHMAL an NMAS on management of residual contamination will be included in the updated standards once they are launched.<sup>84</sup>

84 Email from Ljiljana Ilić, BHMAL, 23 March 2023.

**ARTICLE 4 DEADLINE: 1 OCTOBER 2024**  
NOT ON TRACK TO MEET DEADLINE

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION:

**BELIEVED TO BE LIGHT**  
BUT NO NATIONAL  
BASELINE ESTIMATE

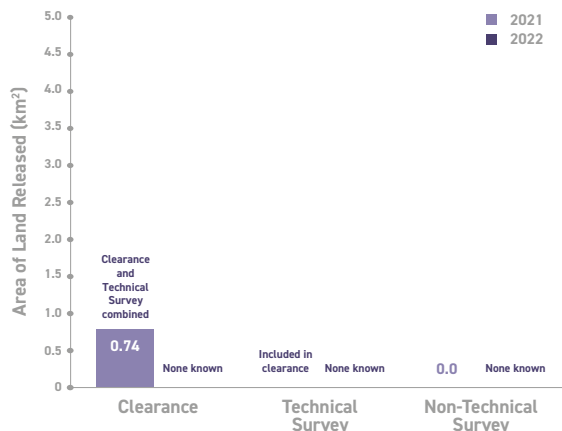
SUBMUNITION  
CLEARANCE IN 2022

**UNKNOWN**  
NO EVIDENCE  
OF ANY CLEARANCE

SUBMUNITIONS  
DESTROYED IN 2022

**NONE KNOWN**

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

Chad requested an extension to its Convention on Cluster Munitions (CCM) Article 4 deadline in May 2022 expecting “a high probability” of finding cluster munition remnants (CMR) in its northern Tibesti province. The four-year European Union PRODECO project, which was due to end in 2021, received a no-cost extension and finally concluded in 2022 with no commitment by international donors to provide additional funding ending all survey and clearance operations by international operators. The national demining authority did not report any nationally funded survey or clearance of cluster munitions, leaving its future compliance with the CCM in serious doubt. Chad last submitted an Article 7 report in 2020, which is itself a violation of the CCM.

## RECOMMENDATIONS FOR ACTION

- Chad submit its Article 7 transparency reports annually in accordance with its international obligations.
- Chad should develop a resource mobilisation strategy for mine action in general and completion of its CCM Article 4 obligations in particular.
- Chad should prepare, and provide details of, national capacity available for tackling CMR hazardous areas identified after declaring completion.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2022)	Score (2021)	Performance Commentary
<b>UNDERSTANDING OF CMR CONTAMINATION</b> (20% of overall score)	5	5	Chad asserted in 2021 it had completed clearance of all cluster munition-contaminated areas under its jurisdiction but subsequently accepted it needed to survey Tibesti province and acknowledged "a high probability" of finding cluster munition remnants there but had no funding for survey in 2022.
<b>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</b> (10% of overall score)	3	3	Chad's mine action authority coordinates the sector but its consistently low level of achievement calls into question the level of national authorities' interest in mine action. The National Commission for Demining (HCND) struggles with limited resources. Government financial support is limited to paying staff salaries and some administrative costs but operations depended wholly on international donor funding. There is no indication that the government, which is facing persistent political turmoil, insecurity, and a humanitarian crisis is willing or able to fund mine action operations.
<b>GENDER AND DIVERSITY</b> (10% of overall score)	4	4	Chad's national plans make no reference to gender and inclusion. Women are employed in a number of roles, though mainly in office support functions, risk education, and victim assistance. The first, and so far only, female team leader was appointed by Mines Advisory Group (MAG) in 2019, which no longer conducts demining in Chad.
<b>INFORMATION MANAGEMENT AND REPORTING</b> (10% of overall score)	4	5	The HCND's national mine action database benefitted from an extensive data clean-up by FSD in 2020–21 and improvements in reporting procedures, but the national authority has very limited information management capacity. In the absence of significant operations in 2022 it was unclear what attention went to management and maintenance of the database received. Chad has submitted an Article 7 report in most years and in June 2023 submitted its report for 2022.
<b>PLANNING AND TASKING</b> (10% of overall score)	4	4	Until 2022, Chad had never presented a strategic plan or identified priorities for survey or clearance of CMR. In 2021, Chad was preparing formally to declare fulfilment of its Article 4 obligation but then changed position and in 2022 submitted an Article 4 deadline extension request. The request included plans for survey of northern Tibesti region but without international donor support there appears to have been no action to implement it.
<b>LAND RELEASE SYSTEM</b> (20% of overall score)	5	5	Chad has 22 national standards that are compatible with International Mine Action Standards (IMAS) but it lacks any national standard for CMR survey or clearance.
<b>LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE</b> (20% of overall score)	4	5	Chad requested a one-year extension of its Article 4 deadline to address the last area of suspected cluster munitions contamination in the northern Tibesti region but did not conduct any survey or clearance operations in 2022.
<b>Average Score</b>	<b>4.3</b>	<b>4.6</b>	<b>Overall Programme Performance: POOR</b>

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- National High Commission for Demining (Haut Commissariat National de Déminage, HCND)

### NATIONAL OPERATORS

- HCND

### INTERNATIONAL OPERATORS

- None

### OTHER ACTORS

- None

## UNDERSTANDING OF CMR CONTAMINATION

Chad has never produced a baseline estimate of CMR contamination but had initially claimed it was heavy. Chad informed the CCM signing conference in 2008 that it had “vast swathes of territory” contaminated by mines and unexploded ordnance, including cluster munitions,<sup>1</sup> but it provided no details and the extent to which it is affected remains uncertain. The CCM Article 4 deadline extension request submitted by Chad in 2022 said it carried out an “impact study” in 1999 which covered the whole country except the northern province of Tibesti and a technical survey of the whole country in 2010–12. This concluded that Chad had contamination by explosive remnants of war (ERW) covering 61km<sup>2</sup> but it did not provide any data on parts of Tibesti province and Chad has not produced a disaggregated estimate of CMR contamination.<sup>2</sup>

In 2021, Chad said it had completed clearance of CMR hazards and would announce compliance with its Article 4 obligations<sup>3</sup> but in 2022 it amended that position to allow for survey of northern Tibesti province where, it acknowledged, it did not “have a precise reading” of CMR contamination.<sup>4</sup>

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

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Chad is also contaminated by unexploded ordnance (UXO) other than unexploded submunitions and by anti-personnel and anti-vehicle mines (see Mine Action Review’s *Clearing the Mines* report on Chad for further information on the mine problem).

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## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Chad’s mine action programme is coordinated by the National Commission for Demining (HCND), which was set up by government decree in 1998 with a mandate to implement a humanitarian programme tackling mines and explosive ordnance.<sup>5</sup> The HCND comes under the Ministry of Economy and Development Planning and is responsible for preparing a national demining strategy, annual work plans, and proposing a budget to support them.<sup>6</sup>

A 2019 decree provided for re-organisation of the HCND, resulting in four main divisions covering: operations and logistics; planning; administrative and financial affairs; and training and human resources.<sup>7</sup> In addition to a head office in the capital Ndjamena, HCND has four provincial offices in Bardai, Faya, Fada, and Abéché and two provincial

sub-centres in Zouar and Am-timan.<sup>8</sup> Operators say constant changes in coordination staff have hampered efficiency.<sup>9</sup> They have also reported lengthy delays obtaining the permits required to import equipment as well as other bureaucratic obstacles.

Mine action in Chad is stunted by lack of funding. Government financial support for the sector is limited to paying salaries for national staff. In previous years, salary costs have amounted to approximately \$1.5 million<sup>10</sup> but the salary issue has proved troubling in recent years.<sup>11</sup> Non-payment of salaries led to a long-running strike by deminers starting in 2018, which prevented some planned survey and clearance activities in Tibesti from proceeding.<sup>12</sup>

### ENVIRONMENTAL POLICIES AND ACTION

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Chad does not have a policy on environmental management in mine action.

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1 Statement of Chad, CCM Signing Conference, Oslo, 3 December 2008.

2 Article 4 deadline Extension Request, 30 May 2022, p. 3.

3 Article 7 Report (covering 2020), Form F; Statement of Chad, Anti-Personnel Mine Ban Convention (APMBC) 19th Meeting of States Parties, 15–19 November 2021.

4 Article 4 deadline Extension Request, 30 May 2022, p. 6.

5 Article 7 Report (covering 2015), Form F; Article 4 deadline Extension Request, 30 May 2022, p. 3.

6 APMBC Article 5 deadline Extension Request, April 2019, p. 10.

7 Ibid.

8 Article 4 deadline Extension Request, 30 May 2022, p. 4.

9 Email from Seydou Gaye, Humanity and Inclusion (HI), 3 June 2020.

10 Emails from Soultani Moussa, Manager/Administrator, HCND, 14 May 2019 and 27 April 2020.

11 Email from Soultani Moussa, HCND, 14 May 2019.

12 Email from Romain Coupez, Country Director, MAG, 4 March 2019.

## GENDER AND DIVERSITY

Chad does not address gender in its CCM Article 4 deadline extension request submitted in May 2022, except with brief reference to mine risk education and disaggregated victim data. Recruitment of female staff is not a priority for the HCND, which has undergone drastic downsizing since 2018 and still faces demands for back pay from staff.

The HCND employed nine women among its staff of 207 in 2019, the last year for which official data were available. They were employed in a range of management, administrative, and field roles and included the HCND's assistant director, the administration and finance assistant director, and the head of risk education.<sup>13</sup>

## INFORMATION MANAGEMENT AND REPORTING

The HCND has an Information Management System for Mine Action (IMSMA) database which, under the EU-funded PRODECO project, operated with the support of FSD. Poor maintenance and shortages of trained information technology (IT) staff meant data available had become unreliable because of lost reports and duplication. FSD started a clean-up of the database in 2017, which has resulted in cancellation of large numbers of duplicate entries.<sup>14</sup> The clean-up cancelled a total of 35 areas from the database, including eight in 2021 alone.<sup>15</sup>

To improve the quality of reporting and data, the HCND, with FSD support, introduced a system of comprehensive weekly and monthly reporting for the operators. In 2020, FSD conducted two missions to Borkou province to confirm non-technical survey (NTS) results as well as a series of quality assurance (QA) and quality control (QC) missions to Borkou and Ennedi provinces. By the end of 2020, FSD gave the quality of data an informal mark of "6 out of 10".<sup>16</sup>

With the closure of the PRODECO project in 2022, HCND's information management system was managed by an IMSMA unit chief and database operator. FSD supported a Geneva International Centre for Humanitarian Demining (GICHD)-assisted online IMSMA training for HCND staff in 2021 but noted three of the participants failed to pass the course and that HCND had a total of three staff certified to a basic A1 level. FSD facilitated the creation of a website for HCND together with email addresses for HCND management. It noted the website had been completed in 2021 but was not activated because of lack interest within the HCND. FSD concluded that maintaining and developing HCND's information management system posed a major challenge in view of the small number of qualified staff and the risks of staff leaving for better paid jobs.<sup>17</sup>

## PLANNING AND TASKING

Chad has never had a strategic plan for CMR survey and clearance. A CCM Article 7 report Chad submitted in July 2020 reported plans to conduct non-technical survey to identify the location of cluster munition containers in Tibesti and Ouaddaï regions in 2020–21 and to clear any contamination found in those areas,<sup>18</sup> but in the absence of international donor support Chad did not conduct any operations in 2022.<sup>19</sup>

Chad's initial intention was to ask for a two-year extension in order to carry out non-technical survey in northern Tibesti region.<sup>20</sup> The final draft submitted at the end of May 2022 reduced the extension sought to one year and set out plans to deploy five teams to conduct non-technical survey

in five departments of the province (Aouzou, Bardaï, Emi Koussi, Wour, and Zouar) over a total area of 19km<sup>2</sup>. It expected to need two months to mobilise teams and equipment and said a detailed work plan would only be drawn up after they had deployed.<sup>21</sup>

The HCND prioritises tasks according to requests from local authorities. It issues task orders to operators usually after receiving their input on technical and resource requirements of the task. Operators are also usually able to assess tasks with the HCND and local authorities prior to deploying staff.<sup>22</sup>

13 Emails from Soltani Moussa, HCND, 14 May 2019 and 29 May 2020.

14 Email from Moussa Soltani, HCND, 27 April 2020.

15 Email from Eugenio Balsini, Programme Manager, FSD, 28 April 2022.

16 Email from Olivier Shu, Senior Technical Adviser, FSD, 18 May 2021.

17 Email from Eugenio Balsini, FSD, 28 April 2022.

18 Article 7 Report (covering 2019), Form F.

19 Article 7 Report (covering 2022), Form F.

20 Chad statement to the CCM Intersessionals, 16 May 2022.

21 Article 4 deadline Extension Request, 30 May 2022, p. 6.

22 Email from Daniel Davies, MAG, 27 April 2020.

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

Chad has 22 national mine action standards that are said to comply with the International Mine Action Standards (IMAS) but has no CMR-specific standards. Chad said it did not yet have a national standard for non-technical survey but planned to develop one.<sup>23</sup> FSD said it completed a three-year revision of Chad's national standards in November 2021.<sup>24</sup>

## OPERATORS AND OPERATIONAL TOOLS

The HCND has sharply reduced its size in response to funding cuts. In 2019, the HCND employed 320 staff of whom 113 were seconded to international operators.<sup>25</sup> In 2022, it employed a total of 113 people: 4 manual demining teams with a total of 72 deminers, two explosive ordnance disposal (EOD) teams with a total of 16 operators, 2 mechanical teams with 7 staff, and two NTS teams with 12 surveyors.<sup>26</sup>

The EU's four-year PRODECO project, estimated to have cost €23 million,<sup>27</sup> started in 2017, funding operations by a consortium of four organisations in which FSD provided technical support, Humanity and Inclusion (HI) and Mines Advisory Group (MAG) conducted survey and clearance of explosive hazards, and Secours catholique et développement (SECADEV) supported victim assistance. The project was due to conclude in 2021 but as a result of lengthy operating delays in 2020 due to the COVID-19 pandemic it received a no-cost extension and the project formally ended in April 2022.<sup>28</sup> No agreement was reached by Chad with the EU or other international donors and international involvement in mine action has sharply reduced.

HI concluded mine action operations at the end of 2021.<sup>29</sup> MAG continues a weapons and ammunition management programme in Chad but did not conduct survey or clearance in 2022.<sup>30</sup>

# LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

## LAND RELEASE OUTPUTS IN 2022

Chad did not report release of any cluster munition-contaminated area through survey or clearance in 2022. No operations were conducted in Tibesti, which the HCND has identified as the last remaining region with likely CMR contamination.<sup>31</sup>

## ARTICLE 4 DEADLINE AND COMPLIANCE



Chad declared in December 2021 that it had cleared all known areas of CMR contamination<sup>32</sup> and prepared to announce formally the completion of its Article 4 obligations. It subsequently amended that decision and in early 2022 said it would request an extension to its deadline to allow time for non-technical survey of northern Tibesti province. Chad had recognised the region as being among the most heavily contaminated by ERW resulting from conflicts with Libya in 1987–88 but as a result of insecurity in that region Chad acknowledged much of Tibesti had never been surveyed.<sup>33</sup> Chad initially planned to ask for a two-year extension<sup>34</sup> but the request submitted at the end of May only sought an extension of one year.<sup>35</sup> At the Tenth Meeting of States Parties, a thirteen-month extension was granted to 1 October 2024.

23 Article 4 deadline Extension Request, 30 May 2022, p. 4.  
24 Email from Eugenio, Balsini, FSD, 28 April 2022.  
25 Email from HCND, 29 May 2020.  
26 Email from Moussa Soltani, HCND, 30 May 2023.  
27 EU Emergency Trust Fund for Africa, "PRODECO: déminage humanitaire, une approche", 31 January 2022, at: <https://bit.ly/3tHBOY5>.  
28 Emails from Gérard Kerrien, Country Director, MAG, 4 April 2022; and Eugenio Balsini, FSD, 28 April 2022.  
29 Email from Fabrice Lukumu, Business Developer, HI, 11 April 2023.  
30 Email from Melanie Broquet, Regional Programme Manager, Sahel & West Africa, MAG, 7 April 2023; online interview with Helene Kuperman, Regional Head of Programmes Sahel and West Africa, MAG, 3 May 2023.  
31 Email from Moussa Soltani, HCND, 30 May 2023.  
32 Statement of Chad, CCM Intersessional meetings, Geneva, 16 May 2022.  
33 Article 4 deadline Extension Request, 30 May 2022, pp. 3 and 5.  
34 Statement of Chad, CCM Intersessional meetings, Geneva, 16 May 2022.  
35 Article 4 deadline Extension Request, 30 May 2022, p. 1.

Chad proposed to deploy five teams for non-technical survey of 19km<sup>2</sup> in five areas of Tibesti where decades of armed conflict meant there was “a high probability” of finding CMR.<sup>36</sup> Chad said it has sufficient trained capacity to conduct the survey<sup>37</sup> but identified the volatile security situation in the region as a possible obstacle to implementing the proposed plan but also highlighted unstable funding sources as a second key risk to implementation. It said the government was likely to pay salaries of the personnel amounting to an estimated €1,331,520 but was looking to international donors to support operating costs estimated at €115,193. In 2023, Chad estimated personnel costs for 2022–24 at €1.53 million, the HCND’s operating costs at €1.46 million, and the cost of operations for the three years at €12.17 million.<sup>38</sup>

Table 1: Five-year summary of CMR clearance

Year	Area cleared (km <sup>2</sup> )
2022	0
2021	0.74
2020	0.41
2019	1.35
2018	0
Total	2.50

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

There is no active planning for the management of residual contamination.

36 Ibid., p. 4.  
37 Presentation by Djibrine Brahim, Coordinator, HCND, APMBC Intersessional meetings, Geneva, 20 June 2022.  
38 CCM Article 7 Report (covering 2022), Form H.

**ARTICLE 4 DEADLINE: 1 JUNE 2026**  
ON TRACK TO MEET DEADLINE

## KEY DATA

### CLUSTER MUNITION CONTAMINATION: MEDIUM

GOVERNMENT ESTIMATE

**30.77** km<sup>2</sup>

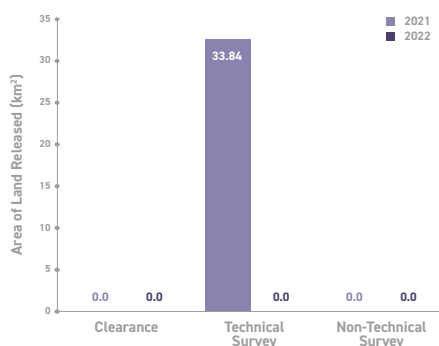
SUBMUNITION  
CLEARANCE IN 2022

**0** km<sup>2</sup>

SUBMUNITIONS  
DESTROYED IN 2022

**0**

## LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

In April 2022, Chile submitted an Article 4 deadline extension request (and a revised request in May), detailing plans for clearance of the remaining areas. There was no land release in 2022 whatsoever as national resources were used to address the COVID-19 pandemic. A new management structure is now in place for the implementation of Chile's clearance obligations under the Convention on Cluster Munitions (CCM). If no land release takes place in 2023, compliance with its CCM Article 4 obligations will be in serious doubt.

## RECOMMENDATIONS FOR ACTION

- Chile should ensure sufficient resources are in place to complete clearance by the extended Article 4 deadline of 1 June 2026.
- Chile should elaborate a gender and diversity policy and implementation plan for its programme of clearance of cluster munition remnants (CMR) and other explosive remnants of war (ERW).

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2022)	Score (2021)	Performance Commentary
<b>UNDERSTANDING OF CMR CONTAMINATION</b> (20% of overall score)	7	7	Chile has a reasonably accurate baseline of CMR contamination following the technical survey (TS) conducted in 2021. This reduced its total estimate of CMR contamination by just over one half, with all contamination now classified in confirmed hazardous areas (CHAs) across four military ranges.
<b>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</b> (10% of overall score)	8	7	A new government department, the Department for the Implementation of Conventions on Explosive Remnants of War (DICOR), was established in February 2022 and made responsible for planning and coordinating CMR clearance. Units of the Chilean armed forces will conduct the clearance. Chile funds its own mine action activities and funds have been allocated for clearance in 2023. Chile plans to fund all of its clearance although budgets in Chile are only approved annually by Congress.
<b>GENDER AND DIVERSITY</b> (10% of overall score)	6	6	Chile has taken steps to mainstream gender across the armed forces with women working at all levels of the mine action programme. However, there was no mention of a Gender Policy in its 2022 request. In March 2022, the Ministry of National Defence appointed gender focal points who will guide the development of the demining programme, and it also created a "Gender Working Group". Chile should also formulate a mine action-specific gender and diversity policy.
<b>INFORMATION MANAGEMENT AND REPORTING</b> (10% of overall score)	6	6	Chile uses the Information Management System for Mine Action (IMSMA) database. Chile has submitted Article 7 reports annually since 2012. In 2022, Chile submitted a request for an additional three-year extension to its Article 4 deadline and provided further information on its extension request as requested by the CCM Article 4 Analysis Group.
<b>PLANNING AND TASKING</b> (10% of overall score)	7	7	Chile included in its 2022 extension request plans to clear all CMR-contaminated area, beginning in the second semester (September) of 2023 and taking up to 31 months (with a five-month contingency period). Chile has also determined its annual clearance targets for land release and the associated resource requirements.
<b>LAND RELEASE SYSTEM</b> (20% of overall score)	5	5	Chile says it is operationally guided by the International Mine Action Standards (IMAS). It has designated survey and clearance responsibility for the CMR-contaminated areas to specific units within the Army, Navy, and Air Force.
<b>LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE</b> (20% of overall score)	4	6	Chile conducted TS during 2021 but achieved no further release of affected areas in 2022. Chile was granted an Article 4 deadline extension for three years to June 2026 during which period it plans to complete clearance of all remaining CMR-contaminated area.
<b>Average Score</b>	<b>5.9</b>	<b>6.2</b>	<b>Overall Programme Performance: AVERAGE</b>

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Division of International Relations, Undersecretary of Defence (Subsecretaría de Defensa, División de Relaciones Internacionales)
- Department for the Implementation of Conventions on Explosive Remnants of War (Departamento de Implementación de Convenciones sobre Restos de Explosivos de Guerra (DICOR))

### NATIONAL OPERATORS

- Demining Units of the Army Corps of Engineers
- Demining Unit of the Navy
- Demining Unit of the Air Force
- Training Centre for Demining and Destruction of Explosives (CEDDEX)

### INTERNATIONAL OPERATORS

- None

### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)

# UNDERSTANDING OF CMR CONTAMINATION

Chile has reported that 30.77km<sup>2</sup> of cluster munition-contaminated area remain in the regions of Arica Parinacota, Tarapacá, and Magallanes and Chilean Antarctica.<sup>1</sup> The initial estimate of the extent of contamination was 97km<sup>2</sup>.<sup>2</sup> In 2019, through non-technical survey (NTS), 32.27km<sup>2</sup> was cancelled. In 2021, through technical survey (TS) Chile reduced the overall estimate by a further 52%.<sup>3</sup> As at the end of 2022, there are four confirmed hazardous areas (CHAs) in four military training ranges (See Table 1).<sup>4</sup>

Contamination is the consequence of use of cluster munitions in exercises in military training ranges. In Arica and Parinacota, MK-II LAR 160 cluster munition rockets were used, while in Tarapacá and Magallanes and Chilean Antarctic CB-250K cluster bombs were dropped.<sup>5</sup> The contaminated areas remain within military enclosures and so are inaccessible to the public.<sup>6</sup> Clearance was carried out after the cluster munitions were detonated and the military exercises were completed so Chile estimates that the remaining CMR contamination will be minimal.<sup>7</sup>

Table 1: Cluster munition-contaminated area by region, as at the end of 2022<sup>8</sup>

Region	Military training range	CHAs containing CMR	Area (m <sup>2</sup> )
Arica and Parinacota	Pampa Chaca Este	1	17,106,753
Tarapacá	Delta	1	11,324,319
Tarapacá	Barrancas	1	906,064
Magallanes and Antártica Chilena	Punta Zenteno	1	1,435,872
Totals		4	30,773,008

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Chile is also affected, to a limited extent, by unexploded ordnance (UXO) other than unexploded submunitions. On 13 November 2020, Chile officially declared completion of mine clearance, having addressed all known mined areas, meeting its extended Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline (see Mine Action Review's *Clearing the Mines* report on Chile for further information).<sup>9</sup>

# NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

In 2022, a new legal structure was put in place to address obligations contracted by Chile as a State Party to the CCM, as well as for other treaties relating to disarmament.<sup>10</sup> The Department for the Implementation of Conventions on Explosive Remnants of War (DICOR) begun functioning in February 2022, which sits under and is funded by the Joint Chief of Staffs of the Chilean Armed Forces. The Ministry of National Defence, via its resolution 1517 of 7 November 2022, approved the Ministerial Directive for the implementation of activities related to clearance as required by the CCM.<sup>11</sup>

The reason for the restructuring was that the previous legal set-up for responding to the obligations related to the APMBC and mine action-related activities did not allow Chile to continue the activities required for implementation of CCM obligations. The National Demining Commission (CNAD) and its Executive Secretariat (SECNAD) ceased to exist at the end of 2020 with Chile's declaration of completion of mine clearance.<sup>12</sup>

1 Chile Article 4 deadline Extension Request, April 2022, Annex 2, pp. 7–8; Responses to the additional observations and comments of the CCM Article 4 analysis group on the updated extension request submitted by Chile, 9 May 2022, Annex 3, p. 3. Chile is divided into 16 Administrative Regions, 56 Provinces and 346 communes. For details, see: <https://bit.ly/3NyLnCK>.

2 2022 Article 4 deadline Extension Request, Annex 2, p. 4.

3 Article 7 Report (covering 2021), Form F; and Article 7 Report (covering 2020), Form J.

4 Email from Valentín Segura Flores, Head of International Cooperation Department, (DCI), Undersecretary of Defence, Ministry of National Defence, 7 June 2023; and telephone interview, 9 June 2023.

5 Article 7 Report (covering 2021), Form F, pp. 5–6.

6 Article 7 Report (covering 1 May 2018 to 30 March 2019), Form F.

7 Responses to the additional observations and comments of the CCM Article 4 analysis group on the updated extension request submitted by Chile, 9 May 2022, Annex 3, pp. 3–4.

8 Email from Valentín Segura Flores, Ministry of National Defence, 7 June 2023.

9 Statement of Chile, APMBC 18th Meeting of States Parties (virtual meeting), 16–20 November 2020.

10 Ministry of National Defence, Ministerial Order 284, 3 February 2022, which reconfigures the organisation and functioning of the Joint Chiefs of Staff. APMBC Article 7 Report (covering 2021), Form J.

11 Article 7 Report (covering 2022), Form A.

12 APMBC, Article 7 Report (covering 2021), Form J; and telephone interview with Valentín Segura Flores, Ministry of National Defence, 9 June 2023.

DICOR is responsible for advising the Joint Chief of Staffs on planning, coordination, management, and control of all activities leading to the clearance and certification of released land contaminated with CMR and other ERW.<sup>13</sup> DICOR coordinates within the armed forces the annual operational, administrative, logistical, financial, and communication activities for CMR clearance and explosive ordnance risk education campaigns (EORE). It is also in charge of managing and keeping up to date the Information Management System for Mine Action (IMSMA) database at the national level.<sup>14</sup>

The Training Centre for Demining and Destruction of Explosives (CEDDEX), which is part of the Army School of Engineers, is responsible for training explosive ordnance disposal (EOD) staff and for quality control (QC) and certification of released areas. It is also responsible for the planning, organisation, and implementation of training for the different branches of the armed forces and for the preparation of international supervisors.<sup>15</sup>

Chile allocated CLP\$22.6 million (approx. US\$27,000) to conduct technical survey during 2021<sup>16</sup> and has estimated it will require US\$1.9 million to complete clearance of CMR from 2023 to 2026, a dramatic reduction from its previous estimate of US\$10.5 million.<sup>17</sup> It expected to be able to fund all its operations from national funding sources, and the State budget for 2023, which includes commencement of clearance in September, was approved by Congress in December 2022.<sup>18</sup> In Chile's latest 2022 Article 4 deadline extension request it reported that US\$818,954 had been requested from the international community to replace demining equipment but Chile has stated that if no external funding can be found it will finance these costs itself.<sup>19</sup>

## ENVIRONMENTAL POLICIES AND ACTION

Chile does not have a policy on environmental management in mine action. In its revised 2022 Article 4 deadline extension request, with respect to environmental implications of the proposed extension, Chile said "There are no environmental implications [for the areas], as they are military estates, which comply with Chilean environmental regulations".<sup>20</sup> In June 2023, however, Chile stated that Law 19.300, which sets out general protections with respect to the environment, including the right to live in an environment free of contamination, applies to all clearance and destruction of explosive ordnance.<sup>21</sup>

## GENDER AND DIVERSITY

In 2007, the first woman was appointed as Manual Demining Section Commander in Arica. In May 2018, a woman was appointed as Demining Company Commander in Arica. Chile has made it easier for women to work in the sector by, for example, adapting demining equipment to better suit female specifications, providing childcare, and eliminating the gender wage gap.<sup>22</sup> Chile reported that in 2019, of the 246 personnel carrying out roles within the demining units, only 10 (4%) were women. This included two demining section commanders and four women in support roles (one medic, two nurses, and one paramedic).<sup>23</sup>

In a positive step, Chile stated in its 2020 CCM Article 4 deadline extension request that due to the increasing importance of implementing gender perspectives in the field of disarmament, the Ministry of National Defence

will promote women to the teams that will conduct CMR clearance.<sup>24</sup> In its Revised Article 4 deadline extension request submitted in May 2022, Chile includes information on the two women who have occupied leadership roles within the demining units. It also states that women worked in the EOD units of the Army and Air Force during technical survey operations conducted in 2021 but does not detail the number of women or their specific roles.<sup>25</sup>

Currently, the Minister of National Defence is a woman: Maya Fernández Allende. All military and strategic planning operations carried out by the Ministry of National Defence are implemented with an inclusive and non-discriminatory approach, which allows the full integration of women in all phases and tasks of defence. Furthermore, to ensure standards of inclusion and non-discrimination, the ministerial

13 Email from Valentín Segura Flores, Ministry of National Defence, 7 June 2023.

14 Ibid.; and telephone interview, 9 June 2023.

15 Email from Valentín Segura Flores, Ministry of National Defence, 7 June 2023.

16 Article 7 Report (covering 2021), Form I.

17 2022 Article 4 deadline Extension Request, pp. 7–8; and 2021 Article 4 deadline Extension Request, p. 3.

18 2022 Article 4 deadline Extension Request, pp. 7–8; and telephone interview with Valentín Segura Flores, Ministry of National Defence, 20 June 2023.

19 Article 4 deadline Extension Request, April 2022, pp. 9–10; and Revised 2022 Article 4 deadline Extension Request, May 2022, p. 14.

20 Revised 2022 Article 4 deadline Extension Request, p. 6.

21 Email from Valentín Segura Flores, Ministry of National Defence, 7 June 2023.

22 Statement of Chile during the Thematic Discussion on Integrating Gender into Mine Action, APMBIC Intersessional meetings, 23 May 2019; and emails from Col. Juan José López Demuth, Executive Secretary, CNAD, 22 and 27 June 2019.

23 Email from Carlos Rivera Bugueño, Senior Sub-Officer, CNAD, 6 August 2020.

24 2020 Article 4 deadline Extension Request, p. 6; and Revised Article 4 deadline Extension Request, July 2020, p. 5.

25 Revised Article 4 deadline Extension Request, May 2022, p. 21.

structure has a Gender Liaison Network with focal points and a gender working group that includes the participation of delegates from each of the Armed Forces and the Joint Chiefs of Staff, as well as a delegate who acts as the gender focal point of the international ministerial agenda. These structures are responsible for dealing with possible situations that are detrimental to the principles of equality and discrimination. In this context, research is being conducted with a view to addressing barriers to women's participation in the military along with co-responsibility policies to facilitate childcare.<sup>26</sup>

According to the Chilean authorities, the gender approach of the ministerial policy on national defence is clearly represented by the participation of women in the humanitarian demining process, within the framework of the CCM. All military personnel who join the EOD Units of the Armed Forces, do so voluntarily; therefore, the inclusion of men or women in the EOD Units is a personal decision. The Ministry of National Defence's commitment to gender equity encompasses all its dependent agencies, including the EOD Units of the Armed Forces.<sup>27</sup>

## INFORMATION MANAGEMENT AND REPORTING

Since 2003, Chile has been using IMSMA as its national mine action database. Since 2017, it has been using IMSMA New Generation (NG) after starting the MARS (Mine Action Reporting System) application that replaced IMSMA Mobile. This application has, CNAD said, equipped Chile with high-quality geographic information to support decision-making on clearance.<sup>28</sup> This system was deployed in 2019 alongside NTS with a view to calculating the area of possible CMR contamination.<sup>29</sup> Since February 2022, DICOR has been managing IMSMA at the national level. During land release operations, IMSMA functions as a client server, in which the EOD units feed the system directly with data from field operations. The information is currently recollected via MARS. DICOR receives technical support from the Geneva International Centre for Humanitarian Demining (GICHD) for IMSMA and MARS.<sup>30</sup>

Chile has submitted its Article 7 transparency report every year since 2012 and the reports are generally accurate and timely. In April 2022, Chile submitted its third Article 4 deadline extension request through to June 2026 and then submitted a revised extension request following feedback from the Article 4 Analysis Group in May 2022. The requests are generally of good quality and were submitted in a timely manner.

## PLANNING AND TASKING

The 2022 ministerial directive addresses the planning of clearance operations for 2023–26. According to Chile's 2022 Article 4 extension request plan, clearance was due to start in the second semester of 2023, and more specifically, in September 2023 in Punta Zenteno Military Range Polygon, Punta Arenas, Magallanes and Chilean Antarctic Region.<sup>31</sup> Table 2 shows the updated clearance plan until completion in 2026.

**Table 2: Planned clearance of cluster munition-contaminated areas (2023–26) (m<sup>2</sup>)<sup>32</sup>**

Region and Military Range	2023	2024	2025	2026	Months	Total CHA (m <sup>2</sup> )
"Pampa Chaca Este" (Arica y Parinacota)	0	4,414,646	6,621,969	6,070,138	31	17,106,753
"Delta" (Tarapacá)	0	0	6,794,591	4,529,728	20	11,324,319
"Barrancas" (Tarapacá)	0	906,064	N/A	N/A	3	906,064
"Punta Zenteno" (Magallanes y Antártica Chilena)	1,435,872	0	N/A	N/A	4	1,435,872
<b>Totals</b>	<b>1,435,872</b>	<b>5,320,710</b>	<b>13,416,560</b>	<b>10,599,866</b>		<b>30,773,008</b>

26 Ibid; and telephone interview with Valentín Segura Flores, Ministry of National Defence, 9 June 2023.

27 Emails from Valentín Segura Flores, Ministry of National Defence, 1 June 2022 and 7 June 2023; and telephone interview, 9 June 2023. See also Gender Policy of Chile at: <https://bit.ly/3XgobN0>.

28 Email from Col. Andres Caceres Cuadra, CNAD, 12 July 2018.

29 Revised Article 4 deadline Extension Request, July 2020, p. 4.

30 Email from Valentín Segura Flores, Ministry of National Defence, 7 June 2023.

31 Telephone interview with Valentín Segura Flores, Ministry of National Defence, 20 June 2023; and email, 7 June 2023.

32 Revised Article 4 deadline Extension Request, May 2022, p. 18.

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Chile is guided by the International Mine Action Standards (IMAS).<sup>33</sup> In addition to the IMAS, Chile also follows the provisions and regulations as set out in the "Humanitarian Demining Manual of the Chilean Army" and the "EOD Procedures Manual".<sup>34</sup>

### OPERATORS AND OPERATIONAL TOOLS

Survey and clearance of explosive ordnance are conducted by the EOD Units of the Army Corps of Engineers, the Navy, and the Air Force.<sup>35</sup> For the Pampa Chaca Este and the Delta military ranges, two EOD units of 15 personnel each will be assigned for clearance at each range. For the Barrancas and Punta Zenteno military ranges, one EOD unit of 15 personnel will be assigned for clearance at each range. This does not include the logistical and administrative support that accompanies each unit.<sup>36</sup> Table 3 below shows updated information for 2023, where the EOD Unit numbers 17 instead of the 15 named in the 2022 Article 4 deadline extension request. The new figure was provided to Mine Action Review in June 2023, but without explanation for the increase.<sup>37</sup>

**Table 3: Operational survey and clearance capacities for 2023<sup>38</sup>**

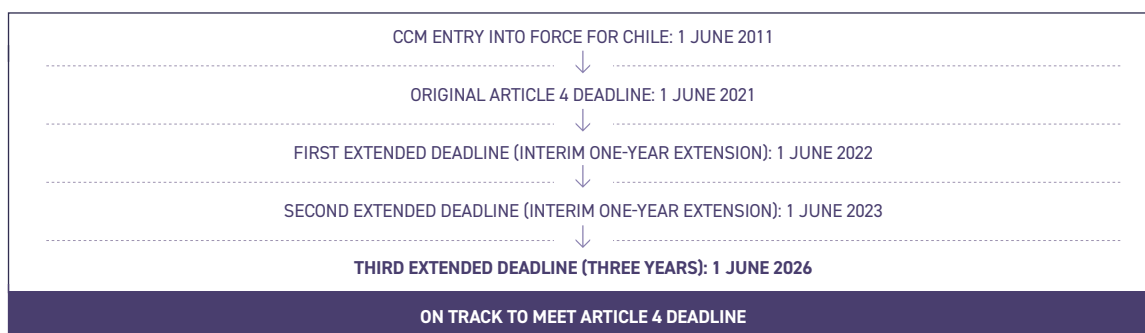
Region and Military Range polygon	Operator	Teams	Total personnel	Comments
"Punta Zenteno" Magallanes y Antártica Chilena	EOD Unit Chilean Navy	1	17	Total CMR survey and clearance personnel of the Navy EOD Unit is 17, qualified to conduct clearance, TS, and NTS.
<b>Totals</b>	<b>1 EOD Unit</b>	<b>1</b>	<b>17</b>	

## LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

### LAND RELEASE OUTPUTS IN 2022

No area was released through survey or clearance in 2022.<sup>39</sup> In 2021, Chile reduced almost 33.84km<sup>2</sup> of CMR-contaminated area through TS.<sup>40</sup> In 2019, it cancelled 32.27 km<sup>2</sup> through NTS.<sup>41</sup>

### ARTICLE 4 DEADLINE AND COMPLIANCE



33 Article 7 Report (covering 2018), Form F; and 2022 Article 4 deadline Extension Request, p. 11; and telephone interview with Valentín Segura Flores, Ministry of National Defence, 9 June 2023.

34 Article 7 Report (covering 2018), Form F; and Revised Article 4 deadline Extension Request, July 2020, p. 6; email from Valentín Segura Flores, Ministry of National Defence, 7 June 2023.

35 Email from Carlos Rivera Bugueño, CNAD, 6 August 2020.

36 2022 Article 4 deadline Extension Request, p. 12.

37 Email from Valentín Segura Flores, Ministry of National Defence, 7 June 2023; and telephone interview, 20 June 2023.

38 Ibid.

39 Responses to the additional observations and comments of the CCM Article 4 analysis group on the updated extension request submitted by Chile, 9 May 2022, Annex 4, pp. 7–9.

40 Article 7 Report (covering 2021), Form F, p. 7.

41 Ibid. p. 6.

Under Article 4 of the CCM (and in accordance with the extension granted in 2022), Chile is required to destroy all cluster munition remnants in cluster munition-contaminated areas under its jurisdiction or control as soon as possible, but not later than 1 June 2026.

Chile was granted a second interim extension request at Part 2 of the Second CCM Review Conference in September 2021. In April 2022, Chile submitted a third extension request to 1 June 2026 during which time Chile plans to clear all the contaminated area remaining. Chile conducted TS in late 2021, reducing the contamination estimate by just over one half. In May 2022, Chile submitted a revised extension request, providing additional information to the Article 4 Analysis Group in response to their concerns that the amount of clearance capacity Chile was allocating to each site was not sufficient to meet the annual clearance targets. However, as Chile has already conducted military clearance of these sites in the past, it is expected that the actual remaining CMR contamination will be low. During the Tenth Meeting of State Parties to the CCM, Chile was granted its third extension, setting its Article 4 deadline at 1 June 2026.

Chile did not release any cluster munition-contaminated area between its CCM entry into force in June 2011 and the start of NTS in 2019. It is hard to see how this is compliant with the duty to clear CMR as soon as possible under Article 4 of the CCM. During this period Chile instead focused its efforts on implementation of Article 5 of the APMBC, completing anti-personnel mine clearance in February 2020.

Table 4: Five-year summary of CMR clearance

Year	Area cleared (km <sup>2</sup> )
2022	0
2021	0
2020	0
2019	0
2018	0
Total	0

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

As CMR contamination is solely located in military training ranges, once clearance has been completed, the ranges will continue to be used for military training with different types of ordnance. Clearance will be carried out by the EOD units with the Armed Forces once each training exercise has been completed.<sup>42</sup>

42 Emails from Valentin Segura Flores, Ministry of National Defence, 1 June 2022 and 7 June 2023.

**ARTICLE 4 DEADLINE: 1 AUGUST 2025**  
NOT ON TRACK TO MEET DEADLINE

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

**5.28<sub>KM<sup>2</sup></sub>**

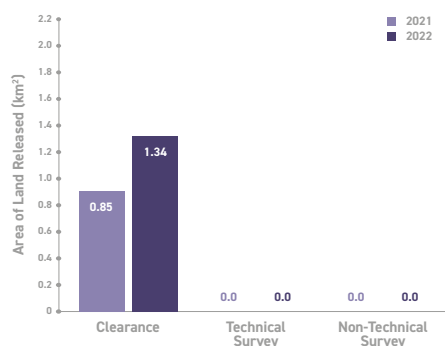
SUBMUNITION  
CLEARANCE IN 2022

**1.34<sub>KM<sup>2</sup></sub>**

SUBMUNITIONS  
DESTROYED IN 2022

**1,187**

### LAND RELEASE OUTPUT



### KEY DEVELOPMENTS

In 2022, Germany more than doubled its clearance output from the previous year but still fell short of its clearance target for the year. Germany has reported that it is now at full clearance capacity but will need to increase its clearance output further still in 2023 in order to have a chance of meeting its Article 4 deadline of August 2025.

### RECOMMENDATIONS FOR ACTION

- Germany should improve its reporting by ensuring that its annual Convention on Cluster Munitions (CCM) Article 7 transparency report complies with the treaty requirements, by reporting the annual cluster munition remnants (CMR) clearance output for the reporting period rather than just a cumulative total.
- Germany should produce an updated work plan with revised annual clearance targets to 2025 based on current capacities.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2022)	Score (2021)	Performance Commentary
<b>UNDERSTANDING OF CMR CONTAMINATION</b> (20% of overall score)	8	8	Germany has a good understanding of the extent of its sole CMR-contaminated area in a former Soviet military training area at Wittstock in the east of the country. Due to the lack of detailed data on the use of weapons at the site, and the significant amount of other explosive remnants of war (ERW), Germany has not been able to determine the exact extent and density of CMR.
<b>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</b> (10% of overall score)	8	8	There is strong national ownership and commitment to release the sole CMR-contaminated area. Roles and responsibilities for clearance are clear, coherent, and entirely funded by the federal government, albeit at high cost.
<b>GENDER AND DIVERSITY</b> (10% of overall score)	7	7	There is equal access to employment for qualified women and men for explosive ordnance disposal (EOD), including of CMR, although women make up only a small proportion of the sector. At the end of 2022, between 10% and 17% of operational roles were filled by women, while in the on-site project management and clearance supervision company 40% of employees were women. This is slightly higher than in 2021.
<b>INFORMATION MANAGEMENT AND REPORTING</b> (10% of overall score)	8	8	Germany submits timely and accurate Article 7 reports, but it continues to report solely cumulative clearance output to date, rather than annual clearance output, as the CCM requires.
<b>PLANNING AND TASKING</b> (10% of overall score)	7	8	While Germany does not have a national mine action strategy, it does have a completion plan in place to address the remaining CMR contamination and it elaborates annual work plans, which it adjusts according to capacity and output.
<b>LAND RELEASE SYSTEM</b> (20% of overall score)	8	8	Germany has now reached its maximum clearance capacity with between 184 to 194 demining personnel deployed in 2022. Demining at Wittstock is primarily conducted manually due to the high levels of other ERW at the site, which restricts the use of technical survey (TS) and the full application of mechanical assets.
<b>LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE</b> (20% of overall score)	6	5	In 2022, Germany cleared 1.34km <sup>2</sup> of cluster munition-contaminated area, a 58% increase on the previous year. Its clearance output, however, continues to fall behind its annual land release targets and, as it is currently working at full capacity, it is unclear how Germany will manage to increase clearance output to the levels needed to meet its Article 4 deadline.
<b>Average Score</b>	<b>7.4</b>	<b>7.3</b>	<b>Overall Programme Performance: GOOD</b>

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- The Wittstock site is administrated and project managed by the Federal Forestry Agency as a subdivision of the Institute for Federal Real Estate (BImA), with support from the Central Office of the Federal Government for UXO Clearance and a consulting engineer.

### NATIONAL OPERATORS

- Commercial UXO clearance contractors: Röhl Munitionsbergung GmbH (Brandenburg (Havel)); Schollenberger Kampfmittelbergung GmbH (Celle); and SafeLane Global GmbH (Ludwigsfelde).
- On-site project management/clearance supervision company: IB Winkelmann.
- Destruction of CMR and other ordnance is the ultimate responsibility of the Brandenburg state explosive ordnance disposal (EOD) agency: KMBD.

### INTERNATIONAL OPERATORS

- None

### OTHER ACTORS

- None

## UNDERSTANDING OF CMR CONTAMINATION

As at the end of 2022, Germany reported 5.28km<sup>2</sup> of remaining cluster munition-contaminated area at a former Soviet military training area at Wittstock, Brandenburg, in former East Germany.<sup>1</sup> This is a reduction from the figure of 6.62km<sup>2</sup> reported for the end of 2021,<sup>2</sup> which is the result of clearance in 2022.

A wide range of Soviet-era submunitions have been found at Wittstock: AO-1 SCh, AO-1 M, AO-2.5, AO-2.5 RTM, AO-10 SCh, ShOAB-0.5, PTAB-1, PTAB-1 M, PTAB-2.5 M, PTAB-2.5 TG, PTAB-10.5, ZAB 1-E, ZAB 2.5M, ZAB 2.5 S, and ZAB 2.5.<sup>3</sup>

CMR were discovered “by chance” at Wittstock and declared at the CCM intersessional meetings in June 2011.<sup>4</sup> From 2011 to early 2014, suspected CMR contamination was reported to total 4km<sup>2</sup>.<sup>5</sup> In August 2014, however, Germany reported that the total suspected hazardous area (SHA) was actually 11km<sup>2</sup>.<sup>6</sup> The increased estimate was ascribed to discovery of submunitions during non-technical survey (NTS) across a wider area than previously reported.<sup>7</sup> According to Germany, the dense vegetation cover and the special hazards posed by CMR and other explosive ordnance precluded the conduct of technical survey over the SHA.<sup>8</sup>

The entire Wittstock site, which extends over 120km<sup>2</sup>, is heavily contaminated with various kinds of unexploded ordnance (UXO), in varying spatial distribution and overlapping contamination, as a result of use of the site for military training purposes in 1952–93.<sup>9</sup> The 11km<sup>2</sup> of CMR contamination is in the area of a mock airfield within the site, which was used by the air force for bombing practice; by the army for artillery firing exercises; as well as for general military exercises and training. Usage involved a wide range of munitions over a period of four decades. Only general information on historical use of cluster munitions at the site is available and the degree of contamination from submunitions and other UXO is not known for a large part of the hazardous area.<sup>10</sup>

In early October 2011, ownership of Wittstock was transferred from the military to the federal government authority in charge of real estate, Institute for Federal Real Estate (BImA). BImA implemented a risk education programme that included marking the perimeter and preventing civilian access to the area, based on a “danger prevention plan”.<sup>11</sup>

Persistent delay in initiating clearance of CMR at Wittstock until March 2017<sup>12</sup> was ascribed to extensive preliminary work needed to prepare the area for CMR clearance. Due to the dense vegetation in the contaminated area, Germany opted to burn the area in sections, to ensure an unobstructed view of the ground.<sup>13</sup> Preparation for burning and clearance in turn necessitated a desk study and creation of an evacuation and access road network in 2013–15, to make the SHA accessible for clearance operators.<sup>14</sup>

This was followed in 2015–16 by the creation and maintenance of an internal site-wide system of firebreaks surrounding and subdividing the area suspected to be contaminated with CMR, to prevent uncontrolled forest fires during prescribed burning of the CMR-contaminated area.<sup>15</sup> Owing to contamination from large items of UXO, the fire-breaks were created using an unmanned, remote-controlled caterpillar by an explosive ordnance disposal (EOD) contractor in 2016.<sup>16</sup> This was completed in 2016, with the exception of a small forested area on the eastern edge of the SHA.<sup>17</sup>

The prescribed burning of the first sections of the SHA started in 2017 and will continue periodically to prepare land for clearance. It requires special meteorological conditions to keep the fire under control, and, as such, prescribed burning can only take place on a few days each year.<sup>18</sup>

1 Article 7 Report (covering 2022), Form F; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 25 May 2023.

2 Article 7 Report (covering 2021), Form F.

3 Ibid.

4 Statement of Germany, Anti-Personnel Mine Ban Convention (APMBC) intersessional meetings (Standing Committee on Mine Action), Geneva, 21 June 2011; and Statement of Germany, CCM intersessional meetings (Clearance and Risk Reduction Session), Geneva, 28 June 2011.

5 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 7 May 2018; and Statement of Germany, CCM Third Meeting of States Parties, Oslo, 13 September 2012; Article 7 Reports (covering 2012 and 2013), Form F.

6 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 4 August 2014.

7 Statement of Germany, First CCM Review Conference, Dubrovnik, 7 September 2015.

8 CCM Article 4 deadline Extension Request, 2019 (hereafter, CCM Article 4 Extension Request 2019), p. 9.

9 Emails from official on the Desk for Conventional Arms Control, Federal Foreign Office, 7 May and 12 July 2018; CCM Article 4 Extension Request 2019, p. 11; Statements of Germany, First CCM Review Conference, Dubrovnik, 7 September 2015; CCM Eighth Meeting of States Parties, Geneva, 3–5 September 2018; and Article 7 Report (covering 2021), Form F.

10 CCM Article 4 Extension Request 2019, p. 9.

11 Statement of Germany, APMBC Intersessional meetings, Geneva, 23 May 2012; and CCM Article 7 Report (covering 2011), Form G.

12 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 5, at: <http://bit.ly/2DnYvGw>.

13 Article 7 Reports (covering 2015, 2018, and 2021), Form F.

14 CCM Article 4 Extension Request 2019, pp. 16 and 36–37.

15 Ibid., pp. 14, 16–17, and 36–37.

16 Ibid., p. 19; email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 19 April 2017; and Article 7 Report (covering 2016), Form F.

17 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 19 April 2017; and Article 7 Report (covering 2016), Form F.

18 CCM Article 4 Extension Request 2019, p. 22.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Germany has full national ownership of its land release efforts. The Wittstock site is administrated and project managed by the Federal Forestry Agency as a subdivision of the BImA. The BImA is an institution incorporated under public law and which is wholly owned by the federal government.<sup>19</sup> The Federal Forestry Agency's responsibilities include project coordination and control, risk management, and budget planning. Support is provided by the Central Office of the Federal Government for UXO Clearance and a consulting engineer.<sup>20</sup> Commercial UXO clearance contractors are contracted and managed by the local branch of the Federal Forestry Agency, Bundesforstbetrieb West Brandenburg.<sup>21</sup> The Regulatory Agency of the County of Ostprignitz-Ruppin is responsible for public security under the police law of the federal state of Brandenburg.<sup>22</sup>

In Germany, the clearance and disposal of UXO is a security task that is under the control of the police and administrative legislation and is therefore the responsibility of the respective federal states. Almost all federal states have set up a corresponding state agency for EOD for these tasks. In Brandenburg, this is the KMBD (an abbreviation

for, in English, the Brandenburg state war material disposal service), which is part of the Brandenburg police. Under German legislation, the federal government is not allowed to maintain an agency for EOD.<sup>23</sup> Contracting foreign companies for CMR clearance in Wittstock is also not possible under German law.<sup>24</sup> SafeLane Global, an international commercial clearance contractor, has been registered and operational in Germany since 2018, and was therefore eligible to bid for the tender.<sup>25</sup>

All CMR clearance costs are paid for by the federal BImA. National funding to complete CMR clearance has been fully secured and is said to cover unforeseen cost increases. CMR clearance costs have increased substantially year on year from just over €1.6 million in 2017 to €12.9 million in 2020,<sup>26</sup> €21.4 million in 2021, and €32.1 million in 2022.<sup>27</sup> This in part reflects the upscaling of clearance operations and Germany reported that it expected the significant increase in costs from 2021 due to price inflation as part of the new tender.<sup>28</sup> Germany anticipates that an additional €100 million will need to be spent to complete clearance of Wittstock, bringing the total clearance cost to €157 million.<sup>29</sup>

## ENVIRONMENTAL POLICIES AND ACTION

According to Germany, environmental considerations are taken into account in the federal "Guidelines for the Clearance of Explosive Ordnance". At Wittstock, close coordination is reported to have been established with relevant and responsible authorities with respect to environmental aspects during planning and execution of clearance work, to assure that negative effects are avoided. The burning of the heath is a necessary step before any clearance can take place, and strict environmental regulations are enforced. These regulations include conducting the burning outside bird breeding seasons, and when the ground fauna, such as insects and lizards, are in their hibernation habitats to prevent any adverse effects from the burning. The burning, followed by the ploughing of the topsoil, deprives the vegetation of nutrients which contributes to a NATURA 2000 objective to preserve the native flora as it has adapted to

dry, nutrient-poor soil conditions.<sup>30</sup> However, there are also environmental implications of vegetation burning, including the resultant carbon emissions. Once safely released, the site is due to remain part of a "nature protection area" in the Kyritz-Ruppiner-Heide, managed by BImA as part of the Europa NATURA 2000 site, under the European Union (EU) Habitats Directive.<sup>31</sup>

Another aspect of environmental protection is associated with EOD. Only explosive ordnance that is too hazardous to transport is destroyed on site, primarily consisting of cluster munitions and certain types of bombs. The remaining explosive ordnance will be disposed of by the clearance service "in a skilled and environmentally responsible manner."<sup>32</sup>

19 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 5.

20 Ibid.

21 Ibid.

22 Ibid., p. 6.

23 CCM Article 4 Extension Request 2019, p. 12.

24 Ibid., p. 34.

25 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 24 June 2022.

26 Article 7 Report (covering 2020), Form I; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021.

27 Article 7 Report (covering 2022), Form I; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 25 May 2023.

28 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 4.

29 Presentation of Germany, CCM Intersessional meetings, Geneva, 31 August 2022.

30 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 18 July 2023.

31 APMBC Article 5 deadline Extension Request, 15 April 2013, p. 7; and CCM Article 7 Report (covering 2015), Form F.

32 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 18 July 2023.

## GENDER AND DIVERSITY

Although there is equal access to employment for qualified women and men for EOD clearance in Germany, women only make up a small proportion of the sector, especially in terms of the number of qualified female EOD technicians with a licence for commercial EOD.<sup>33</sup> As at the end of 2022, as Table 1 illustrates, the proportion of women in operational roles was between 10% and 17%, while IB Winkelmann, the on-site project management/clearance supervision company had 40% female staff.<sup>34</sup> This is slightly higher than the proportions of women employed in 2021.

**Table 1: Gender composition of operators in 2022<sup>35</sup>**

Operator	Total staff	Women employed	Total staff in managerial or supervisory positions	Women in managerial or supervisory positions	Total staff in operational positions	Women in operational positions
Röhl Munitionsbergung GmbH (Brandenburg/Havel)	88	14	6	1	88	13
Schollenberger Kampfmittelbergung GmbH (Celle)	78	9	6	2	72	7
SafeLane Global GmbH (Ludwigsfelde)	46	7	5	0	41	7
IB Winkelmann	5	2	5	2	0	0

## INFORMATION MANAGEMENT AND REPORTING

Germany uses its own information management system to record the special distribution of CMR, including use of a geographic information system (GIS).<sup>36</sup>

Germany provides regular updates on its progress in Article 4 implementation, both in its annual Article 7 reports and in statements at the Meeting of States Parties. However, in its Article 7 report for 2022,<sup>37</sup> Germany again reported cumulative clearance output for 2017–22, rather than the annual clearance output for the year, as the Convention requires.

## PLANNING AND TASKING

Due to the fact that cluster munition contamination is limited to Wittstock, Germany does not have a national mine action strategy for CCM Article 4 implementation.<sup>38</sup> Germany did, however, submit a detailed and timely Article 4 deadline extension request, which was considered and granted by States Parties at the Ninth Meeting of States Parties in 2019. Based on clearance projections of 1.5–2km<sup>2</sup> per year, CMR clearance was expected to be completed by the end of 2024, with associated documentation to be finalised in 2025.<sup>39</sup> Clearance rates envisaged in Germany's Article 4 extension request have fallen short of these projections, but annual, evidence-based work plans are elaborated which provide the basis for clearance, and which are adjusted if and when required (such as upscaling demining capacity).<sup>40</sup>

A project coordination committee meets on a weekly basis with its core members, and each month with an extended group, to assess the status of clearance progress as well as the quality of clearance, costs, and milestones compared to the project plans. Fortnightly reports are disseminated to document clearance and progress.<sup>41</sup>

33 Emails from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020 and 10 May 2021.

34 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 25 May 2023.

35 Ibid.

36 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 16 April 2019.

37 Article 7 Report (covering 2022), Form F.

38 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

39 CCM Article 4 Extension Request 2019, p. 3.

40 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

41 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 3; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.

Nature conservation requirements limit the controlled burning to a maximum of 200–300 hectares (2–3km<sup>2</sup>) annually, which, for safety reasons and environmental concerns, is limited to a few days per year. Germany plans to burn approximately 250 hectares (2.5km<sup>2</sup>) per year, to build up a reserve of burnt areas for clearance.<sup>42</sup> In 2022, 1.4km<sup>2</sup> was burned in the north-eastern part of the clearance site.<sup>43</sup> The positive effects of burning only last for up to two years before the heath grows back more densely than before.<sup>44</sup>

Germany planned to clear 1.5km<sup>2</sup> of cluster munition-contaminated area in 2022 but fell short of the target with 1.34km<sup>2</sup> cleared.<sup>45</sup> Detailed planning of the specific sections of the CMR-contaminated area to be cleared is not possible beyond annual planning, because it is determined by the location of areas that have been burnt, which in turn is contingent on weather conditions on the day of burning.<sup>46</sup>

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## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

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CMR clearance in Germany is conducted in accordance with German federal legislation and legislation of the state of Brandenburg, occupational safety standards of the German Statutory Accident Insurance Association (Deutsche Gesetzliche Unfallversicherung, DGUV), and the construction technical guidelines on UXO clearance of the federal government (Baufachlichen Richtlinien Kampfmittelräumung des Bundes). According to Germany, federal and state legislation is binding and takes precedence over the application of international health and safety or technical standards.<sup>47</sup>

The “Guidelines for the Clearance of Unexploded Ordnance on Federal Properties” are the legal basis for the clearance of UXO on federal government properties and thus apply to action on the Wittstock site. In addition, site-specific work instructions, approved by the KMBD, include detection of UXO (instruments and their use); handling of submunitions and other UXO (on-site transport, storage, and disposal); and documentation.<sup>48</sup> These guidelines are updated on an ongoing basis, for instance to include new technical and safety aspects.<sup>49</sup>

The entire area suspected to be contaminated with CMR has been divided into 50 x 50 metre boxes, each of which is subject to prescribed burning, followed by subsurface clearance.<sup>50</sup> CMR clearance started in an area where the occurrence of CMR was known from earlier finds, and was conducted outwards in 50 x 50 metre boxes. According to Germany, CMR have been found in almost every parcel cleared, and therefore technical survey has not been deemed useful thus far. Germany has declared that if, during future clearance, areas are often encountered which do not contain CMR, the method of land release will be changed to technical survey.<sup>51</sup> The smallest target for detector sensitivity for clearance has been defined as a half sphere of a ShoAB-0.5 submunition.<sup>52</sup>

Under state regulation of war material (“Kampfmittelverordnung”), the transport and disposal of explosive ordnance in Brandenburg state is the sole responsibility of the KMBD.<sup>53</sup>

### OPERATORS AND OPERATIONAL TOOLS

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In Germany, site clearance (search, discovery, identification, recovery, and preparation for handover to state agencies for demolition) is typically conducted by commercial contractors that meet the requirements of the law on explosives. Two commercial UXO clearance contractors won the original public tender for CMR clearance at Wittstock: Röhl Munitionsbergung GmbH (Brandenburg (Havel)) and Schollenberger Kampfmittelbergung GmbH (Celle).<sup>54</sup> A third contractor, SafeLane Global (Ludwigsfelde), was hired in late 2021, following a new tender for the period 2021–25.<sup>55</sup> As a result, in 2022, clearance capacity had increased to between 184 to 194 full-time personnel.<sup>56</sup>

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42 CCM Article 4 Extension Request 2019, p. 35.

43 Virtual meeting with official on the Desk for Conventional Arms Control, Federal Foreign Office, 15 June 2023.

44 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 22 June 2022.

45 Article 7 Reports (covering 2022), Form F; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

46 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 3.

47 Ibid., p. 2.

48 CCM Article 4 Extension Request 2019, p. 12.

49 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

50 CCM Article 4 Extension Request 2019, p. 25.

51 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 2.

52 Ibid.

53 2019 CCM Extension Request, p. 12.

54 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 5.

55 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

56 Article 7 Report (covering 2022), Form F.

**Table 2: Operational clearance capacities deployed in 2022<sup>57</sup>**

Operator	Clearance teams	Total clearance personnel*	Mechanical assets**
Röhl Munitionsbergung GmbH (Brandenburg/Havel)	7-9	78-82	7
Schollenberger Kampfmittelbergung GmbH (Celle)	6-8	68-72	7
SafeLane Global GmbH (Ludwigsfelde)	4-5	38-40	3
<b>Totals</b>	<b>17-22</b>	<b>184-194</b>	<b>17</b>

\* Excluding team leaders, medics, drivers, etc. \*\* Excluding vegetation cutters and sifters.

Germany said that the reason for the increase in EOD capacity was in order to ensure the timely completion of clearance at Wittstock. Germany believes that the maximum capacity at Wittstock has now been reached, due to necessary safety and security precautions.<sup>58</sup> On-site project management and supervision are provided by a separate company.<sup>59</sup> A consulting engineer supports and advises the project management and coordination of the Federal Forestry Agency. He also supports and controls the work conducted on the site.<sup>60</sup> As previously mentioned, disposal, whether through destruction or other means, is conducted by the KMBD.<sup>61</sup>

In 2023, Germany expected a decrease in the amount of personnel available following the termination of SafeLane Global's contract on 1 January 2023. To compensate for this the number of staff contracted by the other two operators is planned to increase.<sup>62</sup>

Subsurface CMR clearance at Wittstock is conducted only manually. According to federal guidelines, while mechanical clearance would be possible for clearance of CMR, it is not possible at Wittstock. This is due to the large calibre of some of the munitions present (large quantities of air-dropped and shaped-charge munitions), which would pose a hazard to both the operators and the equipment. Mechanical clearance is also limited due to environmental regulations as Wittstock, as it is part of a nature reserve.<sup>63</sup>

## LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

### LAND RELEASE OUTPUTS IN 2022

A total of almost 1.34km<sup>2</sup> of CMR-contaminated area was cleared in 2022, with the destruction of 1,187 submunitions. No area was released through survey.<sup>64</sup>

### SURVEY IN 2022

No CMR-contaminated area was cancelled through non-technical survey or reduced through technical survey in 2022, or in the previous year.<sup>65</sup>

<sup>57</sup> Ibid.

<sup>58</sup> Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

<sup>59</sup> Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 5.

<sup>60</sup> Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 18 July 2023.

<sup>61</sup> CCM Article 4 Extension Request 2019, p. 12.

<sup>62</sup> Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 25 May 2023.

<sup>63</sup> CCM Article 4 Extension Request 2019, p. 15; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 22 June 2022.

<sup>64</sup> Article 7 Reports (covering 2022), Form F.

<sup>65</sup> Article 7 Reports (covering 2022 and 2021), Form F.

CLEARANCE IN 2022

The clearance total in Germany's Article 7 report for 2022 was 1,339,200m<sup>2</sup>, destroying in the process 1,187 submunitions either in situ or in a nearby demolition site.<sup>66</sup> Germany provided only a cumulative clearance output from 2017 to 2022 inclusive and from this it is possible to calculate the annual output by calculating the difference between the cumulative output (and number of submunitions destroyed) reported as at the end of 2022 and the figures for the end of 2021. In addition, a further 209,600m<sup>2</sup> was cleared by operators in 2022 outside the CMR-contaminated area, for reasons of fire protection and in order to allow for clearance at the contaminated sites.<sup>67</sup>

The clearance total differs slightly from the figures provided by Germany to Mine Action Review at 1,338,000m<sup>2</sup> due to rounding by operators, see Table 3, which is a more detailed breakdown of the clearance output then provided in the Article 7 report.<sup>68</sup>

Table 3: CMR clearance in 2022<sup>69</sup>

Operator	Area cleared (m <sup>2</sup> )	Submunitions destroyed
Röhl Munitionsbergung GmbH (Brandenburg/Havel)	564,000	300
Schollenberger Kampfmittelbergung GmbH (Celle)	371,000	629
SafeLane Global GmbH (Ludwigsfelde)	403,000	258
Totals	1,338,000	1,187

Clearance output in 2022 was a 58% increase on that achieved in the previous year, when 0.85km<sup>2</sup> of CMR-contaminated area was cleared with the destruction of 466 submunitions.<sup>70</sup> This was due to the increased capacity of personnel and a reduced impact from COVID-19.<sup>71</sup> In addition to the submunitions destroyed, operators have also destroyed or recycled 36,158 items of UXO.<sup>72</sup>

CMR clearance is subject to internal quality control (QC) by the commercial contractors and to external QC by an independent engineering company of between 10% and 20% of each 50 x 50 metre clearance box.<sup>73</sup>

ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM, Germany is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than its extended deadline of 1 August 2025. Germany is working to increase the efficiency of its operations to meet this deadline, although it is behind its planned clearance targets and Mine Action Review concludes that it is not on track to complete clearance in time.

After extensive and lengthy preliminary work for preparation of the site for clearance, including survey and a creation of a fire protection system, Germany finally began CMR clearance in March 2017. A total of 5.25km<sup>2</sup> of CMR contamination has been cleared in the last five years (see Table 4).

Table 4: Five-year summary of CMR clearance

Year	Area cleared (km <sup>2</sup> )
2022	1.34
2021	0.85
2020	1.09
2019	1.21
2018	0.76
Total	5.25

66 Ibid.  
67 Ibid.  
68 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 25 May 2023.  
69 Emails from official on the Desk for Conventional Arms Control, Federal Foreign Office, 25 May and 20 June 2023.  
70 Article 7 Reports (covering 2022 and 2021), Form F; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.  
71 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 25 May 2023.  
72 Ibid.  
73 CCM Article 4 Extension Request 2019, p. 28.

In 2018, Germany predicted that it would take between five years (meaning completion of clearance in 2023) and six years (completion of clearance in 2024), based on the estimated 980 hectares (9.8km<sup>2</sup>) of remaining CMR contamination as at the end of 2018, and an estimated annual clearance capacity of 140 personnel, working 225 days per annum, at a clearance rate of 50–60m<sup>2</sup> per person per day. This corresponds to clearance of 1.5–2km<sup>2</sup> per annum. Reporting and documentation relating to clearance efforts are predicted to be finalised in 2025.<sup>74</sup>

Clearance output of 1.34km<sup>2</sup> in 2022 was a significant increase on the previous years, but still fell short of Germany's planned clearance output of 1.5km<sup>2</sup>.<sup>75</sup> Germany did increase its clearance capacity in 2022 to nearly 200 personnel which it considers to be full capacity. Germany plans to clear 1.1km<sup>2</sup> in 2023 due to reduced numbers of personnel following the termination of SafeLane Global's contract and the increased density of contamination at the target areas.<sup>76</sup> This would leave Germany with 4.18km<sup>2</sup> at the end of 2023 to clear by August 2025, far exceeding the annual clearance outputs it has achieved so far.

Other obstacles that continue to impact Germany's ability to meet its clearance deadline include the very high levels of other UXO contamination that are being encountered. Germany reports that the screening process of every UXO and piece of scrap metal that is detected considerably slows down clearance of the area. In 2022, more than 680 tonnes of UXO, other than CMR, and scrap metal was cleared, destroyed or recycled, with CMR contamination making up between only 1–4% of the total amount of contamination found.<sup>77</sup> Germany also has difficulty hiring and retaining staff at Wittstock due to the peripheral location of the site and a lack of trained personnel from which to recruit from. Germany's clearance plan also assumes that a sufficient amount of controlled burning is able to take place to meet the planned clearance output and due to the ongoing drought and high temperatures in the area there are various fire protection works that must take place alongside clearance as well as the need for frequent scheduled breaks for staff. There are also long lead times for new equipment and replacement parts which results in unplanned downtime.<sup>78</sup>

Due to extensive hygiene measures and controls, the COVID-19 pandemic did not result in any significant impairment of CMR clearance operations in 2021 or in 2022.<sup>79</sup>

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Germany is not aware of any further cluster munition contamination beyond Wittstock, but if, contrary to expectations, contamination does become known in the future, the responsible authority would depend on the ownership of the area in question. For any federal property, the Institute for Federal Real Estate (BImA), which is responsible for clearance at Wittstock, would be the responsible authority to deal with such new contamination.<sup>80</sup>

<sup>74</sup> CCM Article 4 Extension Request 2019, pp. 33 and 37.

<sup>75</sup> Article 7 Report (covering 2022), Form F; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

<sup>76</sup> Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 25 May 2023.

<sup>77</sup> Ibid.; and virtual meeting with official on the Desk for Conventional Arms Control, Federal Foreign Office, 15 June 2023.

<sup>78</sup> Article 7 Report (covering 2022), Form F.

<sup>79</sup> Article 7 Reports (covering 2022 and 2021), Form F.

<sup>80</sup> Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

**ARTICLE 4 DEADLINE: 1 NOVEMBER 2023**  
FIVE-YEAR EXTENSION REQUESTED TO 1 NOVEMBER 2028

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION: HEAVY

NATIONAL AUTHORITY  
ESTIMATE

**260**km<sup>2</sup>

(INCLUDING CURRENTLY UNRECORDED CMR  
CONTAMINATION IRAQ EXPECTS TO FIND)

SUBMUNITION  
CLEARANCE IN 2022

**16.62**km<sup>2</sup>

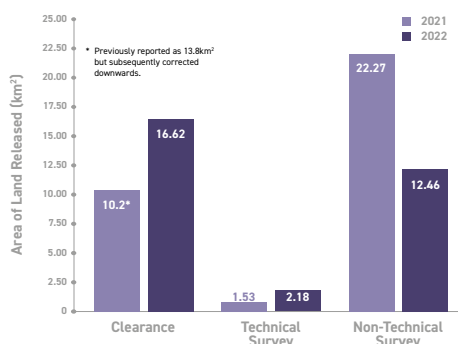
(FEDERAL IRAQ ONLY)  
MINE ACTION REVIEW ESTIMATE

SUBMUNITIONS  
DESTROYED IN 2022

**4,697**

(OFFICIAL DATA FOR FEDERAL IRAQ, IN  
ADDITION TO 27 SUBMUNITIONS CLEARED  
IN THE KURDISTAN REGION OF IRAQ (KRI))

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

Iraq has requested a five-year extension to its Article 4 deadline until November 2028, which will be considered by States Parties at the Eleventh Meeting of States Parties to the Convention on Cluster Munitions (CCM) in September 2023. Iraq makes clear in its extension request that it would need to expand clearance capacity from 15 to 34 fully equipped and trained clearance teams to complete in five years but with the resources available at the time of the request it would need 16 years. In Iraq's extension request work plan based on current clearance capacity (15 teams), Federal Iraq will complete clearance of six governorates within the five year extension period, leaving the remaining three most heavily contaminated provinces still to clear under subsequent extension requests. For the second successive year, in 2022 Iraq identified more previously unrecorded cluster munition-contaminated area than it cleared.

## RECOMMENDATIONS FOR ACTION

- The Iraqi government should provide the Directorate of Mine Action (DMA) with the legal authority, funding, human resources, and training to strengthen its effectiveness as the national mine action authority.
- The Iraqi government should help to implement its national strategy by increasing national financial support for mine action, including creating funding mechanisms to support national and international non-governmental organisations (NGOs), to offset the diversion of international donor funds to other humanitarian emergencies.
- Federal Iraq should clarify the funding it plans for mine action in general and fulfilment of its CCM obligations in particular and when it will provide it.
- Federal Iraq should streamline its mine action information management procedures and accelerate the transition to electronic uploading of data to its Information Management System for Mine Action (IMSMA) database.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2022)	Score (2021)	Performance Commentary
<b>UNDERSTANDING OF CMR CONTAMINATION</b> (20% of overall score)	6	6	Large, previously unrecorded cluster munition-contaminated areas were identified in 2022, underscoring the limitations of previous survey and Iraq's understanding of how much it has to clear. Its 2023 Article 4 request acknowledged the level of contamination will continue to rise before clearance achieves a net reduction. The DMA's Regional Mine Action Centre-South (RMAC-S) agreed with Norwegian People's Aid (NPA) that it should focus on survey to develop an evidence-based baseline estimate of contamination.
<b>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</b> (10% of overall score)	7	7	Iraq prepared a new mine action strategy for 2022–28, the first produced in consultation between the mine action authorities for the Iraqi Kurdistan Region and Federal Iraq. It recognised the need to increase national ownership and to increase national funding for the sector. The plan was amended to cover the period 2023–28 and officially approved in June 2023. CMR contamination and operations are heavily concentrated in southern governorates overseen by RMAC-S, which has continued its constructive engagement with operators on land release methodologies and priorities.
<b>GENDER AND DIVERSITY</b> (10% of overall score)	7	7	Iraq's mine action strategy for 2023–28 acknowledges the importance of gender and diversity to the sector. The DMA and the Iraq Kurdistan Mine Action Agency (IKMAA) promoted gender and inclusion mainstreaming participating in workshops and training conducted by the Geneva International Centre for Humanitarian Demining (GICHD). Despite conservative social attitudes to women's employment in what has been a male-dominated sector the number of women work for demining organisations continued to rise, including in supervisory positions and in survey, community liaison, and clearance teams as well as in office roles.
<b>INFORMATION MANAGEMENT AND REPORTING</b> (10% of overall score)	6	6	Iraq's mine action database is in the process of upgrading from IMSMA NG to IMSMA Core while IKMAA is replacing its IMSMA database with one based on open-source technology. DMA information management still struggled with obsolete reporting procedures causing chronic delays uploading operating results to the database and big discrepancies between official and operator data. Iraq, meanwhile, submits comprehensive annual updates in improved and promptly submitted Article 7 reports.
<b>PLANNING AND TASKING</b> (10% of overall score)	7	7	Planning and tasking for survey and clearance of cluster munition-contaminated areas have benefitted from good coordination between RMAC-S, operators, and local authorities. Operators say RMAC-S' task-order system works efficiently prioritising tasks according to local recommendations, DMA priorities, and operator requests.
<b>LAND RELEASE SYSTEM</b> (20% of overall score)	7	7	Federal Iraq adopted the Cluster Munition Remnant Survey (CMRS) methodology for CMR survey and clearance as a national standard in 2019 and has reported benefits for accurate mapping, planning, and land release.
<b>LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE</b> (20% of overall score)	6	6	Official figures suggest a big increase in CMR hazardous areas released in 2022 but persistent, big discrepancies between official data and results available from international NGOs prevent a clear determination of progress. Iraq requested a five-year extension of its Article 4 deadline but indicated that with resources currently available it would take close to 16 years to achieve completion.
<b>Average Score</b>	<b>6.5</b>	<b>6.5</b>	<b>Overall Programme Performance: AVERAGE</b>

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- National Higher Council of Mine Action
- Directorate of Mine Action (DMA)
- Iraq Kurdistan Mine Action Agency (IKMAA)

### NATIONAL OPERATORS

- Ministry of Defence
- Popular Mobilisation Forces (PMF)
- Ministry of Interior (Civil Defence)
- Al Khebra Company for Demining
- Ta'az Demining Company

### INTERNATIONAL OPERATORS

- Danish Refugee Council Humanitarian Disarmament and Peacebuilding (DRC) (formerly Danish Demining Group (DDG))
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)

### OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

## UNDERSTANDING OF CMR CONTAMINATION

Iraq ranks as one of the countries most heavily contaminated by cluster munitions. Federal Iraq reported cluster munition remnant (CMR) contamination of nearly 190km<sup>2</sup> at the end of 2022 (see Table 1),<sup>1</sup> 11.5km<sup>2</sup> or 6.4% more than at the end of the previous year.<sup>2</sup> This reflected the results of continuing survey which in 2022 added more CMR contamination to the database than was released through clearance.

Contamination at the end of 2022 affected nine of Iraq's 15 governorates, but 91% of it was concentrated in just three southern governorates of Basrah, Muthanna, and Thi Qar. The northern Kurdistan Region of Iraq (KRI) is believed also to have a small amount of CMR contamination but has no estimate of the area affected. The Iraqi Kurdistan Mine Action Agency (IKMAA) said the KRI had no registered hazardous areas contaminated by cluster munitions but reported clearing a total of 27 submunitions in 2022, all but one of them located in Choman district of the KRI.<sup>3</sup>

**Table 1: Cluster munition-contaminated area in Federal Iraq by province<sup>4</sup>**

Province	Area (m <sup>2</sup> ) end 2021	Area (m <sup>2</sup> ) end 2022
Anbar	6,192,126	10,974,800
Babylon	633,031	633,031
Basrah	42,838,415	46,497,041
Karbala	1,331,881	141,910
Missan	990,312	955,962
Muthanna	68,954,722	81,790,909
Najaf	5,010,038	3,700,442
Ninewa	4,157,090	21,224
Thi Qar	44,893,607	44,887,183
Qadisiya	3,137,824	0
<b>Totals</b>	<b>178,139,046</b>	<b>189,602,502</b>

Iraq is working to update its baseline estimate of the extent of its cluster munition contamination. The DMA's Regional Mine Action Centre-South (RMAC-S) agreed with Norwegian People's Aid (NPA) that it should focus on survey to develop an evidence-based baseline estimate of contamination and

in 2022, Iraq added nearly 48km<sup>2</sup> in previously unrecorded hazardous areas to the database (see Table 2).<sup>5</sup> The DMA calculates that in the next five years it will identify another 79km<sup>2</sup> of CMR contamination, based on a percentage of the areas in each governorate that require survey or resurvey. The percentage increase ranged from 10% in governorates with low levels of CMR contamination to 30% in Anbar, 40% in Muthanna, and 80% (equivalent to another 36km<sup>2</sup>) in Basrah.<sup>6</sup>

**Table 2: Cluster munition-contaminated area added to the database in 2022<sup>7</sup>**

Region	Area (m <sup>2</sup> )
RMAC S	44,954,766
RMAC M EU	1,820,282
RMAC N	923,121
<b>Total</b>	<b>47,698,169</b>

Low-quality non-technical survey (NTS) conducted between 2014 and 2016 generated large, often inflated polygons and left out large areas that were largely unpopulated at the time and lacking evidence of contamination. In Basrah governorate, which is the most contaminated, most submunition casualties in recent years occurred in areas that were not surveyed.<sup>8</sup> Survey conducted after 2016 cancelled large areas of suspected hazardous areas (SHAs) but significant movement of population onto land being reclaimed for agriculture and expansion of residential areas, particularly in Basrah governorate, has led to discoveries of substantial CMR and other unexploded ordnance (UXO) hazards, including subsurface items in areas previously subjected to surface clearance.<sup>9</sup>

Federal Iraq's contamination dates back to the Gulf War of 1991 and the United States (US)-led invasion of Iraq in 2003, and follows the path of allied forces' advance from the south to Baghdad. Coalition aircraft also struck Iraqi army positions in the northern governorate of Kirkuk but DMA data no longer identifies any CMR contamination in the governorate.<sup>10</sup> The most commonly found items are BLU-63 and BLU-97 submunitions. Other CMR found include BLU-61, M42, M77, and M118 submunitions.<sup>11</sup>

1 CCM Article 7 Report (covering 2022), p. 5 and Form F; email from Haitham Fattah Lafta, Head of Operations, RMAC South, DMA, 28 March 2023.

2 Article 7 report for 2021, Form F, recorded CMR contamination totalling 178km<sup>2</sup>.

3 Email from Khatab Omer Ahmad, Planning Manager, Directorate General of Technical Affairs, IKMAA, 3 May 2023.

4 CCM Article 7 Report (covering 2022), p. 5 and Form F; and email from Haitham Fattah Lafta, DMA, 28 March 2023.

5 Article 7 Report (covering 2022), Form F.

6 CCM Article 4 Extension Request, 11 April 2023, p. 24.

7 Article 7 Report (covering 2022), Form F.

8 Email from Marie-Josée Hamel, Regional Coordinator – Humanitarian Disarmament and Peacebuilding, DRC, 30 March 2022.

9 Email from Haitham Fattah Lafta, RMAC South, DMA, 28 March 2023; and interview with Chris Ramsden, Project Manager, NPA, in Basrah, 7 May 2023.

10 Article 7 Report (covering 2020), Form F; and email from Haitham Lafta, DMA/RMAC South, 21 April 2021. Iraq's CCM Article 7 Report for 2021 does not appear to have included SHAs recorded for the amount of previously unrecorded contamination found in 2021.

11 Interview with Nibras Fakhir Matrood, Director, DMA RMAC-S; Haitham Fattah Lafta, RMAC-S, Basrah, 29 April 2019; and Mats Hektor, Project Manager, NPA South Iraq, Basrah, 28 April 2019; and Article 7 Report (covering 2021), Form F.

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

CMR represent less than 10% of Iraq's total explosive ordnance contamination by area.<sup>12</sup> It also has identified a total of 1,703km<sup>2</sup> contaminated by anti-personnel mines, including improvised mines<sup>13</sup> and has extensive UXO contamination.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The mine action programme in Iraq is managed along regional lines. The DMA has represented Iraq internationally and oversees mine action for humanitarian purposes in Federal Iraq, covering 15 of the country's 19 governorates. Mine action in the KRI's four governorates is overseen by IKMAA, which acts as both regulator and operator. The two organisations have functioned largely autonomously though contacts appear to have improved since 2021 after years in which relations were overshadowed by tensions over funding and territorial demarcation issues.

The DMA and IKMAA collaborated in drawing up Iraq's draft National Mine Action Strategy 2023–28, the first produced jointly by the two authorities.<sup>14</sup> The strategy sets increasing national ownership as a key objective and says this will be achieved by strengthening both authorities and “ensuring these national entities are empowered, appropriately structured and sufficiently equipped and resourced to allow them to fulfil their responsibilities.”<sup>15</sup>

### FEDERAL IRAQ

The inter-ministerial Higher Committee of Mine Action,<sup>16</sup> which reports to the Prime Minister, oversees and approves mine action strategy, policies, and plans. The committee was chaired by the Prime Minister and includes representatives of the ministries of defence, interior, oil and environment as well as the National Security Council and IKMAA. A meeting of the committee in March 2023 decided it would in future be chaired by the Minister of Environment and other ministries would be represented at the level of deputy minister, not minister.<sup>17</sup> The DMA “plans, coordinates, supervises, monitors and follows up all the activities of mine action”. It draws up the national strategy and is responsible for setting national standards, accrediting, and approving the standing operating procedures (SOPs) of demining organisations and certifying completion of clearance tasks.<sup>18</sup>

The DMA oversees three Regional Mine Action Centres (RMACs):

1. North: covering the governorates of Anbar, Diyala, Kirkuk, Nineveh, and Salah ad-Din.
2. Middle Euphrates (MEU): Babylon, Baghdad, Karbala, Najaf, Qadisiya, and Wassit.
3. South: Basrah, Missan, Muthanna, and Thi-Qar.

RMAC South, located in Basra City, is the focal point for Federal Iraq's response to CMR contamination. Alone among the RMACs, it collects and uploads results of survey and clearance to Federal Iraq's IMSMA database and is responsible for tasking operators in its area of operations. RMAC North and MEU are located in Baghdad but RMAC

North also opened a satellite office in Mosul in August 2019.<sup>19</sup>

DMA coordination of mine action remains a challenge in a sector in which its formal status as a department of the relatively low-ranking Ministry of Environment gives it less authority than the powerful ministries of defence, interior, and oil, which are also major actors in the sector. Long-running discussions on a proposed demining law have raised the possibility of placing the DMA directly under the Office of the Prime Minister but as of mid 2023 there was no indication the government planned to take up the idea. A rapid turnover of the DMA's directors has also adversely affected management and policy continuity. The DMA has had 17 directors general in the 20 years since 2003, all but one of whom was appointed on an acting basis, which also limited their authority. Dr Sabah Hasan al-Hussaini, who took up the position in February 2023, was already the head of another directorate and was expected to return full time to that position. The DMA awaited the appointment of a new director general in 2023.<sup>20</sup>

Iraq prepared a new national strategic plan for 2023–28, which acknowledges the institutional issues, citing “widespread belief” that the DMA should be strengthened to give it the authority commensurate with its mandate. The plan calls for an external assessment of the DMA's mandate and position that will result in recommendations to the Higher National Committee for Mine Action but does not indicate any timeline for this review.<sup>21</sup> The strategic plan was approved in June 2023 and was due to be launched officially in August 2023.<sup>22</sup>

12 CCM Article 4 Extension Request, 11 April 2023, p. 10.

13 Article 7 Report (covering 2022), pp. 18 – 23. Federal Iraq recorded 1,486km<sup>2</sup> of mined area, including 527km<sup>2</sup> affected by improvised mines, and the KRI recorded 217km<sup>2</sup> of mined area, including 4km<sup>2</sup> affected by improvised devices.

14 Interview with Ahmed Aljasem, Director of Information Management, DMA, in Baghdad 11 May 2023.

15 Iraq National Mine Action Strategy 2002–2028, p. 36.

16 The Council, which is led by the Prime Minister, includes representatives of the ministries of defence, interior, oil, and environment, as well as the National Security Adviser and the head of IKMAA.

17 Email from UNMAS Headquarters, 24 July 2023.

18 “Document of roles and responsibilities”, undated but 2019, received by email from the DMA, 13 May 2019.

19 Interview with Jonathan Guthrie, NPA, in Geneva, 12 February 2020.

20 Interview with Bakr Sahib Ahmed, Deputy Director General, DMA, in Baghdad, 11 May 2023.

21 Iraq National Mine Action Strategy 2023–2028, pp. 37–38.

22 Interview with Bakr Sahib Ahmed, DMA, in Baghdad, 11 May 2023; and email from UNMAS Headquarters, 24 June 2023.

Iraq's strategic plan for 2023–28 calls for strengthened national ownership and more national funding, recognising the dependence on external donor support as a key risk to sustainability of its mine action programme.<sup>23</sup> To boost the capacity available for mine action the DMA says Iraq's Popular Mobilisation Forces (PMF) "have accepted to be involved" in mine action. The DMA reported the PMF had their own explosive ordnance disposal (EOD) Directorate and a significant workforce in many governorates.<sup>24</sup> Donor funding for demining operations channelled through the United Nations Mine Action Service (UNMAS) has declined from its high of US\$77 million in 2019 (some of it for activities in 2019–20) to approximately US\$12 million in 2022. It was expected

to remain at this level in 2023 but faced the possibility of a further significant drop in 2024.<sup>25</sup>

Iraq's government appears to be increasing its spending on mine action. Government funding for mine action has totalled about \$81 million in the decade to 2022 and averaged close to \$4 million a year in 2020–22.<sup>26</sup> The government has allocated ID 20 billion (US\$17 million) from the Federal state budget over three years towards implementation of the CCM and additional funding for the demining programme.<sup>27</sup> The government also allocated US\$20 million, part of a loan from the UK, for mine action other than relating to cluster munitions.<sup>28</sup>

## KRI

IKMAA functions as both the regulator and an operator in the KRI. It reports directly to the Kurdistan Regional Government's Council of Ministers, which is headed by a minister. It coordinates four directorates in Dohuk, Erbil, Garmian, and Sulaymaniyah (Sleman). IKMAA had a total of staff of more than 900 personnel, including 432 in operations, at the end of 2022, largely unchanged from the previous year, but a budgetary crisis in the KRI in recent years imposed severe constraints on the mine action sector.<sup>29</sup>

IKMAA received no international donor funding in 2021<sup>30</sup> but in 2022 was supported by Slovenian Aid, which provided a grant of €168,000 through ITF Enhancing Human Security. The funds financed the hiring of vehicles enabling IKMAA to deploy 15 demining teams and contributing to a rise in release of mined areas in 2022.<sup>31</sup>

## ENVIRONMENTAL POLICIES AND ACTION

Iraq does not have a policy on environmental management in mine action. In 2022, the DMA and IKMAA were in the process of preparing a national standard and a number of humanitarian demining organisations which already applied their global SOPs for managing the environment.

Iraq's 2023 Article 4 deadline extension request notes that the DMA is part of the Ministry of Environment and provides technical support to land conservation efforts and planning as part of the wider Ministry.<sup>32</sup> The extension request also mentions that previous and ongoing wars have affected the environmental situation, and resulted in air, water, and soil pollution,<sup>33</sup> and that "climate changes, natural, and geographical factors which lead to the spreading and expansion of the contaminated areas as a result of the migration of mines, cluster munitions and unexploded ordnance due to erosion factors such as rain and floods, which resulted in an increase in the size of contaminated areas".<sup>34</sup> However, it contains no information on how environmental considerations will be addressed during planning and tasking for CMR survey and clearance, in order

to minimise potential harm from land release activities or how climate change may impact planned operations or Iraq's prioritisation for clearance.

That said, in the extension request, Iraq has requested international funding to provide support and funds to investigate the use of non-explosive disposal methods that are as cost effective as explosive/thermite destruction techniques and lessen the impact on the environment.<sup>35</sup>

Some international demining organisations are exploring how their capacity can help address severe pressure on water supply and irrigation systems to facilitate productive use of cleared land. The HALO Trust (HALO) is looking into possibilities of partnerships with local organisations to follow up clearance with assistance to rehabilitate soil and irrigation systems to address acute problems of water quality and supply.<sup>36</sup> NPA has an environmental SOP followed during the planning and implementation of tasks. Teams avoid disturbing soil unless specifically required for technical survey (TS) or clearance operations, and seek to ensure that the soil is

23 Iraq National Mine Action Strategy 2023–2028, pp. 17 and 22.

24 Interview with Bakr Sahib Ahmed, DMA, in Baghdad, 11 May 2023.

25 Email from Shinobu Mashima, Programme Officer, UNMAS, 11 May 2023; and interview with Shinobu Mashima and Johannes Smith, UNMAS, in Baghdad, 14 May 2023.

26 CCM Article 4 Extension Request, 11 April 2023, p. 40.

27 Interviews with Nibras Fakhir Matrood, RMAC-S, in Basra City, 8 May 2023; and Bakr Sahib Ahmed, DMA, in Baghdad, 11 May 2023; and email from UNMAS Headquarters, 24 July 2023.

28 Email from UNMAS Headquarters, 24 July 2023.

29 Email from Khatib Omer Ahmad, IKMAA, 3 May 2023.

30 Email from Niyazi Khalid Qusaim, Deputy Head, IKMAA, 22 April 2022.

31 Interview with Jabar Mustafa, Director of IKMAA in Erbil, 18 May 2023; and email from Khatib Omer Ahmad, IKMAA, 3 May 2023.

32 CCM Article 4 Extension Request, 11 April 2023, p. 34.

33 Ibid., p. 38.

34 Ibid., p. 28.

35 Ibid., p. 16.

36 Email from Hein Bekker, Programme Manager, HALO, 4 May 2023; and interview in Baghdad, 10 May 2023.

in a state suitable for its intended use after completion of a task.<sup>37</sup> In 2022, NPA appointed a global environmental adviser and piloted collection of environmental data in the course of

non-technical survey (NTS). NPA also is developing support for local communities in rehabilitating irrigation canals and use of irrigation pipelines that help conserve water.<sup>38</sup>

## GENDER AND DIVERSITY

The Iraq National Strategic Mine Action Plan for 2017–2021 referred to gender equality and gender mainstreaming within mine action activities as objectives of an effective programmatic response.<sup>39</sup> Iraq's 2023–2028 strategic plan recognises the different impact of contamination shaped by gender, age, and ethnic or religious affiliations and requires specific activities targeting those needs, for which disaggregated data is a prerequisite.<sup>40</sup>

The DMA's gender unit, which was created in 2017 and adopted its first Gender Unit Action Plan in early 2021, reported a range of activities in 2022, conducting quality assurance field visits to Civil Defence and NGOs' demining teams and also visiting women deployed in operational teams to assess their activities and address issues encountered by women operators. The DMA organised workshops on gender mainstreaming in mine action in 2022 in cooperation with NPA, and together with IKMAA participated in a four-day leadership training course conducted by the Geneva International Centre for Humanitarian Demining (GICHD) and a one-day course on gender balance and diversity.<sup>41</sup> According to Iraq's 2023 Article 4 deadline extension request, the DMA, in partnership with NPA, established and trained two mixed-gender teams (for TS and clearance).<sup>42</sup>

IKMAA reported that it offered equal employment opportunities to women and that women held 10 of its 15 managerial posts, but overall, female staff made up a little more than 12% of IKMAA's total staff at the end of 2022, most of them in administration, information management, and explosive ordnance risk education (EORE). The 623 operations staff employed by IKMAA as of May 2023 included only 9 women. IKMAA said it is proposing to set up female clearance and EOD teams in the KRI's four governorates and has called for donors to follow through with support.<sup>43</sup>

Women's participation in mine action, a male-dominated sector, still faces some resistance from socially conservative attitudes, particularly in rural areas. Efforts to recruit women can encounter attitudes questioning the point of female employment when there are not enough jobs for men.<sup>44</sup> It can be problematic to deploy women outside the areas they

live and some candidates have dropped out of training that required overseas travel.<sup>45</sup> Women comprise well below 20% of the personnel in most international implementing partners (IPs).

The participation of women in mine action and their level of qualification continued to rise. Graduates of an EOD Level 3 course conducted by the Ministry of Interior's training centre in 2022 included the first female Civil Defence staffer. Fifteen women participated in EOD Levels 1 and 2 courses conducted by UNMAS. Additionally, nine female Civil Defence officers completed an explosive hazard first-responder training course and a DMA female staff member passed a course on drone-supported NTS conducted by UNMAS Iraq's technical support unit.<sup>46</sup>

Among implementing partners operating in the south, NPA's 61 operations staff included seven women working mainly in NTS. NPA experienced some interference with recruitment notices put up in Basrah encouraging female applicants but perceives that the slowly increasing participation of women in the sector is finding widening community acceptance of their role.<sup>47</sup> Danish Refugee Council (DRC) set improving gender representation as one of its priorities in 2022<sup>48</sup> and recruited six female deminers from Basra and surrounding villages without previous experience who underwent training in 2022 and started operations in May 2023. Conservative social norms among tribes in the south make recruitment of females more challenging than in northern governorates but DRC announced vacancies for eight staff and received around 35 applicants.<sup>49</sup> If tests conducted as part of its recruitment process do not produce a female in the top three candidates, the top scoring female is interviewed to ensure there is no bias. Its steps to attract women staff included offering 18 weeks of paid maternity leave and five days of paid leave to deal with child sickness in line with global DRC Minimum Standards for employment of national staff.<sup>50</sup>

NPA has a dedicated Gender and Diversity Programme Coordinator responsible for gender mainstreaming and implemented specific projects to support the inclusion of women in mine action. NPA has increased its number of

37 Email from Chimwemwe Tembo, Deputy Programme Manager, NPA, 12 April 2023.

38 Ibid.; and interview with Chris Tierney, Programme Manager, NPA, in Baghdad, 13 May 2023.

39 Iraq National Mine Action Strategy 2023–2028, pp. 12, 18, 20, and 30.

40 Ibid., p. 15.

41 CCM Article 7 Report (covering 2022), pp. 30–36.

42 CCM Article 4 deadline Extension Request, 11 April 2023, p. 26.

43 Email from Khatab Omer Ahmad, IKMAA, 3 May 2023.

44 Email from Chris Tierney, NPA, 17 April 2022.

45 Email from Tim Marsella, Programme Officer, HALO, 17 March 2022.

46 Email from Shinobu Mashima, UNMAS Iraq, 11 May 2023.

47 Interview with Chris Ramsden, NPA, in Basrah, 7 May 2023.

48 Email from Marie-Josée Hamel, DRC, 30 March 2022.

49 Email from Katrien Denys, Head of Programme, DRC, 18 April 2023; and field visit with Mustafa Nadhim Hameed, DRC, 8 May 2023.

50 Emails from Marie-Josée Hamel, DRC, 30 March 2022; and Lasse Marinus Joergensen, Operations Manager, DRC, 21 April 2022.

51 Email from Chimwemwe Tembo, NPA, 12 April 2023.

female employees and as of the end of 2022, the number of female staff was at 21% and female operational staff increased by 43%.<sup>51</sup> In addition to women employed in administrative roles in NPA's Basra-based CMR programme,

three of NPA's 10 operational teams each employ two women. Despite some community resistance, employment of women in all aspects of mine action appears to be gaining acceptance.<sup>52</sup>

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## INFORMATION MANAGEMENT AND REPORTING

Iraq's National Mine Action Strategy 2023–2028 underscores the importance of comprehensive information management processes to effective planning, tasking, implementation, and reporting. It also says Iraq will seek to increase understanding of its remaining mine and CMR contamination through continuous updating of its baseline data by means of a database clean-up, desktop analysis, and contact with communities.<sup>53</sup>

The DMA and IKMAA have operated databases using IMSMA NG with technical support from iMMAP, a commercial service provider based in Erbil and working under contract to the US Department of State's Office of Weapons Removal and Abatement (PM/WRA). Federal Iraq's mine action database is located at the DMA's Baghdad headquarters, but RMAC South headquartered in Basrah is the focal point for cluster munitions and responsible for uploading CMR data into the database.

Federal Iraq's mine action information management continues to suffer from severe delays in uploading operating results which ensures the database is not up to date and annual results do not accurately reflect the activities conducted. The DMA attributes delays to the need to correct reporting errors and apply quality control.<sup>54</sup> Implementing partners point to cumbersome procedures which require them to submit operational data in hard copy and on CD-ROMs to be uploaded manually into the database.<sup>55</sup> Data verification and correction can add additional significant delays.<sup>56</sup> The process has ensured the database and an

online dashboard accessible to operators are not up to date. The DMA introduced an Online Task Management System in 2019 to facilitate tasking but took it offline in October 2021, reportedly over sensitivities about the data available.

The limited number and high turnover of the DMA's data processing staff has further contributed to the DMA's IM challenges. iMMAP previously had two staff embedded in the DMA but ended their deployment in December 2022 in line with moves to reduce the scope of its engagement with the DMA.<sup>57</sup>

The DMA is in the process of upgrading its database to IMSMA Core with support from the GICHD and iMMAP. The DMA's IMSMA Core server was installed in December 2022 and field testing of reporting forms started in 2023. The DMA was due to launch the system by December 2023.<sup>58</sup> The DMA expects electronic uploading to start with EORE and victim assistance data before extending to include survey and clearance results.<sup>59</sup>

IKMAA is planning to replace its IMSMA NG database with one based on open-source technology and licencing. iMMAP started designing a customised server in March 2021 and six months later launched a base version which is in the process of being developed and due for completion in August 2024.<sup>60</sup> IKMAA said in April 2022 that work had started working with iMMAP and expected to complete installation in two years.<sup>61</sup> IKMAA continues to operate IMSMA NG but is trialling the new system in Erbil and Slemani governorates.<sup>62</sup>

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## PLANNING AND TASKING

Iraq's National Mine Action Strategy 2023–2028 sets broad goals for both the DMA and IKMAA, the first time the two authorities have cooperated in drawing up a national plan.<sup>63</sup> These include as a strategic priority the development of "a prioritisation system based on clear and transparent criteria" to inform all planning and tasking decisions. Iraq has not had a specific strategic plan for CMR which, like clearance

of legacy mines in the south, has been overshadowed by the priority given to tackling dense improvised mine contamination in areas liberated from Islamic State.

Iraq's Article 4 deadline Extension Request, submitted in November 2022, was updated in April 2023 to include for the first time a 16-year work plan based on the capacity available

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52 Interview with Chris Ramsden, South Iraq, NPA, in Basrah, 7 May 2023.

53 Iraq National Mine Action Strategy 2023–2028, pp. 20–21.

54 Interview with Nibras Fakhir Matrood, RMAC South, DMA, in Basrah, 8 May 2023.

55 Interviews with mine action operators in Iraq, 7–20 May 2023.

56 NPA reported receiving a request in 2022 to verify data relating to a task completed in 2019.

57 Interview with Clare Pritchard, Country Representative, iMMAP, in Erbil, 15 May 2023.

58 Ibid.

59 Interview with Ahmad Aljasim, DMA, in Baghdad, 11 May 2023.

60 Interview with Clare Pritchard, iMMAP, in Erbil, 15 May 2023.

61 Emails from Niyazi Khalid Qusaim, IKMAA, 22 April 2022; and Khatab Omer Ahmad, IKMAA, 3 May 2023.

62 Interview with Clare Pritchard, iMMAP, in Erbil, 15 May 2023.

63 Email from Ahmed Aljasim, DMA, 15 April 2022.

in 2022. The plan set out targets for land release of 17.25km<sup>2</sup> per annum, including plans to complete clearance of six governorates with total contamination estimated at almost 16.5km<sup>2</sup> in the first five years. These included clearing in 2024, the first year of the extension, all contamination in four governorates with small amounts of CMR hazards: Babylon (0.7km<sup>2</sup>), Kerbala (1.5km<sup>2</sup>), Missan (1.1km<sup>2</sup>) and Ninewa (0.02km<sup>2</sup>). The plan provided for completing clearance of Najaf (4.1km<sup>2</sup>) in the third year of the extension and Anbar (9.1 km<sup>2</sup>) in the fifth year. This would leave the three most heavily CMR-contaminated provinces of Basra, Muthanna, and Thi-Qar, planned to be addressed over 10/11 more years, in subsequent Article 4 extension requests.<sup>64</sup> The extension request also included a five-year work plan to complete CMR clearance, but that assumes deployment of an additional 19 equipped and trained clearance teams to supplement the existing 15 clearance teams. It also assumes extremely ambitious gains in operational efficiencies (1.5 times productivity in the first year and subsequent doubling of productivity in the remaining four years) from application of innovative technologies.<sup>65</sup> No funding has been secured for this additional capacity.

Iraq's Article 4 deadline Extension Request also includes a work plan for survey (for both the 16-year and 5-year completion targets). While the respective work plans show where survey capacity will be deployed, there is no explanation of how Iraq plans to undertake survey to identify and confirm the 79km<sup>2</sup> of additional previously unrecorded CMR contamination it expects to find. Furthermore, the total amount of CMR contamination at the start of the work plans already include the 79km<sup>2</sup> of additional contamination, despite the fact this contamination has yet to be identified and confirmed.

The DMA issues tasks requested by operators after consultation with DMA operations and RMAC staff and taking account of requests from government, local authorities, development plans and prioritisation criteria that include a NTS survey scoring system.<sup>66</sup> In much of Federal Iraq tasking suffers from cumbersome procedures. In the south, planning and tasking for survey and clearance of cluster munition-contaminated areas have benefitted from good coordination between the RMAC-S, operators, and local authorities. RMAC-S's task order system prioritises tasks according to local recommendations, DMA priorities, and operator requests, and is said to be working well.<sup>67</sup>

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Federal Iraq started working with UNMAS in 2021 on updating national mine action standards for mine and battle area clearance (BAC), NTS, and TS. The standards were written in 2004–05 existed in Arabic only and did not specifically address cluster munitions. The DMA said in April 2022 it had updated many of the standards although they had still to be translated into English. They included standards for NTS and TS and mine clearance, BAC, EOD, marking, and personal protective equipment.<sup>68</sup> The DMA released seven national standards that were translated into English with support from NPA in November 2022, and 10 standards translated by UNMAS in 2023. UNMAS reported another eight standards and three IMAS technical notes will be reviewed in 2023.<sup>69</sup>

The DMA adopted the Cluster Munition Remnants Survey (CMRS) methodology as a national standard in 2019, citing the benefits it has delivered for survey, planning, and clearance.<sup>70</sup> In August 2021, after a review of NMAS 09.11 for battle area clearance, Iraq increased the national standard for depth of CMR clearance from 20cm to 30cm because in areas with moving sand or soft ground some CMR, most commonly larger BLU-97 submunitions, had been found to penetrate deeper than 20cm. NPA said the new standard did not affect operations because 30cm was within the range of its existing detectors.<sup>71</sup> NPA data also showed that the great majority of CMR were found within 5cm of the surface.<sup>72</sup>

<sup>64</sup> Article 4 Extension Request, Annex B, 11 April 2023.

<sup>65</sup> Article 4 Extension Request, 11 April 2023, pp. 10, 17, and 26; and Annex A.

<sup>66</sup> Emails from Marie-Josée Hamel, DRC, 30 March 2022; Peter Smethers, FSD, 22 February 2022; Tim Marsella, HALO, 17 March 2022; and Chris Tierney, NPA, 17 April 2022.

<sup>67</sup> Email from Marie-Josée Hamel, DRC, 30 March 2022.

<sup>68</sup> Email from Ahmed Aljasim, DMA, 15 April 2022.

<sup>69</sup> Email from Shinobu Mashima, UNMAS Iraq, 11 May 2023.

<sup>70</sup> Email from Haitham Fattah Lafta, RMAC-S, 12 August 2020.

<sup>71</sup> Emails from Chris Tierney, NPA, 17 April and 2 May 2022.

<sup>72</sup> Interview with Chris Ramsden, NPA, 7 May 2023 and email 12 May 2023. NPA data showed that 85% of M77 submunitions, which accounted for over half of cleared CMR, were found at a depth of 0cm–5cm and 70% of BLU-97 CMR were also found within this depth.

## OPERATORS AND OPERATIONAL TOOLS

The Iraqi government covers the costs of a total of 11 teams working on cluster munitions tasks. They include five teams from the Ministry of Defence and the Ministry of Interior's Civil Defence organisation conducting survey and clearance. Two of these teams focus on technical survey and three on clearance). Another six MoD teams (EOD) conduct submunition demolitions, a task restricted to the military.<sup>73</sup>

DRC's southern programme based in Basra employed a total of 30 people in operations at the end of 2022, including two 10-person BAC teams working on clearance of UXO as well as CMR and one manual demining team. DRC also had one risk education team based in Basra. Dwindling donor support for mine action in Iraq, however, created some uncertainty about the long-term prospects of DRC's operations. Donor funding of DRC's operations in southern Iraq was due to end in December 2023.<sup>74</sup>

NPA's operations in southern Iraq expanded in 2022. By the start of 2023, NPA had a total of 10 multi-task teams

(MTTs) in the south, including four teams working in Basrah governorate, four more MTTs working from a base camp in Muthanna, and two teams operating from a Muthanna field camp close to the border with Kuwait. One MTT in Basrah is focused on mine clearance. It also employed two NTS teams, one each in Basrah and Muthanna base, and a CMRS (technical survey) team in Muthanna base.<sup>75</sup> NPA's MTTs work with large-loop detectors expanded from the normal 2m to 2.5m and in the habitually flat terrain enable teams to average 6,400m<sup>2</sup> a day, higher than the 5,000m<sup>2</sup> daily average adopted for calculating productivity in Iraq's Article 4 deadline extension request.<sup>76</sup>

In a move toward increasing efficiency, NPA planned to start training teams with Scorpion detection systems in 2023.<sup>77</sup> It is also in discussion with Australia's national science agency, CSIRO, investigating the possible use of autonomous ground vehicles in survey which have the potential to deliver a sharp increase in productivity.<sup>78</sup>

## LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

### LAND RELEASE OUTPUTS IN 2022

Federal Iraq reported release of a total of 48.26km<sup>2</sup> through survey and clearance in 2022,<sup>79</sup> nearly triple the 16.6km<sup>2</sup> recorded in official results in the previous year. However, persistent issues with Iraq's mine action data, including notably long delays uploading operator results into the database, prevent a clear determination of progress.

International operators, who have represented the main capacity tackling CMR contamination, recorded total land release of 37.6km<sup>2</sup> in 2021, more than double the official result, but in 2022, NPA and DRC, the international NGOs active in the south reported releasing a total of 8.4km<sup>2</sup>.<sup>80</sup> For the purposes of monitoring global clearance numbers, Mine Action Review has estimated Iraq's CMR clearance in 2022 to be 16.62km<sup>2</sup>, based on official clearance data, but deducting 17km<sup>2</sup> cleared by civil defence in Qadisiya, which appears to be BAC rather than CMR clearance given the small number of unexploded submunitions destroyed.

The Ministry of Defence, Civil Defence, and commercial companies also conducted survey and clearance but RMAC South and the DMA did not provide details of their activities leaving unexplained the gap between official and operator data.

### SURVEY IN 2022

DMA data shows that the amount of land released through survey in 2022 more than doubled from 6.5km<sup>2</sup> in 2021 to reach 14.6km<sup>2</sup> (see Table 3), with RMAC South accounting for nearly three-quarters of the total. The result underscores the disparity between official and implementing partner data and may reflect the time lapse between operations and the results being uploaded to the database. In 2021, NPA and DRC recorded releasing 23.8km<sup>2</sup> through survey, most of it cancelled through NTS.<sup>81</sup> In 2022, NPA and DRC reported they did not release any land through survey.<sup>82</sup>

73 Article 4 deadline Extension Request, updated 11 April 2023, p. 13.

74 Email from Katrien Denys, DRC, 18 April 2023.

75 Interview with Chris Ramsden, NPA, in Basrah, 7 May 2023.

76 Email from Chris Tierney, NPA, 2 February 2023.

77 Interview with Chris Ramsden, NPA, in Basrah, 7 May 2023.

78 Interview with Chris Tierney, NPA, in Baghdad, 13 May 2023.

79 Email from Haithem Fattah, RMAC-South, DMA, 28 March 2023.

80 Emails from Chimwemwe Tembo, NPA, 12 April 2023 and Stuart Rickard, HDP Operations Manager, DRC Iraq, 2 May 2023.

81 See *Clearing Cluster Munition Remnants 2022*, p. 67.

82 Emails from Chimwemwe Tembo, NPA, 12 April 2023 and Stuart Rickard, DRC Iraq, 2 May 2023.

**Table 3: Cluster munition-contaminated area cancelled through NTS in Federal Iraq in 2022 (official data)<sup>83</sup>**

Province	Operator	Area cancelled by NTS (m <sup>2</sup> )
Muthanna	NPA – Civil Defence – MOD	8,384,062
Najaf	Civil Defence	1,309,596
Qadisiya	Civil Defence	2,767,374
<b>Total</b>		<b>12,461,032</b>

**Table 4: Cluster munition-contaminated area reduced by TS in 2022 (official data)<sup>84</sup>**

Province	Operator	Area cancelled by TS (m <sup>2</sup> )
Basrah	Civil Defence Alsiraj Al mudhia	2,176,048
Thi-Qar	Civil Defence	6,424
<b>Total</b>		<b>2,182,472</b>

DRC did not conduct survey in 2022, focusing the small capacity funded by donors on BAC and demining.<sup>85</sup> NPA, in agreement with RMAC South and priorities set out in Iraq's CCM Article 4 extension request, focused on survey to develop a comprehensive baseline estimate of Iraq's CMR contamination. Many areas where survey and surface clearance have already been conducted are revealing subsurface contamination as population reclaims land for agricultural or other uses. NPA has also found that contact between its NTS/EORE team with migrant Bedouin tribes as they move across Muthanna governorate has yielded extensive information on contamination.<sup>86</sup> NPA survey recorded nearly 30km<sup>2</sup> of previously unrecorded CMR contamination in Basrah and Muthanna governorates through survey in 2022 and another 14.5km<sup>2</sup> in the first quarter of 2023.<sup>87</sup>

## CLEARANCE IN 2022

Iraq more than tripled the amount of CMR hazardous areas cleared in 2022, according to official data, which recorded release of 33.6km<sup>2</sup> compared with 10.2km<sup>2</sup> the previous year (previously reported by Mine Action Review as 13.8km<sup>2</sup>, but subsequently corrected downwards), but raised many questions.<sup>88</sup> International NGOs, which have previously accounted for most CMR clearance, said they cleared 8.4km<sup>2</sup> in 2022, a quarter of the official clearance total, while NPA alone reported that it found 5,946 submunitions, 27% more than the number officially recorded for all operators (see Tables 5 and 6). Official data attributes clearance of 17km<sup>2</sup>, more than half the total, to one task in Qadisiya governorate tackled by Civil Defence which reportedly has one team active in the region.<sup>89</sup> The DMA also reported participation by Iraq's Shia militia, the Popular Mobilisation Forces, thought to be their first official involvement in mine action.<sup>90</sup>

83 CCM Article 7 Report (covering 2022), Form F; and email from Haithem Fattah, RMAC-South, DMA, 25 May 2023.

84 Email from Haithem Fattah, RMAC-South, DMA, 25 May 2023.

85 Email from Katrien Denys, DRC, 18 April 2023.

86 Interview with Chris Ramsden, NPA, in Basrah, 7 May 2023.

87 Email from Chimwemwe Tembo, NPA, 12 April 2023; and interview with Chris Ramsden, NPA, in Basrah, 7 May 2023.

88 Email from Haithem Fattah, RMAC-South, DMA, 25 May 2023.

89 CCM Article 4 Extension Request, 11 April 2023, p. 25.

90 Email from Haithem Fattah, RMAC-South, DMA, 25 May 2023.

**Table 5: CMR clearance in 2022 (official data)<sup>91</sup>**

Province	Operator	Areas released	Total area cleared (m <sup>2</sup> )	Submunitions destroyed
Basrah	MoD	49	11,259,807	4,513
	DRC			
	NPA			
	Ta'az			
Muthanna	PMF	21	5,021,356	
	NPA			
Qadisiya	Civil Defence	1	*17,232,309	157
Babylon	Civil Defence	1	107,131	
<b>Totals</b>		<b>72</b>	<b>33,620,603</b>	<b>4,670</b>
<b>Adjusted Totals</b>			<b>16,620,603</b>	

\* The reported figure of over 17km<sup>2</sup> appears to be BAC rather than CMR clearance given the small number of unexploded submunitions destroyed. Mine Action Review has therefore deleted 17km<sup>2</sup> from the total.

In addition, IKMAA reported clearing a total of 27 submunitions, all but one of which was in the Choman district of the KRI.<sup>92</sup>

The 8.4km<sup>2</sup> of clearance recorded by international NGOs (see Table 6) marked a drop of nearly one third from the more than 12km<sup>2</sup> they cleared in 2021. DRC, with only three manual clearance teams, of which one conducted demining, reported clearing more area in 2022 but it was mainly tasked for BAC and the 2.7km<sup>2</sup> included 139,208m<sup>2</sup> affected by CMR and the 839 items found included eight submunitions.<sup>93</sup> NPA clearance dropped from nearly 10km<sup>2</sup> in 2021 to 5.7km<sup>2</sup> in 2022, when the main focus of operations switched to survey. In addition, NPA said it conducted clearance on a substantial task in the area of Basrah governorate's Rumaila oilfields but the data would only be released on completion of the task.<sup>94</sup>

**Table 6: CMR clearance in Federal Iraq in 2022 (NGO operator data)<sup>95</sup>**

Province	Governorate	Area cleared (m <sup>2</sup> )	Submunitions cleared	Other UXO cleared
DRC	Basrah	2,692,399	8	831
NPA	PMF	1,548,310	2,296	145
	Basrah NPA			
	Muthanna	4,189,792	3,650	7
<b>Totals</b>		<b>8,430,501</b>	<b>5,954</b>	<b>993</b>

## ARTICLE 4 DEADLINE AND COMPLIANCE



<sup>91</sup> Article 7 Report (covering 2021), Form F; and email from Haithem Fattah, RMAC-South, DMA, 25 May 2023.

<sup>92</sup> Email from Khatab Omer Ahmad, IKMAA, 3 May 2023.

<sup>93</sup> Email from Stuart Rickard, DRC, 2 May 2023.

<sup>94</sup> Email from Chimwemwe Tembo, NPA, 12 April 2023; and interview with Chris Ramsden, NPA, in Basrah, 7 May 2023.

<sup>95</sup> Email from Chimwemwe Tembo, NPA, 12 April 2023.

Under Article 4 of the CCM, Iraq is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 November 2023. Iraq acknowledged in 2022 that the extent of CMR contamination and the limited capacity available for tackling it ensured it would not achieve its Article 4 deadline.<sup>96</sup> In November 2022, Iraq requested a five-year extension of its deadline until November 2028 and after consultations with the CCM Article 4 Analysis Group and support from NPA, it delivered an amended request in April 2023. The request will be considered by States Parties at Eleventh Meeting of States Parties in September 2023.

Iraq makes clear that this is only an interim request in view of the scale of the problem and the limited capacity available to deal with it. The DMA submitted a five-year work plan for completion with the request which estimated it needed 34 teams, more than double the 15 teams available in 2023.<sup>97</sup> A second work plan based on current capacity foresees completion in up to 16 years.<sup>98</sup>

Setting a timeline for completion remains complicated by the fact Iraq lacks an up-to-date baseline estimate of CMR contamination and the survey being conducted by NPA to achieve it is finding significantly more previously unrecorded hazardous areas than are being cleared.<sup>99</sup> The extension request bases its proposed work plans on a November estimate, putting CMR contamination at 181km<sup>2</sup>. By the end of the year, that figure had risen to 189km<sup>2</sup>. The extension request calculates that survey will identify another 79km<sup>2</sup>

of contamination by the end of 2028, based on a projected percentage rise in individual governorates. These ranged from a projected increase of 10% in governorates with small amounts of CMR contamination, including Babylon, Kerala, and Najaf, to an increase of 20% in Thi Qar, 40% in Muthanna, and 80% in Basrah.<sup>100</sup> Results of survey in the past year suggest the estimated additional contamination may be conservative.

Other obstacles to completing include the priority given by Iraq and its international donors to clearing mainly improvised mine contamination in areas liberated from Islamic State, overshadowing both CMR and extensive "legacy" mined areas in the south. Iraq also cites the lack of a response to its request for US cluster bomb target data and climate factors which have resulted in migration of explosive ordnance, including cluster munitions.<sup>101</sup>

The biggest challenge alongside the size of contamination is the scarcity of resources available to tackle it. Iraq's 2023 extension request reports that the government allocated \$80.5 million to mine action in the period 2013–22, but annual spending in the past two years was less than \$4 million and only an unspecified share of that sum went to tackling CMR.<sup>102</sup> Iraq's new national mine action strategy for 2023–28 says it will seek to attract more funding to address CMR and mine contamination in the south, particularly in Basrah governorate.<sup>103</sup> The government has allocated 20 billion Iraqi dinars (\$17 million) over three years to support implementation of the CCM.<sup>104</sup>

**Table 7: Five-year summary of CMR clearance**

Year	Federal Iraq (km <sup>2</sup> )	KRI (km <sup>2</sup> )	Totals
2022	16.6	0	16.6
2021	10.2	0	*10.2
2020	5.7	N/R	5.7
2019	4.3	0.4	**4.7
2018	7.2	0	7.2
<b>Totals</b>	<b>44.0</b>	<b>0.4</b>	<b>44.4</b>

N/R = Not reported \* Previously reported as 13.8km<sup>2</sup>, but subsequently corrected downwards

\*\* Based on Mine Action Review calculation

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

There is no active planning for the management of residual contamination.

<sup>96</sup> CCM Article 7 Report (covering 2021), Form F.

<sup>97</sup> CCM Article 4 deadline Extension Request, 11 April 2023, Annex A.

<sup>98</sup> Ibid., p. 10, cites 15.2 years. Annex B of the request puts the figure at 16 years.

<sup>99</sup> CCM Article 4 deadline Extension Request, 11 April 2023, p. 12.

<sup>100</sup> Ibid., p. 24.

<sup>101</sup> Ibid., pp. 9, 28.

<sup>102</sup> Ibid., p. 40.

<sup>103</sup> Iraq National Mine Action Strategy 2023–2028, pp. 21–22 and 24.

<sup>104</sup> Interview with Bakr Sahib Ahmed, DMA, in Baghdad, 11 May 2023; and email from UNMAS Headquarters, 24 July 2023.

**ARTICLE 4 DEADLINE: 1 AUGUST 2025**

**LAO PDR WILL REQUIRE MULTIPLE EXTENSIONS BEFORE REACHING COMPLETION**

### KEY DATA

**CLUSTER MUNITION  
CONTAMINATION: MASSIVE**

**NO RELIABLE ESTIMATE**

OF CLUSTER MUNITION CONTAMINATION

SUBMUNITION  
CLEARANCE IN 2022

**50.72<sub>km<sup>2</sup></sub>**

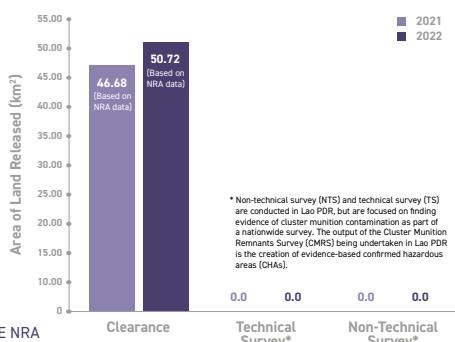
(BASED ON CLEARANCE DATA  
REPORTED BY THE NRA)

SUBMUNITIONS  
DESTROYED IN 2022

**65,293**

(BASED ON DATA REPORTED BY THE NRA  
AND INCLUDING 20,426 SUBMUNITIONS  
DESTROYED DURING SPOT TASKS)

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

Clearance output in Lao People's Democratic Republic (Lao PDR) in 2022 was again higher than the previous year. This was largely the result of the continued shift towards clearance since 2021, which has seen the United States (US) increase its funding for clearance capacity to address the confirmed hazardous areas (CHAs) identified through the ongoing Cluster Munition Remnants Survey (CMRS). Clearance output in 2022 finally reached the 50km<sup>2</sup> target envisaged in Lao PDR's 2019 Convention on Cluster Munitions (CCM) Article 4 deadline extension request, but still fell 50% short of the 100km<sup>2</sup> clearance per year envisaged in Lao PDR's 9<sup>th</sup> National Socio-Economic Development Plan.

The new national strategy for the unexploded ordnance (UXO) sector, "Safe Path Forward III" (2021–30), was adopted in January 2023. Work on a national prioritisation system for clearance was initiated in the first half of 2022, with the support of Tetra Tech, and the National Regulatory Authority (NRA) aims to launch the national prioritisation process in 2023.

## RECOMMENDATIONS FOR ACTION

- The NRA should develop a national planning and prioritisation system to support cluster munition remnants (CMR) survey and clearance as a matter of urgency.
- The NRA should report and communicate on the progress made in the clearance of identified CHAs.
- Procedures for issuing, amending, or renewing memorandums of understanding (MoUs) should be streamlined to avoid inefficiencies and excessive delays. Lao PDR should also consider permitting longer-term MoUs to help attract more investment into the sector while maximising impact.
- The NRA should complete a review of the national standards to ensure that best practices are effectively disseminated across all operators.
- The NRA should ensure the Information Management System for Mine Action (IMSMA) database is accurate and up to date, incorporating the results of the ongoing nationwide CMRS. The NRA should ensure that historical operational data that are not already in the database are available to operators engaged in survey and clearance.

- The NRA should take on board the recommendations of the international clearance non-governmental organisations (NGOs) and expand the mine action toolbox to include the use of mine/explosive detection dogs (MDDs/EDDs) and drones in order to increase operational efficiency.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2022)	Score (2021)	Performance Commentary
<b>UNDERSTANDING OF CMR CONTAMINATION</b> (20% of overall score)	7	7	Lao PDR does not yet have a reliable estimate of CMR contamination, but is undertaking a nationwide survey of populated areas. As at end 2022, 1,745km <sup>2</sup> of CHA had been identified through survey. Proactive, systematic CMRS of assigned villages from the official list has now been concluded in five provinces (Attapeu, Champassak, Saravan, Savannakhet and Xekong); and is ongoing in Xiengkhouang. CMRS is also being undertaken in five other provinces, although not systematically, as funding has been sporadic in these provinces. Of the remaining seven provinces, four are known to have significant contamination but do not currently have funding for CMRS and the remaining three have low levels of contamination and are deprioritised. Since 2021, there has been a greater focus on clearance rather than survey, to address the CHAs generated through CMRS.
<b>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</b> (10% of overall score)	6	6	There is strong national ownership from the NRA and mine action in Lao PDR is also firmly linked to the government's sustainable development planning. However, MoU procedures continued to be complex, causing notable delays and significantly impeding implementation and expansion of survey and clearance, and in some cases preventing the spending of international funding.
<b>GENDER AND DIVERSITY</b> (10% of overall score)	7	7	Gender mainstreaming in the UXO sector is led by the NRA, and supported by the Lao Women's Union. In its new "Safe Path Forward III" strategy (2021–30), the NRA states that gender mainstreaming is important for the national strategic plan and work plans, that data needs to be disaggregated by sex and age, and that women must be engaged in work planning and the implementation of projects. Clearance operators report having gender policies in place and also putting measures in place to take into account diversity considerations in their survey and clearance programming, such as inclusion of minority ethnic groups and language groups, older people, and persons with disabilities. For example, HALO has continued its relationship with ARMI (Association for Rural Mobilisation and Improvement) in Savannakhet to provide employment opportunities to people with disabilities. Humanity and Inclusion (HI) considers older persons with disabilities as an underrepresented group and efforts are made to collaborate with local partners to ensure their rights are appropriately addressed. NPA continued its efforts to broaden inclusivity with the support of "Proud To Be Us Laos", a national organisation campaigning for the rights and non-discrimination of all persons regardless of sexual orientation, gender, identity, and expression (SOGIE).
<b>INFORMATION MANAGEMENT AND REPORTING</b> (10% of overall score)	6	6	There are ongoing efforts to correct historical data in IMSMA, and to improve data collection forms and other information management systems and processes to ensure the quality and transparency of data, especially given the increased volume of data resulting from the ongoing nationwide CMRS. The NMAS on information management (IM) was reviewed and updated in 2019, but had yet to be formally approved as at May 2023. A technical working group (TWG) on IM meets quarterly.
<b>PLANNING AND TASKING</b> (10% of overall score)	6	6	The new national strategy for the UXO Sector, "Safe Path Forward III" (2021–30) was adopted in January 2023. The strategy was elaborated in consultation with relevant stakeholders, including civil society organisations, donors, and clearance operators. The target by 2030 is to have identified 2,500km <sup>2</sup> of CHA and cleared 1,000km <sup>2</sup> of land for agricultural and development purposes. This is an ambitious target, which is more than double the current clearance output. Since 2021, there has been a shift towards increasing clearance capacity and reducing survey capacity. Clearance output in 2022 finally surpassed the lowest of the three annual clearance scenarios (50km <sup>2</sup> clearance per year) envisaged in Lao PDR's extension request. Currently, there is no comprehensive national-level prioritisation matrix of clearance tasks, but Tetra Tech is supporting the NRA to address this. Work on the national prioritisation system was initiated in the first half of 2022 and the NRA aimed to launch the national prioritisation process in 2023.

Criterion	Score (2022)	Score (2021)	Performance Commentary
<b>LAND RELEASE SYSTEM</b> (20% of overall score)	8	8	Lao PDR is currently revising its UXO Survey Standards, which specify the minimum standards and requirements for the survey of all cluster munition-contaminated areas. Land release operations in Lao PDR are conducted by a range of national and international implementing partners. While survey and clearance operations are adapted to the local threat and context and adopt an evidence-based land release methodology, there is still room for improvement, such as through the use of drones and MDDs, which is not currently permitted.
<b>LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE</b> (20% of overall score)	8	8	Lao PDR is continuing the nationwide CMRS of cluster munition contamination, with the amount of CHA continuing to increase each year as the survey progresses. In 2022, the CMR clearance output increased compared to the previous year, while the amount of land confirmed through survey as CHA decreased, reflecting the shift in emphasis towards more clearance of the CMR contamination confirmed through survey.
<b>Average Score</b>	<b>7.1</b>	<b>7.1</b>	<b>Overall Programme Performance: GOOD</b>

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- National Regulatory Authority (NRA) Board
- National Regulatory Authority (NRA) Office

### NATIONAL OPERATORS

- UXO Lao
- Humanitarian teams of the Lao People's Army (Unit 58)
- Commercial operators

### INTERNATIONAL OPERATORS

- The HALO Trust (HALO)
- Humanity and Inclusion (HI)
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)
- Commercial operators

### OTHER ACTORS

- Asian Regional Mine Action Center (ARMAC)
- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Development Programme (UNDP)
- Tetra Tech

## UNDERSTANDING OF CMR CONTAMINATION

Lao PDR does not yet have a reliable estimate of CMR contamination,<sup>1</sup> but is undertaking a nationwide CMRS of affected villages that should produce a more evidence-based assessment of the extent of CMR contamination.<sup>2</sup> US bombing data indicate 70,000 individual target locations across Lao PDR.<sup>3</sup>

All 18 provinces are contaminated with UXO, including CMR, but to different degrees,<sup>4</sup> and the three provinces of Luang Namtha, Bokeo, and Xayabuli are not significantly contaminated by CMR.<sup>5</sup> The nine provinces most heavily affected by CMR are: Attapeu, Champassak, Houaphanh,

Khammouane, Luang Prabang, Saravan, Savannakhet, Xekong, and Xiengkhouang.<sup>6</sup>

In 2015, survey procedures were approved and Lao PDR initiated systematic technical survey (TS) using the CMRS methodology to determine the extent of contamination in populated areas.<sup>7</sup> This does not take into account other land, notably forested and mountainous areas, which constitute a significant proportion of the country and of estimated contaminated area,<sup>8</sup> and which pose a challenge to identifying the exact size and location of the contaminated areas in each province.<sup>9</sup> Systematic CMRS of all villages

1 Article 4 deadline Extension Request 2019 (hereafter, CCM Extension Request 2019), Part B, Detailed Narrative, p. 5.

2 Interview with Phoukhieo Chanthasomboune, Director, National Regulatory Authority (NRA), Vientiane, 4 May 2016; and NRA, "From Survey to Safety, Quantifying and Clearing UXO Contamination in Lao PDR", March 2016.

3 "US bombing records in Laos, 1964-73, Congressional Record", 14 May 1975; and Lao PDR's CCM Article 7 Report (covering 2022), Form F.

4 Article 7 Report (covering 2022), Form F; and email from Khammoungkhoun Southivong, Information Management Officer, NRA, 8 June 2023.

5 Email from Olivier Bauduin, UXO Program Advisor, US Embassy Vientiane, 21 July 2023.

6 CCM Extension Request 2019, Part B, Detailed Narrative, pp. 1 and 5; and Executive Summary, p. 1; and National Strategic Plan for the UXO Sector in the Lao PDR 2021-2030, "Safe Path Forward III" (hereafter, Lao PDR, "Safe Path Forward III"), p. 4.

7 Article 7 Report (covering 2022), Form F; and email from Olivier Bauduin, US Embassy Vientiane, 21 July 2023.

8 Email from Douangsy Thammavong, Deputy Director, NRA, 20 June 2022; and Article 7 Report (covering 2022), Form F.

9 Article 7 Report (covering 2022), Form F.

assigned in five provinces in the south (Attapeu, Champassak, Saravan, Savannakhet, and Xekong) has now been concluded,<sup>10</sup> with the exception of 9 villages subsequently assigned to Norwegian People's Aid (NPA) in Attapeu and 7 villages in Champassak in 2023, all of which had been concluded by July).<sup>11</sup>

The US now considers that the "proactive" phase of survey (i.e. the systematic village-by-village approach to survey using the NRA's list of contaminated villages) has been concluded in these five provinces and the provinces are now in a "reactive" phase of survey.<sup>12</sup> Considering the high level of CMR contamination in Lao PDR, previously unknown CMR evidence points will continue to be discovered even after completion of systematic CMRS of villages. Adequate TS capacity has been maintained by NPA and The HALO Trust (HALO) to respond to new evidence points.<sup>13</sup> The completion of proactive survey in these five southern provinces is notwithstanding the fact that survey of some villages or parts of villages in Lao PDR is restricted, often for reasons of national security. Furthermore, it is unclear to what extent survey of villages assigned to UXO Lao has been fully "completed" in these five provinces, as UXO Lao does not complete survey of entire villages in the same way that

HALO, MAG, and NPA do. Systematic village-to-village CMRS (proactive survey phase) is still underway in Xiengkhouang province, which is the most contaminated province.<sup>14</sup>

Some survey is also being undertaken in five other provinces (Bolikhambai, Houaphanh, Khammouane, Luang Prabang, and Vientiane province), although not systematically, as funding for TS/CMRS has been sporadic in these provinces. Of the remaining seven provinces, three (Oudomxay, Vientiane Capital, and Xaisomboun) are known to have significant contamination but do not currently have funding for TS/CMRS. In the fourth remaining province, Phongsaly, HI began CMRS in two districts at the start of 2023.<sup>15</sup> The remaining three (Bokeo, Luangnamtha, and Sainyabuli) have low levels of contamination and are deprioritised.<sup>16</sup>

As at the end of 2022, a total of 1,745km<sup>2</sup> of CHA had been identified through TS (see Table 1);<sup>17</sup> an increase on the almost 1,530km<sup>2</sup> of CMR-contaminated area as at the end of 2021.<sup>18</sup> The amount of CHA is expected to continue to increase over the next few years, although since 2021, there has been a shift towards increasing clearance capacity and reducing survey capacity, in order to clear the CHAs identified during the CMRS up to now.

**Table 1: Cluster munition-contaminated area confirmed through survey (at end 2022)<sup>19</sup>**

Province	Villages	CHAs	Total area (km <sup>2</sup> )
Attapeu	123	1,576	147.75
Bolikhambai	52	35	1.80
Champassak	139	471	27.23
Houaphanh	119	479	46.47
Khammouane	106	685	130.84
Luang Prabang	54	280	27.94
Saravan	359	2,486	121.41
Savannakhet	422	4,983	211.42
Vientiane	21	5	0.39
Xekong	151	1,322	93.20
Xiengkhouang	256	1,842	936.84
<b>Totals</b>	<b>1,802</b>	<b>14,164</b>	<b>1,745.29</b>

In its 2019 Article 4 deadline extension request, Lao PDR estimated that the total CMR contamination is approximately 8,470km<sup>2</sup>, a figure unchanged since its September 2011 clearance statement to the CCM Second Meeting of States Parties.<sup>20</sup> No estimate of CMR contamination was given in Lao PDR's latest Article 7 report (covering 2022).

10 Article 7 Report (covering 2022), Form F. In its response to Mine Action Review's questionnaire, however, the NRA said that survey had not yet been completed in any province (email from Khammoungkhoun Southivong, NRA, 8 June 2023).

11 Email from Katherine Harrison, Programme Coordinator, NPA, 9 May 2023; and additional information from Sasa Jelacic, NPA, 4 July 2023.

12 Email from Olivier Bauduin, US Embassy Vientiane, 21 July 2023; and Article 7 Report (covering 2022), Form F.

13 Emails from Olivier Bauduin, US Embassy Vientiane, 21 July 2023; and Katherine Harrison, NPA, 9 May 2023; and Article 7 Report (covering 2022), Form F.

14 Article 7 Report (covering 2022), Form F; and presentation by Peter Haymond, Ambassador of the US to Lao PDR, minutes of the UXO Sector Working Group meeting, 16 September 2022.

15 Email from Alexandra Letcher, HI, 6 April 2023.

16 Article 7 Report (covering 2022), Form F.

17 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

18 Email from Douangsy Thammavong, NRA, 20 June 2022.

19 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

20 CCM Extension Request 2019, Part B, Detailed Narrative, pp. 3 and 5; and Executive Summary, p. 4; and Article 7 Report (covering 2021), Form J.

Lao PDR certainly has the world's highest level of contamination by unexploded submunitions as a result of the Indochina War of the 1960s and 1970s. The United States conducted one of the heaviest aerial bombardments in history, dropping more than two million tonnes of bombs between 1964 and 1973,<sup>21</sup> including more than 270 million submunitions (known locally as bombies). The failure rate is not known, but Lao PDR reports it may have been as high as 30 per cent, and an estimated 80 million submunitions are thought to have remained unexploded at the end of the war.<sup>22</sup> Lao PDR estimates that over 75 million submunitions remain.<sup>23</sup>

During the period of its Article 4 extension period (2020–25), Lao PDR will focus survey on populated areas of the most heavily contaminated provinces currently being surveyed, but the remaining affected provinces will also need to be surveyed in order to quantify the extent of CMR contamination nationwide.<sup>24</sup>

The current baseline of CMR contamination is being established through inclusive consultation with women, girls, boys, and men, including, where relevant, from minority groups, during non-technical survey (NTS) at the village level.<sup>25</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Lao PDR also has extensive contamination from other explosive remnants of war (ERW), including both air-dropped and ground-fired unexploded ordnance (UXO), though the extent of contamination is not known. Clearance operators have reported the presence of at least 186 types of munition in Lao PDR. These range from 20lb fragmentation bombs to 3,000lb general-purpose bombs, as well as artillery shells, grenades, mortars, and rockets.<sup>26</sup> Humanity and Inclusion (HI) also reported discovery of explosive ordnance mounted with mechanical or time-delay fuzes, other items such as XM 146 sensors, and items with all-ways acting fuzes (such as BLU 26 and BLU 74 submunitions), found on slopes and which could easily roll downhill if disturbed. Such devices present a particular hazard and it is risky to move them.<sup>27</sup> Lao PDR is also contaminated, but to a much lesser extent, by anti-personnel mines and anti-vehicle mines (See Mine Action Review's *Clearing the Mines* report on Lao PDR for more information).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The NRA, created by government decree in 2004 and active since 2006, has an inter-ministerial board composed of representatives from government ministries and is chaired by the Minister of Labour and Social Welfare.<sup>28</sup> A 2018 decree, "On the Organisation and Operations of the National Regulatory Authority for UXO in Lao PDR" defines the position, role, duties, rights, organisational structure, and the working principles and methods of the NRA.<sup>29</sup> A new National Decree on UXO management was endorsed by the government in July 2022.<sup>30</sup> In an important development for the UXO sector, the NRA was set to be moved from under the Ministry of Labour and Social Welfare to the Ministry of Foreign Affairs from August 2023, which would likely demand a period of transition.<sup>31</sup>

The NRA acts as the coordinator for national and international clearance operators and serves as the national focal point for the sector. This includes overall management and consideration of policy, planning, projects, and coordination of the implementation of the national strategy nationwide, as well as NRA planning and coordination functions at the provincial and district levels.<sup>32</sup> The current director of the NRA has been in post since June 2019.<sup>33</sup> Trainings were provided in 2019–20 to strengthen UXO management for provincial and district authorities to integrate UXO work into the socio-economic development plans in 15 provinces.<sup>34</sup> Effective coordination is needed to help prioritise clearance of the huge number of CHAs already in the database as a result of the ongoing CMRS.<sup>35</sup>

21 CCM Extension Request 2019, Part B, Detailed Narrative, pp. 1 and 5.

22 Ibid., p. 1.

23 Article 7 Report (covering 2022), Form F.

24 CCM Extension Request 2019, Executive Summary, p. 5; and Part B, Detailed Narrative, p. 23.

25 Emails from Mark Frankish, UNDP, 26 August 2020; Chomyaeng Phengthongsawat, Director General, NRA, 21 June 2021; and Douangsy Thammavong, NRA, 20 June 2022.

26 CCM Extension Request 2019, Part B, Detailed Narrative, p. 1.

27 Emails from Alexandra Letcher, Regional Armed Violence Reduction (AVR) Specialist – Mekong and Myanmar-Thailand, Humanity and Inclusion (HI), 6 April and 28 June 2023.

28 CCM Extension Request 2019, Part B, Detailed Narrative, p. 18.

29 Government Decree No. 67, dated 12 February 2018; CCM Extension Request 2019, Part B, Detailed Narrative, p. 17; and Statement of Lao PDR on National Implementation Efforts, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.

30 Government Decree No. 210, dated 29 July 2022. Presentation by Chomyaeng Phengthongsawat, NRA, minutes of the UXO Sector Working Group meeting, 16 September 2022.

31 Email from Olivier Bauduin, US Embassy Vientiane, 21 July 2023.

32 CCM Extension Request 2019, Part B, Detailed Narrative, p. 18.

33 Email from Olivier Bauduin, US Embassy Vientiane, 29 September 2020.

34 Lao PDR, "Safe Path Forward III", p. 10.

35 CCM Extension Request 2019, Part B, Detailed Narrative, p. 26.

Lao PDR contributed US\$17,000 towards the rental of the NRA office in 2022 and training of UXO Lao deminers,<sup>36</sup> slightly less than the US\$18,000 contributed in 2021.<sup>37</sup> Lao PDR also makes in-kind contributions to mine action including the salaries of the humanitarian clearance teams of the Lao People's Army (Unit 58), and through tax exemptions for visas, and importing vehicles and equipment for humanitarian operators.<sup>38</sup> Clearance operators are, however, required to pay visa fees for expatriates and the previous tax concession of tax exemption for international experts was removed from all MoUs after 2018.<sup>39</sup> In addition, a new Income Tax Law means that NGO international staff now pay income tax since the start of 2021.<sup>40</sup> Lao PDR has said that it requires US\$50 million annually for clearance and mine risk education.<sup>41</sup> The NRA plans to diversify the sources of funding in the current Article 4 extension period, including engaging the private sector and non-institutional donors.<sup>42</sup>

During the Association of Southeast Asian Nations (ASEAN) summit in September 2016, Lao PDR launched sustainable development goal (SDG) 18, "Lives Safe from UXO", which focuses on freeing the country from UXO. The inclusion of UXO as a specific output in the NSEDP for 2021–2025, launched in April 2021, demonstrates Lao PDR's commitment to removing UXO as a barrier to development.<sup>43</sup>

UNDP provides programmatic and technical support to the NRA and UXO Lao, including with regard to information sharing and coordination, albeit at a reduced capacity compared to previous years.<sup>44</sup> Further capacity development in information management (IM), quality management (QM), and operations support is provided, primarily to UXO Lao, and to a lesser extent the NRA, through a US-funded contractor, Tetra Tech.<sup>45</sup>

In 2022, UXO Lao received a range of capacity development support through various implementing partners.<sup>46</sup>

HI provides capacity development support to the provincial NRA in Houaphanh and Phongsaly provinces.<sup>47</sup>

In 2019, Lao PDR reported it had begun to create a Country Coalition "by modifying the existing mechanism through

the Round Table Meeting process". However, progress had been delayed by the outbreak of COVID-19.<sup>48</sup> In May 2022, Lao PDR announced during the CCM intersessional meetings that a Country Coalition had been set up under the existing name of the "UXO Sector Working Group", which the national authorities had developed from their existing coordination mechanism. Lao PDR hope that the "new" UXO Sector Working Group, which is based on a multi-stakeholder approach, will improve practical measures and further explore resource mobilisation to accomplish its Article 4 extension work plan.<sup>49</sup> The SWG, which is led by the chair of the NRA board, and co-chaired by UNDP and the US Ambassador in Vientiane, meets biannually. The SWG met once in 2022, on 16 September, attended by members of the NRA board and staff, foreign ambassadors, representatives from line ministries of the Lao government, UXO provincial authorities, and UXO clearance operators.<sup>50</sup> It provided a useful and transparent forum to discuss progress and challenges in addressing CMR contamination and to strengthen coordination and resource mobilisation.

A roundtable meeting took place on 29 November, during which a UNDP review of the SWG was discussed. Other meetings and consultations were also convened in 2022 regarding the elaboration of "Safe Path Forward III" Strategy.<sup>51</sup>

International clearance operators continued to have good cooperation and coordination with the NRA at the national, provincial, and district levels,<sup>52</sup> but the multiple layers of bureaucracy in Lao PDR remained a challenge. Humanitarian clearance operators are involved in key decision-making processes by the NRA, including through participation in sector meetings and Technical Working Groups (TWG) meetings, and through discussions during other formal and informal meetings and field visits.<sup>53</sup> There are four TWGs: for survey and clearance, IM, explosive ordnance risk education (EORE), and victim assistance (VA), each of which meets quarterly.<sup>54</sup> In addition, it might be useful for the NRA to assign a focal point for each organisation, to enable smooth communication.<sup>55</sup> Lack of resources and capacity of

36 Article 7 Report (covering 2022), Form F.

37 Article 7 Report (covering 2021), Form I.

38 Ibid.; and email from Khammoungkhoun Southivong, NRA, 8 June 2023.

39 Emails from Katherine Harrison, NPA, 9 September 2020; Cameron Imber, Programme Manager, HALO, 11 June 2021; Julien Kempeneers, Regional Armed Violence Reduction and Humanitarian Mine Action Specialist, HI, 16 June 2021; and Rebecca Letven, Country Director, MAG, 19 June 2021.

40 Emails from Cameron Imber, HALO, 11 June 2021; and Katherine Harrison, NPA, 19 June 2021.

41 Article 7 Report (covering 2022), Form I.

42 CCM Extension Request 2019, Part B, Detailed Narrative, p. 7.

43 Email from Olivier Bauduin, US Embassy Vientiane, 6 July 2021.

44 Interview with Olivier Bauduin, UNDP, Vientiane, 2 May 2018; and email, 10 July 2018.

45 Email from Nigel Orr, Technical Advisor Survey and Clearance, Tetra Tech, 14 June 2019; and "US Renews Partnership with Lao PDR to Build Capacity in UXO Sector", US Embassy in Lao PDR, 31 January 2020, at: <http://bit.ly/2LzmG8J>.

46 Email from Vilaivanh Thongmanivong, Chief of Programme Office and Public Information Unit, UXO Lao, 25 May 2023.

47 Email from Alexandra Letcher, HI, 6 April 2023.

48 Statement of Lao PDR on International Cooperation and Assistance, Second CCM Review Conference (Part 1, virtual meeting), 25–27 November 2020.

49 Statements of Lao PDR on International Cooperation and Assistance, CCM Intersessional meetings, Geneva, 16–17 May 2022; and CCM Tenth Meeting of States Parties, 30 August–2 September 2022.

50 Emails from William Hunter, Programme Manager, HALO, 8 May 2023; and Katherine Harrison, NPA, 9 May 2023; and comments by Padeumphone Sonthany, Deputy Minister of Labour and Social Welfare and Deputy Chairperson of the NRA Board, minutes of the UXO Sector Working Group meeting, 16 September 2022.

51 Email from Katherine Harrison, NPA, 9 May 2023.

52 Emails from Alexandra Letcher, HI, 6 April 2023; William Hunter, HALO, 8 May 2023; Katherine Harrison, NPA, 9 May 2023; and Portia Stratton, MAG, 15 May 2023.

53 Emails from Simon Rea, Regional Director, South and South East Asia, MAG, 17 June 2020; Katherine Harrison, NPA, 6 May 2020 and 31 March 2021; Rebecca Letven, MAG, 30 March 2022; Cameron Imber, HALO, 31 March 2022; and Alexandra Letcher, HI, 6 April 2023.

54 CCM Extension Request 2019, Part B, Detailed Narrative, p. 25; and emails from Alexandra Letcher, HI, 6 April 2023; and Rupert Leighton, UNDP, 18 July 2023.

55 Email from Julien Kempeneers, HI, 30 March 2022.

some of the provincial NRAs can impact their ability to fulfil their roles.<sup>56</sup>

One of the biggest challenges encountered by operators in Lao PDR continues to be the procedure for MoUs, which remains lengthy, complex, and labour-intensive. Complications at each level (district, provincial, and central) continue to cause significant delay and impede the implementation and expansion of survey and clearance, including by preventing the procurement and import of equipment. Operators are required to report and secure approval for completed projects before an MoU for a new project can be approved.<sup>57</sup> Delays to MoUs continued to impact on operators in 2022, both in terms of deployment of teams,<sup>58</sup> as well as import or procurement of equipment, and the issuing of multiple-entry visas for key international staff.<sup>59</sup> Typically it takes a minimum of six months for an MoU to be approved, but it may even take years, sometimes resulting in donor funding not being spent and being returned.<sup>60</sup> That said, UXO Sector MOUs are regularly approved quicker than most of the other sectors of Development Cooperation in Lao PDR.<sup>61</sup>

The current procedure does not favour integrated approaches or partnerships, as according to Ministry of Foreign Affairs (MoFA) rules, it is not possible to present a consortium of international organisations in the same MoU.<sup>62</sup> Furthermore, even after formal approval of an MoU, operators may still experience challenges importing necessary equipment<sup>63</sup> or small items of additional equipment, which require time-intensive MoU amendments.<sup>64</sup>

In the new Safe Path Forward III strategy, the NRA says that it has made progress in simplifying the MoU procedures in the UXO sector, but acknowledged that they remain slow and this that impacts operational efficiency and may impact

sector funding. It said that alternative MoU modalities that simplify management, both by NRA and the operators, may increase operational efficiency and funding.<sup>65</sup> At the SWG meeting in September 2022, the Deputy Minister of Labour and Social Welfare who serves as Deputy Chairperson of the NRA Board said Lao PDR will discuss further how to facilitate the procedure for renewing MoUs, especially regarding time management.<sup>66</sup> The NRA listed inconsistent MoU compliance of the UXO operators, as a challenge faced in 2022.<sup>67</sup> UNDP suggested improving the MoU process to enable longer-term MoUs to be concluded with broader objectives linked to Safe Path Forward III outcomes and timeframe. UNDP believes improving the MoU process would invite more investment to the sector while maximising impact.<sup>68</sup> In November 2022, the NRA Director organised and led a workshop with the four INGOs in order to share lessons learned and improve compliance to MOFA requirements, and the MOFA Vientiane and several provinces were represented.<sup>69</sup>

Operators' experiences regarding the MoU process varied. HI reported that MoU processes remain slow and the obligation to split MoUs by province (even if under the same project/grant), and length of the MoU process, continued to present issues.<sup>70</sup> Mines Advisory Group (MAG) said that the signing of MoUs remained a challenge, but that the granting of interim permission to operate meant it did not have a negative impact on MAG's operations and there was no gap between MoUs.<sup>71</sup> In contrast, NPA reported that continued delays in the MoU process resulted in lost operational days and outputs in 2022.<sup>72</sup>

56 Emails from Julien Kempeneers, HI, 30 March 2022; Rebecca Letven, MAG, 30 March 2022; Cameron Imber, HALO, 31 March 2022; and Katherine Harrison, NPA, 6 May 2020 and 31 March 2021.

57 Interviews with international operators, Lao PDR, 1–12 May 2018; and emails from Fiona Kilpatrick, HALO, 29 March 2019; Blossum Gilmour, MAG, 21 March 2019; Rebecca Letven, MAG, 26 March 2021; Katherine Harrison, NPA, 6 May 2020 and 31 March 2021; and Julien Kempeneers, HI, 16 March 2021.

58 Email from Katherine Harrison, NPA, 9 May 2023.

59 Interviews with international operators, Lao PDR, 1–12 May 2018; and emails from Fiona Kilpatrick, HALO, 29 March 2019; Blossum Gilmour, MAG, 21 March 2019; Rebecca Letven, MAG, 30 March 2022; Katherine Harrison, NPA, 6 May 2020 and 31 March 2021; and Julien Kempeneers, HI, 16 March 2021 and 30 March 2022.

60 Email from Katherine Harrison, NPA, 9 September 2020.

61 Email from Olivier Bauduin, US Embassy Vientiane, 21 July 2023.

62 Emails from Julien Kempeneers, HI, 16 June 2021 and 30 March 2022.

63 Interviews with international operators, Lao PDR, 1–12 May 2018.

64 Email from Julien Kempeneers, on behalf of Yvon Le Chevanton, Technical Survey/Clearance Operations Manager, HI, 25 March 2020.

65 Lao PDR, "Safe Path Forward III", p. 12.

66 Comments by Padeumphone Sonthany, Ministry of Labour and Social Welfare (MoLSW), minutes of the UXO Sector Working Group meeting, 16 September 2022.

67 Presentation by Chomyaeng Phengthongsawat, NRA, minutes of the UXO Sector Working Group meeting, 16 September 2022.

68 Presentation by Catherine Phuong, UNDP OIC Deputy Resident Representative to Lao PDR, minutes of the UXO Sector Working Group meeting, 16 September 2022.

69 Email from Olivier Bauduin, US Embassy Vientiane, 21 July 2023.

70 Email from Alexandra Letcher, HI, 6 April 2023.

71 Emails from Portia Stratton, MAG, 15 May 2023; and Olivier Bauduin, US Embassy Vientiane, 21 July 2023.

72 Email from Katherine Harrison, NPA, 9 May 2023. At the start of 2022, NPA encountered unexpected delays in authorisation from the NRA in Vientiane to allow for interim permission for team deployment in the first quarter of the year, pending the signature of an amended MoU to implement activities in 2022. This was despite NPA having secured approvals from each provincial authority for interim permission. The US State Department Bureau of Political-Military Affairs (PM/WRA) intervened to support NPA's case with the NRA and the teams were able to deploy on 25 January 2022, having lost seven working days. As the MoU had still not been signed by the end of March 2022, NPA was forced to seek renewed interim permission to continue operations after teams returned from the Pii Mai stand down in April. A last-minute discontinuation of permission for interim operations in Champassak and Saravane delayed the deployment of 14 PM/WRA-funded NPA teams which were planned to have been deployed on tasks, which in turn affected NPA's seasonal deployment and operational work plan. This meant it was not possible to deploy on tasks favourable to the weather conditions at the time as planned.

## ENVIRONMENTAL POLICIES AND ACTION

Lao PDR has a NMAS on Environmental Management (chapter 21), but it is in need of revision. The NMAS refers to outdated 1999 national laws on environmental protection, rather than the current national environmental legal framework with which UXO sector activities should comply.<sup>73</sup>

In the new Safe Path Forward III strategy, the NRA says that climate change is a challenge to addressing UXO issues in the Lao PDR.<sup>74</sup> It also reiterates that mine action activities have to be “compliant with national standard and Environmental Protection Law (EPL) of Lao PDR”.<sup>75</sup>

Informal discussions on the existing NMAS on Environmental Management were held during an ASEAN Regional Mine Action Centre (ARMAC)/International Committee of the Red Cross (ICRC)-hosted regional workshop on environment and mine action in Cambodia, in October 2022, between HALO, MAG, NPA, UXO Lao, and Zero Waste Laos (ZWL). NPA and ZWL shared preliminary analysis on areas where the national chapter can and should be revised. NPA intends to discuss revising the national standard with the NRA and other relevant stakeholders, while also closely following discussions on revisions to International Mine Action Standards (IMAS) 7.13.<sup>76</sup>

HALO Laos currently does not have an environmental management system in place.<sup>77</sup> HALO’s global environmental/sustainability committee has explored options for mitigating the impact of cluster munition clearance operations in Lao PDR, but has been unable to implement any meaningful plan due to the strict budgetary constraints imposed by HALO’s current MoUs. HALO’s Laos programme, did, however, implement a plan to install solar panels at its Sepon headquarters (HQ) that will power the entire HQ during daylight hours. The panels were installed in January of 2023.<sup>78</sup> As at May 2023, HALO was still seeking a supplier of biodegradable sandbags to use for demolitions, instead of plastic sandbags, that contribute to the tremendous amount of plastic waste that pollutes Laos.<sup>79</sup>

HI has a generic “Environmental Management” SOP available for all its country programmes, and in June 2023, completed the development of a dedicated environment SOP for its operations in Lao PDR. HI believes the extent of explosive ordnance and the daily EOD operations conducted in Lao PDR cause land degradation through access denial, loss of biodiversity, presence of toxic explosives, and damage to soil stability, increasing its susceptibility to erosion.<sup>80</sup>

MAG does not currently have a specific environmental SOP but this is being included as part of the ongoing SOP revision currently ongoing to incorporate International Mine Action Standard (IMAS) 7.13. During the process MAG Laos will adapt MAG’s Global Technical Standard on Environmental Management to suit the Laos standard.<sup>81</sup> During ground preparation, MAG ensures the protection of trees above a certain size. It is also starting to implement some changes to reduce the environmental impact of its work, such as installing solar power and it is investigating the possibility of introducing hessian sandbags to reduce plastic use.<sup>82</sup>

NPA has an annex on environmental management in its SOP on UXO clearance operations, which reflects the obligations of the current IMAS 7.13, and which is followed during survey and clearance operations as part of its environmental protection and “do no harm” policy.<sup>83</sup> In addition, NPA Lao PDR has developed “Green Office” and “Green Operations” tools to assess and monitor NPA’s environmental footprint. The tools cover eight key areas: green office policy and management; communications and engagement; energy use; solid waste management; air quality; travel emissions; green activities; and water and wastewater management.

NPA has been working with the national youth volunteer organisation, ZWL. In 2022, annual environmental training was conducted for over 430 NPA staff on resource and energy efficiency, climate change awareness, and reinforcing waste management and recycling activities. Two advanced trainings were conducted for Vientiane and

73 Email from Katherine Harrison, NPA, 9 May 2023.

74 Lao PDR, “Safe Path Forward III”, p. 12.

75 Ibid., p. 17.

76 Email from Katherine Harrison, NPA, 9 May 2023.

77 Email from Cameron Imber, HALO, 31 March 2022.

78 Email from William Hunter, HALO, 8 May 2023

79 Ibid.

80 Emails from Julien Kempeneers, HI, 30 March 2022; and Alexandra Letcher, HI, 28 June 2023.

81 Email from Portia Stratton, MAG, 15 May 2023.

82 Email from Rebecca Letven, MAG, 30 March 2022.

83 Email from Katherine Harrison, NPA, 9 May 2023.

Pakse office staff introducing concepts of system thinking and sustainability mindsets related to climate change and environmental protection.<sup>84</sup>

In July 2022, NPA and ZWL held a series of “Youth Climate Action in Southern Laos” events in each of NPA’s four provinces of operations. More than 320 participants, including representatives from the Department of Education and Sports, principals from 100 schools, teachers, and students from elementary to university-levels attended. During the events, ZWL and NPA monitored the use of recycling collection points and composting facilities set up in three high schools in 2021, planted trees, and held environment and climate change awareness activities and games.<sup>85</sup>

In addition, NPA supported ZWL to plant and distribute 3,000 fruit trees in 100 schools across the four provinces where it operates, as part of a countrywide “tree and seedling planting initiative” implemented by ZWL, with primary support from the European Union (EU).<sup>86</sup>

In December, NPA, together with the EU, British Embassy, World Vision, and Nam Theun 2 Power Company, supported ZWL to organise a large “Youth 4 Sustainable Development Goals (SDGs) 2022” event in Vientiane, which was attended by over 300 elementary to university-level students. More than 20 youth-led organisations, civil society organisations, and international NGOs hosted interactive booths on each SDG. NPA organised a booth on SDG 18 “Lives Safe from UXO”, together with local students assigned to lead informative games/information quests about UXO.<sup>87</sup>

UXO Lao said that the environment is taken into consideration during demining, in particular with respect to mine contamination.<sup>88</sup> The operations team is not allowed to burn forest or cut down trees with a diameter of over 60 cm. If the vegetation cutting team needs to conduct any demolition or dig holes, they are required to return soil to the area after clearance.<sup>89</sup> UXO Lao began a revision of its SOP in 2021, which included revision of the Environmental Management SOP (chapter 13). As at May 2023, the SOP was being translated prior to submission to the NRA.<sup>90</sup>

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## GENDER AND DIVERSITY

While the NRA has yet to develop a gender and diversity policy, gender is integrated into all core UXO documents including work plans and the national strategy, and relevant mine action data are disaggregated by sex and age. Women are consulted in group discussions as part of survey and clearance activities, but the needs of women and children have yet to be fully taken into account in prioritisation and planning. The NRA said that it conducted gender mainstreaming analysis in 2022. Of the 63 employees at the NRA (including the national training centre), 21 (33%) were women, including 20% (3) of the 15 managerial or supervisory positions and 38% (18) of the 48 operational positions.<sup>91</sup>

In its new Safe Path Forward III strategy, the NRA states that gender mainstreaming is important for the national strategic plan and work plans, and that data needs to be disaggregated by sex and age, and women must be engaged in work planning and the implementation of projects.<sup>92</sup> Gender mainstreaming in the UXO sector is led by the NRA, together with the Lao Women’s Union.<sup>93</sup> Following the establishment of a partnership in 2018 between UN Women, the NRA, and the Lao Women’s Union on how to promote gender rights in the UXO sector, a “Manual for Trainers on Gender Mainstreaming in the UXO Sector, Lao PDR” was piloted during a workshop in December 2018 and published in 2019.<sup>94</sup>

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84 Ibid.

85 Email from Katherine Harrison, NPA, 9 May 2023.

86 Ibid.

87 Ibid.

88 Email from Noupin Phimmasy, UXO Lao, 4 June 2022.

89 Email from Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.

90 Ibid.

91 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

92 Lao PDR, “Safe Path Forward III”, p. 17.

93 Statement of Lao PDR on National Implementation Measures, Second CCM Review Conference (Part 1, virtual meeting), 25–27 November 2020.

94 UN Lao PDR, “Training of Trainer’s Workshop Promotes Gender Equality in UXO Sector”, 13 December 2018, available at: <http://bit.ly/3haKMnB>.

Table 2: Gender composition of operators in 2022<sup>95</sup>

Operator	Total staff	Women employed	Total staff in managerial or supervisory positions	Women in managerial or supervisory positions	Total staff in operational positions	Women in operational positions
HALO	1,039	565	38	17	787	439
HI	72	26	12	4	44	19 (including EORE and VA positions)
MAG	1,234	454	1,148	415	88	51
NPA	446	151	52	7	394	138
UXO Lao	1,396	381	252	33	1,113	270

HALO, HI, MAG, and NPA all reported having gender and diversity policies in place, and that they disaggregate mine action data by gender and age, and consult with women and girls during survey and clearance operations.<sup>96</sup>

HALO continued to prioritise the hiring of women into operational roles. As per Table 2, of the humanitarian clearance operators in Lao PDR, HALO had by far the highest proportion of female staff (54%). This was achieved by setting quotas during recruitment drives. The programme also ensured representation from across the province and, in particular, individuals from minority ethnic groups.<sup>97</sup> HALO has also continued its relationship with ARMI (Association for Rural Mobilisation and Improvement) in Savannakhet to provide employment opportunities to people with disabilities. Currently HALO employs eight staff with disabilities, two of whom are UXO victims.<sup>98</sup>

HI provides equal opportunities to employment for qualified women and men in its survey and clearance teams in Lao PDR, and trains and promotes women to managerial positions. HI has mixed NTS teams, with employees of different ethnic origins and persons with disability, including UXO survivors. It has developed marker tools to support the mainstreaming of gender and diversity into projects.<sup>99</sup> HI encourages women and persons with disabilities to apply to all positions. In 2022–23, HI, together with the Ministry of Labour and Social Welfare (MoLSW), organised an Annual Disability Policy Dialogue in which 60% of the panellists were women from government ministries, UN agencies, donor agencies, and NGOs. The focus of the discussion was on how the 9th NSEDP can be inclusive for persons with disabilities, including those impacted by UXO.<sup>100</sup> HI considers older persons with disabilities as one of the underrepresented groups and efforts are made to collaborate with local partners to ensure the rights of older persons with disabilities are appropriately addressed.<sup>101</sup>

In 2021, MAG secured funding from the Canada Fund for Local Initiatives to run gender and disability mainstreaming workshops. The delivery of these workshops was postponed to early 2022 due to COVID-19. MAG ran two workshops, one with senior managers from Vientiane and the other with all MAG's Xiengkhouang-based community liaison staff. MAG Laos has worked closely with its Global Gender and Inclusion Advisor throughout this project and has started to develop an action plan for Gender, Diversity, and Inclusion for the programme moving forward.<sup>102</sup>

NPA has had a programme-specific gender strategy in place since 2018. In 2022, it continued its efforts to broaden inclusivity with the support of "Proud To Be Us Laos", a national organisation campaigning for the rights and non-discrimination of all persons regardless of sexual orientation, gender, identity, and expression (SOGIE). Over the past three years, NPA has gradually expanded SOGIE trainings from small focus groups of Vientiane and Pakse office staff and senior management in 2020, to team leaders and deputy team leaders in 2021, and for the first time, to all field staff in 2022. Over 430 national field staff members received gender and diversity trainings in 2022, which were conducted in half-day interactive sessions.<sup>103</sup>

UXO Lao ensures that all groups affected by CMR contamination, including women and children, are consulted during its survey and community liaison activities. This requirement is included in its SOPs. UXO Lao also ensures its survey and community liaison teams are inclusive and gender balanced, to facilitate access and participation from all groups.<sup>104</sup> UXO Lao advocates for equality in the workplace and its human resource policies encourage female applicants at all levels.<sup>105</sup>

95 Emails from William Hunter, HALO, 8 May 2023; Alexandra Letcher, HI, 6 April 2023; Portia Stratton, MAG, 15 May 2023; Katherine Harrison, NPA, 9 May 2023; Vilaivanh Thongmanivong, UXO Lao, 25 May 2023; and Llewelyn Jones, MAG, 5 July 2023.

96 Emails from Fiona Kilpatrick, HALO, 29 March 2019; Blossum Gilmour, MAG, 21 March 2019; Aubrey Sutherland, NPA, 25 March 2019; Julien Kempeneers, HI, 22 March 2019; and Saomany Manivong, Chief of Programme Office and Public Information, UXO Lao, 10 May 2019.

97 Email from William Hunter, HALO, 8 May 2023.

98 Ibid.

99 Emails from Julien Kempeneers, HI, 25 March 2020 and 30 March 2022; and on behalf of Minla Nanthavong, HI, 16 March 2021.

100 Emails from Julien Kempeneers, HI, on behalf of Pradeep Bagival, HI Inclusive Governance Specialist, 30 March 2022; and Alexandra Letcher, HI, 6 April 2023.

101 Email from Alexandra Letcher, HI, 6 April 2023.

102 Email from Rebecca Letven, MAG, 30 March 2022.

103 Email from Katherine Harrison, NPA, 9 May 2023.

104 Email from Saomany Manivong, UXO Lao, 10 May 2019.

105 Email from Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.

## INFORMATION MANAGEMENT AND REPORTING

The national IMSMA database has several problems, including incorrect or incomplete historical data (mainly that of UXO Lao data stored as hard-copy documents in provincial UXO Lao offices); missing data resulting from the migration to IMSMA; and delays in entering corrected data into the database.<sup>106</sup> A TWG on IM meets quarterly.<sup>107</sup> The NRA has identified the need for better quality control of data in the IMSMA database,<sup>108</sup> and in 2022 continued to improve data quality, focusing again on the quality of reporting forms.<sup>109</sup> The NRA has also stressed that upgrading IM systems will be crucial given the greatly increased volume of data resulting from the ongoing nationwide CMRS.<sup>110</sup>

A 2017 report by Sterling International, the former US contractor before Janus and Tetra Tech, said analysis of data in the NRA IMSMA database found errors affecting up to 9,300 entries, or 14% of the 67,000 entries on the database. Sterling believed that the errors could affect 22% of the area recorded in the database as cleared or technically surveyed. The errors included operators' misreporting of coordinates and mistaken entry of reports into IMSMA. Other errors included use of the wrong GPS format or the wrong map datum. The result was to put many tasks in the wrong location. Sterling found that the errors occurred mostly with UXO Lao's work, and mostly between 2004 and 2010, but that it affected "many" organisations.<sup>111</sup>

Efforts to correct historical data within IMSMA (including incorporation of correct current data) are ongoing, although delays remain in the uploading of operator data by the NRA. During the IM TWG meeting in 2020, the NRA tasked the operators to correct their own historical data and resubmit to the NRA for approval.<sup>112</sup> It is also important that village-level data corrections made by operators during the nationwide CMRS are updated in IMSMA in a timely manner.<sup>113</sup> NPA is supporting the NRA with IM within the framework of a new IM Capacity Development Project supported by the PM/WRA, which was launched in November 2022 following a lengthy MoU process.<sup>114</sup>

UXO Lao is also engaging with the NRA and other operators in the sector on a project to conduct historical data correction and improve incomplete datasets. In 2022, UXO Lao continued to improve the quality of data by creating a software application system to assist in data monitoring and checks before entering information into IMSMA. Moreover, UXO Lao has provided training and follow up at the provincial level, regarding data recording and collecting.<sup>115</sup> In 2023, UXO Lao was planning to provide electronic tablets to field operation teams using Survey123 for data capture and analysis.<sup>116</sup>

When the organisation conducting the CMRS is different to the one holding historical records, there is an obvious need for timely sharing of relevant data.<sup>117</sup> Communication between international operators and UXO Lao is continuing to improve.

In 2022, NPA aimed to enhance the IM capacity of the provincial authorities in nine provinces and fifty-five districts within the framework of its new three-year capacity development project funded by the US PM/WRA.<sup>118</sup> Full implementation of the planned activities started in January 2023.<sup>119</sup>

NPA had previously supported the NRA in its revision of the IM NMAS, based on the IMAS, and in the development of an IM SOP, including IM process maps and guidelines. The revised IM NMAS better defines the minimum requirements, and roles and responsibilities of different organisations in IM.<sup>120</sup> As at May 2023, however, the IM SOP had still to be officially approved. Despite this, some of the IM requirements on reporting are communicated and enforced via IM TWG and other meetings.<sup>121</sup> The PM/WRA project will further revise the national standards based on the additional requirements defined as per the most recent amendment to IMAS 10.05.<sup>122</sup>

In 2022, HI continued to provide regular training to help strengthen the capacity of provincial NRA personnel. It trained a total of seven provincial and district-level staff in Phongsaly and Houaphanh provinces on data management, QM, and operations planning.<sup>123</sup>

106 Emails from Bouala Thongsavanh, NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018; and Aubrey Sutherland, NPA, 25 March 2019; NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017; interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018; and interview with Hugh Hosman and Marco Heuscher, (then with) Sterling International, Vientiane, 2 May 2018.

107 Emails from Julien Kempeneers, HI, 30 March 2022; Rebecca Letven, MAG, 30 March 2022; and Katherine Harrison, NPA, 11 May 2022.

108 CCM Extension Request 2019, Part B, Detailed Narrative, p. 4.

109 Statement of Lao PDR on clearance, CCM Tenth Meeting of States Parties, Geneva, 30 August–2 September 2022; and email from Khammoungkhoun Southivong, NRA, 8 June 2023.

110 CCM Extension Request 2019, Executive Summary, p. 1, and Part B, Detailed Narrative, p. 6; and Article 7 Report (covering 2019), Form F.

111 "Data errors on IMSMA", Nigel Orr, Technical Adviser, (then with) Sterling International, 26 April 2017.

112 Emails from Douangsy Thammavong, NRA, 20 June 2022; and Katherine Harrison, NPA, 11 May 2022.

113 Presentation by HALO, Sepon, 10 May 2018.

114 Email from Olivier Bauduin, US Embassy Vientiane, 4 August 2023.

115 Email from Vilavanh Thongmaniivong, UXO Lao, 25 May 2023.

116 Ibid.

117 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017, p. 26; and Statement of Lao PDR on International Cooperation and Assistance, CCM Seventh Meeting of States Parties, Geneva, 4–5 September 2017; interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018; and interviews with national and international clearance operators, Laos, 1–12 May 2018.

118 Email from Katherine Harrison, NPA, 11 May 2022.

119 Email from Katherine Harrison, NPA, 9 May 2023.

120 Emails from Katherine Harrison, NPA, 6 May and 9 September 2020.

121 Email from Katherine Harrison, NPA, 9 May 2023.

122 Ibid.

123 Email from Alexandra Letcher, HI, 6 April 2023.

Operators reported that data submitted to the NRA were typically updated in a timely manner and accurately.<sup>124</sup> An IMSMA virtual private network (VPN) has been successfully rolled out, with all operators, except for UXO Lao, using the network.<sup>125</sup> This has improved the accessibility of data, the speed and quality of data entry, and the reporting process, with cross-checks raising discrepancies for correction.<sup>126</sup> However, IMSMA is still not fully accessible to operators, who can only see dashboard level and who can only access their own data in the system and have to formally request other data.<sup>127</sup>

Expanding the use of IMSMA to support survey planning and the review of all historical operational data (both electronic and paper), will help ensure that NTS is followed up by robust

TS operations.<sup>128</sup> In addition, the IM system in Lao PDR must also be equipped to record operator conclusion reports, in order to know how many villages have been surveyed.<sup>129</sup> This topic had been discussed at the IM TWG and bilaterally between operators and the NRA, but as at May 2023 no measurable progress had been made.<sup>130</sup> Another challenge encountered is that villages surveyed do not match the village boundaries in the NRA system. The NRA was reported to be planning to use Survey123 to help address this.<sup>131</sup>

Lao PDR provides regular updates on its progress in Article 4 implementation, both in its annual Article 7 transparency reporting and in statements at the CCM meetings of States Parties.

## PLANNING AND TASKING

A new 10-year National Strategy for the UXO Sector (2021–30), “Safe Path Forward III”, was developed under the leadership of the NRA with support from UNDP and in consultation with relevant stakeholders, civil society organisations, donors, and clearance operators, including a joint online consultation on the draft strategy in October 2021.<sup>132</sup> The new strategy, which was endorsed by the government in July 2022 and adopted in January 2023, was developed based on the results of the evaluation of the implementation of the previous ten-year strategy, “Safe Path Forward II” and in line with SDG 18 under the 2030 SDG agenda.<sup>133</sup> The target by 2030, is to have identified 250,000 hectares (2,500km<sup>2</sup>) of CHA and conducted clearance of 100,000 hectares (1,000km<sup>2</sup>) of land for agricultural and development purposes.<sup>134</sup> This is an ambitious target, which is more than double the current clearance output.

In a positive development, a first-ever sector-wide annual work plan for Lao PDR for 2018 was developed in an

inclusive manner and approved by the NRA Board.<sup>135</sup> Consultative workshops to support the development of annual sector-wide work plans have taken place to varying degrees in subsequent years. While there were sector-wide work plans in 2022 and 2023,<sup>136</sup> the NRA had not shared these with international NGOs.<sup>137</sup> The NRA sets operators yearly targets and they in turn develop their own work plans, but tasks sometimes overlap.<sup>138</sup> HALO shares its work plan with UXO Lao to avoid any overlap of CHAs.<sup>139</sup> HI developed its 2023 work plan in close collaboration with the provincial NRA and with the district authorities in HI’s areas of operations.<sup>140</sup> In Xiangkhouang province, there has been an increase in the collaboration between MAG and the provincial regional authorities to ensure that tasking between MAG and UXO Lao is deconflicted and to avoid overlapping.<sup>141</sup> Lao PDR’s new Safe Path Forward III strategy makes clear that action plans are needed for implementation and should be developed as soon as possible.<sup>142</sup>

124 Emails from Cameron Imber, HALO, 7 April 2020; Julien Kempeneers, HI, 25 March 2020; and Katherine Harrison, NPA, 9 May 2023.

125 Emails from Mark Frankish, UNDP, 26 August 2020; and Saomany Manivong, UXO Lao, 11 May 2021.

126 Emails from Julien Kempeneers, HI, 25 March 2020; Cameron Imber, HALO, 7 April 2020; Katherine Harrison, NPA, 6 May 2020; and Simon Rea, MAG, 17 June 2020.

127 Emails from Julien Kempeneers, HI, 25 March 2020; William Hunter, HALO, 8 May 2023; Katherine Harrison, NPA, 9 May 2023; and Portia Stratton, MAG, 15 May 2023.

128 CCM Extension Request 2019, Part B, Detailed Narrative, p. 3.

129 Interview with Phil Bean, US PM/WRA, in Geneva, 6 February 2018.

130 Emails from Chomyaeng Phengthongsawat, NRA, 21 June 2021; Katherine Harrison, NPA, 11 May 2022; William Hunter, HALO, 8 May 2023; and Portia Stratton, MAG, 15 May 2023.

131 Email from Portia Stratton, MAG, 15 May 2023.

132 Statement of Lao PDR on National Implementation Measures, Second CCM Review Conference (Part 1, virtual meeting), 25–27 November 2020; email from Chomyaeng Phengthongsawat, NRA, 21 June 2021; and Lao PDR, “Safe Path Forward III”, p. 2.

133 Statement of Lao PDR on victim assistance, CCM Tenth Meeting of States Parties, Geneva, 30 August–2 September 2022; and Lao PDR, “Safe Path Forward III”, p. 2.

134 Lao PDR, “Safe Path Forward III”, p. 14.

135 Email from Bouala Thongsavanh, NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018; and interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.

136 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

137 Email from Amanda Shiel, UXO Unit Programme and Partnership Support Officer, UNDP, 4 September 2020; Olivier Bauduin, US Embassy Vientiane, 29 September 2020; Rebecca Letven, MAG, 26 March 2021 and 30 March 2022; Katherine Harrison, NPA, 22 March 2021 and 9 May 2023; Julien Kempeneers, HI, 16 March 2021; and Cameron Imber, HALO, 31 March 2022.

138 Emails from Katherine Harrison, NPA, 9 May 2023; and from Portia Stratton, MAG, 15 May 2023.

139 Email from William Hunter, HALO, 8 May 2023.

140 Email from Alexandra Letcher, HI, 6 April 2023.

141 Email from Portia Stratton, MAG, 15 May 2023.

142 Lao PDR, “Safe Path Forward III”, p. 5.

Lao PDR has a total of 18 provinces, all contaminated with UXO (including CMR), to varying extents. In 2018, Lao PDR began a national CMRS baseline survey of populated areas, with funding from the United States. The first phase of the survey involves six province-wide surveys (in Attapeu, Champassak, Saravan, Savannakhet, Xekong, and Xiengkhouang) by HALO, MAG, and NPA of all villages suspected or confirmed as CMR-contaminated, according to the NRA's village list.<sup>143</sup> In September 2018, Lao PDR announced that three additional contaminated provinces would be added to the national survey plan in 2019 and another five provinces in 2020–21, with the aim to have 14 provinces fully surveyed by end of 2021.<sup>144</sup> Despite notable progress in many provinces, Lao PDR fell well short of this ambitious target.

As at May 2023, systematic CMRS of villages in five provinces in the south (Attapeu, Champassak, Saravan, Savannakhet, and Xekong) had been concluded, with the exception of 9 villages subsequently assigned to Norwegian People's Aid (NPA) in Attapeu and 8 villages in Champassak;<sup>145</sup> and CMRS was still underway in the most contaminated province of Xiengkhouang, in the north.<sup>146</sup> In 2023, discussions are planned to consider testing new predictive tools and other possible adjustments to survey methodology to accelerate the completion of the survey in Xiengkhouang province.<sup>147</sup> CMRS is also being undertaken in five other provinces (Bolikhamxai, Houaphanh, Khammouane, Luang Prabang, and Vientiane province), although not systematically, as funding

for TS/CMRS has been sporadic in these provinces, rather than targeted for full completion as in other provinces. Of the remaining seven provinces, three (Oudomxay, Vientiane Capital, and Xaisomboun) are known to have significant contamination but do not currently have funding for TS/CMRS. In the fourth remaining province of Phongsaly, HI began CMRS in two districts from the start of 2023.<sup>148</sup> The remaining three provinces (Bokeo, Luangnamtha, and Sainyabuli) have low levels of contamination and are deprioritised.<sup>149</sup>

The CMRS results have enabled better targeted clearance. Since 2021, there has been a shift towards increasing clearance capacity and reducing survey capacity, in order to clear the CHAs identified during CMRS. The US has increasingly focused its resources on clearance of CHAs prioritised under Lao PDR's development plan and it was continuing to do so in 2023. Survey teams have been converted to clearance teams, and additional clearance teams recruited and trained.<sup>150</sup> The UXO sector in Lao PDR accepts that additional evidence points, outside of the CHAs already identified, will continue to require investigation through TS after completion of proactive survey. HALO, MAG, and NPA will therefore keep a residual survey capacity after the end of their survey projects. This survey capacity will be more reactive in nature, and during the periods when there are no evidence points to investigate and survey in these provinces, the multi-skills teams will instead conduct area clearance.<sup>151</sup>

## WORK PLAN FOR ARTICLE 4 IMPLEMENTATION IN 2020–25

The 2019 CCM Article 4 extension request includes a five-year work plan for survey and clearance, with progress dependent on the level of funding it secures. There is a strong concentration on survey during the extension period, with a focus on the six most contaminated provinces to be concluded as soon as possible, followed by the others. Clearance is taking place simultaneously with survey activities.<sup>152</sup> Operators were consulted during the elaboration of the 2019 Article 4 deadline extension request.<sup>153</sup>

As at the end of 2022, a total of 1,745km<sup>2</sup> of CHA had already been identified through the survey and entered into IMSMA, representing several years of clearance efforts based on current clearance capacity.<sup>154</sup> In its 2019 Article 4 deadline

extension request, the NRA predicted that the number of CHAs containing CMR would significantly increase during the five-year period of the extension request, at a rate far faster than the CMR-contaminated areas can be cleared.<sup>155</sup>

In its 2019 Article 4 extension request, Lao PDR outlines three different estimates for CMR clearance, based on three different scenarios for available resources. The first outlines predicted clearance output based on existing resources during 2020–25; namely 108 teams, with a total clearance output of 50km<sup>2</sup> per annum, at a cost of US\$12.5 million per year. This would result in clearance of 250km<sup>2</sup> at a cost of US\$62.5 million, during the five-year extension request period.<sup>156</sup> Even this first scenario was ambitious and Lao PDR

143 Statement of Lao PDR on International Cooperation and Assistance, CCM Seventh Meeting of States Parties, Geneva, 4–5 September 2017; and interview with Phil Bean, US PM/WRA, and Machut Shishak, Political/Economic Counselor, US Embassy, Vientiane, 3 May 2018.

144 Statement of Lao PDR on National Implementation Efforts, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.

145 Article 7 Report (covering 2022), Form F; email from Katherine Harrison, NPA, 9 May 2023; and additional information from Sasa Jelacic, NPA, 4 July 2023.

146 Article 7 Report (covering 2022), Form F; and presentation by Amb. Peter Haymond, US Embassy Vientiane, minutes of the UXO Sector Working Group meeting, 16 September 2022.

147 Email from Olivier Bauduin, US Embassy Vientiane, 4 August 2023.

148 Email from Alexandra Letcher, HI, 6 April 2023.

149 Article 7 Report (covering 2022), Form F.

150 Presentation of US Amb. Peter Haymond, minutes of the UXO Sector Working Group meeting, 16 September 2022.

151 Ibid.; and email from Olivier Bauduin, US Embassy Vientiane, 13 July 2022.

152 CCM Extension Request 2019, Executive Summary.

153 Email from Fiona Kilpatrick, HALO, 29 March 2019.

154 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

155 CCM Extension Request 2019, Executive Summary, pp. 1, 4, and 6, and Part B, Detailed Narrative, pp. 22 and 25.

156 CCM Extension Request 2019, Executive Summary, p. 4; and Part B, Detailed Narrative, pp. 7 and 22.

only achieved the annual CMR clearance target of 50km<sup>2</sup> envisaged in the request, for the first time in 2022, when it cleared 50.72km<sup>2</sup> of cluster munition-contaminated area (excluding commercial clearance).<sup>157</sup>

The second, even more ambitious estimate predicts clearance output based on the additional resources needed to address the 800km<sup>2</sup> of CHA already recorded in IMSMA as at end of 2018. This would see annual clearance output incrementally increased from 60km<sup>2</sup> per annum in 2020 to 280km<sup>2</sup> per annum in 2024, with total clearance output of 800km<sup>2</sup> during the five-year extension request period, at a total cost of US\$200 million.<sup>158</sup> The third estimate predicts clearance based on the additional resources needed to address 1,600km<sup>2</sup> of CHA, which includes the further 800km<sup>2</sup> of CHA predicted to result from CMRS during the five-year extension request period, at a total cost of US\$400 million.<sup>159</sup>

Lao PDR will “for the foreseeable future” integrate the Article 4 deadline Extension Plan into the indicators of the 9th NSDP 2021–2025, where the five-year plan sets targets to conduct NTS in 2,776 villages; conduct TS to confirm

hazardous area of 2,500km<sup>2</sup> (an average of 500km<sup>2</sup> per year); and conduct UXO clearance of 500km<sup>2</sup> (at an average of 100km<sup>2</sup> per year).<sup>160</sup> These are extremely ambitious targets, which almost double the 2022 clearance achievement and the survey target is especially ambitious in light of the increased focus on clearance and a reduction in the amount of hazardous area confirmed in 2022 compared to the previous year. As things stand, the targets are a long way from being achieved.

To the extent possible, the United States will continue to support the Lao government's strategic plan to increase clearance capacity to clear more high-priority CHAs in 2022–25. US funding support to the UXO Sector in the Lao PDR continues to increase and in June 2022 Deputy Secretary of State Wendy Sherman visited Vientiane and announced an additional US\$45 million for survey and clearance.<sup>161</sup> At the SWG meeting in September 2022, the US government said that it expected that US-funded programmes in Lao PDR would clear 50km<sup>2</sup> of CHA in 2023 and 60km<sup>2</sup> of CHA in 2024.<sup>162</sup>

## PRIORITISATION

Prioritisation of clearance is a critical step in the land release cycle. However, at present no comprehensive national-level guidance on the prioritisation of clearance tasks yet exists and prioritisation systems and criteria vary markedly between the operators.<sup>163</sup> Currently, each operator has its own prioritisation system,<sup>164</sup> but considerable time is allocated to discussing the annual work plan for humanitarian operators with provincial and district authorities.<sup>165</sup>

In the new Safe Path Forward III strategy (2021–2030), the NRA has committed to develop a policy for determining national priorities, and said it considers UXO clearance on agricultural land a top priority, and that UXO clearance is especially crucial for the development of educational, community and government facilities, public infrastructure and tourism sites.<sup>166</sup> At the SWG meeting in September 2022, the Deputy Chairperson of the NRA Board said Lao PDR will create a national prioritisation system to help ensure that UXO sector activities contribute to the socio-economic development plan.<sup>167</sup> The co-chairs of the UXO SWG, the United States and UNDP, believe a prioritisation plan will be needed for the entire UXO Sector.<sup>168</sup> UNDP called

for the completion of the national prioritisation system to be expedited so that UXO operations always support development efforts.<sup>169</sup>

Tetra Tech is supporting the NRA in the development of the nationwide prioritisation matrix.<sup>170</sup> Work on the national prioritisation system (district training, consultation workshop with line ministries) was initiated in the first half of 2022.<sup>171</sup> The NRA aimed to launch a national prioritisation process in 2023.<sup>172</sup>

UXO Lao has developed and applied its own clearance prioritisation process since 2020 throughout nine provinces supported by JICA. Recently, UXO Lao has collaborated with JICA to revise some unsuitable criteria. The new guideline was expected to be presented in the TWG meeting in Q2 2023.<sup>173</sup>

At the micro level, prioritisation of clearance tasks in Lao PDR is in part dictated by the wet and dry seasons. During the dry season, operators are able to access and clear paddy fields, while in the wet season, they focus on clearing grazing and community land, or on higher elevations.<sup>174</sup>

157 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

158 CCM Extension Request 2019, Executive Summary, p. 4; and Part B, Detailed Narrative, pp. 7 and 22.

159 Ibid.; and Article 7 Report (covering 2021), Form J.

160 9th Five-year National Socio-Economic Development Plan (2021–2025), draft report; and Lao PDR, “Safe Path Forward III”, p. 7.

161 Email from Olivier Bauduin, US Embassy Vientiane, 13 July 2022.

162 Presentation of Amb. Peter Haymond, minutes of the UXO Sector Working Group meeting, 16 September 2022.

163 Interviews with national and international clearance operators, Lao PDR, 1–12 May 2018; and Lao PDR, “Safe Path Forward III” (2021–2030), p. 5.

164 Comments by Rupert Leighton, UNDP, minutes of the UXO Sector Working Group meeting, 16 September 2022.

165 Email from Olivier Bauduin, US Embassy Vientiane, 21 July 2023.

166 Lao PDR, “Safe Path Forward III” (2021–2030), p. 5.

167 Comments by Padeumphone Sonthany, MoLSW, minutes of the UXO Sector Working Group meeting, 16 September 2022.

168 2019 UXO Sector Annual Report, NRA, undated, Foreword by US Ambassador and UNDP Resident Representative, Co-Chairpersons of the UXO Sector Working Group, p. iv.

169 Presentation by Catherine Phuong, UNDP, minutes of the UXO Sector Working Group meeting, 16 September 2022.

170 Emails from Alexandra Letcher, HI, 6 April 2023; Katherine Harrison, NPA, 9 May 2023; and Portia Stratton, MAG, 15 May 2023.

171 Presentation by Chomyaeng Phengthongsawat, NRA, minutes of the UXO Sector Working Group meeting, 16 September 2022.

172 Statement of Lao PDR on clearance, CCM Tenth Meeting of States Parties, Geneva, 30 August–2 September 2022; and email from Khammoungkhoun Southivong, NRA, 8 June 2023.

173 Email from Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.

174 Interviews with international and national operators, Laos, 1–12 May 2018.

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

The “Lao PDR UXO Survey Standards” (UXO Survey Standard No. 21/NRA) specify the minimum requirements for the survey of all cluster munition-contaminated areas in Lao PDR.<sup>175</sup> The standards were officially approved by the NRA in 2018.<sup>176</sup> They are said to conform to IMAS<sup>177</sup> and are fully reflected in the SOPs of clearance operators, who confirm their relevance to the local threat and context.<sup>178</sup> There is, however, scope to further strengthen the standards, based on best practice.

The NRA plans to formally review the national standards at least every three years, in collaboration with stakeholders, to ensure they evolve to meet changing circumstances and the introduction of new technologies and methodologies.<sup>179</sup> In 2021, operators were invited by the NRA to submit recommendations to update the national standards,<sup>180</sup> but no changes to the standards were made in 2022.<sup>181</sup>

An assessment of the existing national standards has been conducted and was partially complete as at March 2023, when translation into English was still ongoing.<sup>182</sup> The NMAS revision might be completed before the end of 2023.<sup>183</sup> At the SWG meeting in September 2022, UNDP called for the revision of national standards to be “fast-tracked”, highlighting that the updated standards would improve the effectiveness and efficiency of UXO operations by having the best practices effectively disseminated across all operators. According to UNDP, the current standards are out of date and as a result the productivity of the operators has been compromised.<sup>184</sup>

Prior to 2014, UXO operators in Lao PDR primarily conducted general survey on areas intended for clearance and roving clearance tasks, based on requests and reports from villagers.<sup>185</sup> CMRS has resulted in clearance being directed to confirmed cluster munition strikes, across land boundaries where necessary, and away from the clearance of areas with low or no CMR contamination. There has been a significant improvement in the number of CMR destroyed per hectare cleared since 2015.<sup>186</sup> As part of the new CMRS procedure,

and the corresponding national standard, NTS is to be conducted on whole villages (i.e. all land within a village boundary), not just individual areas of land, with the aim to identify evidence points for follow-on TS. An additional aim during survey is to correct errors or omissions in historical data in IMSMA or in operator files.<sup>187</sup>

The survey approach has been strengthened over the last couple of years, with more emphasis on desk assessment of historical data and comprehensive NTS. TS is only conducted based on CMR evidence points.<sup>188</sup> HALO, MAG, and NPA all conduct TS on whole villages, whereas in mid 2018, UXO Lao stated it does not conduct TS of whole villages, due to their limited TS capacity. Typically UXO Lao will, over the years, go to the same villages on multiple occasions, but they do not “complete” CMRS of the whole village in the same way that HALO, MAG, and NPA do. Rather, UXO Lao’s TS teams identify CHAs for their area clearance teams.<sup>189</sup>

TS works outwards from the initial evidence point, searching no less than 50% of each 50 metre by 50 metre box with a detector, with emphasis on finding a submunition. As soon as a submunition is found, TS moves to the adjacent boxes. If cluster munition fragments are found, searching must continue until a submunition is found or at least 50% of the box is covered.<sup>190</sup>

Operators continue to refine their CMRS methodology in a bid to accelerate operations, including using the technique of “skipping boxes”, in which teams finding CMR in one survey box skip one or more of the immediate neighbouring boxes and then survey the next box. Skipping boxes is permitted in the national survey procedure, and, where appropriate, has become standard practice for TS teams, where the focus is on identifying the boundaries of CHAs.<sup>191</sup> CHAs are established based on red boxes and include a 50-metre fade-out from the place submunitions are found during TS, unless fade-out extends into inaccessible or commercial concession areas (responsibility for survey and clearance in commercial concession areas is then that of the concession holder).<sup>192</sup>

175 NRA, draft “Lao PDR UXO Survey Procedures”, 20 September 2017; and CCM Extension Request 2019, Executive Summary, p. 3.

176 Emails from Olivier Bauduin, UNDP, 10 July 2018; and Nigel Orr, (then with) Janus Global Operations, 13 July 2018; interviews with international operators, Lao PDR, 1–12 May 2018; and Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018; and Statement of Lao PDR on National Implementation Efforts, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.

177 CCM Extension Request 2019, Executive Summary, p. 2; CCM Extension Request 2019, Part B, Detailed Narrative, pp. 9 and 17.

178 Emails from Saomany Manivong, UXO Lao, 10 May 2019; Cameron Imber, HALO, 7 April 2020; Katherine Harrison, NPA, 6 May 2020; and Simon Rea, MAG, 17 June 2020.

179 CCM Extension Request 2019, Part B, Detailed Narrative, p. 18.

180 Emails from Julien Kempeneers, HI, 30 March 2022; Rebecca Letven, MAG, 30 March 2022; and Cameron Imber, HALO, 31 March 2022.

181 Emails from Khammoungkhoun Southivong, NRA, 8 June 2023; William Hunter, HALO, 8 May 2023; Katherine Harrison, NPA, 9 May 2023; and Portia Stratton, MAG, 15 May 2023.

182 Emails from Alexandra Letcher, HI, 6 April 2023; and Portia Stratton, MAG, 15 May 2023.

183 Email from Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.

184 Presentation by Catherine Phuong, UNDP, minutes of the UXO Sector Working Group meeting, 16 September 2022.

185 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.

186 CCM Extension Request 2019, Executive Summary, p. 2; and Part B, Detailed Narrative, p. 9.

187 NRA, draft “Lao PDR UXO Survey Procedures”, 20 September 2017.

188 Ibid.; and emails from Cameron Imber, HALO, 11 June 2017; Rebecca Letven, MAG, 18 June 2017; and Katherine Harrison, NPA, 18 June 2017.

189 Email from Olivier Bauduin, US Embassy Vientiane, 21 July 2023.

190 NRA, draft “Lao PDR UXO Survey Procedures”, 20 September 2017.

191 Ibid., p. 17; interviews with Neil Arnold, MAG, Phonsavan, 6 May 2018, and Robby Dehondt, Sterling International, Sepon, 11 May 2018; and email from Ulric Eriksson, NPA, 1 May 2018.

192 NRA, draft “Lao PDR UXO Survey Procedures”, 20 September 2017.

According to the national survey standards, clearance must only be conducted in CHAs, unless either "official agreements with the NRA permit a dispensation" or "the UXO clearance is being paid for by a client and 100% clearance without survey is a requirement of the agreement".<sup>193</sup> The NRA maintained the need to retain some flexibility to accommodate donor stipulations which sometimes require full clearance of UXO in non-CHAs, for development projects such as schools, and there is an official procedure for such instances.<sup>194</sup> In 2016, Prime Ministerial Order No. 43 stipulated that development projects in provinces and districts affected by UXO must benefit from survey and clearance before project implementation, and further these development projects must allocate funding for survey and clearance.<sup>195</sup>

Except in the case of permanently inaccessible land or commercial concession areas, CHAs that are incomplete or have not been created using the TS process are not to be entered into IMSMA.<sup>196</sup> Interpretation and understanding as to what constitutes "inaccessible" is not clearly defined and can vary between clearance operators,<sup>197</sup> but according to the national survey standards, dense vegetation and seasonal flooding are not valid reasons for the NTS.<sup>198</sup> Clearance teams deployed to CHAs are required to have the knowledge and necessary equipment to operate in difficult areas such as steep hillsides and dense jungle terrain, which requires strong monitoring mechanisms to ensure that the physical obstacles do not reduce the quality of the survey and clearance work.<sup>199</sup> The minimum clearance depth in Lao PDR is 25cm, which is intended to capture all surface and shallow CMR contamination.<sup>200</sup> Operators have been collecting data on the depth at which CMR are found.<sup>201</sup> HI Laos continued to generate interesting results from using the Minelab F3 (with large coil and yellow end cap) detectors, successfully demonstrating that operators are able to work swiftly and still pick up full BLU-26 submunitions buried 35cm deep in rice fields. HI believes that the 25cm default clearance depth is not safe for land users as modern tractors can reach items buried deeper and displace them to the surface.<sup>202</sup>

With regard to completion of CHAs/cluster munition footprints, international clearance operators reported difficulty conducting CMRS in certain areas, due to national security or restrictions to access land due to cultural

sensitivities and beliefs.<sup>203</sup> Furthermore, in TS tasks in areas of massive contamination, with overlapping strikes, it is not always possible to continue to fade-out, as the confirmed areas extend too far.<sup>204</sup>

With regards to the discovery of landmines during CMRS, HI developed a "clearance while surveying" (CWS) procedure, to allow for safe release of CMR contamination in areas where there is a potential risk of landmines. CWS involves the commencement of full clearance from the evidence point.<sup>205</sup> HI revised its clearance SOP to integrate CWS. As at April 2023, the SOP had yet to be formally approved, but the NRA had deemed the procedure as being adequate, including during quality assurance (QA) and QC inspections and during a TWG presentation. HI has also proposed to the NRA that a modification is made to the national standards.<sup>206</sup>

HI has suggested that as CMRS can be time consuming, clearance could replace CMRS earlier where it is well established that there is CMR contamination, as clearance would cover the entire CHA anyhow, including a 50m buffer zone. In locations where operators are called back year-on-year to destroy submunitions found by farmers, HI believes evidence-based clearance could be commenced directly, rather than needing to first conduct CMRS. HI believes that the remoteness of target villages in Houaphanh and the presence of landmines and anti-handling fuses (M83 submunitions) discovered in 2021, justifies that it continues to conduct a CWS approach when there is a risk for its teams. In Houaphanh province, HI does not conduct CMRS strictly village by village, but instead focuses on highest priority areas first, as it is working in very remote forested areas, with steep terrain.<sup>207</sup>

HI conducted further CMRS in 2022. The tasks were in rice fields where TS was efficient to assess the extent of the CHA quickly and allowed HI to develop the HI annual work plan. CWS was conducted as a way to survey and find cluster munitions, and proved to be a very good option to clear a limited area contaminated by CMR. HI twice entered areas where it found 4lb M83 fragmentation bomb with M131 anti-disturbance fuzes while conducting CMRS. HI also completed a CHA in a village to discover later during the clearance that there was a M7 anti-vehicle mine in the CHA.

193 Ibid.

194 Interviews with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018 and 7 February 2019, Geneva.

195 Statement of Lao PDR on National Implementation Efforts, CCM Seventh Meeting of States Parties, Geneva, 4–5 September 2017.

196 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.

197 Interviews with international operators, Laos, 1–12 May 2018.

198 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.

199 CCM Extension Request 2019, Executive Summary, p. 5; and Part B, Detailed Narrative, pp. 24–25.

200 CCM Extension Request 2019, Part B, Detailed Narrative, p. 17.

201 Email from Katherine Harrison, NPA, 9 September 2020.

202 Email from Alexandra Letcher, HI, 6 April 2023.

203 Interviews with Ulric Eriksson, NPA Laos, Saravan, 4 May 2018; and Olivia Meader, HALO, Sepon, 11 May 2018.

204 Interview with Neil Arnold, MAG, Phonsavan, 6 May 2018.

205 Email from Julien Kempeneers, HI, 25 March 2020.

206 Emails from Julien Kempeneers, HI, 30 March 2022; and Alexandra Letcher, HI, 6 April 2023.

207 Ibid.

HI believes such instances justify having a CWS process that allows the operator to search and extend the CHA slowly as more evidence points are found, until reaching the limit of the contaminated area. HI believes this method controls the risky incursion inside large areas that may be very hazardous for the TS team at work.<sup>208</sup> Furthermore, HI is concerned when TS occurs and items are excavated and left behind, causing CMR to become visible for children and the local population, exposing them to risk. This has been raised during the TWG on the Technical Note for CMRS.<sup>209</sup>

MAG uses Evidence Point Polygon (EPP) mapping methodology to support CMRS planning. The technique, pioneered by MAG, uses historical and ongoing operational data from GPS-recorded EOD spot tasks involving submunitions to plot what are termed Initial CHAs (iCHAs). Within the boundaries of iCHAs, including fade-out, no TS is required, resulting in time and resources efficiencies. However, in order to be effective, this technique relies on accurate and reliable EOD spot-task data, which is not always available. In areas where MAG is applying EPP mapping, it uses its own EOD data.<sup>210</sup>

### OPERATORS AND OPERATIONAL TOOLS

Land release operations in Lao PDR are conducted by a range of implementing partners, which includes humanitarian operators such as the national operator UXO Lao; international NGOs, HALO, HI, MAG, and NPA; commercial clearance operators; and humanitarian teams of the Lao People's Army (Unit 58). Survey capacity in Lao PDR is being reduced, and clearance capacity increased, in order to address a higher proportion of the CHAs already identified. The NRA expected clearance capacity to continue to grow in 2023.<sup>216</sup>

With regard to **survey capacity** in 2022, the Lao People's Army (Unit 58) deployed three TS teams totalling twenty-one personnel, and two NTS teams totalling four personnel.<sup>217</sup> HALO deployed 6 technical teams, totalling 48 personnel.<sup>218</sup> HI had 1 NTS team in Houmeuang province, and will also require an NTS team for Phongsaly. The HI teams reinforce the clearance teams, when there is no requirement for NTS.<sup>219</sup> MAG had two NTS (community liaison) teams totalling 8 personnel and 16 TS teams, totalling 128 personnel.<sup>220</sup> NPA had 11 CMRS (NTS and TS) teams totalling 61 survey personnel.<sup>221</sup> UXO Lao had 8 NTS teams totalling 24 personnel and 15 TS teams totalling 105 personnel (excluding personnel from Luang Prabang, but including personnel from Champassak, Houaphanh, and Xekong, which halted operations in April/May 2022).<sup>222</sup>

**Table 3: Operational clearance capacities deployed in 2022<sup>223</sup>**

Operator	Manual teams	Total clearance personnel	Machines	Comments
Lao People's Army (Unit 58)	7	65	0	
HALO	69	701	0	This is a continued increase in capacity on the previous year. Medics are included as HALO has technician medics.

208 Email from Alexandra Letcher, HI, 6 April 2023.  
209 Ibid.  
210 Interview with Neil Arnold, MAG, Phonsavanh, 6 May 2018.  
211 Email from Katherine Harrison, NPA, 6 May 2020.  
212 Email from Bouala Thongsavanh, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018.  
213 Response to Mine Action Review questionnaire from Olivia Meader, HALO, 11 May 2018; and interview with Olivier Bauduin, UNDP, Vientiane, 2 May 2018.  
214 Email from Saomany Manivong, UXO Lao, 11 May 2021.  
215 Email from Noupin Phimmasy, UXO Lao, 4 June 2022.  
216 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.  
217 Ibid.  
218 Email from William Hunter, HALO, 8 May 2023.  
219 Email from Alexandra Letcher, HI, 6 April 2023.  
220 Email from Portia Stratton, MAG, 15 May 2023.  
221 Email from Katherine Harrison, NPA, 9 May 2023.  
222 Email from Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.  
223 Emails from Khammoungkhoun Southivong, NRA, 8 June 2023; Alexandra Letcher, HI, 6 April 2023; William Hunter, HALO, 8 May 2023; Katherine Harrison, NPA, 9 May 2023; Portia Stratton, MAG, 15 May 2023; and Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.

Operator	Manual teams	Total clearance personnel	Machines	Comments
HI	3	24	0	HI's three multi-task teams are used to conduct TS, clearance, or roving tasks, as required.
MAG	52	416	5	MAG has 8 deminers per team. It does not have any mechanical assets for clearance, but does have five machines for ground preparation.
NPA	20	279	0	
UXO Lao	78	468	*9	Numbers exclude personnel from Luang Prabang, but include personnel from Champassak, Houaphanh, and Xekong, in which operations were halted in April/May 2022.  *Two cluster munition demolition machines in Xiengkhouang province. The seven brush cutter machines operating across Saravane, Xekong, and Champassak provinces only provide support to area clearance operations, by preparing access roads and vegetation cutting where this cannot be done by hand.
<b>Totals</b>	<b>229</b>	<b>Approximately 1,953</b>	<b>14</b>	

UXO Lao is a government organisation working under the Ministry of Labour and Social Welfare.<sup>224</sup> In 2022, UXO Lao was fully operational in 4 provinces (Attapeu, Khammouane, Savannakhet, and Xiengkhouang) and partially operational in 5 provinces (Champassak, Houaphanh, Luang Prabang, Saravane, and Xekong). In Champassak and Xekong provinces, operations were halted in April 2022, due to the end of a project funded by Japan. In Houaphanh, operations were halted at end of May 2022,<sup>225</sup> pending authorisation to deploy a technical advisor for field operations to cover/support UXO Lao in Northern provinces.<sup>226</sup> In Luang Prabang, operations halted in January 2022, also due to lack of funding, but emergency tasks were carried out from October to December 2022 with funding support from Ireland through the NRA. In Saravane, three area clearance teams funded by Government of Japan ended operations in April 2022, when the project ended, while US funded teams continued to operate in Saravane throughout 2022.<sup>227</sup> A new Director of UXO Lao was appointed in February 2023. UXO Lao's capacity in 2022 decreased in 2021, due to a fall in funding. In 2023, UXO Lao expected funding to increase, due to the resumption of Japanese funding support in Champassak, Saravane, and

Xekong. UXO Lao said there was also potential for other funding to be sourced to restart operations in Houaphanh and Luang Prabang.<sup>228</sup>

HALO's survey and clearance efforts are focused on Savannakhet province. Clearance capacity continued to increase significantly in 2022 as part of the \$24.2 million PM/WRA clearance project in Savannakhet province. HALO expects clearance capacity to have increased to 89 teams by the end of 2023. There was a reduction in the number of survey personnel, from 168 to 40, as they were retrained for clearance. The number of CMRS personnel in 2023 was expected to remain the same with six teams in total.<sup>229</sup> HALO has hosted five meetings with central-level NRA representatives to discuss how to improve clearance rates and the potential cessation of the use of personal protective equipment (PPE) aprons.<sup>230</sup>

HI is conducting survey and clearance in Houaphanh province, where it also provides capacity building support to the provincial NRA, through training on IM, QM, and first aid<sup>231</sup> and in Phongsaly province, where it became operational in 2022 and where it has been conducting CMRS in two districts

224 Presentation by Saomany Manivong, UXO Lao, Vientiane, 2 May 2018.

225 Email from Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.

226 Email from Olivier Bauduin, US Embassy Vientiane, 4 August 2023.

227 Email from Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.

228 Ibid.

229 Email from William Hunter, HALO, 8 May 2023.

230 Ibid.

231 Email from Julien Kempeneers, HI, 16 March 2021.

(Khoa and May) from the start of 2023.<sup>232</sup> HI is deploying multi-task teams which can conduct TS, area clearance, or roving tasks.<sup>233</sup> HI also implements projects in Champassak, Savannakhet, and Vientiane provinces, relating to other fields (such as disability inclusion and health and rehabilitation).<sup>234</sup> HI noted that it operates three MTT (multi-task teams) of 8 operators, and that 3 of these operators were on maternity leave in 2022.<sup>235</sup> Prior to going on maternity leave the women were put on office duties to avoid any injuries or accidents as the terrain and as the challenging field conditions were of concern. For an operation of HI's size, the reduction in the number of personnel impacts operations and outputs.<sup>236</sup> Due to the end of a grant and challenges in sourcing sufficient funding, and despite having secured some additional funds, HI was having to reduce its survey/clearance personnel in September/October 2023.<sup>237</sup>

MAG is the largest international survey and clearance operator in Lao PDR, and is operational in Xiengkhouang province, in the north and Khammouane province in the south. MAG's overall clearance capacity expanded from 30 to 47 clearance teams in total, with the deployment of 17 additional clearance teams in Xiengkhouang province between July and September 2021 thanks to US funding.<sup>238</sup> MAG's capacity in 2022 remained broadly constant.<sup>239</sup>

NPA is operational in the four southern and heavily contaminated provinces of Attapeu, Champassak, Saravan, and Xekong. In 2021, NPA shifted its focus from CMRS to clearance of CHAs identified through survey. NPA reported that its operations will double in size by the end of 2023 with the planned recruitment, training, and deployment of 10 additional battle area clearance (BAC) teams in June 2023 and another 10 additional BAC teams from December. This will bring the total number of BAC teams to 42 teams (40 PM/WRA-funded and 2 NMFA-funded) and 8 survey teams by the end of 2023, with over 800 field staff. NPA will recruit 376 new staff in 2023.<sup>240</sup>

The Lao armed forces humanitarian demining teams (Unit 58) had seven clearance teams in 2022, totalling 65 personnel.<sup>241</sup> According to the NRA, the Unit 58 humanitarian clearance teams of the Lao Army are a valuable asset, conducting

survey and clearance in the same way as national and international clearance operators, and with good coordination between the NRA and the army.

In September 2022, the US said it welcomed the opportunity to discuss further potential support to Unit 58 for training, equipment, and facilities improvement. The US Ambassador in Vientiane also called for the training of more Lao staff at the highest level (EOD Level 4) to further increase clearance capacity and safety.<sup>242</sup> In April 2023, this SEOD training was formally authorised by the Ministry of Foreign Affairs.<sup>243</sup>

In addition, the army was being trained to use IMSMA. Lao Army teams (completely separate to the humanitarian "Army 58" teams) and not coordinated by the NRA started clearance of UXO to enable construction work on the US\$6 billion Laos-China high-speed railway to proceed in safety.<sup>244</sup> According to an online media source, in March 2023, military engineers of the Russian Armed Forces carried out clearance in the Nakai district of Khammouane province. The engineers have cleared a total area of 24 hectares (0.24km<sup>2</sup>) in four and a half months from November 2022. This included rural roads, infrastructure, and administrative buildings. In total, 124 items of UXO were destroyed, including an unreported number submunitions, as well as artillery and mortar shells.<sup>245</sup>

With respect to the use of drones, while MAG had previously secured a drone permit in late 2019, and used drones in 2020 to assess the ground situation,<sup>246</sup> it had not received approval from the NRA to deploy drones in 2022 or 2023 to-date.<sup>247</sup> HI has consistently been refused permission to use drones and said that Houaphanh authorities do not support the use of drones, despite there being no sensitive sites in Houmeuang district. In 2022, HI again unsuccessfully requested to use drones to ensure the safety radius when disposing large items of explosive ordnance, such as aircraft bombs in the Nassarm demolition site (used by both HI and UXO Lao).<sup>248</sup> HI has raised this issue in its feedback on recommended changes to the national standards.<sup>249</sup> At the time of writing, use of drones in HALO's programme had also not been permitted by the NRA.<sup>250</sup> NPA had lengthy discussions with the NRA throughout 2021 regarding the use of drones for

232 Email from Alexandra Letcher, HI, 6 April 2023.

233 Email from Julien Kempeneers, HI, 30 March 2022.

234 Emails from Julien Kempeneers, HI, 25 March 2020 and 16 June 2021.

235 Email from Alexandra Letcher, HI, 6 April 2023.

236 Ibid.

237 Emails from Alexandra Letcher, HI, 6 April and 28 June 2023.

238 Emails from Rebecca Letven, MAG, 30 March and 20 June 2022.

239 Email from Portia Stratton, MAG, 15 May 2023.

240 Email from Katherine Harrison, NPA, 9 May 2023.

241 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

242 Presentation by Amb. Peter Haymond, US Embassy Vientiane, minutes of the UXO Sector Working Group meeting, 16 September 2022.

243 Email from Olivier Bauduin, US Embassy Vientiane, 4 August 2023.

244 Souksakhone Vaenko, "Army deployed to clear UXO for Laos-China railway", Vientiane Times, 6 January 2017; and email from Bouala Thongsavanh, NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018.

245 Ministry of Defence of the Russian Federation, "Russian Armed Forces' International Mine Action Centre completes mine clearance in Laos", 31 March 2023, available at: <https://bit.ly/43uM0T5>.

246 Email from Rebecca Letven, MAG, 26 March 2021.

247 Email from Portia Stratton, MAG, 15 May 2023.

248 Email from Alexandra Letcher, HI, 6 April 2023.

249 Emails from Julien Kempeneers, HI, 16 March 2021 and 30 March 2022.

250 Email from Alexandra Letcher, HI, 6 April 2023.

survey and clearance activities. However, in May 2022, the NRA informed NPA that the use of drones is currently not permitted for survey and clearance of UXO in Lao PDR or under the NMAS,<sup>251</sup> and NPA has not raised the topic subsequently. The use of drones, including large surveillance drones, is permitted in other contexts and by other government ministries, such as by the company Vientiane Geomatic Services, including to locate bomb craters.<sup>252</sup> UXO Lao does not presently use drones, but said that if these assets were available and could be used in the country, they would benefit operations.<sup>253</sup>

NPA continues to seek permission to use innovations already approved in Lao PDR's National Standards, such as the use of mine detection dogs (MDDs) as a tool for QM and rapid response, as well as in areas of high metal density, or

around powerlines, where the use of metal detectors can be disrupted.<sup>254</sup> However, the NRA did not approve NPA's request to introduce the use of MDDs.<sup>255</sup>

HALO completed a trial of the Minelab F3 UXO detector in early 2021 which produced favourable results. The widespread use of these detectors on clearance tasks commenced in August 2021, and by the end of the year HALO's clearance rates in areas with high soil mineralisation were significantly improved.<sup>256</sup> In 2021, MAG started using Vallon large-loop and handheld detectors in both Xiengkhouang and Khammouane provinces, and it intended to equip all teams with Vallon detectors going forward as budgets allow.<sup>257</sup> An additional 99 VMH4 handheld Vallon detectors and 28 VMX10 large-loop detectors were purchased in 2022.<sup>258</sup>

## LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

### LAND RELEASE OUTPUTS IN 2022

According to data reported by NRA to Mine Action Review, CMR clearance output in Lao PDR in 2022 was almost 50.72km<sup>2</sup>. A total of 65,293 submunitions were destroyed during area clearance, TS, and spot tasks,<sup>259</sup> together with a large number of other items of UXO and small number of anti-personnel mines.

Lao PDR's Article 7 report covering 2022 declared more than 54.37km<sup>2</sup> of CMR clearance, with the destruction of 64,516 submunitions, 89 big bombs, 20,473 other items of UXO, and 55 mines.<sup>260</sup>

The total number of submunitions reported by the NRA as destroyed in 2022 was less than the total reported by humanitarian operators to Mine Action Review, which came to 77,382 submunitions (11,634 through TS, 46,307 through clearance, and 19,441 through spot tasks).<sup>261</sup>

### SURVEY IN 2022

According to the NRA data reported to Mine Action Review, a total of more than 211km<sup>2</sup> of CHA containing CMR was identified in 2022 (see Table 4). This is a decrease on the more than 228km<sup>2</sup> of CHA identified in 2021.

251 Email from Katherine Harrison, NPA, 11 May 2022.

252 Vientiane Geomatic Services (VGS) website and Facebook page, accessed 4 July, at <https://bit.ly/3IZSnG4> and <https://bit.ly/3D5eRC5>.

253 Email from Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.

254 Email from Katherine Harrison, NPA, 19 June 2021.

255 Email from Katherine Harrison, NPA, 9 May 2023.

256 Email from Cameron Imber, HALO, 31 March 2022.

257 Email from Rebecca Letven, MAG, 30 March 2022.

258 Email from Portia Stratton, MAG, 15 May 2023.

259 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

260 Article 7 Report (covering 2021), Form F.

261 Emails from Alexandra Letcher, HI, 6 April 2023; William Hunter, HALO, 8 May 2023; Katherine Harrison, NPA, 9 May 2023; Portia Stratton, MAG, 15 May 2023; and Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.

**Table 4: Technical survey of CMR-suspected area in 2022 (based on NRA data)<sup>262</sup>**

Operator	Area surveyed (m <sup>2</sup> )	Area identified (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed	Mines destroyed
Lao People's Army (Unit 58)	4,744,500	548,449	120	19	0
HALO	20,245,080	5,574,306	1,893	295	0
HI	1,127,500	614,896	116	11	0
MAG	162,599,573	158,379,104	5,221	29	0
NPA	5,670,000	2,128,990	198	12	1
UXO Lao	60,645,000	43,909,758	4,623	1,180	0
<b>Totals</b>	<b>255,031,653</b>	<b>211,155,503</b>	<b>*12,171</b>	<b>*1,546</b>	<b>*1</b>

\* Already included in EOD roving task total

According to the data reported to Mine Action Review by clearance operators (excluding the Army Unit 58), a slightly higher total (compared to NRA data) of more than 217km<sup>2</sup> of CHA containing CMR was identified in 2022 (see Table 5).

**Table 5: Technical survey of CMR-suspected area in 2022 (based on operator data)<sup>263</sup>**

Operator	Area surveyed (m <sup>2</sup> )	Area identified (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed	Mines destroyed
Lao People's Army (Unit 58)	N/R	N/R	N/R	N/R	N/R
HALO	16,078,404	5,874,863	1,023	157	0
HI	1,127,500	614,896	116	12	0
MAG	162,599,573	158,379,104	5,221	30	0
NPA	5,850,000	2,128,990	204	12	0
UXO Lao	67,688,000	50,310,000	5,070	1,384	N/R
<b>Totals</b>	<b>253,343,477</b>	<b>217,307,853</b>	<b>11,634</b>	<b>1,595</b>	<b>0</b>

N/R = Not reported

HALO completed the comprehensive CMRS of Savannakhet province in August 2022, having surveyed 492 villages identified by the NRA as being potentially contaminated by CMR.<sup>264</sup>

## CLEARANCE IN 2022

According to the NRA data reported to Mine Action Review, a total of almost 50.72km<sup>2</sup> of cluster munition-contaminated area was cleared in 2022. During the year a total of 65,293 submunitions were destroyed during technical survey and clearance, including 20,426 during EOD spot tasks, together with a large number of UXO and a small number of anti-personnel mines.<sup>265</sup> The 50.72km<sup>2</sup> area clearance total used by Mine Action Review excludes 11,843m<sup>2</sup> of commercial clearance by LXML, during which no submunitions were found. Commercial clearance, unlike humanitarian clearance, involves clearance of land in which no or very few submunitions are destroyed. This confirms that this is not targeted clearance of CHAs, but instead clearance at the request of clients of often uncontaminated land, required for confidence building for construction and development projects. Mine Action Review does not consider this as CMR clearance. Some 99% of all UXO destroyed during area clearance in 2022 were reported as having been destroyed by the six humanitarian clearance operators.<sup>266</sup>

The 2022 clearance output reported by the NRA to Mine Action Review of 50.72km<sup>2</sup>, was an increase on the 46.68km<sup>2</sup> of CMR clearance for 2021 used by Mine Action Review in last year's *Clearing the Mines* report on Lao PDR.<sup>267</sup> The increase in clearance in 2022 compared to 2021 is largely due to increased funding for humanitarian clearance resulting in additional clearance capacity and output,<sup>268</sup> and because COVID-19 had negatively impacted on operations in 2021.<sup>269</sup>

<sup>262</sup> Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

<sup>263</sup> Emails from Alexandra Letcher, HI, 6 April 2023; William Hunter, HALO, 8 May 2023; Katherine Harrison, NPA, 9 May 2023; Portia Stratton, MAG, 15 May 2023; and Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.

<sup>264</sup> Email from William Hunter, HALO, 8 May 2023.

<sup>265</sup> Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

<sup>266</sup> Email from Olivier Bauduin, US Embassy Vientiane, 21 July 2023.

<sup>267</sup> 2019 UXO Sector Annual Report, NRA, undated, pp. 5 and 7.

<sup>268</sup> Emails from William Hunter, HALO, 8 May 2023; Katherine Harrison, NPA, 9 May 2023; and Portia Stratton, MAG, 15 May 2023.

<sup>269</sup> Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

Table 6: CMR clearance by operator in 2022 (based on NRA data)<sup>270</sup>

Province	Operator	Area cleared (m <sup>2</sup> )	Submunitions destroyed during clearance	Submunitions destroyed during spot tasks	UXO destroyed	Anti-personnel mines destroyed
Attapeu	NPA	2,533,912	2,162	19	2,199	0
	UXO Lao	3,464,727	1,363	836	1,391	0
Bolikhamxai	Lao People's Army (Unit 58)	170,214	233	128	621	0
Champassak	NPA	1,324,715	2,308	203	2,781	1
	UXO Lao	731,995	616	427	702	0
Houaphanh	HI	679,252	4,094	152	4,319	0
	Lao People's Army (Unit 58)	0	0	38	0	0
	UXO Lao	546,939	778	316	909	0
Khammouane	MAG	4,074,209	2,703	1,957	3,489	2
	UXO Lao	2,700,828	1,188	1,549	2,280	0
Luang Prabang	UXO Lao	0	0	8	0	0
Oudomxay	Lao People's Army (Unit 58)	0	0	4	0	0
Phongsaly	HI	0	0	42	0	0
	Lao People's Army (Unit 58)	0	0	22	0	0
Saravan	NPA	2,021,020	3,385	92	3,416	0
	UXO Lao	3,260,244	4,965	914	5,648	0
Savannakhet	HALO	6,040,793	5,343	2,542	8,183	0
	UXO Lao	3,751,613	1,762	1,027	2,300	1
Vientiane Province	Lao People's Army (Unit 58)	58,469	58	39	122	3
Vientiane Capital	Lao People's Army (Unit 58)	0	0	5	0	0
Xaisomboun	Lao People's Army (Unit 58)	0	0	6	0	0
Xekong	NPA	1,008,055	787	134	821	0
	UXO Lao	847,393	716	239	871	0
Xiengkhouang	MAG	11,037,515	3,712	6,675	4,094	2
	Milsearch	0	0	3	0	0
	UXO Lao	6,466,214	8,694	3,049	12,597	0
<b>Totals</b>		<b>50,718,107</b>	<b>*44,867</b>	<b>*20,426</b>	<b>56,743</b>	<b>9</b>

\* Believed to include submunitions destroyed during technical survey.

270 Ibid.

**Table 7: CMR clearance by operator in 2022 (based on operator data)<sup>271</sup>**

Operator	Area cleared (m <sup>2</sup> )	Submunitions destroyed	Submunitions destroyed during spot tasks	UXO destroyed	Anti-personnel mines destroyed
Lao People's Army (Unit 58)	N/R	N/R	N/R	N/R	N/R
HALO	7,122,084	6,168	1,519	4,226	11
HI	679,252	4,094	194	228	1
MAG	15,286,974	6,434	8,632	1,152	4
NPA	7,912,950	7,684	193	554	1
UXO Lao	24,044,837	21,927	8,903	7,249	1
<b>Totals</b>	<b>55,046,097</b>	<b>46,307</b>	<b>19,441</b>	<b>13,409</b>	<b>18</b>

According to Lao PDR's Article 7 report, a total of more than 54.37km<sup>2</sup> was cleared in 2022, across 12 provinces, with the destruction of nearly 64,516 CMR, in addition to 54 mines, 89 big bombs, and 20,473 items of other UXO, during clearance, TS, and roving tasks (see Table 8). Just over 4.53km<sup>2</sup> of the total clearance was for development areas, and the remainder for agricultural areas.<sup>272</sup>

The 54.37km<sup>2</sup> of total CMR clearance (including humanitarian and commercial clearance) reported in Lao PDR's Article 7 report covering 2022, is an increase compared to the reported 45.54km<sup>2</sup> of total clearance in 2021 (similarly including humanitarian and commercial clearance), with the destruction of nearly 64,304 submunitions.<sup>273</sup>

**Table 8: CMR clearance by province in 2022 (Article 7 data)<sup>274</sup>**

Province	Area cleared (m <sup>2</sup> )
Attapeu	5,998,639
Bolikhamxai	170,214
Champassak	2,033,150
Houaphanh	1,305,208
Khammouane	7,087,708
Luangnamtha	0
Luang Prabang	152,800
Oudomxay	0
Saravan	5,225,912
Savannakhet	11,338,231
Vientiane Province	25,619
Vientiane Capital	0
Xaisomboun	772,453
Xekong	1,881,758
Xiengkhouang	18,379,272
<b>Total</b>	<b>54,370,964</b>

\* Includes 49,837,414m<sup>2</sup> of agricultural area and 4,533,550m<sup>2</sup> of development area.

<sup>271</sup> Emails from Alexandra Letcher, HI, 6 April 2023; William Hunter, HALO, 8 May 2023; Katherine Harrison, NPA, 9 May 2023; Portia Stratton, MAG, 15 May 2023; and Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.

<sup>272</sup> Article 7 Report (covering 2022), Form F.

<sup>273</sup> Article 7 Report (covering 2021), Form F.

<sup>274</sup> Article 7 Report (covering 2022), Form F.

The NRA said that 110 cluster munition clearance tasks, totalling 1,218,567m<sup>2</sup>, were cleared in 2022 which contained no CMR.<sup>275</sup>

HALO reported that of the CMR cleared in 2022, 36 tasks totalling 664,998m<sup>2</sup> proved not to contain CMR, although 11 of the 36 tasks did contain other ERW.<sup>276</sup> HI found submunitions in all its clearance tasks in 2022, which were on CHAs. HI also supported some development tasks (bridges, local roads, small scale/subsistence farming plots for livelihood activities for persons with disabilities - part of another HI project), and 11 of these tasks in Hiem district, totalling 1,181m<sup>2</sup> and 32 of these tasks in Houameuang, totalling 30,539m<sup>2</sup> were found not to contain CMR, although some contained other items of explosive ordnance.<sup>277</sup> MAG reported that 388 tasks, totalling 471,440m<sup>2</sup>, were completed in 2022 in which no further CMR were discovered during clearance. But most of these were outside CHAs and were in support of a development cooperation partnership with LuxDev in Khammouane.<sup>278</sup> NPA cleared one task area in 2022 which proved to contain no CMR, with a total size of 16,260m<sup>2</sup>. The task was created in 2020 following national survey procedures, and two submunitions had previously been identified and destroyed during CMRS.<sup>279</sup> UXO Lao said it found CMR in all its CHA clearance tasks in 2022.<sup>280</sup> UXO Lao also supports development projects, for which the areas requested for clearance by local authorities sometimes do not contain CMR, and clearance is conducted to ensure the areas were free from UXO in order for development projects to take place. At the December 2022 meeting of the TWG on IM, the NRA presented on the report of CHAs where MAG and NPA did not find CMR.<sup>281</sup>

UXO Lao's CMR clearance in 2022 was a decrease on the previous year, due to lack of funding resulting in only partial operations in five of the nine provinces in which it operates.<sup>282</sup>

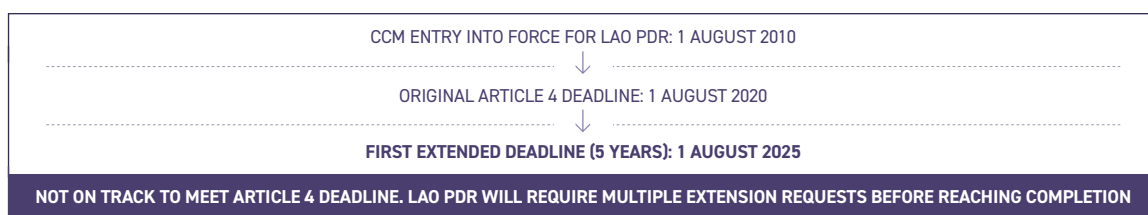
Compared to the previous year, and based on operator data, HALO, HI, MAG, and NPA's clearance output increased in 2022.

HI said that its increased clearance in 2022 compared to the previous year was due to the land topography of task sites, with rice paddies being less time-consuming to clear; cooperation from the villagers in supporting with vegetation cutting; favourable weather conditions; and the use of large coil on the Minelab F3 detector. HI said use of the large coil allowed for deep detection of CMR-sized items when used high above the ground and that using this method cancels out a lot of unwanted small fragmentation located on the surface, reducing the number of excavations that have to be conducted by the team. Clearance output was also an indication of a strong prioritisation process, applied to the 13 CHA in 10 villages in Houameuang district.<sup>283</sup>

HALO said the 44% increase in the amount cleared in 2022 was a result of the significant increase in clearance funding from PM/WRA.<sup>284</sup> MAG saw a 48% increase in clearance output compared to 2021, primarily due to the types of terrain (rice and cassava fields) the teams were deployed on, resulting in a higher meter squared output per day.<sup>285</sup> NPA said that its 11% increase in area cleared, while positive, was less than expected due to unfavourable field/ weather conditions, changes to team/task deployment, and delays in the MoU process (including lack of interim permission to operate).<sup>286</sup>

All clearance organisations in Lao PDR are required to have a documented internal QM system, covering both QA and QC procedures. External QM inspections of clearance organisations are conducted by the NRA.<sup>287</sup> In a positive development, the NRA doubled its QM capacity in 2022, from two QM teams to four (with five people per team),<sup>288</sup> but capacity is still under-resourced given that these four teams cover sector-wide clearance.

## ARTICLE 4 DEADLINE AND COMPLIANCE



275 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

276 Email from William Hunter, HALO, 8 May 2023.

277 Email from Alexandra Letcher, HI, 6 April 2023.

278 Email from Portia Stratton, MAG, 15 May 2023.

279 Email from Katherine Harrison, NPA, 9 May 2023.

280 Email from Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.

281 Lao PDR, minutes of the Information Management Technical Working Group meeting, Fourth Quarter 2022, 22 December 2022.

282 Email from Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.

283 Email from Alexandra Letcher, HI, 6 April 2023.

284 Email from William Hunter, HALO, 8 May 2023.

285 Email from Portia Stratton, MAG, 15 May 2023.

286 Email from Katherine Harrison, NPA, 9 May 2023.

287 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.

288 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

Under Article 4 of the CCM, Lao PDR is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 August 2025, having been granted a five-year extension (the maximum that can be requested per extension request under the CCM) in 2019. Based on current capacity and output, Lao PDR will require multiple extensions to its Article 4 deadline. According to the NRA, based on current resources and land release practices, “progress towards reaching a residual level of contamination as provided for in the CCM is decades away”.<sup>289</sup>

As at end of 2022, a total of more than 1,745km<sup>2</sup> of CHA had already been identified through the ongoing nationwide survey.<sup>290</sup> As the baseline survey continues the area of confirmed contamination/CHA is expected to continue to increase rapidly. An estimate of the true extent of CMR contamination will not be known until the nationwide CMRS is completed.<sup>291</sup> It is a notable achievement that to-date, the proactive survey phase (i.e. systematic CMRS of assigned villages) has been concluded in five of the most heavily contaminated provinces in the south. Good progress is being made in systematic CMRS of villages in Xiengkhouang, the most heavily contaminated province. Some survey is also being conducted to varying extents in other provinces, and in some, no survey is yet being undertaken. Therefore, there is still significant work to complete survey nationwide. Furthermore, the current nationwide baseline is based on CMRS of assigned villages and excludes CMR-contaminated areas in forested and mountainous areas which are not populated.

Clearance of CMR in Lao PDR will take many years and will require long-term national capacity and funding. According to Lao PDR’s 2019 Article 4 extension request, the predicted annual clearance output based on current capacity and resources available averages approximately 50km<sup>2</sup>.<sup>292</sup> However, annual humanitarian clearance output over the last five years has been significantly less (see Table 9), although the 50.72km<sup>2</sup> of clearance of cluster munition-contaminated area achieved in 2022 finally met this target. Furthermore, clearance outputs in 2023 and 2024 were expected to exceed that of 2022.<sup>293</sup>

**Table 9: Five-year summary of CMR clearance**

Year	Area cleared (km <sup>2</sup> )
2022	*50.72
2021	*46.68
2020	*42.90
2019	*45.77
2018	36.20
<b>Total</b>	<b>222.27</b>

\* Excluding commercial clearance

The NRA has highlighted the challenges in balancing resources for survey and clearance. While nationwide CMRS is essential to quantify the extent of actual contamination in Lao PDR, there is also a need for follow-on clearance in priority areas, which also demands significant resources.<sup>294</sup> Commencement of FCDO-funded clearance operations in Lao PDR in 2019 helped increase clearance output of HALO, MAG, and NPA.<sup>295</sup> While NPA withdrew from the partnership in April 2020, FCDO funding continued for HALO and MAG, but decreased by more than half from April 2021.<sup>296</sup> Since 2021, the United States has, however, shifted its focus to clearance of CHAs generated by CMRS, and has supported increased clearance capacity of both international clearance operators and UXO Lao,<sup>297</sup> which resulted in a significant increase in clearance capacity, in particular for HALO, MAG, and NPA.

Lao PDR has identified several challenges in Article 4 implementation. These include insufficient funding (in particular to the NRA and UXO Lao), and the need to strengthen coordination and collaboration among sector stakeholders in order to increase effectiveness and efficiency of the mine action sector in Lao PDR.<sup>298</sup> Existing clearance capacity is not sufficient to address the area of CHA identified for clearance through the ongoing nationwide CMRS. Furthermore, because the number of CMR found per hectare during clearance is now much higher, thanks to application of evidence-based land release methodology, more explosives are needed for the destruction of CMR. This increases operational costs as explosives in Lao PDR are reportedly among the most expensive in the region.<sup>299</sup>

289 CCM Extension Request 2019, Executive Summary, p. 1; Part B, Detailed Narrative, p. 5; and Statement of Lao PDR, CCM Eighth Meeting of States Parties, Geneva, 3–5 September 2018.

290 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

291 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.

292 CCM Extension Request 2019, Executive Summary, p. 3.

293 Email from Olivier Bauduin, US Embassy Vientiane, 4 August 2023.

294 Statement of Lao PDR, CCM Seventh Meeting of States Parties, Geneva, 4–5 September 2017; email from Bouala Thongsavanh on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018; and interview with Phoukhieo Chanthasomboune, NRA, in Geneva, 7 February 2019.

295 Emails from Rebecca Letven, MAG, 26 March 2021; Cameron Imber, HALO, 14 March 2021; and Katherine Harrison, NPA, 22 March 2021.

296 Emails from Rebecca Letven, MAG, 20 June 2022; and Cameron Imber, HALO, 28 June 2022.

297 Interview with Olivier Bauduin, US Embassy Vientiane, in Geneva, 13 February 2020.

298 Statement of Lao PDR on National Implementation Efforts, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.

299 CCM Extension Request 2019, Executive Summary, p. 5; and Part B, Detailed Narrative, pp. 24–25.

In addition to insufficient clearance capacity, Lao PDR cites as challenges to implementation of its Article 4 extension request work plan mountainous terrain (which can impede comprehensive survey to accurately identify the location and size of CMR-contaminated area and make clearance more complex and time-consuming); inadequate and unpredictable funding (which sometimes results in the halting of operations or reduction in number of employees); and outdated clearance equipment (e.g. in struggling to distinguish between CMR and scrap metal).<sup>300</sup> Other operational challenges in clearance tasks also include heavy rains during the wet season; high scrap-metal contamination and fragmentation from other UXO; difficulty accessing tasks due to flooding and vehicles getting stuck in the mud; and the proximity of high-voltage pylons and power lines.<sup>301</sup>

According to the NRA, the limited number of clearance teams, means that for most villages, clearance is required on multiple separate occasions before the entire village is completed.<sup>302</sup> The NRA is seeking international assistance in order to comprehensively update its national prioritisation system; expand clearance capacity, especially that of the Humanitarian Demining units of the Army (Unit 58); and upgrade its data and IM systems.<sup>303</sup>

In 2022, COVID-19 continued to disrupt survey and clearance operations, but to a much lesser extent and primarily only in the first quarter of the year. In April 2022, Lao PDR lifted its COVID-19 restrictions, reducing the impact of COVID-19 on operations.<sup>304</sup> HALO reported that during the first half of 2022, national and provincial COVID-19 restrictions resulted in some clearance and survey teams being quarantined after team members tested positive. However, by June, most restrictions had been removed, and HALO operations continued as normal.<sup>305</sup> COVID-19 did not have a significant effect on HI operations in 2022. Houaphanh Province re-opened in mid-February 2022 and HI operations were able to continue unhindered. This was in stark contrast to the previous year.<sup>306</sup> MAG reported losing 1,064 working hours for clearance and 504 working hours for TS in January 2022, due to COVID-19 quarantine of staff, but since April 2022 MAG's operational activities have not been negatively affected by COVID.<sup>307</sup> NPA reported losing 283 deminer working days in 2022 as a result of COVID-19 infections or COVID-related restrictions.<sup>308</sup> COVID-19 did not hinder UXO Lao's work plan in 2022.<sup>309</sup>

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Lao PDR is still determining the extent of its baseline of CMR contamination and is many years from fulfilling its Article 4 obligations. The Geneva International Centre for Humanitarian Demining (GICHD) believes the NRA would still, however, benefit from taking a strategic view on how to prepare for transition to a more reactive phase, and ultimately for completion within the same framework. In June 2022, the GICHD organised a workshop in conjunction with ARMAC, on risk management and planning for residual contamination. The NRA attended along with three other national authorities from the region and implementing partners.<sup>310</sup> Based on discussions during the workshop, the GICHD facilitated an experience exchange visit for the NRA staff to Lebanon to better understand how the LMAC approaches various aspects of its mine action programme, such as coordination with INGOs, quality management, and the application of the land release process.<sup>311</sup>

300 CCM Article 7 Reports (covering 2021 and 2022), Form F.

301 Presentation by HALO, Sepon, 10 May 2018.

302 Article 7 Report (covering 2022), Form F.

303 CCM Article 7 Report (covering 2021 and 2022), Form F; and Statement of Lao PDR on Clearance, CCM Intersessional meetings, Geneva, 16–17 May 2022.

304 Email from Portia Stratton, MAG, 15 May 2023.

305 Email from William Hunter, HALO, 8 May 2023.

306 Email from Alexandra Letcher, HI, 6 April 2023.

307 Email from Portia Stratton, MAG, 15 May 2023.

308 Email from Katherine Harrison, NPA, 9 May 2023.

309 Email from Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.

310 Emails from GICHD, 21 June 2022 and 5 May 2023.

311 Email from GICHD, 5 May 2023.

**ARTICLE 4 DEADLINE: 1 MAY 2026**  
NOT ON TRACK TO MEET DEADLINE

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

**5.23** km<sup>2</sup>

SUBMUNITION  
CLEARANCE IN 2022

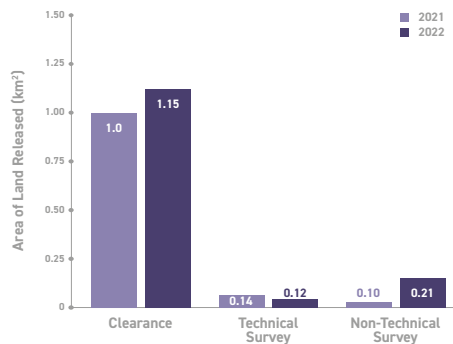
**1.15** km<sup>2</sup>

SUBMUNITIONS  
DESTROYED IN 2022

**2,556**

(INCLUDING AT LEAST 139  
SUBMUNITIONS DESTROYED DURING  
CALL-OUTS AND 14 SUBMUNITIONS  
DESTROYED DURING MINE CLEARANCE)

### LAND RELEASE OUTPUT



### KEY DEVELOPMENTS

The Lebanon Mine Action Centre (LMAC) continued to strengthen Lebanon's mine action programme during 2022. Total release of cluster munition-contaminated area in 2022 was up on the previous year, and increased technical survey (TS) improved operational efficiency. Lebanon has seen a significant drop in capacity for the clearance of cluster munition remnants (CMR), the result of less international funding and no national funding for CMR clearance due to the economic crisis in Lebanon. Lebanon is not on track to meet its extended Convention on Cluster Munitions (CCM) Article 4 clearance deadline of 1 May 2026.

### RECOMMENDATIONS FOR ACTION

- Following the updates to the national mine action standards (NMAS), all implementing agencies in Lebanon should routinely conduct TS (manual, mechanical, or with mine detection dogs (MDDs)) in the release of CMR tasks.
- LMAC should determine how it plans to address CMR in especially difficult terrain, such as deep canyons and very steep cliffs, and should publicly report on the number and size of CMR tasks concerned and LMAC's plans to address these areas.
- Lebanon should regularly update its CCM Article 4 planning based on annual outputs achieved.
- Lebanon should develop a resource mobilisation strategy to enable it to meet its annual CMR clearance targets as set out in its Article 4 deadline extension request.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2022)	Score (2021)	Performance Commentary
<b>UNDERSTANDING OF CMR CONTAMINATION</b> (20% of overall score)	8	8	LMAC has a good baseline understanding of its CMR contamination. Re-survey of tasks, which is conducted on a three-year cycle, continues to result in a small number of previously unrecorded cluster munition-contaminated areas being added to the database. In addition, LMAC has corrected duplicate or inaccurate records identified as part of the migration to Information Management System for Mine Action (IMSMA) Core. The baseline, however, still includes confirmed hazardous areas (CHAs) without defined boundaries with an estimated standard size of 10,000m <sup>2</sup> although their true size may differ markedly.
<b>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</b> (10% of overall score)	8	8	LMAC continued to show strong national ownership and commitment in 2022, further strengthening programme management. In addition to maintaining Mine Action Forum and technical working group (TWG) meetings, LMAC also finalised a code of conduct for all implementing partners, and both organised and attended trainings and capacity-building initiatives. While the government of Lebanon contributes US\$9 million annually to support the running of LMAC and the Lebanese Armed Forces (LAF) engineering regiments, regrettably, due to continued political and financial unrest in Lebanon, none of the 50 billion Lebanese Pounds (approx. US\$33 million) for CMR clearance over five years (2019–23) had been allocated as of writing.
<b>GENDER AND DIVERSITY</b> (10% of overall score)	8	7	Gender and diversity considerations are included in the National Mine Action Strategy 2020–25. In August 2022, LMAC organised a three-day course on “Gender and Diversity Mainstreaming in Mine Action in Lebanon”. LMAC also finalised a code of conduct for the Lebanese mine action programme in 2022, which aims to promote gender and diversity inclusion in all aspects of the work undertaken by LMAC and its implementing partners. In addition, MAG assisted LMAC in establishing a Gender Diversity and Inclusion Steering Committee led by LMAC's gender focal point with key stakeholders from all non-governmental clearance organisations.
<b>INFORMATION MANAGEMENT AND REPORTING</b> (10% of overall score)	8	8	LMAC completed the migration to IMSMA Core in 2021 and the new database is now being used for all activities, and will also help inform the automated prioritisation of clearance tasks. Lebanon produced a comprehensive and accurate CCM Article 7 report covering 2022 and LMAC also published an informative Annual Report for 2022.
<b>PLANNING AND TASKING</b> (10% of overall score)	8	8	LMAC has a National Mine Action Strategy for 2020–25 and an accompanying plan for its implementation and monitoring of progress. In 2022, Lebanon fell short of the 1.9km <sup>2</sup> clearance target from its 2020 Article 4 extension request, due to decreased clearance capacity.
<b>LAND RELEASE SYSTEM</b> (20% of overall score)	8	8	LMAC has steadily strengthened its NMAS over the last five years. Throughout 2022, LMAC encouraged the systematic and routine application of TS. In addition, enhancements have also been made to the required fade-out distance, the marking system for battle area clearance (BAC) tasks, and the frequency of demolitions. Unfortunately, capacity for CMR TS and clearance decreased further in 2022.
<b>LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE</b> (20% of overall score)	6	6	CMR-contaminated area clearance increased in 2022 compared to 2021. The drop in international funding and absence of national funds for CMR clearance mean that Lebanon will not complete clearance by its 2026 deadline, despite the gains in operational efficiency from widespread TS.
<b>Average Score</b>	<b>7.6</b>	<b>7.5</b>	<b>Overall Programme Performance: GOOD</b>

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

## MANAGEMENT

- Lebanon Mine Action Authority (LMAA)
- Lebanon Mine Action Centre (LMAC)
- Regional Mine Action Centres (RMAC-N and RMAC-RB)

## NATIONAL OPERATORS

- Lebanese Armed Forces (LAF)/Engineering Regiment (ER)
- Peace Generation Organization for Demining (POD)

## INTERNATIONAL OPERATORS

- DanChurchAid (DCA)
- Humanity and Inclusion (HI)
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)

## OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Development Programme (UNDP)
- UN Interim Force in Lebanon (UNIFIL)
- UN Mine Action Service (UNMAS)

# UNDERSTANDING OF CMR CONTAMINATION

At the end of 2022, Lebanon had 5.23km<sup>2</sup> confirmed hazardous areas (CHAs) containing CMR (see Table 1).<sup>1</sup> This is less than the end of 2021, when 709 CHAs were confirmed to contain CMR over a total area of almost 6.3km<sup>2</sup>,<sup>2</sup> the result of survey and clearance in 2022.

In 2022, more than 0.41km<sup>2</sup> of previously unrecorded CMR contamination was added to the database (29 new CMR sites in the north-east region totalling 333,342m<sup>2</sup> and resulting from new contamination that was first discovered in the region in 2017; and 80,192m<sup>2</sup> across seven sites in other regions). In addition, a further 29,066m<sup>2</sup> of previously unrecorded CMR contamination was added, resulting from the correction to the perimeters of six existing CMR sites following non-technical survey (NTS).<sup>3</sup>

With support from the Geneva International Centre for Humanitarian Demining (GICHD), in 2021 the LMAC migrated its Information Management System for Mine Action (IMSMA) to the new version, IMSMA Core. The migration has continued to reveal that certain villages were registered in the wrong province, the correction of which resulted in a change to the distribution of the remaining contamination by province, but did not change the total amount of remaining CMR contamination.<sup>4</sup>

**Table 1: Cluster munition-contaminated area by province (at end 2022)<sup>5</sup>**

Province	CHAs	Area (m <sup>2</sup> )
Beqaa (including the north-east region)	61	242,059
Janoub and Nabatiyeh (South of Lebanon)	554	4,607,094
Jabal Loubnan (Mount Lebanon)	57	384,904
<b>Totals</b>	<b>662</b>	<b>5,234,057</b>

As part of a 2018 database review process, LMAC decided to change the standard size of CHAs with no defined boundaries (and in which there is no mine threat), to 10,000m<sup>2</sup> in the database, based on the fade-out distance for cluster munition clearance and LMAC's experience to date.<sup>6</sup> But operators have found that the standardised 10,000m<sup>2</sup> (per task) area is in some instances an overestimate and in other instances an underestimate of the actual task size.<sup>7</sup> LMAC, however, believes that this is the best approach CMR tasks and to be conservative in its CCM Article 4 planning it has increased the size of these areas by 250% (to 25,000m<sup>2</sup>) to factor in fade-out.<sup>8</sup>

1 Email from Lt.-Col. Fadi Wazen, Operations Section Head, LMAC, 15 May 2023; Article 7 report (covering 2022), Form F; and LMAC, "Annual Report 2022", p. 15.  
2 CCM Article 7 Report (covering 2022), Form F; email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; and Presentation of Lebanon, CCM Intersessional meetings, Geneva, 16 May 2022.  
3 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; CCM Article 7 Report (covering 2022), Form F; and LMAC, "Annual Report 2022", p. 14.  
4 Article 7 Report (covering 2022), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.  
5 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; Article 7 Report (covering 2022), Form F; and LMAC, "Annual Report 2022", p. 15.  
6 Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; LMAC, "Annual Report 2018", p. 13; Article 7 Report (covering 2018), Form F; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 10.  
7 Email from Valerie Warmington, Programme Manager, Norwegian People's Aid (NPA), 28 May 2020.  
8 Email from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020.

The accuracy of the baseline is further complicated by the fact that clearance undertaken in the aftermath of the 2006 cluster munition strikes was not conducted in accordance with the International Mine Action Standards (IMAS) and was mostly limited to rapid surface clearance.<sup>9</sup> This included emergency clearance undertaken by the Lebanese Armed Forces (LAF) in and around infrastructure, schools, and roads, and clearance contracted out to non-governmental organisations (NGOs), commercial operators, and government groups by the UN Mine Action Coordination Centre – south Lebanon (MACC-SL), which assumed the role of coordinating CMR clearance in 2007, in cooperation with the National Demining Office (now known as LMAC).<sup>10</sup>

In order to determine its baseline of CMR contamination more accurately and inform Article 4 planning, LMAC has re-surveyed all remaining cluster munition-contaminated areas in its database. The nationwide non-technical re-survey was completed in November 2020,<sup>11</sup> and LMAC's NTS teams revisit the CMR sites every three years.<sup>12</sup>

A 2020 study on operational efficiency highlighted the need for greater emphasis on technical survey (TS) as part of the land release process in Lebanon.<sup>13</sup> These recommendations were subsequently incorporated in Lebanon's NMAS (see section below, "Land Release System" for details).<sup>14</sup> The second phase of the study, to verify to what extent recommendations from phase one were applied and identify and address remaining and/or additional aspects for possible improvements to operational efficiency improvement, was

completed in 2022, funded by the Netherlands and supported by the United Nations Development Programme (UNDP).<sup>15</sup> It found that most bottlenecks to increased operational efficiency have been fully or partially addressed by LMAC through a well-managed process, and that there is room for some additional improvement using MDDs, more consideration toward the environment, and transition to national ownership.<sup>16</sup>

CMR contamination is largely the result of the conflict with Israel in July–August 2006. During the conflict, Israel fired an estimated four million submunitions on south Lebanon, 90% of which were dispersed in the last 72 hours of the conflict.<sup>17</sup> An estimated one million submunitions failed to explode.<sup>18</sup> Some Israeli bombing data have been provided – most recently through the UN Interim Force in Lebanon (UNIFIL) – but has proved to be very inaccurate.<sup>19</sup> In addition, some CMR still remain from earlier conflicts with Israel in 1978 and 1982,<sup>20</sup> and there is a small amount of new CMR contamination on the north-east border with Syria, resulting from spill-over of the Syrian conflict onto Lebanese territory in 2014–17.<sup>21</sup> Types of submunitions found in Lebanon include Israeli, Soviet, and United States (US)-made submunitions, types AO-2.5 RT, BLU-18, BLU-26, BLU-61, BLU-63, M42, M43, M46, M77, M85, MK118, and MZD-2.<sup>22</sup> Some areas contain unexploded submunitions resulting from both ground-launched and air-dropped cluster munitions, which can further complicate the picture.<sup>23</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Lebanon is also contaminated by other unexploded ordnance (UXO), booby-traps, and anti-personnel mines (see Mine Action Review's *Clearing the Mines* report on Lebanon for more information).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Lebanon's mine action programme is under the control of the military. The Lebanon Mine Action Authority (LMAA), which has overall responsibility for Lebanon's mine action programme, is the responsibility of the Ministry of Defence and is chaired by the Minister of Defence. In 2007, a national mine action policy outlined the structure, roles, and responsibilities within the programme, and LMAC was tasked to execute and coordinate the programme on behalf of the LMAA.<sup>24</sup>

9 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 12.

10 Human Rights Watch, "Flooding South Lebanon. Israel's use of cluster munitions in Lebanon in July and August 2006", 16 February 2008.

11 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.

12 Article 7 Report (covering 2022), Form F.

13 LMAC, "Annual Report 2020", p. 36.

14 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

15 LMAC, "Annual Report 2022", p. 10; and email from Lt.-Col. Fadi Wazen, LMAC, 30 June 2023.

16 Email from Lt.-Col. Fadi Wazen, LMAC, 30 June 2023.

17 Landmine Action, "Foreseeable Harm: the use and impact of cluster munitions in Lebanon: 2006", 2006.

18 Email from Brig.-Gen. Ziad Nasr, Director, LMAC, 27 April 2018; and Article 7 Report (covering 2022), Form F.

19 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, Head of Operations, LMAC, Beirut, 11 April 2016; presentation by Brig.-Gen. Fakhri, LMAC, Beirut, 16 November 2016; and Article 7 Report (covering 2019), Form F.

20 Landmine Action, "Foreseeable Harm: the use and impact of cluster munitions in Lebanon: 2006", 2006; interview with Brig.-Gen. Elie Nassif, Director, and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016; and Article 7 Report (covering 2022) Form F.

21 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 2.

22 Ibid., p. 23.

23 Interview with Oussama Merhi, UNDP, in Geneva, 26 June 2015.

24 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014, pp. 4–5.

LMAC, part of the LAF, is based in Beirut. Since 2009, the Regional Mine Action Centre-Nabatiyeh (RMAC-N), which is a part of LMAC, has overseen operations in south Lebanon and western Beqaa, under LMAC supervision.<sup>25</sup> At the end of 2018, a new regional centre, the RMAC-Ras Baalbek (RMAC-RB), was established in the north-east of Lebanon to oversee the mine action operations there.<sup>26</sup> To a large extent LMAC has a well-functioning capacity, but, as they are army officers, the senior management of LMAC and RMAC are typically routinely rotated every two years or so, which can hamper development and continuity in the management of the three mine action centres.<sup>27</sup> The current director of LMAC started in March 2019.<sup>28</sup>

A new standing operating procedure (SOP) for LMAC was approved in November 2020. The SOP specifies the roles of each section of LMAC and clarifies the responsibilities and cooperation between sections. It is hoped that it will help preserve institutional memory, assist new LMAC staff, and reduce the impact of staff rotations.<sup>29</sup>

UNDP personnel, funded by the Netherlands, are also seconded to LMAC, providing support for capacity building, including for studies, NTS and community liaison, and information management.<sup>30</sup> In 2022, there were four UNDP personnel supporting LMAC,<sup>31</sup> down from six in 2021.<sup>32</sup> UNDP also received six month's funding in 2020 from Norway,<sup>33</sup> and then in April 2021, the Netherlands agreed a three-year contract with UNDP for international support to LMAC, totalling US\$1.5 million.<sup>34</sup>

In 2022, the Netherlands also provided capacity development to LMAC through Mines Advisory Group (MAG), with office equipment and training on demining accident investigation. The United States (US) started a project in 2022 to support LMAC through International Trust Fund (ITF) Enhancing Human Security, aimed at sustaining LMAC during the financial crisis (e.g. car maintenance, solar power systems, demining equipment, training).<sup>35</sup>

The GICHD provides support to LMAC on information management and on gender and diversity. LMAC and Regional School for Humanitarian Demining in Lebanon (RSHDL) staff have benefitted and co-supported GICHD with

courses under the regional framework of the Arab Regional Cooperation Programme (ARCP). In 2022, LMAC hosted a regional ARCP IMSMA Core implementation workshop and the RSHDL hosted the first two weeks of the ARCP IMSMA Core Training course.<sup>36</sup> IM staff from LMAC have also supported the GICHD to deliver global IMSMA Core training. In addition, the GICHD is partnering with LMAC on a study of contamination in "difficult" terrain (see section below, "Article 4 Deadline and Compliance" for details).<sup>37</sup>

MAG has also supported the national authorities through the introduction of the new VMH4 detector in battle area clearance (BAC) tasks, which has increased productivity; procurement of mechanical assets; and use of digital global positioning system (GPS) for mapping of tasks. MAG also donated equipment and trained LMAC on its use for quality assurance (QA) activities. Furthermore, MAG is supporting LMAC through the delivery of identified training topics, including on gender and diversity.<sup>38</sup> In 2022, MAG, in collaboration with LMAC, hosted a four-day exposure visit to Lebanon from the Iraqi Directorate of Mine Action (DMA) and Iraqi Kurdistan Mine Action Authority (IKMAA). During the itinerary, participants observed fieldwork and visited the RSHDL.<sup>39</sup>

A "Mine Action Forum" was established in Lebanon in close partnership between LMAC and Norway. The forum aims to meet twice a year, with UNDP designated as the secretariat for the Forum.<sup>40</sup> In 2021, the Netherlands took over from Norway as Forum co-chair.<sup>41</sup> In 2022, the Forum met twice.<sup>42</sup> The most recent forum meeting, in September 2022, was co-chaired by LMAC and the Netherlands, and moderated by the director of the GICHD.<sup>43</sup> The Forum is said to have resulted in better coordination and greater transparency as well as enhancements to land release methodology, enshrined in the revised NMAS.<sup>44</sup>

There is good coordination and collaboration between LMAC/ the RMAC and clearance operators, with the operators consulted before key decisions are taken.<sup>45</sup> International clearance operators reported that an enabling environment exists for mine action in Lebanon, with LMAC facilitating the processing of visas for international staff and assisting with

25 LMAC, "Lebanon Mine Action Strategy 2011-2020", September 2011, p. 4.

26 Email from Lt.-Col. Fadi Wazen, LMAC, 21 August 2019.

27 LMAC, Lebanon Mine Action Strategy 2020-25, signed June 2020, p. 4.

28 Email from Brig.-Gen. Ziad Nasr, LMAC, 26 March 2019.

29 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020 and 15 March 2021; and LMAC, "Annual Report 2020", p. 28.

30 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

31 Ibid.

32 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

33 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and LMAC, "Annual Report 2020", p. 28.

34 Email from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021; and LMAC, "Annual Report 2021", p. 38.

35 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

36 Email from GICHD, 6 April 2023.

37 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

38 Email from Sylvain Lefort, Country Director, MAG, 14 April 2023.

39 Ibid.

40 LMAC, "Annual Report 2018", p. 23.

41 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

42 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Tomislav Vondracek, Programme Manager, NPA, 5 May 2023.

43 Email from GICHD, 6 April 2023; and LMAC, "Annual Report 2022", p. 26.

44 Emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019 and 19 March 2020; LMAC, "Annual Report 2018", p. 23; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 38 and 39.

45 Emails from Sylvain Lefort, MAG, 24 March 2021; Hala Amhaz, NPA, 15 March 2021; Mahmoud Rahhal, POD, 8 March 2019; and David Ligneau, Mine Action Programme Manager, Humanity and Inclusion (HI), 21 April 2020.

the importation of equipment, including exemption of customs fees for equipment.<sup>46</sup> In 2022, however, Norwegian People's Aid (NPA) reported that a challenge was the length of time needed to obtain security clearances for new local staff. This process can take more than three months,<sup>47</sup> although usually it takes less than a month, during which the operator is allowed to start training the new staff.<sup>48</sup>

A technical working group (TWG) was established in March 2018, under the auspices of LMAC, based on recommendations of the Mine Action Forum and following the release of the revised NMAS. The TWG, which met twice in 2022,<sup>49</sup> provides a useful forum for LMAC/the RMACs to meet collectively with clearance operators to review and discuss field issues.<sup>50</sup>

As in the previous year, the Lebanese government contributed US\$9 million annually in 2022 towards mine action in Lebanon (for both mine- and CMR-related work), to support costs associated with the running of LMAC (facilities and staff); two LAF Engineering Regiment BAC teams and three Engineering Regiment's companies to cover rapid response across Lebanon; risk education; victim assistance; training; and advocacy.<sup>51</sup> However, the devaluation of the Lebanese Pound due to the economic crisis in the country affects the amount actually received.<sup>52</sup> The economic crisis affects the work of the Engineering Regiment humanitarian

demining teams. In particular, the increase in support and maintenance costs, and fuel shortages, were major obstacles.<sup>53</sup> Another consequence of the economic crisis in Lebanon is the enormous strain and the severe blow on the morale of the LMAC staff whose income was reduced in a few months to less than one tenth of previous income.<sup>54</sup>

The Lebanese government had pledged an additional 50 billion Lebanese Pounds (approximately US\$33 million) to CMR clearance over five years (2019–23), to increase the number of CMR clearance teams and help meet the State's Article 4 obligations under the CCM. But due to political and financial turmoil in Lebanon this national funding has not been provided.<sup>55</sup> LMAC had expected that a reduced amount of around US\$3 million of national funding would still be allocated to CMR clearance yearly.<sup>56</sup> In fact, no national funds were allocated for CMR clearance in 2020, 2021, or 2022.<sup>57</sup>

The decrease in funding directly impacts the number of clearance teams and the annual clearance output. In its 2020 Article 4 extension request plan, funding for clearance was expected to be US\$6.9 million in the first three years of extension period. Actual funding dropped by US\$1.52 million in 2021, and by US\$1.9 million in 2022.<sup>58</sup> LMAC needs an additional US\$3 million a year to increase the number of TS and clearance teams, to the levels anticipated in its deadline extension request plan.<sup>59</sup>

## ENVIRONMENTAL POLICIES AND ACTION

LMAC said that it recognises its responsibility to ensure that demining operations are conducted responsibly and efficiently while also minimising the impact on the environment. Lebanon's NMAS on Safety and Occupational Health – Protection of the Environment (10.70) specifically aims to achieve this. LMAC and its implementing partners ensure that they operate in conformity with NMAS 10.70 including:

- Coordinating with local authorities and landowners before start of operations.
- Compiling a list of factors related to operations that may affect the environment for all types of assets, assessing the threat, and making informed decisions.
- After demining and EOD operations have been completed at a worksite, but before the formal release of the area, implementing agencies are required to remove and appropriately dispose of all rubbish and large fragments of ordnance, and fill in any holes in the ground to stabilise the surface to allow for natural regeneration, using water to consolidate the soil when appropriate.<sup>60</sup>

46 Emails from Hiba Ghandour, Programme Manager, MAG, 7 April 2022; and Southern Craib, Operations Manager, NPA, 28 March 2022.

47 Email from Southern Craib, NPA, 28 March 2022.

48 Email from Lt.-Col. Fadi Wazen, LMAC, 30 June 2023.

49 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; Mouhamed Chour, Head of Operations, DCA, 3 May 2023; and Tomislav Vondracek, NPA, 5 May 2023.

50 LMAC, "Annual Report 2018", pp. 4, 7, and 17; and emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; Emile Ollivier, NPA, 19 March 2019; Hiba Ghandour, MAG, 7 April 2022; Southern Craib, NPA, 28 March 2022; and Mouhamed Chour, DCA, 4 April 2022; and Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 8 and 54.

51 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Article 7 report (covering 2022), Form I.

52 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

53 LMAC, "Annual Report 2022", p. 24.

54 Ibid., p. 37.

55 Article 7 Report (covering 2019), Form I; and email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

56 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 38; and 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020.

57 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021, 29 March 2022, and 15 May 2023; Article 7 Reports (covering 2020, 2021, and 2022), Form I; and LMAC, "Annual Report" 2022, p. 24.

58 LMAC, "Annual Report 2022", p. 24.

59 Article 7 report (covering 2022), Form I.

60 Emails from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022 and 5 May 2023.

DanChurchAid (DCA) reported that it is compliant with the Environmental Health and Safety Guidelines and that it follows NMAS and IMAS procedures with regards to the environment. DCA's SOPs identify specific smoking areas at task sites to prevent uncontrolled fires and DCA monitors all vegetation-cutting procedures to prevent damage to flora that is protected under Lebanese law, especially when its teams are deployed in national reserves such as the Al Shuf Cedars, where DCA conducted clearance in 2021.<sup>61</sup>

MAG has an environmental management system in place, and has been implementing NTS and TS whenever possible in its land release approach for CMR tasks, to decrease manual clearance and its resultant impact on the environment.<sup>62</sup>

NPA Lebanon said it has an environmental plan in place which it is implementing, including recent installation of a solar system; a recycling programme (for paper, plastic, glass, and plastic); and upgrading of its fleet for fuel efficiency. It also strives to minimise the removal of vegetation to the extent that it is safe. NPA has also begun to track its environmental footprint through the use of an annual reporting tool.<sup>63</sup>

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## GENDER AND DIVERSITY

The gender and diversity-related policy applied at LMAC is that of the LAF military rules. According to LMAC, all its personnel are familiar with these rules and the specific provisions related to gender equality and inclusion, safeguarding, and behavioural codes.<sup>64</sup>

LMAC remains committed to promoting the mainstreaming of gender and diversity among key stakeholders and mine action operators in Lebanon.<sup>65</sup> It has taken several actions to mainstream gender in its implementation plan, including through inclusive policies, data disaggregation in risk education and victim assistance, assigning a gender focal point, and organising and participating in courses at the RSHDL.<sup>66</sup>

MAG has supported LMAC in the implementation of the gender work plan and has assisted LMAC in establishment of a Gender Diversity and Inclusion Steering Committee led by LMAC's gender focal point and consisting of gender focal points and human resources (HR) managers from all clearance NGOs.<sup>67</sup> The GICHD conducted its most recent gender and diversity capacity assessment mission to the Lebanon programme in November 2021 and said LMAC had followed many of its recommendations on gender and diversity mainstreaming from that visit.<sup>68</sup>

In August 2022, LMAC organised a three-day course titled "Gender and Diversity Mainstreaming in Mine Action in Lebanon", in partnership with MAG, supported by UNDP, and funded by the Netherlands. The course was aimed at strengthening the integration of gender and diversity considerations among key stakeholders and mine action operators in Lebanon.<sup>69</sup> It brought together 22 participants from the NGOs MAG, NPA, DCA, Humanity & Inclusion (HI),

UNDP, UNMAS, and others, in addition to an officer from LMAC and the head of gender department at the Lebanese Army.<sup>70</sup>

Lebanon's new National Mine Action Strategy 2020–25, approved by the LMAA in June 2020, includes considerations on gender and diversity.<sup>71</sup> Of the five objectives in the new strategy, the fifth states that: "The specific needs and perspective of women, girls, men and boys from all groups of society are considered, in order to deliver an inclusive HMA [mine action] response". LMAC also acknowledges in the strategy that mine action "is a male-dominated environment and we have therefore a particular responsibility to empower women and ensure that we have a gender sensitive approach to our work".<sup>72</sup>

As per its strategic implementation plan,<sup>73</sup> and through the TWG, LMAC finalised a code of conduct for the Lebanese Mine Action Programme, in 2022.<sup>74</sup> The code of conduct provides a framework for cooperation, coordination, and transparency between LMAC and implementing agencies. It aims to promote gender and diversity inclusion in all aspects of the organisations' work and ensure that the implementation of mine action activities is conducted in a professional, ethical, and accountable manner. It also aims to promote the safety and security of mine action personnel and to protect the rights and interests of affected communities, by setting guidelines for the protection of human rights and the promotion of gender equality and inclusivity, as well as provisions for the management of mine action-related risks and incidents.<sup>75</sup>

LMAC planned to conduct a full review of the NMAS in 2023 and to consider the gender perspective during the review.<sup>76</sup>

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61 Emails from Mouhamed Chour, DCA, 4 April 2022 and 3 May 2023.

62 Email from Sylvain Lefort, MAG, 14 April 2023.

63 Emails from Southern Craib, NPA, 28 March 2022; and Tomislav Vondracek, NPA, 5 May 2023.

64 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

65 LMAC "Annual Report 2022", p. 33.

66 LMAC, "Annual Report 2018", p. 5; and email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019.

67 Email from Sylvain Lefort, MAG, 14 April 2023.

68 Email from GICHD, 6 April 2023.

69 Emails Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; Sylvain Lefort, MAG, 14 April 2023; and GICHD, 6 April 2023; and LMAC, "Annual Report 2022", p. 33.

70 Email from GICHD, 6 April 2023.

71 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March and 22 July 2020.

72 LMAC, Lebanon Mine Action Strategy 2020–25, p. 8.

73 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

74 Emails Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and GICHD, 6 April 2023; and LMAC, "Annual Report 2022", p. 34.

75 LMAC, "Annual Report 2022", p. 34.

76 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

Table 2: Gender composition of operators in 2022<sup>77</sup>

Operator	Total staff	Women employed	Total staff in managerial or supervisory positions	Women in managerial or supervisory positions	Total staff in operational positions	Women in operational positions
DCA	70	14	15	8	54	6
LMAC	161	19	22	1	52	9
MAG	203	37	50	7	179	30
NPA	83	17	22	3	74	12
POD	99	1	21	1	83	0

The number of staff at LMAC is determined by the LAF headquarters, so LMAC has limited control over the number of women, but it consistently requests that the percentage of women be increased.<sup>78</sup> However, the proportion of women at LMAC is more than double the 5% average of the Lebanese armed forces and LMAC seeks to improve this ratio further.<sup>79</sup> LMAC now has a female member of staff in an operational role, which is progress compared to last year when there were no women in operational positions.<sup>80</sup>

MAG, NPA, and Peace Generation Organization for Demining (POD) all reported having gender policies in place.<sup>81</sup>

MAG reported that it consults women during survey and community liaison activities; that all its community liaison teams are mixed; and that its data are disaggregated by sex, age, and nationality.<sup>82</sup> In 2022, MAG began systematic outreach to civil organisations to look for joint efforts to empower women and overcome stereotyping in the communities it works in, conducted detailed gender analysis to better disaggregate its data, and created a platform for reaching women in the community to attract more women to be involved in mine action.<sup>83</sup>

NPA was implementing its organisational gender policy for Lebanon, based on recommendations from the GICHD. It is encouraging more women to apply for field positions through job postings and social media. NPA disaggregates data by sex and age.<sup>84</sup>

## INFORMATION MANAGEMENT AND REPORTING

In 2021, LMAC completed migrating from its former version of IMSMA (New Generation) to IMSMA Core, with support from the GICHD. The new database is now being used for all activities.<sup>85</sup>

Several key improvements have been made in the new IM system, to ensure the quality of data. These include more accurate drawing of surveyed polygons using tools based on GPS and imagery base maps; reducing instances of double counting of polygons, for examples when different land release methods were used, as IMSMA core tracks the relationship between the parent and child activities using a unique ID; and the recording of the depth at which explosive ordnance was discovered, the condition of the explosive ordnance, and whether it is safe or unsafe to move.<sup>86</sup>

<sup>77</sup> Emails from Mouhamed Chour, DCA, 3 May 2023; Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; Sylvain Lefort, MAG, 14 April 2023; Tomislav Vondracek, NPA, 5 May 2023; and Mohammad Husein Karak, POD, 3 July 2023.

<sup>78</sup> Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020 and 15 March 2021; and LMAC, "Plan for the Implementation and Monitoring of the LMAP Strategy (2020–25)", p. 19.

<sup>79</sup> LMAC, "Annual Report 2020", p. 37.

<sup>80</sup> Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

<sup>81</sup> Emails from Emile Ollivier, NPA, 19 March 2019; David Willey, MAG, 7 March 2019; and Mahmoud Rahhal, POD, 8 March 2019.

<sup>82</sup> Email from Sylvain Lefort, MAG, 27 May 2021.

<sup>83</sup> Ibid.

<sup>84</sup> Email from Valerie Warmington, NPA, 28 May 2020.

<sup>85</sup> LMAC, "Annual Report 2022", p. 31.

<sup>86</sup> Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

Disclaimed areas in the database are those for which the owner of the land has not granted permission for implementing agencies to conduct land release operations. In such cases, the landowner has to sign a personal disclaimer taking full responsibility for any kind of explosive remnants of war (ERW) hazard including CMR on the land. LMAC is trying to end the disclaimers, the records of which were mainly taken before 2009. The majority of disclaimed areas are being cancelled as a result of ongoing re-survey when the owners are found to be using the land. If clearance is required, survey and community liaison teams, along with local authorities, will encourage landowners to allow clearance in order to ensure the land is free from hazards and will provide assurance of measures that will be taken to prevent disruption to the use of the land.<sup>87</sup> According to its 2020 Article 4 deadline extension request, there were 116 disclaimed areas on the database, totalling 338,932m<sup>2</sup>.<sup>88</sup>

DCA has been using Tiramisu Information Management Tool (T-IMS) for the past three years.<sup>89</sup> MAG started using "Survey123" software in Lebanon in August 2021 after training and field testing the new data collection system.<sup>90</sup> In 2022, MAG introduced version 2.0 of the Operational Management Information System, which will allow data to be automatically transferred from its database to LMAC's, removing the need for manual reporting of data and reducing manual errors. The new version will be implemented in 2023.<sup>91</sup> In the second half of 2020, NPA introduced the ARC-GIS programme for data collection to its information management system, which has allowed more precise monitoring and evaluation of the programme's activities, efficiency, outputs, and reporting.<sup>92</sup>

## PLANNING AND TASKING

In September 2011, LMAC adopted a strategic mine action plan for 2011–20.<sup>93</sup> The plan called for clearance of all CMR by 2016 and for completion of mine clearance outside the Blue Line by 2020. Both goals were dependent on capacity, but progress fell well short of planning targets, which were not met. Progress was also hindered by the historical lack of NTS and TS, which often resulted in inefficient land release and unnecessary clearance of uncontaminated land. LMAC has now rectified this, through the application of TS and its incorporation into the NMAS.

LMAC developed a new National Mine Action Strategy for 2020–25, with support from the UNDP project funded by the European Union (EU), in a participatory approach with national and international implementing agencies, mine action NGOs, UN agencies, and donors.<sup>94</sup> One objective of the new strategy is to complete clearance of all known cluster munition-contaminated areas by the end of 2025,<sup>95</sup> but LMAC is not on track to meet this target. The new strategy was approved by the LMAA in June 2020. A mid-term and final external review are planned, as well as annual reporting on progress.<sup>96</sup>

LMAC has also elaborated a strategic implementation plan for 2020–25, based on the new strategy and in collaboration with implementing partners, to operationalise the new

strategy with objectives, outputs, and indicators.<sup>97</sup> Results from the monitoring of the strategic implementation plan will be discussed at the operational level with implementing agencies at the TWG and a group of recommendations agreed and then presented at the biannual Mine Action Forum meetings.<sup>98</sup> The implementation plan will be revised annually by LMAC, the Institutional Support Programme (UNDP at present), and in consultation with humanitarian clearance operators.<sup>99</sup> LMAC had planned to conduct a full review of the strategy and implementation plan in 2022, in cooperation with all stakeholders.<sup>100</sup> The review did not take place in 2022, and is instead planned for 2023.<sup>101</sup> In addition, LMAC had an annual work plan for 2022 and has an annual work plan in place for 2023.<sup>102</sup>

Table 3 outlines the predicted annual clearance output and capacity up to the end of 2025, as per its 2021 deadline extension request. LMAC plans to conduct TS, where appropriate, but did not provide predictions in the extension request of the amount of area expected to be reduced through TS. The projected clearance rates in Lebanon's extension request were based on an average of the previous three years and while LMAC anticipates that application of the more efficient methodologies, such as technical survey will increase this average, it also expects that any gain will be offset by the more difficult terrain of contaminated area

87 Emails from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020 and 15 June 2021.

88 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 36.

89 Email from Matthew Benson, Country Director, DCA, 4 June 2021.

90 Email from Hiba Ghandour, MAG, 7 April 2022.

91 Email from Sylvain Lefort, MAG, 14 April 2023.

92 Email from Hala Amhaz, NPA, 15 March 2021.

93 LMAC, Lebanon Mine Action Strategy 2011–2020, September 2011, p. 4.

94 LMAC, Lebanon Mine Action Strategy 2020–25; and LMAC, "Annual Report 2019", p. 7.

95 LMAC, Lebanon Mine Action Strategy 2020–25, p. 4.

96 Email from Lt.-Col. Fadi Wazen, LMAC, 22 July 2020; and LMAC, Lebanon Mine Action Strategy 2020–25, p. 4.

97 Emails from Lt.-Col. Fadi Wazen, LMAC, 22 July 2020 and 15 March 2021; and LMAC, "Plan for the Implementation and Monitoring of the LMAP Strategy (2020–25)", p. 3.

98 LMAC, "Plan for the Implementation and Monitoring of the LMAP Strategy (2020–25)", p. 21.

99 LMAC, "Annual Report 2020", p. 33.

100 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

101 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

102 Ibid.; and LMAC Annual Report 2022, pp. 38–39.

that remains to be cleared.<sup>103</sup> Planned output also considers fade-out and the possible increase in the area to be cleared in the 10,000m<sup>2</sup> sites, using a factor of 2.5.<sup>104</sup> In 2022, LMAC cleared 1.15km<sup>2</sup> (and reduced a further 0.12km<sup>2</sup> through TS and cancelled 0.21km<sup>2</sup> through NTS), less than the 2022 clearance target in the extension request.<sup>105</sup>

As at the end of 2022, Lebanon was one year and eight months into its 5-year extension period and remaining CMR contamination stood at 5.23km<sup>2</sup> compared to the projected contamination of 5.53km<sup>2</sup>.<sup>106</sup> Based on current rates, Lebanon

expects to be able to release 3.81km<sup>2</sup> over the next three years, which would leave 1.42km<sup>2</sup> of remaining cluster munition-contaminated area by the end of 2025. Any further release through NTS is likely to be offset by the extra time needed to work on the difficult terrain sites. Due to the current limitations and not having the same clearance capacity used to elaborate the predicted annual output in its 2020 extension request work plan, Lebanon will not be able to meet its deadline of 1 May 2026. LMAC now expects to complete clearance in the summer of 2027.<sup>107</sup>

**Table 3: Planned CMR clearance and capacity (2021–25) as per 2020 Extension Request<sup>108</sup>**

Year	2021	2022	2023	2024	2025
<b>Cleared (km<sup>2</sup>)</b>	1.9	1.9	1.9	1.5	1.6
<b>Teams</b>	26	26	26	21	21

With regard to task prioritisation, LMAC conducted a study, whose results have informed a new national prioritisation system, based on three strategic categories: safety, economy, and treaty compliance. Each category contains subcategories which take operational considerations and impact into account.<sup>109</sup> The prioritization of actions and allocation of resources is automated in IMSMA Core, during the data collection phase.<sup>110</sup> The new IMSMA Core only became fully functional in 2021, therefore additional information is still required to be able to specify the priorities. In 2022, NTS teams continued to update data for the new prioritization system. In 2023, LMAC aimed to complete 80% of the tasks in Mount Lebanon.<sup>111</sup>

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Lebanon developed its first NMAS in 2010.<sup>112</sup> In 2017, LMAC started revising and harmonising national standards with IMAS, adding new modules to the original standards.<sup>113</sup> It has since continued to review and further revise the NMAS to focus more on land release and evidence-based decision making, based on recommendations and analysis of operational data.

Most recently, LMAC has focused on strengthening the use of survey to more accurately define the presence of an explosive threat (or confirm its absence).<sup>114</sup> Prior to the

incorporation of TS into the revised NMAS released in May 2021, TS activities had not been a routine part of the toolbox for operators for the release of cluster munition tasks.<sup>115</sup> NGO clearance operators updated their SOPs accordingly and commenced application of TS on BAC tasks.<sup>116</sup> A full review of the LAF ER's SOPs was completed with the support of LMAC/UNDP, and TS is included for CMR operations.<sup>117</sup>

LMAC updated its strategic implementation plan to reflect the increased focus on TS,<sup>118</sup> and it was agreed at the TWG meeting in December 2021 that more TS will be conducted

103 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 5 and 34.

104 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

105 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Article 7 report (covering 2022), Form F.

106 Article 7 report (covering 2022), Form F.

107 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Article 7 report (covering 2022), Form F.

108 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 37.

109 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021; and LMAC, "Annual Report 2020", p. 35.

110 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and LMAC, "Annual Report 2022", p. 32.

111 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

112 Email from Brig.-Gen. Elie Nassif, LMAC, 17 June 2015.

113 Emails from Brig.-Gen. Elie Nassif, LMAC, 7 July 2015; Dave Wiley, MAG, 27 April 2018 and 7 March 2019; and Craig McDiarmid, Programme Manager, NPA, 17 April 2018 and 19 March 2019; and Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 15.

114 Emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; Dave Wiley, MAG, 27 April 2018; and Craig McDiarmid, NPA, 17 April 2018; and Statement of Lebanon on Clearance, CCM Ninth Meeting of States Parties, Geneva, 2 September 2019.

115 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016 and with Lt.-Col. Fadi Wazen, LMAC, Beirut, 16 April 2019; and emails from Lt.-Col. Fadi Wazen, LMAC, 15 June 2020; and Hala Amhaz, NPA, 15 March 2021.

116 Emails from Hiba Ghandour, MAG, 7 April 2022; and Mouhamed Chour, DCA, 4 April 2022 and 3 May 2023.

117 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

118 Email from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021.

by manual search teams.<sup>119</sup> LMAC promoted TS to be applied more systematically and routinely in 2022, for CMR tasks.<sup>120</sup> The continuous change in yearly funding makes it difficult to clearly calculate how much the operational efficiency has improved,<sup>121</sup> but LMAC found that where TS for CMR tasks was applied in 2022, an average of 51% of land was reduced.<sup>122</sup> No further updates were made to the NMAS in 2022,<sup>123</sup> but in line with its commitment to continuous improvement, LMAC planned a biannual review of the NMAS in 2023.<sup>124</sup>

In addition, following recommendations and discussions with implementing partners in early 2021, the fade-out distance requiring full clearance was formally reduced from a 50-metre radius to a 30-metre radius in high-density CMR tasks, and to a minimum 25-metre radius in low-density tasks.<sup>125</sup>

MAG had also previously noted that excessive marking reduced productivity and increased costs. It presented and demonstrated to LMAC a new marking system for BAC tasks, which was positively received and subsequently approved by LMAC.<sup>126</sup>

Furthermore, LMAC planned to update the NMAS with respect to demolitions, following a discussion with operators which revealed that reducing the frequency of destruction of items found in cluster munition sites to one demolition day per week, rather than daily as suggested in the existing NMAS, would save an average of 2 hours per day required for the preparation and execution of demolitions. As a consequence, an additional 4–8 hours of work per team per week will be saved.<sup>127</sup> As at July 2023, the updates for demolitions were already in place and applied by operators where possible.<sup>128</sup>

With respect to NTS, LMAC completed re-survey of all CMR tasks in November 2020, in order to have a clearer estimation of the remaining contamination for Article 4 planning.<sup>129</sup> LMAC will re-survey these tasks every three years and also has an NTS officer in its operations section, who is responsible for developing an annual plan and following up with all implementing agencies.<sup>130</sup> LMAC also agreed with the NGO operators the option for each to have a NTS team to re-survey each new task prior to starting clearance.<sup>131</sup>

## OPERATORS AND OPERATIONAL TOOLS

In 2022, CMR clearance was conducted by international operators DCA, MAG, and NPA; national operator POD; and the LAF Engineering Regiment.<sup>132</sup> Capacity for clearance of CMR in 2022 remained broadly constant with the previous year. However, the funding for 2023 has decreased enormously, with NPA working at half capacity.<sup>133</sup> Humanity and Inclusion (HI), which conducts mine clearance survey and clearance in Lebanon, also cancelled a small amount of CMR-contaminated area through NTS in 2022.<sup>134</sup>

The LAF Engineering Regiment has two BAC teams. A further three Engineering Regiment companies conduct rapid response call-outs. In addition, each deployed combat brigade has its own combat engineering company which can also conduct rapid-response call-outs. The LAF has seven MDD teams for TS and for use as a secondary asset supporting clearance, but none of these is used for CMR. Through the Engineering Regiment, LMAC provides mechanical assistance to clearance operators that lack this capacity.<sup>135</sup>

In Lebanon, machines are mostly used as secondary assets to support clearance teams (e.g. for ground preparation, rubble removal, or for fade-out); in areas where manual clearance is difficult; and for TS and low threat hazardous area (LTHA).<sup>136</sup> Often, however, the terrain is not suitable for machines. Unfortunately, the economic crisis in Lebanon has resulted in huge budget cuts in all government institutions and therefore the LAF teams are not able to conduct the same level of activities as before, including with respect to some of the mechanical assets. Clearance operators who are supported by mechanical assets from the LAF are providing fuel, maintenance, and spare parts for the machines.<sup>137</sup> In addition, new mechanical assets have been introduced by MAG, which will be used as primary assets.<sup>138</sup>

119 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

120 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

121 Ibid.

122 LMAC, "Annual Report 2022", p. 13.

123 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; Sylvain Lefort, MAG, 14 April 2023; Mouhamed Chour, DCA, 3 May 2023; and Tomislav Vondracek, NPA, 5 May 2023.

124 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and LMAC, "Annual Report 2022", p. 38.

125 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021; Hiba Ghandour, MAG, 7 April 2022; and Mouhamed Chour, DCA, 4 April 2022.

126 Emails from Sylvain Lefort, MAG, 24 March and 27 May 2021; Hiba Ghandour, MAG, 7 April 2022; and Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

127 Article 7 Report (covering 2021), Form F; and presentation of Lebanon, CCM Intersessional meetings, Geneva, 16 May 2022; and LMAC, "Annual Report 2021", p. 33.

128 Email from Lt.-Col. Fadi Wazen, LMAC, 30 June 2023.

129 Article 7 Report (covering 2019), Form F; and LMAC, "Annual Report 2019", p. 12.

130 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

131 Emails from Lt.-Col. Fadi Wazen, LMAC, 5 April 2019 and 19 March 2020.

132 Email from Lt.-Col. Fadi Wazen, LMAC, 5 May 2023.

133 Ibid.

134 Email from Aurélien Thienpont, Country Manager, HI, 8 June 2023.

135 Emails from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022 and 5 May 2023.

136 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

137 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

138 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

NPA worked with LMAC and the LAF to assess the capacities of the LAF MDDs for surveying and clearing CMR. However, as at May 2023, there had been no further progress on the development of a proposal to build the capacity of the LAF MDD teams in order to provide LMAC with IMAS/NMAS compliant MDD capacity for TS.<sup>139</sup> LMAC said use of MDDs in TS proved successful previously for addressing CMR, and LMAC plans to promote funding for MDDs and work with NPA to train new MDD teams in the Engineering Regiment.<sup>140</sup> Dogs are not currently accredited for CMR clearance in Lebanon.<sup>141</sup>

**Table 4: NGO operational CMR clearance capacities deployed in 2022<sup>142</sup>**

Operator	Manual teams	Total clearance personnel*	Machines**	Comments***
DCA	2	19	0	Combined mine and BAC capacity.
MAG	6	66	2	Three teams in the south and three in the north-east. Clearance personnel also conduct TS. In the north-east, teams are also involved in TS and clearance of mines and improvised explosive devices (IEDs), in addition to CMR. LMAC reported MAG as having 7 manual CMR clearance teams, most likely splitting the large teams into sub teams.
NPA	4	29	0	
POD	7	85	0	
<b>Totals</b>	<b>19</b>	<b>199</b>	<b>2</b>	

\* Clearance personnel may also conduct TS. \*\* Excluding vegetation cutters and sifters. \*\*\* Clearance teams also work on TS tasks. N/K = not known.

DCA's clearance capacity remained broadly constant in 2022.<sup>143</sup>

MAG's survey and clearance capacity remain broadly constant in 2022. Its capacity in 2023 is contingent on funding, but MAG expected a decrease in number of NTS/TS and/or clearance personnel in 2023, as it anticipated the completion of its project in the north-east and the redundancy of staff deployed in that project.<sup>144</sup>

NPA's capacity in 2022 was broadly the same as the previous year. However, Japan announced they would not continue funding in Lebanon from the end of March 2023, which resulted in NPA putting all operational staff on part-time contracts (50%) from January 2023, to avoid lay-offs. NPA hoped that new donors can be found in 2023 to offset the impact of this.<sup>145</sup>

With respect to NTS capacity (for both CMR and mines) in 2022, there were seven NTS teams in total: two LMAC teams (totalling two personnel);<sup>146</sup> two DCA teams (totalling four personnel);<sup>147</sup> and three MAG teams (two in the south and one in the north-east, involved in NTS of both CMR and landmine contamination) (totalling five personnel).<sup>148</sup> In addition, there was one person deployed for NTS for Humanity and Inclusion (HI), mainly for mines, but which surveyed one CMR site in 2022.<sup>149</sup>

In August 2021, MAG introduced the Vallon VMH4 and VMX10 detectors in 2021, having previously conducted trials for these detectors. The deployment of the Vallon detectors on BAC tasks has resulted in increased productivity in CMR tasks.<sup>150</sup> MAG has also changed the clearance methodology through using a new marking system which uses ropes instead of pickets, thus saving time and money. Furthermore, it has increased its mechanical fleet by procuring two new machines (Rebel Crusher and GCS-200) which were deployed on minefield clearance sites in 2022, but will be used on BAC sites in 2023 if needed.<sup>151</sup>

139 Emails from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; and Southern Craib, NPA, 28 March 2022; Article 7 Report (covering 2021), Form F; and LMAC, "Annual Report 2021", p. 32.

140 Article 7 report (covering 2022), Form F.

141 Email from Southern Craib, NPA, 28 March 2022.

142 LMAC, "Annual Report 2022", p. 11; and emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; Sylvain Lefort, MAG, 14 April 2023; Tomislav Vondracek, NPA, 5 May 2023; Mouhamed Chour, DCA, 3 May and 16 June 2023; and Mohammad Husein Karak, POD, 3 July 2023.

143 Email from Mouhamed Chour, DCA, 3 May 2023.

144 Email from Sylvain Lefort, MAG, 14 April 2023.

145 Email from Tomislav Vondracek, NPA, 5 May 2023.

146 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

147 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Mouhamed Chour, DCA, 3 May 2023.

148 Email from Sylvain Lefort, MAG, 14 April 2023.

149 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 and 30 May 2023.

150 Emails from Hiba Ghandour, MAG, 7 April 2022; Sylvain Lefort, MAG, 14 April 2023; and Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; Article 7 Report (covering 2021), Form F; and LMAC, "Annual Report 2021", p. 32.

151 Email from Sylvain Lefort, MAG, 14 April 2023.

# LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

## LAND RELEASE OUTPUTS IN 2022

A total of almost 1.48km<sup>2</sup> of CMR-contaminated area was released in 2022, of which more than 1.15km<sup>2</sup> was cleared, almost 0.12km<sup>2</sup> was reduced through TS, and nearly 0.21km<sup>2</sup> was cancelled through NTS.<sup>152</sup> A total of 2,556 submunitions were destroyed in 2022, including at least 139 submunitions during rapid response call-outs and 14 submunitions destroyed during mine clearance operations.<sup>153</sup>

In addition, 0.44km<sup>2</sup> of previously unrecorded CMR contamination was added to the database in 2022, of which 0.03km<sup>2</sup> was due to a correction of the perimeters of existing CMR sites following NTS.<sup>154</sup>

## SURVEY IN 2022

In 2022, 209,593m<sup>2</sup> was cancelled through NTS (see Tables 5 and 6) and a further 115,836m<sup>2</sup> was reduced through TS (see Table 7).<sup>155</sup>

NTS output in 2022 marked a slight increase compared In 2021, when 96,602m<sup>2</sup> was cancelled through NTS.<sup>156</sup> TS output in 2022 was a slight decrease on the 140,392m<sup>2</sup> reduced through TS in 2021.<sup>157</sup>

**Table 5: Cancellation through NTS by province in 2022<sup>158</sup>**

Province	Area cancelled (m <sup>2</sup> )
Bekaa	175,502
Mount Lebanon	16,248
South Lebanon	17,843
<b>Total</b>	<b>209,593</b>

**Table 6: Cancellation through NTS by implementing agency in 2022<sup>159</sup>**

Operator	Area cancelled (m <sup>2</sup> )
DCA	10,000
HI	6,248
MAG	193,345
<b>Total</b>	<b>209,593</b>

**Table 7: Reduction through TS in 2022<sup>160</sup>**

Province	Operator	Area reduced (m <sup>2</sup> )
Bekaa	MAG	115,836
<b>Total</b>		<b>115,836</b>

In 2022, 413,534m<sup>2</sup> of previously unrecorded CMR contamination was added to the database (333,342m<sup>2</sup> in the north-east region and 80,192m<sup>2</sup> in other regions).<sup>161</sup>

## CLEARANCE IN 2022

Lebanon reported clearing more than 1.15km<sup>2</sup> of CMR-contaminated land in 2022 (see Tables 8 and 9), destroying in the process 2,542 submunitions.<sup>162</sup> This included 139 submunitions destroyed during rapid response/EOD spot tasks.<sup>163</sup> Clearance during the year was a slight increase on the 1km<sup>2</sup> of CMR-contaminated land cleared in 2021.<sup>164</sup>

152 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Article 7 report (covering 2022), Form F.

153 LMAC, "Annual Report 2022", p. 11.

154 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; CCM Article 7 Report (covering 2022), Form F; and LMAC, "Annual Report 2022", p. 14.

155 Article 7 report (covering 2022), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

156 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

157 Ibid.

158 Article 7 report (covering 2022), Form F; email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and LMAC, "Annual Report 2022", p. 14.

159 Article 7 report (covering 2022), Form F; emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Aurélien Thienpont, HI, 8 June 2023; LMAC, "Annual Report 2022", p. 14. DCA and MAG reported slightly different cancellation data to Mine Action Review, compared to LMAC data. DCA reported that it cancelled 56,797m<sup>2</sup> in 2022 (10,000m<sup>2</sup> in Alay and 46,797m<sup>2</sup> in Metn) (email from Mouhamed Chour, DCA, 3 May 2023). MAG reported that it cancelled a total of 622,232m<sup>2</sup> in 2022: 35,070m<sup>2</sup> in Ras Baalbek and 586,162m<sup>2</sup> in Rashya (email from Sylvain Lefort, MAG, 14 April 2023). MAG believes the discrepancy was because some of the tasks it received were marked as dangerous areas (DAs) for NTS, but upon the completion of NTS, MAG recorded them as CM tasks, whereas LMAC continued to record them as DAs (email from Sylvain Lefort, MAG, 12 June 2023).

160 Article 7 report (covering 2022), Form F; LMAC, "Annual Report 2022", p. 13; and emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023. MAG's data was different to that of LMAC's. MAG reported reducing 58,963m<sup>2</sup> in Baalbak Hermal and 15,447m<sup>2</sup> in Nabatiyeh, in addition to the 115,836m<sup>2</sup> reduced in Bekaa (email from Sylvain Lefort, MAG, 14 April 2023). The differences between LMAC and operator data are due to LMAC only reporting land release after full completion and hand over, whereas upon completion, MAG reports the data back to when the task was open. Email from Sylvain Lefort, MAG, 12 June 2023.

161 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; CCM Article 7 Report (covering 2022), Form F; and LMAC Annual Report 2022, p. 14.

162 Article 7 report (covering 2022), Form F.

163 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

164 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

Table 8: CMR clearance by province in 2022<sup>165</sup>

Province	Area cleared (m <sup>2</sup> )	Submunitions destroyed*
Bekaa	686,058	N/R
Mount Lebanon	168,000	N/R
South of Lebanon	299,518	N/R
<b>Totals</b>	<b>1,153,576</b>	<b>2,556</b>

\* Figures include items destroyed during TS and rapid response call-outs, and 14 submunitions destroyed during mine clearance.

Table 9: CMR clearance by implementing agency in 2022<sup>166</sup>

Operator	Area cleared (m <sup>2</sup> )	Submunitions destroyed during clearance*	UXO destroyed during CMR clearance
DCA	167,790	153	45
LAF	4,750	**253	N/R
MAG	694,315	63	10
NPA	87,189	1,333	35
POD	199,532	601	N/R
<b>Totals</b>	<b>1,153,576</b>	<b>2,403</b>	<b>90</b>

\* Figures include items destroyed during TS but not during rapid response call-outs.

\*\* Includes submunitions destroyed during TS, clearance, and rapid-response call-outs.

A further 139 submunitions were destroyed during rapid response call-outs in 2022: 10 by MAG and 129 by POD.<sup>167</sup> In addition, according to LMAC, DCA found a further 14 submunitions during mine clearance operations.<sup>168</sup>

According to LMAC, NTS results were as expected, as NTS teams are updating the database on a three-year cycle. The total amount of area released in 2022 exceeded that of previous year, despite the reduction in funding, indicating an improvement in efficiency.<sup>169</sup>

DCA's clearance output decreased slightly in 2022, compared to the previous year, because DCA capacity was deployed to clear more minefields. DCA also saw a decrease in the amount of CMR-contaminated area cancelled through NTS, as many of the tasks were in high altitudes and snow slowed down NTS. DCA reported that all its CMR-clearance tasks in 2022 contained submunitions.<sup>170</sup>

MAG significantly increased the area it reduced in 2022, compared to 2021, due to LMAC's decision to increase TS in BAC sites whenever possible. MAG also saw a slight increase in the amount of CMR-contaminated area cleared, due to several reasons including increased use of the new VMH4 detector on BAC sites which increased productivity by cancelling signals caused by scrap metals.<sup>171</sup> MAG reported that 26 CMR tasks totalling 341,909m<sup>2</sup>, proved to contain no cluster munition remnants.<sup>172</sup> These tasks had reportedly been created due to items found and destroyed by the LAF or else prior to the approval of the use of TS in BAC tasks.<sup>173</sup>

The amount of cluster munition-contaminated area cleared by NPA in 2022 was a decrease on the previous year, largely due to a change in terrain and the level of metal contamination. In addition, 379 more submunitions were discovered and destroyed in 2022, compared to the previous year, impacting

165 Article 7 Report (covering 2022), Form F.

166 Article 7 Report (covering 2021), Form F; LMAC, "Annual Report 2022", pp. 11 and 12; and emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; Tomislav Vondracek, NPA, 5 May 2023; and Sylvain Lefort, MAG, 12 June 2023. DCA clearance data reported to Mine Action Review differed from LMAC's data. DCA reported clearing 168,115m<sup>2</sup> of CMR-contaminated area with the destruction of 361 submunitions and 44 items of UXO (email from Mouhamed Chour, DCA, 3 May 2023).

167 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Sylvain Lefort, MAG, 12 June 2023; and LMAC, "Annual Report 2022", p. 11.

168 LMAC, "Annual Report 2022", p. 11. DCA's data was different to that in LMAC's report. DCA reported destroying 21 submunitions during mine clearance tasks in 2022 (email from Mouhamed Chour, DCA, 16 June 2023).

169 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

170 Email from Mouhamed Chour, DCA, 3 May 2023.

171 Email from Sylvain Lefort, MAG, 14 April 2023.

172 Email from Sylvain Lefort, MAG, 14 April 2023.

173 Emails from Hiba Ghandour, MAG, 3 June 2022; and Sylvain Lefort, MAG, 12 June 2023.

the square metre output. NPA reported clearing one task in 2022, totalling 10,000m<sup>2</sup>, which did not contain CMR,<sup>174</sup> although UNIFIL had destroyed a CM container in the task in the past.<sup>175</sup> NPA did not reduce any cluster-munition contaminated area through TS in 2022, which it said was due to the heavy contamination in the CMR tasks.<sup>176</sup>

According to LMAC, MAG, and NPA, COVID-19 had no significant impact on operations in 2022.<sup>177</sup> DCA said several cases of COVID-19 between the searchers and team members impacted its land release operations due to operations personnel being off work sick or in quarantine awaiting negative test results.<sup>178</sup>

ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM, Lebanon is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 May 2026, having been granted a five-year extension in 2021 (the maximum that can be requested per extension request under the CCM). Lebanon is not on track to meet this deadline.

In light of improvements to the CMR land release methodology in the last couple of years, funding now represents the most significant challenge to Lebanon’s Article 4. Many international donors have stopped funding clearance operations in Lebanon, with total mine action funding falling from US\$19.65 million in 2019 to US\$11.2 million in 2022.<sup>179</sup> For the second year in a row, the funding earmarked for CMR clearance has continued to decline, having a direct impact on the number of clearance teams.

Furthermore, Lebanon is in the midst of a deep and unprecedented economic, financial, and social crisis and no funds have been received from the 50 billion Lebanese pounds allocated by the government of Lebanon in 2017 for cluster munition clearance.<sup>180</sup> Based on current funding and capacity, LMAC does not expect to be able to complete CMR clearance by its extended deadline of May 2026, and instead predicts it will complete clearance in the summer of 2027.<sup>181</sup>

Operators have said that the economic and political crises have led to hyper-inflation, currency collapse, and problems with already strict and reducing budgets. This has resulted in supplies being more expensive; fuel less readily available; and protests and roadblocks hampering the security

situation. The impact of this is particularly challenging in respect to funding from some donors which do not fund the full cost of operations.<sup>182</sup>

Lebanon has cleared approximately 5.8km<sup>2</sup> of cluster munition-contaminated area in the last five years (see Table 10). According to LMAC, results until the beginning of 2022 showed that Lebanon was on track to meet its Article 4 extension request plan targets, however, the drop in funds in 2021 onwards and the corresponding drop in the number of CMR survey and clearance teams is now reducing the amount of CMR-contaminated area released.<sup>183</sup> The current shortfall between the amount specified in Lebanon’s 2020 Article 4 extension request and the amount actually secured for cluster munition survey and clearance is a total of US\$8.7 million for 2021 and 2022. No new donors were brought on board in 2022.<sup>184</sup>

In order to meet its international commitments, LMAC has said it must: maintain international interest in CMR clearance in Lebanon; secure as a minimum the necessary funds stated in the extension request plan (US\$6.6 million/year); and secure additional funds of US\$3 million/year for the next two years to compensate for the decreased funds and the inability of government of Lebanon at present to support CMR clearance operations due to economic crisis.<sup>185</sup>

LMAC and its implementing partners have continued to stress the importance of increasing donor funding and commitment to enable Lebanon to achieve completion in a timely manner and to meet its international obligation towards the CCM.<sup>186</sup>

174 Email from Tomislav Vondracek, NPA, 5 May 2023.  
175 Email from Lt.-Col. Fadi Wazen, LMAC, 30 May 2023.  
176 Emails from Tomislav Vondracek, NPA, 5 May and 15 June 2023.  
177 Emails from Fadi Wazen, LMAC, 15 May 2023; Sylvain Lefort, MAG, 14 April 2023; and Tomislav Vondracek, NPA, 5 May 2023.  
178 Email from Mouhamed Chour, DCA, 3 May 2023.  
179 LMAC, “Annual Report 2022”, p. 37.  
180 Article 7 report (covering 2022), Form F.  
181 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.  
182 Email from Matthew Benson, DCA, 24 May 2021.  
183 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; and Article 7 Report (covering 2021), Form F.  
184 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.  
185 Article 7 report (covering 2022), Form F.  
186 Emails from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022 and 15 May 2023; and Sylvain Lefort, MAG, 14 April 2023; and Article 7 report (covering 2022), Form F.

LMAC has stressed that securing funding during 2023 for the remaining 2.5 years of the extension period is critical.<sup>187</sup> Operators have been trying to engage with new donors and will continue to advocate for mine action in Lebanon to support LMAC in their quest.<sup>188</sup>

**Table 10: Five-year summary of CMR clearance**

Year	Area cleared (km <sup>2</sup> )
2022	1.15
2021	1.00
2020	1.28
2019	1.26
2018	1.15
<b>Total</b>	<b>5.84</b>

In addition to the funding challenges, LMAC also lists other challenges in Article 4 implementation, including: discovery of new unreported contaminated areas, and the impact of working in “difficult terrains” which might slow down clearance at some sites.<sup>189</sup> So-called “difficult terrain” includes deep and very steep canyons and cliffs where survey and clearance are almost impossible to conduct using current methods and assets and represent additional risk to searchers and medical evacuation. LMAC, however, acknowledges that suspected or confirmed cluster munition-contaminated areas on difficult terrain still need to be released in order to comply with its Article 4 obligations.<sup>190</sup>

In partnership with the GICHD, a joint study was launched in November 2020 to find a solution on how to address this terrain and satisfy the requirements of the CCM. Following delays due to the COVID-19 pandemic, a GICHD advisor visited Lebanon for a week in 2021, during which 23 CMR sites (totalling 247,619m<sup>2</sup>) were visited in order to better assess the sites, the conditions, and determine the best solution.<sup>191</sup> A second GICHD visit was planned for May 2023 and the study was then expected to be finalised during the year,<sup>192</sup> and will provide recommendations to help complete the release of these sites.<sup>193</sup>

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

According to LMAC, a tolerable level of residual risk will remain, as areas not previously identified as containing CMR may be found in the future. LMAC appreciates the importance of the need to start the process to build a sustainable national mine action capacity that can deal with the residual contamination found after fulfilment of Article 4.

LMAC plans to ensure a smooth transition to a fully sustainable and nationally owned, managed, and executed humanitarian mine action programme. With regard to CMR, between 2021 and 2025, Lebanon plans to: determine an end state and elaborate an exit strategy; establish a sustainable structure capable of addressing remaining contamination (including the residual challenge); develop a transition plan; obtain national funding for the sustainable structures identified; establish new structures (if required); and capacity build the new structures, with support from international actors. LMAC has emphasised the importance of the exit strategy being viewed as a living document, which will need to be regularly discussed and updated, according to the situational context and evolution of the programme.<sup>194</sup> LMAC presented a draft exit strategy to all stakeholders including donors at the last Mine Action Forum meeting in 2022.<sup>195</sup> LMAC will proceed with finalizing the exit strategy in 2023, once the mid-term review of the national strategy has been conducted.<sup>196</sup>

<sup>187</sup> Article 7 report (covering 2022), Form F.

<sup>188</sup> Email from Sylvain Lefort, MAG, 14 April 2023; and Tomislav Vondracek, NPA, 5 May 2023.

<sup>189</sup> Article 7 Report (covering 2022), Form F.

<sup>190</sup> 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020; revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 40–42; and LMAC, “Annual Report 2021”, pp. 30 and 33.

<sup>191</sup> Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021, and 29 March and 7 July 2022; and GICHD, 14 May 2021; and Article 7 Report (covering 2021), Form F; and presentation of Lebanon, CCM Intersessional meetings, Geneva, 16 May 2022.

<sup>192</sup> Emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and GICHD, 6 April 2023; Article 7 report (covering 2022), Form F; and LMAC, “Annual Report 2022”, p. 24.

<sup>193</sup> Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021, and 29 March and 7 July 2022; and GICHD, 14 May 2021; and Article 7 Report (covering 2021), Form F; and presentation of Lebanon, CCM Intersessional meetings, Geneva, 16 May 2022.

<sup>194</sup> LMAC, “Annual Report 2020”, p. 31.

<sup>195</sup> Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

<sup>196</sup> Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

**ARTICLE 4 DEADLINE: 1 AUGUST 2024**  
TWO-YEAR EXTENSION REQUESTED TO 1 AUGUST 2026

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

**14.02** km<sup>2</sup>

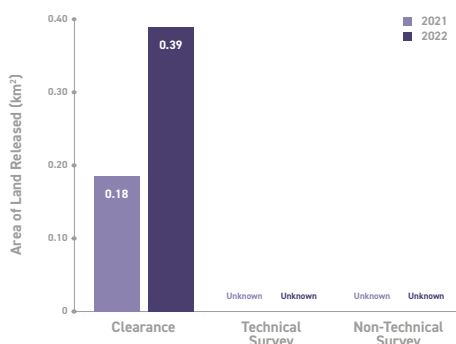
SUBMUNITION  
CLEARANCE IN 2022

**0.39** km<sup>2</sup>

SUBMUNITIONS  
DESTROYED IN 2022

**24**

### LAND RELEASE OUTPUT



### KEY DEVELOPMENTS

Mauritania will not meet its Convention on Cluster Munitions (CCM) Article 4 deadline of 1 August 2024 and has requested a further two-year extension. Mauritania completed clearance of two contaminated areas in 2021–22 using national funding, but has still to secure international funding and operational support to initiate large-scale clearance of the remaining cluster munition remnants (CMR) contamination, estimated to cover a total of more than 14km<sup>2</sup>.

In 2022, Mines Advisory Group (MAG) secured Norwegian government funding to conduct capacity and needs assessments and to create a capacity development plan with the National Humanitarian Demining Programme for Development (Programme National de Déminage Humainitaire pour le Développement, PNDHD).

### RECOMMENDATIONS FOR ACTION

- Mauritania should continue its efforts to mobilise the necessary international funds and operational support to enable it to fulfil its Article 4 obligations.
- Mauritania should report on its CMR contamination accurately, consistently, and in accordance with the International Mine Action Standards (IMAS), including through submission of timely Article 7 reports.
- The PNDHD should update its national mine action standards (NMAS) to ensure they are in accordance with the latest IMAS.
- PNDHD should conduct technical survey prior to commencing clearance at each task and conduct clearance only where there is confirmed evidence of contamination.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2022)	Score (2021)	Performance Commentary
<b>UNDERSTANDING OF CMR CONTAMINATION</b> (20% of overall score)	7	7	Mauritania's new baseline of CMR contamination comes from survey by Norwegian People's Aid (NPA) and the PNDHD in February 2021. Since the February 2021 survey, the PNDHD discovered and cleared two further cluster munition-contaminated areas. Further technical survey is required to determine accurately the size and extent of the nine remaining confirmed hazardous areas (CHAs). CMR contamination may be discovered after completion, given the remote location and largely nomadic population in the contaminated region. It is therefore important that the PNDHD has sustainable national capacity in place to address residual risk.
<b>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</b> (10% of overall score)	5	5	Mauritania contributes resources to support its mine action programme but the PNDHD needs greater operational, financial, and technical capacities to fulfil that role and is seeking international funding to fulfil its Article 4 obligations. Mauritania is seeking to establish a Country Coalition and has discussed the possibility of forming a coalition with France.
<b>GENDER AND DIVERSITY</b> (10% of overall score)	3	3	Mauritania does not appear to have a gender and diversity policy for mine action. However, in its latest 2023 CCM Article 4 deadline extension request, to be considered at the Eleventh Meeting of States Parties, Mauritania has stated that ensuring inclusivity, gender sensitivity, and diversity are integral considerations. Mauritania said it will strive for diverse and gender-balanced teams, but that attaining complete gender balance within the seconded staff from the Corps of Engineers might present certain limitations. Mauritania intends to engage men, women, boys, and girls when designing and implementing activities.
<b>INFORMATION MANAGEMENT AND REPORTING</b> (10% of overall score)	4	4	Mauritania uses Version 6 of the Information Management System for Mine Action (IMSMA) software. In its 2023 Article 4 deadline extension request, Mauritania has classified cluster munition-contaminated areas as CHAs, in accordance with IMAS – something it had not done previously. Nonetheless, Mauritania's reporting under the CCM is often late and lacks accuracy and consistency, and the data it provides often vary across different reports. As at July 2023 Mauritania had yet to submit a CCM Article 7 report covering 2022.
<b>PLANNING AND TASKING</b> (10% of overall score)	3	3	Mauritania's last mine action strategic plan expired in 2020. In 2023, Mauritania requested a second two-year extension to its clearance deadline, having failed to secure the international funding it needs to address CMR-contamination. The extension request will be considered at the Eleventh Meeting of States Parties in September 2023.
<b>LAND RELEASE SYSTEM</b> (20% of overall score)	6	6	In 2022, the PNDHD was the only entity to clear CMR in Mauritania. But the PNDHD has very limited capacity and has appealed for international funding for cluster munition clearance. Mauritania's NMAS were adopted in 2007 and revised in 2020 with support from the Geneva International Centre for Humanitarian Demining (GICHD) and NPA. It is unclear to what extent the NMAS have been subsequently updated in line with IMAS updates and best practice.
<b>LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE</b> (20% of overall score)	6	6	In October 2021, Mauritania was granted a two-year extension to its Article 4 deadline to complete clearance by August 2024. However, Mauritania was unable to secure the required international funding to implement the request, and has therefore requested a further two-year extension up to 1 August 2026, for consideration at the Eleventh Meeting of States Parties. The PNDHD cleared one CMR-contaminated area in 2022.
<b>Average Score</b>	<b>5.3</b>	<b>5.3</b>	<b>Overall Programme Performance: AVERAGE</b>

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- National Humanitarian Demining Programme for Development (Programme National de Déminage Humanitaire pour le Développement, PNDHD)

### NATIONAL OPERATORS

- Army Engineer Corps

### INTERNATIONAL OPERATORS

- None

### OTHER ACTORS

- Geneva International Centre of Humanitarian Demining (GICHD)
- HAMAP Humanitaire
- Mines Advisory Group (MAG)

# UNDERSTANDING OF CMR CONTAMINATION

Having previously declared fulfilment of its Article 4 obligations in September 2014 at the Fifth Meeting of States Parties,<sup>1</sup> Mauritania reported newly discovered cluster munition-contaminated areas in its CCM Article 7 report covering 2019.<sup>2</sup> These areas are reported to be located in the "Tigert 2" region of Tiris Zemmour in the far north of Mauritania. This is a very remote area of desert bordering Western Sahara, but which is regularly crossed by nomads and miners.<sup>3</sup>

In 2020, Mauritania requested Norwegian People's Aid (NPA)'s support to survey the newly discovered contamination to better determine its scale. Due to the COVID-19 pandemic, the assessment, which took one month to complete, could only take place in February 2021.<sup>4</sup> Based on direct evidence, NPA confirmed the presence of almost 14.02km<sup>2</sup> of CMR contamination across nine confirmed hazardous areas (CHAs) in Tiris Zemmour region.<sup>5</sup> However, NPA reported that the contamination lies in very remote and sparsely populated areas, and future residual contamination post completion is likely.<sup>6</sup> Following the NPA assessment, ongoing surveys

by the PNDHD continued to discover previously unknown contamination in the same region, and the PNDHD cleared one additional cluster munition-contaminated area, "Guneive 2" (177,574m<sup>2</sup>), in 2021 and another, "Guneive 1" (392,998m<sup>2</sup>), in 2022.<sup>7</sup>

As at the end of 2022, nearly 14.02km<sup>2</sup> of CMR contamination now remains across nine hazardous areas (see Table 1).<sup>8</sup> This is a reduction compared to the 14.41km<sup>2</sup> of CMR contamination across ten hazardous areas, as at the end of 2021,<sup>9</sup> which is explained by the PNDHD having cleared the 'Guneive 1' mined area in 2022.<sup>10</sup>

According to Mauritania, the "presence of CM contamination has been visually confirmed through direct evidence of explosive ordnance", and the nine areas are categorised as confirmed hazardous areas (CHAs).<sup>11</sup> However, further technical survey work will be necessary in order to confirm the exact size of these areas (with the possibility for some reduction during the course of further survey followed by clearance work).<sup>12</sup>

**Table 1: Cluster munition-contaminated area by location (at May 2023)<sup>13</sup>**

Region	Location ID	Submunition Type	CHA	Area (m <sup>2</sup> )
Tiris Zemmour	Boudheir	BLU-63	1	20,556
Tiris Zemmour	Boudheir 1	BLU-63	1	38,667
Tiris Zemmour	Boudheir 2	BLU-63	1	243,147
Tiris Zemmour	Dalet Tigert	MK118	1	345,703
Tiris Zemmour	Guneive	BLU-63	1	4,683,196
Tiris Zemmour	Lemreir	BLU-63	1	2,587,276
Tiris Zemmour	Motlani	BLU-63	1	120,365
Tiris Zemmour	Oudeyat Lekhyame	MK118	1	5,326,856
Tiris Zemmour	Tigert	MK118	1	651,830
<b>Totals</b>			<b>9</b>	<b>14,017,596</b>

Mauritania reported that all identified cluster munition-contaminated areas lie clearly within both its jurisdiction and control,<sup>14</sup> bringing the duty to clear unequivocally within Mauritania's international legal obligations under the CCM. In the case of the most northerly hazardous areas located close to the border, it is possible

that CMR contamination extends into the territory of Western Sahara. Such contamination extending beyond the border, if it is found to exist, is outside Mauritania's jurisdiction and control and therefore any clearance would need to be agreed upon with the Saharawi Arab Democratic Republic.

1 Declaration of Compliance with Art. 4(1)(a) of the CCM, submitted by Mauritania, 3 September 2014.  
2 CCM Article 7 Report (covering 2019), Form F.  
3 Ibid.; Mauritania (PNDHD presentation), Mine Action Support Group (MASG) Meeting, 27 April 2022 (online), available at: <https://bit.ly/3Mlp1Pm>; and Article 4 deadline Extension Request, submitted 5 July 2023, p. 4.  
4 NPA, Mauritania Assessment Report, 12 April 2021, p. 2.  
5 Ibid., p. 8.  
6 Ibid., p. 3.  
7 Article 4 deadline Extension Request, submitted 5 July 2023, pp. 3 and 11.  
8 Ibid., p. 6.  
9 CCM Article 7 Report (covering 2021), Form F; and Mauritania (PNDHD presentation), MASG Meeting, 27 April 2022 (online), available at: <https://bit.ly/3Mlp1Pm>.  
10 Article 4 deadline Extension Request, submitted 5 July 2023, pp. 3 and 11.  
11 Ibid., p. 5.  
12 Ibid.  
13 Ibid., p. 6.  
14 Email from Lt-Colonel Moustaphaould Cheikhna, PNDHD, 15 March 2022; and Article 4 deadline Extension Request, submitted 5 July 2023, p. 2.

Prior to reporting discovery of new CMR contamination in 2019, Mauritania had submitted its declaration of compliance with Article 4 in 2014, having completed CMR clearance the previous year.<sup>15</sup> Contamination resulted from use of MK118,

BLU-63, and M42 cluster munitions during the 1975–78 conflict over Western Sahara. Contamination was located in the northern border areas, around the village of Bir Moghrein in the region of Tiris Zemmour.<sup>16</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Mauritania has also reported discovering anti-personnel mine contamination in 2019.<sup>17</sup> Please see Mine Action Review's *Clearing the Mines* report on Mauritania for more information.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The PNDHD, which was created in 2000, coordinates mine action operations in Mauritania.<sup>18</sup> Since 2007, the programme has been the responsibility of the Ministry of Interior and Decentralisation, with oversight from an interministerial steering committee.<sup>19</sup> The PNDHD has its headquarters in the capital, Nouakchott, with a regional mine action centre (RMAC) located at Nouadhibou. As at April 2021, PNDHD had one operational manager and six staff responsible for quality control (QC) and quality assurance (QA).<sup>20</sup>

Mauritania delivered the US\$250,000 of national funding to which it had committed in its 2021 Article 4 deadline extension request, which enabled it to clear two cluster munition-contaminated areas (Guneive 1 and Guneive 2) and to carry out marking and risk education operations. However, Mauritania was not able to mobilise the international support it required to fulfil its Article 4 obligations.<sup>21</sup> In its 2023 Article 4 deadline extension request, Mauritania provided an annual budget for 2023 to 2026, disaggregated per year and by human resources costs, operations costs, support and admin costs, and overhead costs. In total, Mauritania requires an estimated total budget of US\$1,950,000 to address the remaining CMR contamination, of which US\$1,765,000 million is planned to be mobilised from external sources and US\$200,000 will be covered from Mauritania's national budget.<sup>22</sup>

According to its 2023 extension request, the Government of Mauritania will provide local staff to facilitate the expansion of the cluster munition project, the majority of whom will be drawn in kind from the Army Corps of Engineers and will only be paid a daily per diem. The Corps of Engineers will also support the deployment of the teams to remote areas by

providing trucking services for the fuel and water that will be needed in the far north of the country. The PNDHD will support and facilitate the project, including through liaison with national and local governmental and military officials and by providing office space.<sup>23</sup>

In March 2022, two participants from the PNDHD participated in the Arab Regional Cooperation Programme (ARCP) Information Management System for Mine Action (IMSMA) Core workshop organised by the Geneva International Centre of Humanitarian Demining (GICHD).<sup>24</sup>

In late 2022, MAG secured Norwegian government funding for Mauritania, to conduct capacity and needs assessments and create a capacity development plan with PNDHD, review IMSMA (quality control of existing/historical data and update/upgrade of the database for future data inputs), provide equipment and training for information management, support the review of NMAS, and conduct a contamination baseline assessment, non-technical survey, and explosive ordnance risk education (EORE). The planned project will benefit the whole mine action programme, but MAG planned to prioritise CCM Article 4 compliance first.<sup>25</sup>

Mauritania has said that it would like to form a Country Coalition with a willing donor government and an international mine action non-governmental organisation (NGO) to support its completion initiative.<sup>26</sup> France has expressed an interest and explored the possibility of establishing a Country Coalition with Mauritania.<sup>27</sup> However, as at April 2023, no known concrete steps had yet been taken to establish a coalition.

15 Declaration of Compliance with Art. 4(1)(a) of the CCM, submitted by Mauritania, 3 September 2014.

16 Ibid.; and Mauritania (PNDHD presentation), MASG Meeting, 27 April 2022 (online), available at: <https://bit.ly/3Mlp1Pm>.

17 Third Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, received June 2020.

18 Decree No. 1960/MDAT/MDN establishing the PNDHD, 14 August 2007; Third APMBC Article 5 deadline Extension Request, received June 2020, p. 2; and Article 4 deadline Extension Request, submitted 5 July 2023, p. 3.

19 Decree No. 001358/MDAT establishing the Steering Committee of the PNDHD, 3 September 2007; Third APMBC Article 5 deadline Extension Request, received June 2020, p. 2; and Article 4 deadline Extension Request, submitted 5 July 2023, p. 3.

20 Mauritania Assessment Report, NPA, 12 April 2021, p. 10.

21 Article 4 deadline Extension Request, submitted 5 July 2023, pp. 11 and 12.

22 Ibid., p. 13.

23 Ibid.

24 Email from Lubna Allam, Programme Officer, GICHD, 10 June 2022.

25 Email from Roxana Bobolicu, International Policy Manager, MAG, 19 July 2022.

26 Article 4 deadline Extension Request, submitted 5 July 2023, p. 13.

27 CCM Implementation Support Unit (ISU), Quarterly Newsletter on the Convention on Cluster Munitions (CCM), Q4 2022, 9 January 2023.

## ENVIRONMENTAL POLICIES AND ACTION

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Mauritania does not have a policy on environmental management in mine action. While Mauritania's 2023 Article 4 deadline extension request includes a section on "Humanitarian, social, economic and environmental implications of the proposed extension", it makes no reference to environmental implications. This should include a description of how environmental considerations will be addressed during planning and tasking for CMR survey and clearance, in order to minimise potential harm from land release activities.

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## GENDER AND DIVERSITY

It is believed that the PNDHD does not have policies in relation to gender and diversity in its mine action programme. However, in its 2023 CCM Article 4 deadline extension request, Mauritania has stated that ensuring inclusivity, gender sensitivity, and diversity are integral considerations. It also intends to engage all segments of the population, including men, women, boys, and girls, when designing and implementing activities. Mauritania has said that its objective is to strive for gender balance and diverse survey and BAC teams, while acknowledging that "attaining complete gender balance within the seconded staff from the Corps of Engineers might present certain limitations".<sup>28</sup>

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## INFORMATION MANAGEMENT AND REPORTING

PNDHD hosts and manages the national mine action database (an old version of the Information Management System for Mine Action, IMSMA).<sup>29</sup> Unlike in previous reporting, in its 2023 Article 4 deadline extension request, Mauritania specified the cluster munition-contaminated areas as CHAs, in line with best practice and IMAS.<sup>30</sup> Mauritania often provides inconsistent and inaccurate contamination and clearance figures in its reports. As at July 2023, it had yet to submit its latest CCM Article 7 report (covering 2022).

In 2021–22, the PNDHD created an interactive platform that provides updated contamination data, including the locations of identified mined and cluster munition-contaminated areas, surface area, photos documenting the found items, in addition to a record of all technical survey (TS), non-technical survey (NTS), clearance, and victim data.<sup>31</sup>

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## PLANNING AND TASKING

Unable to secure the international funding it required to complete clearance of remaining CMR by its current clearance deadline of 1 August 2024, Mauritania has submitted a further second two-year deadline extension request for consideration at the Eleventh Meeting of States Parties in September 2023. Mauritania's latest extension request again envisages six months to mobilise resources, including identification of funding, staffing, equipment, and team deployment; approximately 375 demining days to conduct TS and clear CMR-contaminated areas; and another six months to address any additional contamination that might be found during clearance. The last six months will also be used to finalise reporting on the clearance prior to submitting a final completion report.<sup>32</sup>

In its 2023 Article 4 deadline extension request, Mauritania has presented a timeframe and an action plan for its proposed extension period.<sup>33</sup> With respect to the amount of time the PNDHD estimates it will take to clear each of the nine remaining CHAs, Mauritania cautions that, "Given the diverse ground conditions characterized by sandy and rocky terrain, coupled with varying contamination levels, it is challenging to provide an exact duration for the clearance process. The timeframe for clearance operations will depend on multiple factors, including the size and complexity of the contaminated areas, the

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28 Article 4 deadline Extension Request, submitted 5 July 2023, p. 16.

29 APMBC Article 7 Report (covering 2017), Form D.

30 Article 4 deadline Extension Request, submitted 5 July 2023, p. 6.

31 Statement of Mauritania, APMBC Intersessional meetings, Geneva, 20–22 June 2022.

32 Article 4 deadline Extension Request, submitted 5 July 2023, p. 8.

33 Ibid., pp. 8 and 17.

available resources, and the effectiveness of the demining teams. Consequently, the clearance duration cannot be accurately determined due to these site-specific conditions.”<sup>34</sup> The timeline for clearance is based on planned deployment of four teams, each with five members (four deminers and a team leader).<sup>35</sup> This is half the capacity Mauritania previously envisaged in its 2021 Article 4 extension request,<sup>36</sup> yet the estimated amount of time needed for survey and clearance has not changed.

According to Mauritania’s 2023 extension request, all deminers are affiliated with the PNDHD and have previous experience in the Army Engineer Corps. If the need arises for additional personnel and sufficient funds are available, the PNDHD has the capability to request extra deminers from the Engineer Corps, up to a maximum of seven clearance teams.<sup>37</sup>

Mauritania’s timeline and work plan also assumes that current estimates of contamination remain the same and that no or only limited additional areas of CMR contamination are identified during survey and clearance.<sup>38</sup>

Mauritania’s mine action strategy expired in 2020. According to a previous Article 7 report under the Anti-Personnel Mine Ban Convention (APMBC), submitted in 2020, part of the international cooperation and assistance sought by Mauritania is to support its efforts to draft a new mine action strategy, to replace the strategy which was expiring that year.<sup>39</sup> Mauritania makes no reference to prioritisation of CMR tasks in its 2023 CCM Article 4 deadline extension request.

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Survey and clearance operations are conducted in accordance with the Mauritanian NMAS (Les normes Mauritaniennes de l’action antiminés, NMAM), which are said to reflect the IMAS, but which are adapted to Mauritanian realities in terms of geography and equipment.<sup>40</sup> The NMAS, which include standards on NTS, TS, mine clearance, and QC, were adopted in 2007. They were revised with the help of the GICHD in partnership with operators, especially NPA in 2010, and were translated into Arabic in 2011.<sup>41</sup> According to Mauritania, the NMAS are updated regularly based on experiences in the field,<sup>42</sup> however it is unclear to what extent the NMAS have been updated in recent years.

Mauritania recognises that an update to its NMAS to bring them in line with IMAS updates is due and previously advised the CCM Article 4 Analysis Group in 2021 that the programme will work on updating its national standards before any further survey and clearance activities are implemented.<sup>43</sup> The PNDHD informed Mine Action Review that it had revised and adapted the NMAS to the “new ways of working”,<sup>44</sup> but it is unclear what this means in practice. As noted above, MAG, with the support of the GICHD, intends to support Mauritania to review its NMAS as part of its capacity-development plan.<sup>45</sup>

### OPERATORS AND OPERATIONAL TOOLS

At the end of 2021, the PNDHD had four demining teams, five cars, and one ambulance, all of which were equipped with demining equipment. The total number of personnel was not reported.<sup>46</sup> The current capacity of the PNDHD had not been reported, as at time of writing.

MAG has been working in Mauritania since November 2017, supporting the safe storage of state-held arms and ammunition depots, and providing training to local security and defence force personnel on the same topic.<sup>47</sup> As previously mentioned, in 2022 MAG secured Norwegian funding for capacity development support to PNDHD and to conduct a contamination baseline assessment, NTS, and EORE.<sup>48</sup>

In February 2021, NPA conducted a one-month assessment mission of the CMR and mined areas discovered or reported since Mauritania’s respective declarations of APMBC Article 5 completion in November 2018 and CCM Article 4 declaration of compliance in September 2014.<sup>49</sup> NPA is not operational in Mauritania.

34 Ibid., p. 9.

35 Ibid., p. 7.

36 Response of Mauritania to the CCM Article 4 Analysis Group, 28 July 2021, p. 3.

37 Article 4 deadline Extension Request, submitted 5 July 2023, p. 7.

38 Ibid., p. 2.

39 APMBC Article 7 Report (covering 2019), pp. 13–14.

40 Article 4 deadline Extension Request, submitted 5 July 2023, p. 8.

41 Email from Alioune O. Mohamed El Hacen, PNDHD, 17 April 2011; and Third APMBC Article 5 deadline Extension Request, received June 2020, pp. 5 and 8.

42 Article 4 deadline Extension Request, submitted 5 July 2023, p. 8.

43 Mauritania’s answers to the CCM Article 4 Analysis Group, 29 July 2021, p. 2.

44 Email from Lt-Colonel Moustaphaould Cheikhna, PNDHD, 15 March 2022.

45 Emails from Roxana Bobolicu, International Policy Manager, MAG, 19 July 2022; and François Fall, HMA advisory – West Africa, MAG, 28 June 2023.

46 Email from Lt-Colonel Moustaphaould Cheikhna, PNDHD, 15 March 2022.

47 MAG website, accessed on 28 May 2022, at: <https://bit.ly/3NFVEKD>.

48 Email from Roxana Bobolicu, MAG, 19 July 2022.

49 Interview with Hans Risser, Head Office Management Team, and Melissa Andersson, NPA, 19 April 2021.

HAMAP Humanitaire, an international NGO, has been present in Mauritania since October 2022 and received a clearance task order and became operational in the field since April 2023, but is focused on addressing anti-personnel mine contamination rather than CMR. HAMAP also conducts risk education in Mauritania, as well as capacity building of the PNDHD. On the technical side, HAMAP proposed renewed SOPs to the PNDHD, trained four demining teams, and provided support to buy equipment. On the organisational side, HAMAP worked with the PNDHD on project management, and is preparing GIS and mapping support. HAMAP hopes to include NTS in the next steps of its programme in Mauritania.<sup>50</sup>

According to its 2023 Article 4 deadline extension request, Mauritania requires a clearance capacity of four BAC teams to technically survey and clear the cluster munition-contaminated areas. Each team will consist of four deminers who possess a minimum explosive ordnance disposal (EOD) level 1 capacity, and one team leader who holds either an EOD 2 or EOD 3 qualification. All deminers are affiliated with the PNDHD and have previous experience in the Engineer Corps. As previously mentioned, if required, and with sufficient funding, capacity can be increased to a maximum of seven BAC teams.<sup>51</sup> In its 2023 Article 4 extension request, Mauritania said that "Operators can implement all humanitarian demining activities but priority will be given to the PNDHD and national deminers."<sup>52</sup>

## LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

### LAND RELEASE OUTPUTS IN 2022

Since the February 2021 survey conducted by NPA and the PNDHD, and submission of its 2021 Article 4 deadline extension request, PNDHD discovered and cleared two additional, previously unknown, cluster munition-contaminated areas, one in 2021 and one in 2022.

In 2022, Mauritania released 392,998m<sup>2</sup> of cluster munition-contaminated area through clearance, with the destruction of 24 submunitions.<sup>53</sup>

### SURVEY IN 2022

It is not known whether Mauritania conducted any survey in 2022.

### CLEARANCE IN 2022

Mauritania has reported clearance of two cluster munition-contaminated areas ("Guneive 1" and "Guneive 2") with national funding since the submission of its 2021 Article 4 deadline extension request.<sup>54</sup> The Guneive 1 task was released by the PNDHD in 2022, with clearance of 392,998m<sup>2</sup> of cluster munition-contaminated area and destruction of 24 BLU-63 submunitions (see Table 2).

Table 2: CMR clearance in 2022<sup>55</sup>

Province	Name of Area	Operator	Area cleared (m <sup>2</sup> )	Submunitions destroyed
Tiris Zemmour	Guneive 1	PNDHD	392,998	24
Totals			392,998	24

The Guneive 2 task was released by the PNDHD in 2021, which involved clearance of 177,574m<sup>2</sup> of cluster munition-contaminated area.<sup>56</sup> Mauritania had previously reported destruction of seven submunitions at this task in 2021,<sup>57</sup> but Mauritania's 2023 Article 4 deadline extension request said that the number of submunitions destroyed at this location was 16.<sup>58</sup>

50 Email from François Ropars, Mine Action Project Manager, HAMAP, 3 July 2023; and HAMAP Humanitaire, "Mauritania", accessed 14 April 2023, at: <https://bit.ly/3oedfC9>.

51 Article 4 deadline Extension Request, submitted 5 July 2023, p. 7.

52 Ibid.

53 Ibid., pp. 3 and 11.

54 Ibid.

55 Ibid.

56 Ibid; and CCM Article 7 Report (covering 2021), Form F; and Mauritania (PNDHD presentation), MASG Meeting, 27 April 2022 (online), available at: <https://bit.ly/3Mlp1Pm>.

57 CCM Article 7 Report (covering 2021), Form F.

58 Article 4 deadline Extension Request, submitted 5 July 2023, p. 3.

## ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM (and on the basis of the extension granted by States Parties in 2021), Mauritania is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than its extended deadline of 1 August 2024. Unfortunately, Mauritania has not been able to secure the international funding it requires to conduct the planned clearance of CMR and fulfil its Article 4 obligations, and is therefore not on track to achieve completion by the extended deadline. Mauritania has requested a further two-year deadline extension to 1 August 2026, for consideration at the Eleventh Meeting of States Parties in September 2023.

The 2023 Article 4 deadline extension request is largely based on Mauritania's previous 2021 extension request. It plans for six months to mobilise resources, approximately 375 demining days spread across several years to technically survey and clear the cluster munitions, and six months to address any additional contamination that might be found in the process and finalise reporting.<sup>59</sup> In its 2023 extension request, Mauritania highlighted that it "despite limited resources, Mauritania is committed to contributing financially and in-kind to its mine action program, displaying strong political will."<sup>60</sup>

As previously mentioned, Mauritania is seeking to form a Country Coalition,<sup>61</sup> potentially with France.<sup>62</sup> If used to bring together relevant stakeholders in country: the PNDHD, donors, international operators (HAMAP and MAG), and other actors, a Country Coalition could help strengthen coordination and improve programme performance.

Since discovering previously unknown CMR contamination in 2019, Mauritania has cleared two areas totalling just over half a square kilometre.

**Table 3: Five-year summary of CMR clearance**

Year	Area cleared (km <sup>2</sup> )
2022	0.39
2021	0.12
2020	0.00
2019	0.00
2018	0.00
<b>Total</b>	<b>0.51</b>

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

As the newly discovered CMR contamination is located in very remote and sparsely populated areas of desert, it is possible that Mauritania will discover additional previously unknown contamination after completion. Previously, PNDHD had reported that one of the main aims of Mauritania's work plan for 2017–20 was to establish a strategy for residual contamination.<sup>63</sup> The PNDHD subsequently confirmed its commitment to building national capacity to address any residual contamination,<sup>64</sup> and in its 2023 Article 4 deadline extension request Mauritania said that it aims to develop a sustainable plan that can be implemented after the completion of clearance operations.<sup>65</sup>

According to Mauritania, discussions on how residual risk from cluster munitions will be managed and conducted with relevant authorities and stakeholders during the extension

period.<sup>66</sup> The Corps of Engineers will handle future residual risks, and the PNDHD will continue to enhance the capacity of this national entity to address any further contamination that may arise after completing the current CMR tasks.<sup>67</sup>

If previously unidentified cluster munition-contaminated areas are identified after the proposed deadline, Mauritania has committed to take prompt action to accurately assess the extent of contamination and safely dispose of all discovered CMR in line with international and national standards. Additionally, Mauritania has said it will fulfil its obligations under Article 7 of the Convention by reporting any newly identified contaminated areas and sharing relevant information with stakeholders and States parties through formal and informal channels.<sup>68</sup>

<sup>59</sup> Ibid., pp. 8 and 17.

<sup>60</sup> Ibid., p. 12.

<sup>61</sup> Ibid., p. 13.

<sup>62</sup> CCM ISU, Quarterly Newsletter on the Convention on Cluster Munitions (CCM), Q4 2022, 9 January 2023.

<sup>63</sup> Email from Alioune ould Menane, PNDHD, 23 July 2018.

<sup>64</sup> Email from Lt-Colonel Moustapha ould Cheikhna, PNDHD, 15 March 2022.

<sup>65</sup> 2023 Article 4 deadline Extension Request, p. 15.

<sup>66</sup> Ibid., p. 8.

<sup>67</sup> Ibid., p. 15.

<sup>68</sup> Ibid.

**ARTICLE 4 DEADLINE: 1 MARCH 2026**  
NOT ON TRACK TO MEET DEADLINE

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION: LIGHT

LESS THAN

**5km<sup>2</sup>**

(MINE ACTION REVIEW ESTIMATE)

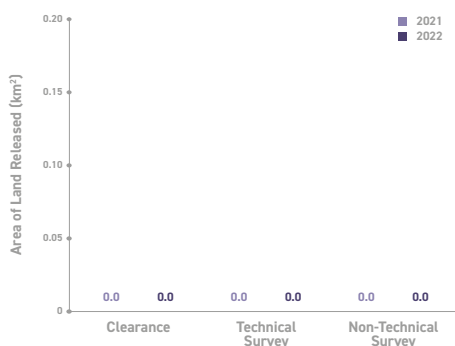
SUBMUNITION  
CLEARANCE IN 2022

**0km<sup>2</sup>**

SUBMUNITIONS  
DESTROYED IN 2022

**0**

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

Somalia stated its intention in 2022 to develop a national survey plan for cluster munition remnants (CMR) during 2023. Somalia has still to effectively implement its obligations under Article 4 of the Convention on Cluster Munitions (CCM).

## RECOMMENDATIONS FOR ACTION

- Somalia should ensure timely survey and clearance of CMR in accordance with its CCM obligations.
- Somalia should elaborate a comprehensive baseline of CMR contamination.
- Somali Explosive Management Authority (SEMA)'s status in Somalia should be officially recognised in law and national resources budgeted annually for its operating costs.
- Continued efforts should be undertaken to support SEMA to manage the Information Management System for Mine Action (IMSMA) database.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2022)	Score (2021)	Performance Commentary
<b>UNDERSTANDING OF CMR CONTAMINATION</b> (20% of overall score)	3	3	No baseline of CMR contamination has been established. Somalia stated in 2022 that it intended to develop a national survey plan for CMR during 2023.
<b>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</b> (10% of overall score)	4	4	SEMA continued to receive capacity development support during 2022. The lack of national ownership continues to be an issue as the Federal Government of Somalia has still not formally recognised the Authority as a government institution or formally approved mine action legislation. SEMA continues to be unable to access state funding.
<b>GENDER AND DIVERSITY</b> (10% of overall score)	5	5	Somalia's National Mine Action Strategic Plan 2018–2020 included provisions on gender and diversity. However, an updated strategy was pending Federal Government approval as at August 2022. SEMA has advocated action on gender and diversity within survey and community liaison teams. However, there are challenges to achieving gender mainstreaming within Somalia as a patriarchal society. Clan affiliation is also an important consideration in Somalia.
<b>INFORMATION MANAGEMENT AND REPORTING</b> (10% of overall score)	5	4	SEMA has assumed full ownership and responsibility for the national mine action database, although the database is said to be neither up to date nor accurate. SEMA began upgrading to the IMSMA Core system in 2022 and expected to complete implementation by the end of 2023. Somalia submitted a CCM Article 7 report covering 2020 and 2021 in August 2022, but as at July 2023 had yet to submit a report covering 2022.
<b>PLANNING AND TASKING</b> (10% of overall score)	5	5	Somalia's National Mine Action Strategic Plan 2018–2020 was extended for one year in 2020 to allow SEMA sufficient time to develop a new strategy. In August 2022 SEMA reported that a new strategy has been developed but was pending approval by the Ministry of Internal Security. The 2018–2020 strategic plan does not contain any specific provisions for survey or clearance of CMR. While there have been some improvements in the tasking process, no agreed prioritisation criteria exist and there is limited ownership of the tasking process at SEMA.
<b>LAND RELEASE SYSTEM</b> (20% of overall score)	5	5	A review of Somalia's National Mine Action Standards (NMAS) took place in 2021. The draft, revised NMAS did not receive government approval in 2022 and this was still pending at the time of writing. Somalia has no national capacity for survey and clearance of CMR and limited capacity from international operators.
<b>LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE</b> (20% of overall score)	2	2	No survey or clearance of CMR took place in Somalia in 2022 and there were no reports of submunitions discovered or destroyed. No nationally coordinated survey or clearance of CMR has been reported by Somalia in recent years. Somalia is not currently on track to meet its Article 4 deadline of 2026.
<b>Average Score</b>	<b>3.9</b>	<b>3.8</b>	<b>Overall Programme Performance: VERY POOR</b>

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Somali Explosive Management Authority (SEMA)
- Mine Action Department, within the Somaliland Ministry of Defence (formerly the Mine Clearance Information and Coordination Authority (MCICA), and before that the Somaliland Mine Action Centre, SMAC)

### NATIONAL OPERATORS

- Federal Member States (FMS) Non-Governmental Organisation (NGO) consortium

### INTERNATIONAL OPERATORS

- The HALO Trust (HALO)
- Norwegian People's Aid (NPA)\*
- Ukroboronservice

### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Mine Action Service (UNMAS)
- United Nations Development Programme (UNDP)

\* NPA ceased operations in Somalia in April 2023.<sup>1</sup>

<sup>1</sup> Email from Liberty T. Hombe, Operations Manager, Puntland, NPA, 24 March 2023.

## UNDERSTANDING OF CMR CONTAMINATION

The extent of CMR contamination in Somalia remains unknown.<sup>2</sup> While there has been no baseline survey, contamination appears to be light given the low numbers of submunitions found on the ground so far and with historical survey, clearance, and explosive ordnance disposal (EOD) activities yielding little evidence of a more significant problem.<sup>3</sup> Information held by the United Nations Mine Action Service (UNMAS) refers to six recorded cluster munition-contaminated areas. Submunitions have been discovered in three of Somalia's six<sup>4</sup> official federal member states: Jubaland (in southern Somalia, bordering Kenya); Puntland (a semi-autonomous administration in the north-east); and South West state (also known as Koonfur Galbeed).

Somalia's most recent CCM Article 7 report does not provide any detail on the size of any cluster munition-contaminated areas. As there has been no baseline survey, Somalia has not been able to specify which areas are suspected hazardous areas (SHAs) and which are confirmed hazardous areas (CHAs). However, the report does outline the types and locations of submunitions discovered and some dated information is available from other sources. In its most recent CCM Article 7 report, submitted in August 2022, Somalia stated that CMR contamination is "suspected" along the border between Kenya and Jubaland state.<sup>5</sup>

In a table in Somalia's Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request of 2021, which summarises Somalia's known explosive ordnance contamination, including mixed minefields and battle areas in which anti-personnel mines have been identified, there is only one specific reference to CMR contamination: 784,352m<sup>2</sup> of CHA in Galmudug state, contaminated with a mixture of anti-personnel mines, anti-vehicle mines, CMR, unexploded ordnance (UXO) and abandoned explosive ordnance (AXO).<sup>6</sup>

Somalia pledged to develop a national survey plan for CMR in 2023, noting that no further survey of CMR-contaminated

areas has been possible in recent years, due to a lack of funding and lack of a national survey plan.<sup>7</sup> At the time of writing, no update was available as to what progress had been made towards developing this plan. Norwegian People's Aid (NPA), funded by the UN Development Programme (UNDP) and the Norwegian Ministry of Foreign Affairs, completed non-technical survey (NTS) of landmine contamination in Puntland State in February 2023. However, NPA did not deploy any operational capacity for CMR survey or clearance in 2022,<sup>8</sup> and has since left the country.

The Ethiopian National Defence Forces and the Somali National Armed Forces are thought to have used cluster munitions in clashes along the Somali-Ethiopian border during the 1977–78 Ogaden War.<sup>9</sup> The Soviet Union supplied both Ethiopia and Somalia with weapons during the conflict. PTAB-2.5 and AO-1-Sch submunitions were produced by the Soviet Union on a large scale.<sup>10</sup> In January 2016, Somali media reports alleged that the Kenyan Defence Forces (KDF) had used cluster munitions during an intensive bombing campaign in Gedo region, in response to an attack on KDF forces at an African Union Mission in Somalia (AMISOM) base in El Adde in which 150 Kenyan soldiers were reportedly killed.<sup>11</sup> Photos appeared to show that the KDF used United Kingdom (UK)-manufactured BL755 submunitions in the area of Bu'ale, and subsequently it was reported that al-Shabaab had discovered unexploded submunitions of the same BL755 type, which it used in improvised explosive devices (IEDs).<sup>12</sup>

A UN Monitoring Group investigated whether Kenyan forces had used cluster munitions but was unable to conclude that the KDF had dropped the BL755 submunitions during airstrikes on Gedo in January 2016. It noted, however, the absence of reports of unexploded BL755 submunitions among legacy unexploded ordnance (UXO) contamination in Somalia. Kenya denied using cluster munitions in the January 2016 air campaign, calling the Monitoring Group's report "at best, a fabricated, wild and sensationalist allegation".<sup>13</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Somalia has, to date, provided only limited data that disaggregates CMR contamination from contamination from other weapon types. In June 2023, Somalia stated that contamination from explosive remnants of war (ERW) is prevalent across all regions and states of the country<sup>14</sup> and that, following improvements in data consolidation and recent NTS, it had identified a total of 1,114 hazardous areas for all explosive ordnance, measuring a total of just over 169.7km<sup>2</sup>.<sup>15</sup>

Landmines contaminate Somalia's border with Ethiopia in south-central Somalia, mainly as a result of legacy minefields.<sup>16</sup> See Mine Action Review's *Clearing the Mines* report on Somalia, including Somaliland, for further information.

2 CCM Article 7 report (covering 2020 and 2021), Form F; and email from Claus Nielsen, Country Director, Norwegian People's Aid (NPA), 26 May 2021.

3 Email from Rob Syfret, Head of Region, Horn of Africa, HALO, 1 June 2023.

4 These six official Federal member states include the uncontrolled state of Somaliland.

5 CCM Article 7 report (covering 2020 and 2021), Form F.

6 Revised APMBC Article 5 deadline Extension Request, September 2021, p. 46.

7 Ibid.

8 Emails from Robert Iga Afedra, Country Director, NPA, 1 and 10 June 2022; and Liberty T. Hombe, NPA, 24 March 2023.

9 Email from Mohamed Abdulkadir Ahmed, SNMAA, 17 April 2013.

10 Ibid.

11 "Letter dated 7 October 2016 from the Chair of the Security Council Committee pursuant to resolutions 751 (1992) and 1907 (2009) concerning Somalia and Eritrea addressed to the President of the Security Council", UN doc. S/2016/919, 31 October 2016, pp. 171–73.

12 Ibid.

13 Ibid.

14 Action Plan for Article 5 Implementation, October 2022–October 2027, 30 April 2023, p. 16.

15 Ibid., p. 11.

16 UNMAS, "UN-suggested Explosive Hazard Management Strategic Framework 2015–2019", undated, pp. 6 and 12.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Mine action management in Somalia is the responsibility of SEMA. There is a separate regional office in Somaliland, the Mine Action Department within the Somaliland Ministry of Defence (formerly, the Mine Clearance Information and Coordination Authority (MCICA), and before that the Somaliland Mine Action Centre (SMAC), in Somaliland.<sup>17</sup> SEMA maintains a presence across Somalia through its five Federal Member States: the Galmudug State Office, Hirshabelle State Office, Jubaland State Office, Puntland State Office, and South West State Office.<sup>18</sup>

SEMA serves as the de facto mine action authority for Somalia. However, full implementation of mine action legislation in Somalia and formal recognition of SEMA as the national mine action authority remains unfulfilled. SEMA reported in 2022 that it has completed all required documentation towards mine action legislation, had received legal papers from the Attorney General, and was awaiting final approval from the Somalia Federal Parliament.<sup>19</sup> However, in June 2023, Somalia indicated that national mine action legislation was still pending approval.<sup>20</sup> Due to the ongoing lack of parliamentary approval, SEMA has not received funding from the Federal Government of Somalia since the expiry of its grant in 2015.<sup>21</sup> Furthermore, the Government does not provide any national funding for survey or clearance.<sup>22</sup>

In the absence of national funding some mine action stakeholders have provided support for SEMA's operational costs. Salaries at SEMA were covered by NPA from 2015 to March 2021 and NPA provided support for salaries again from August to December 2022.<sup>23</sup> Having supported SEMA state offices with financial support towards running costs throughout 2021<sup>24</sup> and in early 2022,<sup>25</sup> UNMAS confirmed a Partnership Cooperation Agreement (PCA), with SEMA for February 2023 to January 2024. This will support running costs for SEMA headquarters and its five regional offices and enable SEMA to organise coordination meetings and attend international mine action conferences.<sup>26</sup> The HALO Trust (HALO) also provided some support to SEMA in 2022.<sup>27</sup>

Operators report that they are involved in key decision-making processes by the national authorities. They also describe an enabling environment for mine action in Somalia, with no challenges related to matters such as visas, importing equipment, and establishing Memorandums of Understanding.<sup>28</sup> Coordination meetings between SEMA and operators do take place, though cluster munitions are not generally discussed as only a limited number have been found and other issues have been more highly prioritised.<sup>29</sup>

SEMA has received capacity development and technical support in recent years from various mine action stakeholders, including from HALO in 2022.<sup>30</sup> The Geneva International Centre for Humanitarian Demining (GICHD) provided information management capacity development as part of the implementation of Information Management System for Mine Action (IMSMA) Core in Somalia.<sup>31</sup> UNMAS provided training in information management (IM) and quality assurance (QA). In 2023, UNMAS signed a grant agreement with HALO to provide both operational and management related capacity building to SEMA, including regional offices, to further enhance SEMA's capacity to coordinate, regulate, and maintain oversight of mine action across the country.<sup>32</sup>

In its most recent CCM Article 7 report (covering 2021), Somalia outlined the key areas where it requires international cooperation and assistance to meet its Article 4 obligations. These include support for survey, clearance, data collection, and data processing.<sup>33</sup> Somalia has not shared a resource mobilisation strategy for Article 4 implementation.

17 Email from Mohamed Abdulkadir Ahmed, SEMA, 14 October 2016; and telephone interview with Dahir Abdirahman Abdulle, Director, SEMA, 19 August 2020.

18 Email from Mohamed Abdulkadir Ahmed, SEMA, 14 October 2016.

19 CCM Article 7 report (covering 2020 and 2021), Form A.

20 Action Plan for Article 5 Implementation, October 2022–October 2027, 30 April 2023, p. 42.

21 Emails from Terje Eldøen, Programme Manager, NPA, 22 October 2016; and Mohamed Abdulkadir Ahmed, SEMA, 14 October 2016.

22 Email from Daniel Redelinghuys, Country Director, HALO, 29 May 2022.

23 Emails from Claus Nielsen, NPA, 26 May 2021 and Liberty T Hombe, Puntland, NPA, 24 March 2023.

24 Emails from Mustafa Bawar, UNMAS, 3 August 2020 and 4 July 2021.

25 Email from Helen Olafsdottir, UNDP, 7 June 2022.

26 Email from Clemence Nyamandi, Monitoring and Evaluation Manager, Programme Strategy and Planning Section, UNMAS, 30 May 2023.

27 Email from Rob Syfret, HALO, 1 June 2023.

28 Emails from Clemence Nyamandi, UNMAS, 30 May 2023; and Rob Syfret, HALO, 1 June 2023.

29 Email from Rob Syfret, HALO, 1 June 2023.

30 Ibid.

31 Email from Noor Zangana, Advisor, Information Management Capacity Development, GICHD, 10 July 2023.

32 Email from Clemence Nyamandi, UNMAS, 30 May 2023.

33 CCM Article 7 report (covering 2020 and 2021), Form I.

## PUNTLAND

The SEMA Puntland State Office, formerly known as PMAC, was established in Garowe with UNDP support in 1999. Since then, on behalf of the regional government and SEMA, the Puntland State Office has coordinated mine action with local and international partners, NPA and the Puntland Risk Solution Consortium.<sup>34</sup> In 2021, SEMA reported that the Puntland State Office coordinated mine action under SEMA, working with its international partner, NPA.<sup>35</sup> NPA completed NTS of mined areas in Puntland in February 2023 and closed its operations in Somalia in April 2023.<sup>36</sup>

## SOMALILAND

As part of a larger process of government reform in early 2018, SMAC, which had been responsible for coordinating and managing demining in Somaliland since 1997, was restructured and renamed the MCICA. The Agency underwent a change of line ministry from the Office of the Vice President to the Ministry of Defence.<sup>37</sup> It was then renamed the Mine Action Department in January 2019.<sup>38</sup>

The Somaliland government is working on an Explosive Hazard Management National Action Plan for 2023–27. At the time of writing, this plan was not yet finalised.<sup>39</sup>

## ENVIRONMENTAL POLICIES AND ACTION

Somalia has made halting progress towards finalising the national mine action standard (NMAS) and a policy on environmental management. It has been reported that a section on environmental management is contained within Somalia's NMAS, but remained pending approval in 2022.<sup>40</sup> Similarly, in March 2023, NPA reported that Somalia's policy on environmental management was "still under development and pending approval".<sup>41</sup> HALO hoped to work on this issue with SEMA during 2023 as part of its support for capacity development.<sup>42</sup>

UNMAS, NPA, and HALO all report having an environmental policy in place.<sup>43</sup>

## GENDER AND DIVERSITY

Somalia's National Mine Action Strategic Plan 2018–2020 recognises gender and diversity as cross-cutting issues for the national mine action programme, in line with Somalia's National Development Plan objectives to "implement gender equality in education and mainstream gender in all of its programmes with a focus on adolescent girls". Despite this recognition of the importance of gender and diversity in the National Mine Action Strategic Plan 2018–2020, SEMA informed Mine Action Review in May 2019 that it did not have an internal gender or diversity policy or implementation plan. At the time of writing, no update was available as to what progress, if any, had been made by Somalia to develop a gender policy or implementation plan.

In 2019, SEMA confirmed that data collection was disaggregated by sex and age, and gender considered in the prioritisation, planning, and tasking of survey and clearance activities,<sup>44</sup> although it was unclear how gender was being

taken into account. In 2020, SEMA reported that gender and diversity had been integrated into the NMAS.<sup>45</sup> In 2021, UNMAS reported that 17% of the workforce of SEMA were female.<sup>46</sup> At the time of writing, a more recent update on these matters was not available.

Elaborating in June 2023 on plans for nationwide NTS of anti-personnel mines and other explosive ordnance, Somalia stated that the establishment of survey teams has been guided by the gender policies of implementing partners and that both men and women will be represented in operations. Partners will consider gender and diversity aspects, including gender-balanced recruitment, empowerment, and flexible working arrangements. Somalia also stated that collection of beneficiary data will include considerations of gender and diversity and that methods will ensure diverse beneficiaries voices are heard.<sup>47</sup>

34 UNMAS, "UN-suggested Explosive Hazard Management Strategic Framework 2015–2019", p. 9; and email from Claus Nielsen, NPA, 23 July 2020 and 26 May 2021. SEMA has claimed that this NGO is no longer functioning but this information has not been confirmed by operators in the field.

35 Email from Dahir Abdirahman Abdulle, SEMA, 22 June 2022.

36 Email from Liberty T. Hombe, NPA, 24 March 2023.

37 Email from Chris Pym, HALO, 9 May 2019.

38 Email from Chris Pym, HALO, 2 June 2019.

39 Email from Rob Syfret, HALO, 16 May 2023.

40 Email from Clemence Nyamandi, UNMAS, 17 March 2022.

41 Email from Liberty T. Hombe, NPA, 24 March 2023.

42 Emails from Rob Syfret, HALO, 1 June 2023; and Daniel Redelinghuys, HALO, 29 May 2022.

43 Emails from Clemence Nyamandi, UNMAS, 17 March 2022; Robert Iga Afedra, NPA, 12 March 2022; and Daniel Redelinghuys, HALO, 29 May 2022.

44 Email from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019.

45 Email from Dahir Abdirahman Abdulle, SEMA, 11 May 2020.

46 Email from Mustafa Bawar, UNMAS, 4 July 2021.

47 Action Plan for Article 5 Implementation, October 2022–October 2027, 30 April 2023, p. 31.

All operators in Somalia have reported to some extent on their efforts to integrate gender and diversity considerations into mine action. In 2022, UNMAS reported that, when contracting an implementing partner, UNMAS provides targets on the proportion of women and young people that should make up the operator's team, including aiming for a minimum of 50% women and 35% young people. In 2022, women made up 9% of the combined staff of the UNMAS Humanitarian Mine Action (HMA) project team and that of implementing partners, with women occupying 25% of managerial/supervisory positions and 8% of operational positions. Across UNMAS Somalia as a whole, women made up 46% of all personnel, with 8% of managerial/supervisory positions and 38% of operational and support positions occupied by women.<sup>48</sup> This represents a slight increase in female staff overall compared to 2021, when 42% of all UNMAS Somalia personnel were women. The proportion of managerial/supervisory positions held by women, however, has decreased significantly compared to 20% in 2021.

UNMAS reports that non-technical and impact assessment surveys take into consideration gender, age, and clan affiliations in affected communities and that UNMAS requests the participation of women at all stages of mine

action projects, pre- and post-clearance. UNMAS has also introduced some gender and diversity provisions into project proposals, including on the recruitment of women, youth and, where relevant, clan-affiliated personnel, into field and community liaison teams.<sup>49</sup>

In 2022 in HALO Somalia (i.e. excluding HALO's separate operations in Somaliland), 23% of all employees were women and women filled 18% of operations positions; the same proportions as in 2021. However, the proportion of managerial/supervisory positions filled by women increased significantly from 14% in 2021 to 44% in 2022.<sup>50</sup> HALO Somalia reports that it complies with HALO's global gender and diversity policies and actively seeks to recruit and ensure opportunity for the promotion of female staff. HALO Somalia also ensures that survey and community liaison teams are mixed gender; an important prerequisite in a largely traditional Muslim society where it is not permissible for men to approach women alone in rural areas. HALO also recruits teams from the areas in which they will be working to ensure participation from the affected groups. Particular care is taken to ensure that, if an area has more marginalised clans, they are recruited into teams.<sup>51</sup>

**Table 1: Gender composition of operators in 2022<sup>52</sup>**

Organisation*	Total staff	Women employed	Total staff in managerial or supervisory positions	Women in managerial or supervisory positions	Total staff in operational positions	Women in operational positions
SEMA	N/K	N/K	N/K	N/K	N/K	N/K
HALO Somalia	300	68	52	23	256	45
HALO Somaliland	506	58	48	6	372	42
NPA	30	8	6	2	15	2
UNMAS*	168	15	8	2	158	13

\* Figures for UNMAS include the UNMAS Humanitarian Mine Action (HMA) team and implementing partners.

## INFORMATION MANAGEMENT AND REPORTING

In 2019 NPA confirmed that, under the database reporting formats, CMR were being recorded separately from other types of ERW<sup>53</sup> although a more recent update on whether this is still the case was not available at the time of writing. Operators report that data collection forms are consistent and enable collection of the necessary data.<sup>54</sup>

<sup>48</sup> Email from Clemence Nyamandi, UNMAS, 30 May 2023.

<sup>49</sup> Ibid.

<sup>50</sup> Email from Rob Syfret, HALO, 1 June 2023.

<sup>51</sup> Ibid.

<sup>52</sup> Emails from Clemence Nyamandi, UNMAS, 30 May 2023; Rob Syfret, HALO, 1 June and 16 May 2023; and Liberty T Hombe, Puntland, Somalia, NPA, 24 March 2023.

<sup>53</sup> Email from Claus Nielsen, NPA, 13 April 2019.

<sup>54</sup> Emails from Rob Syfret, HALO, 1 June 2023; and Clemence Nyamandi, UNMAS, 30 May 2023.

SEMA decided to upgrade its database to IMSMA Core starting in 2022. However, the GICHD has cautioned that data are of poor quality, which leads to issues with reporting.<sup>55</sup> Despite these challenges, Somalia does continue to make progress and mine action stakeholders collaborated productively on IM improvements in 2022. UNMAS seconded an IM staff person to SEMA, provided IM training and some updated equipment, and further supported the migration of the national database from IMSMA NG to IMSMA Core. A workflow for land release data was under development in SEMA at the time of writing. The GICHD provided training for two SEMA staff as well as an IM advisor and ongoing technical support, including historical data clean up.<sup>56</sup> The implementation of a fully functioning IMSMA Core system was expected by the end of 2023 according to UNMAS.<sup>57</sup>

The regional mine action centres in Puntland and Somaliland maintain IMSMA databases separate to the national database. NPA reports that information management in Puntland “improved significantly” in 2022 as NPA identified and marked all contaminated areas within the state, although this was

for landmines and other items of UXO only; NPA deployed no capacity for survey of CMR.<sup>58</sup>

Somalia's national mine action strategic plan stipulates the submission of annual transparency reports for the CCM, along with those under the APMBC. Somalia has submitted three CCM Article 7 reports to date, the first being in October 2019, which included the limited information available on the extent of CMR contamination and the next in September 2020, covering 2019. In August 2022, Somalia submitted an Article 7 Report covering both 2020 and 2021, again providing what limited information is available on the extent of CMR contamination; that is the type and locations of submunitions found but no data on the size of contaminated areas, stating clearly that this remains “unknown”. Somalia cites “recoding” of CMR contamination data as a challenge and appeals for international cooperation and assistance to collect data and process it into the national database.<sup>59</sup> As at July 2023, Somalia had yet to submit its CCM Article 7 report covering 2022.

## PLANNING AND TASKING

Somalia's National Mine Action Strategic Plan 2018–2020 was developed with input from SEMA, UNMAS, international operators, national non-governmental organisation (NGO) consortia, and international institutions in late 2017.<sup>60</sup> The strategic plan finally received approval from the Somali Minister of Internal Security at the end of 2020 and was extended for one year to provide SEMA with sufficient time for the development of a new strategy.<sup>61</sup> The 2018–2020 strategic plan noted Somalia's status as a State Party to the CCM and its reporting obligations and commitment to complying with the Convention, but did not contain specific provisions on survey and clearance of CMR.

In its most recent CCM Article 7 Report, submitted in August 2022, Somalia stated that the revision of the national strategy had been completed, with input from operators and SEMA's state offices, and was awaiting approval from the Ministry of Internal Security.<sup>62</sup> At the time of writing, no further update on this pending approval was available. It was also not clear to what extent this revised National Mine Action Strategic Plan will include any provision for Somalia to meet its Article 4 obligations.

Somalia has not shared an annual work plan for the survey and clearance of CMR in recent years but has stated that a country-wide survey plan for CMR will be developed “throughout 2023”.<sup>63</sup> Somalia submitted an updated 2022–2027 work plan for the implementation of Article 5 of the APMBC on 2 June 2023.<sup>64</sup> While the work plan does not refer to plans for survey or clearance of CMR specifically, the primary focus of the plan is nationwide NTS to more accurately determine Somalia's baseline of contamination from anti-personnel mines and other explosive ordnance, disaggregated by threat type.<sup>65</sup>

Despite challenges around coordination of tasking between SEMA and operators in previous years, tasking by SEMA has now been introduced. While tasks have not yet been issued for survey or clearance of cluster munition-contaminated areas, tasking for release of mined areas has been working well and has demonstrated SEMA's capability to manage and issue tasks effectively.<sup>66</sup>

<sup>55</sup> Email from Noor Zangana, GICHD, 6 May 2022.

<sup>56</sup> Email from Clemence Nyamandi, UNMAS, 30 May 2023.

<sup>57</sup> Ibid.

<sup>58</sup> Email from Liberty T. Hombe, NPA, 24 March 2023.

<sup>59</sup> CCM Article 7 report (covering 2020 and 2021), Forms F and I.

<sup>60</sup> Emails from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019; and Claus Nielsen, NPA, 13 April 2019.

<sup>61</sup> Email from Claus Nielsen, NPA, 26 May 2021.

<sup>62</sup> CCM Article 7 report (covering 2020 and 2021), Form A.

<sup>63</sup> Ibid., Form F.

<sup>64</sup> Anti-Personnel Mine Ban Convention, “Somalia”, accessed 22 July 2023 at: <https://bit.ly/3rHSaB0>.

<sup>65</sup> Action Plan for Article 5 Implementation, October 2022–October 2027, 30 April 2023, p. 14.

<sup>66</sup> Email from Rob Syfret, HALO, 1 June 2023.

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

UNMAS initially developed National Technical Standards and Guidelines (NTSGs) for Somalia in 2012–13.<sup>67</sup> The first edition of Somalia's NMAS was subsequently published on August 1, 2018. The NMAS are split into four parts covering Land Release, Information Management (IMSMA), Mine Risk Education (MRE), and Quality Assurance. Somalia stated that the NMAS were based on the International Mine Action Standards (IMAS) and, where necessary, had "been enhanced to provide the most appropriate level of safety required for humanitarian mine action operations in the context of Somalia."<sup>68</sup> The NMAS were reviewed in 2021, with full approval expected that year.<sup>69</sup> In June 2023, Somalia reported that progress on the review of the NMAS had been delayed due to a lack of funding to conduct stakeholder meetings to discuss and agree the standards; the level of political unrest in Somalia; and a lack of international technical experts to

assist in reviewing the standards.<sup>70</sup> No date was provided for when the review may take place.

UNMAS notes that the revised draft NMAS are sufficient to serve as a guide for the standard operating procedures (SOPs) in implementing partners to deal with legacy contamination, subject to any amendments that may be made during government review and approval.<sup>71</sup> HALO, however, notes that, while the NMAS do not currently impede land-based surveys, they need to be adapted to support implementation in the context of local threat levels.<sup>72</sup>

As indicated by the lack of any land release of cluster munition-contaminated areas in recent years, Somalia has extremely limited capacity for survey and clearance of CMR, with no national capacity in place and limited capacity from international humanitarian operators.

### OPERATORS AND OPERATIONAL TOOLS

In 2022, HALO, conducted operations in Somalia, including separate operations in Somaliland. HALO deployed capacity for release of landmine-affected areas only. UNMAS-contracted commercial clearance company, Ukroboronservice, deployed teams for clearance of

landmines and other explosive threats<sup>73</sup> and was expected to remain operational under UNMAS contracts until 2024.<sup>74</sup> UNMAS also deployed two EOD teams, totalling fourteen personnel.<sup>75</sup> NPA conducted NTS in 2022, but only of mined areas.<sup>76</sup>

**Table 2: Operational mine clearance and battle area clearance (BAC) capacities deployed in 2022<sup>77</sup>**

Operator	Manual teams	Mechanical teams	Total deminers*	Dogs and handlers	Mechanical assets/machines**	Comments
Ukroboronservice (UNMAS)	4	0	48	0	0	Decrease on 6 teams of 120 deminers in 2021, conducting technical survey (TS), BAC, and mine clearance. Deployed for mined areas only in 2022. Also deployed 2 Quick Response EOD teams of 18 personnel, able to respond to CMR.
HALO Somalia	18	0	144	0	0	Conduct mine clearance and TS. Decrease on 20 teams totalling 190 deminers deployed in 2021 for mine clearance and limited BAC. Deployed teams in mined areas only in 2022.
HALO Somaliland	32	3	283	0	3	Conduct mine clearance and TS. 283 deminers includes 24 mechanical teams personnel. Similar capacity to 35 teams of 289 personnel in 2021. Deployed teams in mined areas only in 2022.
<b>Totals</b>	<b>54</b>	<b>3</b>	<b>475</b>	<b>0</b>	<b>3</b>	

\* Excluding team leaders, medics, and drivers. \*\* Excluding vegetation cutters and sifters

67 Email from Terje Eldøen, NPA, 5 June 2016; and response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.

68 Revised APMBC Article 5 deadline Extension Request, September 2021, p. 38.

69 Ibid.

70 Action Plan for Article 5 Implementation, October 2022–October 2027, 30 April 2023, p. 10.

71 Email from Clemence Nyamandi, UNMAS, 30 May 2023.

72 Email from Rob Syfret, HALO, 1 June 2023.

73 Email from Clemence Nyamandi, UNMAS, 17 May 2023.

74 Revised APMBC Article 5 Extension Request, September 2021, p. 13.

75 Email from Clemence Nyamandi, UNMAS, 30 May 2023.

76 Danish Demining Group (DDG, now Danish Refugee Council Humanitarian Disarmament and Peacebuilding (DRC)) and Mines Advisory Group (MAG) continued to operate in Somalia and Somaliland in 2021, but did not carry out demining.

77 Emails from Clemence Nyamandi, UNMAS, 17 March 2022 and 30 May and 8 June 2023; Daniel Redelinghuys, HALO, 29 May 2022; and Rob Syfret, HALO, 16 May and 1 June 2023; and telephone interview with Rob Syfret, HALO, 10 July 2023.

**Table 3: Operational NTS and TS capacities deployed in Somalia in 2022<sup>78</sup>**

Operator	NTS/TS teams	Total NTS/TS personnel*	Comments
Ukroboronservice (UNMAS)	4	16	Decrease on 6 teams of 18 personnel conducting NTS and TS in 2021. Deployed for survey of mined areas only in both 2021 and 2022.
HALO Somalia	4	16	Same NTS capacity as deployed in 2021. NTS teams conduct Community Liaison and NTS. Increased to 6 teams totalling 24 personnel from November 2022. Deployed for survey of mined areas only in 2022.
HALO Somaliland	2	4	Decrease on 2 NTS teams of 8 personnel in 2021. Deployed for NTS of mined areas only. TS personnel included in Table 2.
NPA	5	10	Deployed for NTS of mined areas only.
<b>Totals</b>	<b>15</b>	<b>46</b>	

\* Excluding team leaders, medics, drivers, etc.

In 2022, HALO Somalia reduced the already limited capacity previously deployed for battle area clearance (BAC) to zero, focussing entirely on release of landmine-affected areas. This shift begun in 2021, when improved security conditions enabled access for manual mine clearance along the Ethiopian border. Having increased survey and clearance personnel in 2021 compared to 2020, HALO Somalia expected capacity to increase again in 2022, but in fact experienced a decrease of two combined technical survey (TS) and clearance teams during 2022.<sup>79</sup> UNMAS did not see any significant change in capacity in 2022 compared to 2021 and expected to introduce four new NTS teams in 2023. UNMAS confirms that this additional NTS capacity will be deployed for survey of cluster munition-contaminated areas.<sup>80</sup>

Somalia did not report the introduction of any specific tools for CMR survey or clearance in 2022.

## LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

### LAND RELEASE OUTPUTS IN 2022

Somalia did not release any CMR-contaminated areas through survey or clearance in 2022. No new discoveries of submunitions were recorded and no new areas of CMR contamination were added to the national database in 2022.<sup>81</sup>

### SURVEY IN 2022

No CMR-contaminated areas were released through non-technical or technical survey in Somalia in 2022<sup>82</sup> as was also the case previously in 2021 and 2020.<sup>83</sup>

### CLEARANCE IN 2022

No CMR-contaminated areas were released through clearance in Somalia in 2022<sup>84</sup> as was the case previously in 2021 and 2020.<sup>85</sup> In 2021, HALO found two submunitions during BAC operations.<sup>86</sup>

<sup>78</sup> Emails from Clemence Nyamandi, UNMAS, 17 March 2022 and 30 May 2023; Tobias Hewitt, HALO, 21 May 2022; Liberty T. Hombe, NPA, 24 March 2023; and Rob Syfret, HALO, 16 May 2023; and telephone interview with Rob Syfret, HALO, 10 July 2023.

<sup>79</sup> Email from Rob Syfret, HALO, 7 July 2023.

<sup>80</sup> Emails from Clemence Nyamandi, UNMAS, 17 March and 20 June 2022.

<sup>81</sup> Emails from Clemence Nyamandi, UNMAS, 17 May 2023; and Rob Syfret, HALO, 1 June 2023.

<sup>82</sup> Ibid.

<sup>83</sup> CCM Article 7 report (covering 2020 and 2021), Form F.

<sup>84</sup> Emails from Clemence Nyamandi, UNMAS, 17 May 2023; and Rob Syfret, HALO, 1 June 2023.

<sup>85</sup> CCM Article 7 report (covering 2020 and 2021), Form F.

<sup>86</sup> Email from Daniel Redetingshuys, HALO, 29 May 2022.

## ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR SOMALIA: 1 MARCH 2016
↓
ORIGINAL ARTICLE 4 DEADLINE: 1 MARCH 2026
NOT ON TRACK TO MEET ARTICLE 4 DEADLINE

Under Article 4 of the CCM, Somalia is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 March 2026.

Somalia is not on track to meet its Article 4 deadline and its continued inaction places it at risk of non-compliance. Somalia faces significant challenges to improving the overall effectiveness of its national mine action programme. While Somalia states that its national mine action strategy has been updated since the previous strategy expired in 2020, it is still pending approval from the Ministry of Internal Security. Added to this, the Somalia Federal Parliament has yet to formally approve Somalia's mine action legislation<sup>87</sup> or consistently contribute to SEMA's operating costs, providing only "in-kind support" to SEMA for mine action during 2020 and 2021.<sup>88</sup> Without these legislative and national strategic matters resolved it is difficult to see how sufficient national resources will be allocated, in conjunction with international support, to meet Somalia's 2026 deadline.

In 2019, SEMA informed Mine Action Review that the key challenges which could prevent Somalia from meeting its 2026 deadline, based on capacity at the time, were a lack of funding and the fact that Somalia had not conducted a general survey to build a comprehensive picture of remaining CMR contamination.<sup>89</sup> These challenges remained in 2022, when SEMA described the lack of funding as a "serious concern"<sup>90</sup> and remain still in 2023, with no indication that increased funding is forthcoming and no national survey plan for CMR yet in place.

HALO echoed SEMA's concerns in 2021, stating that survey is far from complete due to limited access and ongoing active conflict.<sup>91</sup> In 2021, NPA felt it still remained possible for Somalia to meet its Article 4 obligations in time, as contamination from CMR is believed to be relatively low

and manageable. Success, NPA suggested, is dependent on prioritisation from SEMA and requesting support from operators.<sup>92</sup>

Insecurity continued to present a barrier to survey and clearance throughout 2022 as it did the previous year, giving rise to challenges of access as well as security of personnel and equipment.<sup>93</sup> In November 2022, SEMA reiterated that Somalia's mine action programme still faces "security and political challenges"<sup>94</sup> and, in Somalia's most recent CCM Article 7 Report, it was stated that international cooperation and assistance is needed to deal with the lack of security, which continues to impede access to CMR-affected areas.<sup>95</sup>

Somalia has stated its intention to draft a countrywide survey plan for CMR in 2023.<sup>96</sup> However, this seems ambitious given the continued lack of national and international funding and persistent insecurity in some parts of the country. This is a serious concern given that establishing a baseline of contamination will be critical in determining whether Somalia can meet its 2026 deadline.

**Table 4: Five-year summary of CMR clearance**

Year	Area cleared (km <sup>2</sup> )
2022	0
2021	0
2020	0
2019	0
2018	0
<b>Total</b>	<b>0</b>

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

NPA reports that, in Puntland in 2022, it integrated police personnel into NTS and EOD activities in an effort to build capacity for dealing with residual contamination upon completion of clearance.<sup>97</sup> Somalia has not reported on any other plans for establishing a sustainable national capacity to address residual risks posed by CMR discovered post-completion (i.e. residual capacity).

<sup>87</sup> CCM Article 7 report (covering 2020 and 2021), Form A.

<sup>88</sup> Ibid., Form I.

<sup>89</sup> Email from Abdulkadir Ibrahim Mohamed Hoshaw, SEMA, 9 May 2019.

<sup>90</sup> Presentation by Dahir Abdirahman Abdulle, SEMA, APMBC Intersessional meetings, Geneva, 22 June 2022.

<sup>91</sup> Email from Abdullah Alkhasawneh, HALO, 14 June 2021.

<sup>92</sup> Email from Claus Nielsen, NPA, 26 May 2021.

<sup>93</sup> Email from Clemence Nyamandi, UNMAS, 30 May 2023.

<sup>94</sup> Statement of Somalia on Clearance, APMBC Twentieth Meeting of States Parties, Geneva, 21–25 November 2022, p. 4.

<sup>95</sup> CCM Article 7 report (covering 2020 and 2021), Form I.

<sup>96</sup> Ibid., Form F.

<sup>97</sup> Email from Liberty T. Hombe, NPA, 24 March 2023.



# SIGNATORIES

The background of the page is composed of several overlapping, semi-transparent geometric shapes in various shades of purple and blue. These shapes create a layered, abstract effect, with some areas appearing darker due to the overlap of multiple colors. The overall composition is modern and minimalist.

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION:

#### RESIDUAL THREAT ONLY

SUBMUNITION  
CLEARANCE IN 2022

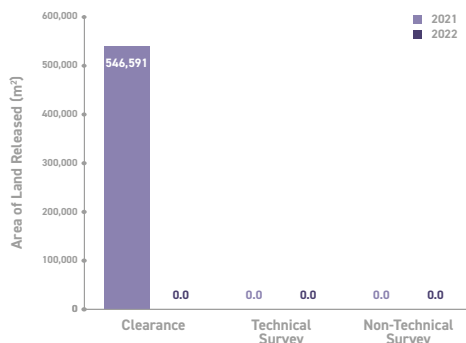
**0**km<sup>2</sup>

SUBMUNITIONS  
DESTROYED IN 2022

**7**

(ALL DURING EOD SPOT TASKS)

### LAND RELEASE OUTPUT



### RECOMMENDATIONS FOR ACTION

- Angola should ratify the Convention on Cluster Munitions (CCM) as a matter of priority.
- Angola should consider declaring completion of clearance of cluster munition remnants (CMR) as findings suggest that any remaining contamination is only residual.
- Angola should ensure that sustainable national capacity exists to deal with any residual unexploded submunitions that may be encountered in the future.

### CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

#### MANAGEMENT

- National Mine Action Agency (ANAM), formally known as The National Intersectoral Commission for Demining and Humanitarian Assistance (Comissão Nacional Intersectorial de Desminagem e Assistência Humanitária, CNIDAH).

#### NATIONAL OPERATORS

- The National Demining Centre (Centro Nacional de Desminagem, CND)
- Association of Angolan Experts of Action against Landmines (APACOMINAS)

#### INTERNATIONAL OPERATORS

- APOPO
- The HALO Trust (HALO)
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)

#### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)

## UNDERSTANDING OF CMR CONTAMINATION

Angola has only a residual threat from unexploded submunitions. This is despite the clearance and destruction of 29 submunitions by The HALO Trust (HALO) in 2021 (23 during mine clearance in Bié province and 6 during explosive ordnance disposal (EOD) tasks and stockpile destruction tasks from the police)<sup>1</sup> and destruction of a further 7 submunitions during HALO EOD call-outs in 2022.<sup>2</sup> In 2017–19, a total of 24 unexploded submunitions were found and destroyed as a result of EOD spot tasks and community call-outs.<sup>3</sup>

CMR contamination was a result of the decades of armed conflict that ended in 2002, although it is unclear when, or by whom, cluster munitions were used in Angola.<sup>4</sup> Between 2005 and 2012, HALO destroyed unused cluster munitions in military storage areas containing a total of 7,284 submunitions.<sup>5</sup>

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Angola is heavily contaminated with landmines and explosive remnants of war (ERW) other than CMR (see Mine Action Review's *Clearing the Mines* report on Angola for further information).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Angola's mine action programme is managed by the recently established Angolan National Mine Action Agency (ANAM). ANAM is a government agency formerly known as the National Intersectoral Commission for Demining and Humanitarian Assistance (CNIDAH).<sup>6</sup> Its mandate is to regulate and supervise mine action work by public and private institutions as well as non-governmental organisations (NGOs). ANAM is subject to the oversight of the Head of State through the Minister of State and Chief of Staff.<sup>7</sup>

In previous years, there were tensions between CNIDAH and the Executive Commission for Demining (Comissão Executiva de Desminagem, CED), the other national coordination body whose main role was to manage four national operators: the Demining Brigades of the Security Unit of the President of the Republic, the Angolan Armed Forces, the National Demining Institute (INAD), and the Brigades of the Angolan Border Guard Police. In September 2022, the CED was

dissolved,<sup>8</sup> while a National Demining Centre (Centro Nacional de Desminagem, CND) was created by presidential decree. The CND is currently the only public operator in Angola. Its mandate is to clear areas in support of socio-economic development projects, and to contribute to the fulfilment of Angola's obligations under Article 5 of the Anti-Personnel Mine Ban Convention (APMBC).<sup>9</sup>

In 2018, a draft resource mobilisation strategy was developed, but as at July 2023, the strategy has not yet been finalised.<sup>10</sup> Operators continue to report smooth collaboration with the Angolan authorities. Two longstanding challenges, visas and tax exemptions, eased in 2022 as these responsibilities were transferred to ANAM.<sup>11</sup> Mines Advisory Group (MAG), however, reported that the application for work visas remains lengthy as the humanitarian work visas must be applied for in the country of origin.<sup>12</sup>

### ENVIRONMENTAL POLICIES AND ACTION

There are no formal policies related to environmental management that are specific to mine action in Angola,<sup>13</sup> but ANAM has been developing additional national mine action standards on occupational health, safety, and the environment. ANAM has also enforced some measures to mitigate the environmental impact, including the prohibition of vegetation burning, tree cutting, and control over the use of fuel and lubricants for demining machines.<sup>14</sup>

<sup>1</sup> Email from Daniel Richards, HALO, 25 June 2022.

<sup>2</sup> Email from Chris Pym, Angola Programme Manager, HALO, 14 June 2023.

<sup>3</sup> CNIDAH, Article 5 Implementation Workplan 2020–2025, November 2019, p. 4; and telephone interview with Robert Iga Afedra, NPA, 22 February 2021. It was previously reported by CNIDAH that 18 submunitions were found and destroyed in 2018, and a total of 164 submunitions were found and destroyed in 2017 as a result of EOD spot tasks and community call-outs.

<sup>4</sup> Interviews with Jose Antonio, Site Manager, Cuando Cubango, HALO; and with Coxe Sucama, Director, INAD, in Menongue, 24 June 2011.

<sup>5</sup> Response to questionnaire by Gerhard Zank, HALO, 19 March 2013.

<sup>6</sup> Telephone interview with Robert Iga Afedra, NPA, 22 February 2021; and email, 28 April 2021.

<sup>7</sup> Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report (covering 2021), Form A.

<sup>8</sup> Email from Mário Nunes, Capacity Development Advisor to ANAM, (on behalf of ANAM), NPA, 14 September 2022.

<sup>9</sup> Article 7 Report (covering 2022), Form F, and emails from Mário Nunes (on behalf of ANAM), NPA, 14 September 2022 and 10 May 2023.

<sup>10</sup> Emails from Robert Iga Afedra (on behalf of CNIDAH), 1 April 2020; and Mário Nunes (on behalf of ANAM), NPA, 14 September 2022 and 10 May 2023.

<sup>11</sup> Emails from Robert Iga AFEDRA, NPA, 30 March 2023; and Manuel João Agostinho, APOPO, 30 March 2023.

<sup>12</sup> Email from Nelson Verissimo, MAG, 6 June 2023.

<sup>13</sup> Emails from Jeanette Dijkstra, MAG, 22 March 2022; Christelle Mestre, GICHD, 4 May 2022; Miroslav Pisarević, NPA, 10 March 2022; Manuel João Agostinho, APOPO, 14 March 2022; and Daniel Richards, HALO, 25 June 2022.

<sup>14</sup> Email from Mário Nunes (on behalf of ANAM), 10 May 2023.

## GENDER AND DIVERSITY

Gender and diversity are integrated into Angola's National Mine Action Strategy 2020–25 as a cross-cutting issue. The strategy recognises that mine action activities need to reflect the distinct needs of different ages, genders, and other diverse groups through targeted design with the collection, analysis and reporting of data disaggregated by sex and age a key precursor for this. Disaggregated data collection requirements have been integrated into all relevant standing operating procedures, forms, and other data collection tools.<sup>15</sup> Although Angola has no gender and diversity implementation plan, the Angolan mine action sector has made significant strides with regards to gender balance. This is demonstrated in the increased participation of women in mine action at all hierarchical levels. In 2022, 36% of ANAM's employees were women. Women held 48% of operational positions and 33% of managerial positions.<sup>16</sup>

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## INFORMATION MANAGEMENT AND REPORTING

ANAM manages a national Information Management System for Mine Action (IMSMA) database which is now considered to be a reliable source of information,<sup>17</sup> as it has been fully reconciled with operators' data, and the previous data backlog and inflated contamination figures have been cleared.<sup>18</sup> ANAM has requested IMSMA Core from the Geneva International Centre for Humanitarian Demining (GICHD) as a means to increase the efficiency of its information management.<sup>19</sup>

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## PLANNING AND TASKING

Angola's National Mine Action Strategy 2020–2025 was developed by CNIDAH, in 2019, with support from GICHD. As of June 2023, the strategy had yet to be formally adopted by the government of Angola.<sup>20</sup> There are five objectives within the strategy, two of which refer to explosive ordnance although there is no specific mention of CMR. The accompanying APMBC Article 5 Implementation Work Plan 2020–2025 provides a figure for the number of CMR destroyed during spot tasks in 2017–19 but there is no further mention of CMR in the plan.

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## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Ten chapters of national mine action standards (NMAS) were completed and fully adopted in 2021.<sup>21</sup> Angola's NMAS are adequate and cover the main topics related to land release.<sup>22</sup> They do not contain provisions specific to CMR survey or clearance. Three additional standards on animal detection systems, EOD, and residual contamination management, have been drafted with support from the GICHD.<sup>23</sup>

### OPERATORS AND OPERATIONAL TOOLS

Four international NGOs conducted demining for humanitarian purposes in Angola in 2020: APOPO, HALO, MAG, and Norwegian People's Aid (NPA); and one national NGO: APACOMINAS. Since the dissolving of the CED and the organisations that work under its supervision, the CND has become the only public operator conducting demining activities. None of the operators conducted any dedicated CMR survey or clearance in 2022.

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15 Email from Robert Iga Afedra, NPA (on behalf of CNIDAH), 1 April 2020.

16 Article 7 report (covering 2021), Form J; and email from Mário Nunes (on behalf of ANAM), 10 May 2023.

17 Emails from Jeanette Dijkstra, MAG, 22 March 2022; and Miroslav Pisarević, NPA, 10 March 2022.

18 Email from Robert Iga Afedra, NPA (on behalf of CNIDAH), 22 March 2021; and Statement by Angola on Article 5 implementation, Fourth APMBC Review Conference, Oslo, November 2019.

19 Email from Mário Nunes (on behalf of ANAM), 10 May 2023.

20 Email from Christelle Mestre, GICHD, 4 May 2022.

21 APMBC Article 7 Report (covering 2021), Form J.

22 Email from Christelle Mestre, GICHD, 4 May 2022.

23 APMBC Article 7 Report (covering 2021), Form J; and emails from Christelle Mestre, GICHD, 4 May 2022; and Miroslav Pisarević, NPA, 10 March 2022.

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

### LAND RELEASE OUTPUTS IN 2022

There was no reported survey or clearance of cluster munition-contaminated area in 2022. HALO found and destroyed seven submunitions during EOD call-outs in Bié province.<sup>24</sup>

As noted above, a total of 29 submunitions were found and destroyed by HALO in Angola in 2021, of which, 23 were destroyed during the clearance of a minefield. HALO disposed of a further six submunitions during EOD call-outs in 2021.<sup>25</sup>

### SURVEY IN 2022

There was no reported survey of cluster munition-contaminated area in 2022 and no affected areas were identified.

### CLEARANCE IN 2022

Between 1 January and 31 March 2023, HALO found and destroyed seven submunitions in Bie province as part of EOD call-outs. Four ShOAB-0.5 (71 mm) submunitions were found in Kuito municipality and three BLU 63/B (76 mm) submunitions in Andulo and Nharea municipalities.<sup>26</sup>

### PROGRESS TOWARDS COMPLETION

Angola is a signatory, but not yet a State Party, to the CCM. It had previously been reported to Mine Action Review that ratification of the CCM is not currently a priority for Angola as there is little to no CMR contamination and the authorities believe that full adherence might require a nationwide survey to be conducted for which Angola does not have the resources.<sup>27</sup> In fact, ratification of the Convention would not require a new national survey given the extent of survey and clearance that has already been conducted over the last ten years.

Based on available information, Mine Action Review believes that only a residual CMR threat remains in Angola and that the authorities could declare that CMR clearance has been completed.

<sup>24</sup> Email from Chris Pym, HALO, 14 June 2023.

<sup>25</sup> Emails from Daniel Richards, HALO, 25 June and 1 July 2022.

<sup>26</sup> Email from Chris Pym, HALO, 14 June 2023.

<sup>27</sup> Telephone interview with Robert Iga Afedra, NPA, 22 February 2021.

# DEMOCRATIC REPUBLIC OF CONGO

MINE  
ACTION  
REVIEW

CLEARING CLUSTER  
MUNITION REMNANTS  
2023

## KEY DATA

### CLUSTER MUNITION CONTAMINATION:

#### BELIEVED TO BE LIGHT

BUT NO NATIONAL BASELINE ESTIMATE

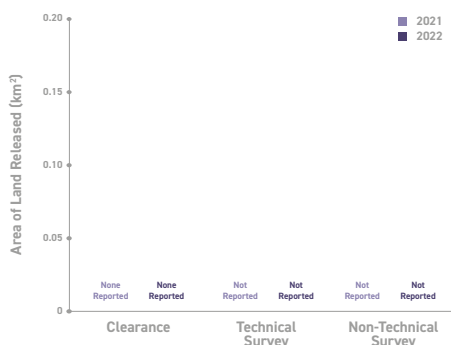
SUBMUNITION  
CLEARANCE IN 2022

**NONE  
REPORTED**

SUBMUNITIONS  
DESTROYED IN 2022

**NOT REPORTED**

## LAND RELEASE OUTPUT



## RECOMMENDATIONS FOR ACTION

- The Democratic Republic of Congo (DR Congo) should ratify the Convention on Cluster Munitions (CCM) as a matter of priority.
- DR Congo should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- The Congolese Mine Action Coordination Centre (CCLAM) should submit annual reports on the extent of explosive ordnance contamination and mine action sector developments.
- DR Congo should submit a detailed work plan, including a timeline for survey and/or clearance of all remaining CMR contamination and prompt, regular, and comprehensive reports on the progress of survey and clearance.
- CCLAM should specify when the long-delayed survey of Aru and Dungu territories will take place.

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Commission Nationale de Lutte Antimines (CNLAM)
- Centre Congolais de Lutte Antimines (CCLAM)

### NATIONAL OPERATORS

- Forces Armées de la République Démocratique du Congo
- Police Nationale Congolaise
- Afrique pour la Lutte Antimines (AFRILAM)

### INTERNATIONAL OPERATORS

- DanChurchAid (DCA)

### OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

## UNDERSTANDING OF CMR CONTAMINATION

DR Congo has a small amount of CMR contamination but the precise extent is not known. An Article 7 report submitted voluntarily at the end of May 2022, the first in eight years and the latest data available, recorded six confirmed hazardous areas (CHAs) containing CMR in four provinces affecting a total of 161,523m<sup>2</sup>, almost double the area recorded in the previous Article 7 report submitted in 2014 (see Table 1).<sup>1</sup>

**Table 1: Cluster munition-contaminated area by province (at end 2021)<sup>2</sup>**

Province	Territory	CHAs	Area (m <sup>2</sup> )
Ituri	Aru	3	3,406
South Kivu	Shabunda	1	719
Tanganyika	Kalemie	1	37,000
Equator	Bolomba	1	120,398
<b>Totals</b>		<b>6</b>	<b>161,523</b>

The main change since DR Congo's previous Article 7 report in 2014 was the addition of a CHA in Equator province amounting to 120,398m<sup>2</sup>, representing nearly three-quarters of identified contamination. Since the previous report, DR Congo had also released a CHA of 3,015m<sup>2</sup> in Tshopo province and reduced its estimate of CMR contamination in Ituri from 40,750m<sup>2</sup> to 3,406m<sup>2</sup>.<sup>3</sup>

The first estimate of CMR contamination came from a national survey that CCLAM said was conducted in tandem with a survey of anti-personnel mine contamination in 2013–14. It identified five confirmed hazardous areas covering 17,590m<sup>2</sup> containing CMR, all of which have since been cleared. The survey did not, however, cover Aru, a territory in Ituri province, and Dungu, a territory in Haut Uele province, where insecurity prevented access to survey teams.

DR Congo's most recent National Mine Action Strategy 2018–19, prepared with support from the Geneva International Centre for Humanitarian Demining (GICHD) and finalised in November 2017, said that in addition to mines and explosive remnants of war (ERW), "some areas contaminated by submunitions have also been reported but the areas affected remain negligible".<sup>4</sup>

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The mine action sector is overseen by the Commission Nationale de Lutte Antimines (CNLAM), a multi-sectoral body which is supposed to meet twice a year and is composed of deputies from both parliamentary chambers, officials from four ministries, and representatives of five civil society organisations linked to mine action.<sup>5</sup>

CCLAM, which was established in 2012, manages the sector with support from the UN Mine Action Coordination Centre (UNMACC) and the UN Mine Action Service (UNMAS).<sup>6</sup> CCLAM is responsible for setting strategy, accrediting operators, information management, budgeting, and resource mobilisation. Law 11/007 of 9 July 2011 underpins the national mine action programme.<sup>7</sup> CCLAM took over from UNMAS as the national focal point for demining in early 2016 overseeing accreditation, issuing task orders, conducting quality assurance (QA)/quality control (QC) and managing the national database but lack of capacity remained a concern for operators.<sup>8</sup> The government has been providing US\$530,000 in funding for CCLAM's operating expenses since 2018, but has not provided funding for operations.<sup>9</sup>

UNMACC, established in 2002 by UNMAS, previously coordinated mine action through offices in the capital, Kinshasa, and in Goma, Kalemie, Kananga, Kisangani, and Mbandaka. UNMACC was part of the UN Stabilization Mission in the DR Congo (MONUSCO). In 2014, in accordance with UN Security Council Resolution 2147 (2014), mine action was removed from MONUSCO's mandate.<sup>10</sup>

1 Voluntary CCM Article 7 Report (covering the period 1 January 2013 to 31 December 2021), Form F; and email from Maître Sudi Alimasi Kimputu, Coordinator, CCLAM, 3 June 2019.

2 Voluntary CCM Article 7 Report (covering the period 1 January 2013 to 31 December 2021), Form F.

3 Ibid.; and email from Maître Sudi Alimasi Kimputu, CCLAM, 3 June 2019.

4 "Stratégie Nationale de Lutte Antimines en République Démocratique du Congo 2018–2019", CCLAM, November 2017, p. 8.

5 Ibid., p. 11.

6 Ibid.

7 Email from Maître Sudi Alimasi Kimputu, CCLAM, 3 June 2019.

8 Emails from Jean-Denis Larsen, NPA, 5 March 2018; Bill Marsden, MAG, 11 May 2018; and Guillaume Zerr, Humanity and Inclusion, 24 May 2018.

9 Emails from Maître Sudi Alimasi Kimputu, CCLAM, 3 June 2019; and UNMAS Headquarters, 24 July 2023.

10 UN Security Council Resolution 2147, 28 March 2014.

UNMAS now operates with a mandate to provide explosive ordnance disposal (EOD) and improvised explosive devices disposal (IEDD) services in support of MONUSCO in North Kivu, South Kivu and Ituri provinces. In 2023, it had a total staff of 26: 12 international and 14 national staff who are headquartered in Goma, North Kivu, but also work from offices in Kinshasa, Beni, Bukavu (South Kivu), and Bunia (Ituri).<sup>11</sup> In line with recommendations of a 2019 independent review of MONUSCO, UNMAS also works to build national capacity for managing explosive hazards, working with the accredited national NGO, Afrique pour la Lutte Antimines (AFRILAM) for mine clearance, as well as the Emergency Development Action Bureau (BADU), Synergie des organisations paysannes de développement intégral (SYOPADI), Synergie pour la Lutte Antimines (SYLAM) and Action concrète pour la lutte antimines (ACOLAM) to conduct explosive ordnance risk education (EORE).<sup>12</sup>

CCLAM hosts the national Mine Action Working Group with the participation of other mine action organisations to share information and discuss policy, planning, tasking, progress, and challenges. It met on a quarterly basis in 2021.<sup>13</sup> No information on 2022 was available at the time of writing.

## ENVIRONMENTAL POLICIES AND ACTION

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The DR Congo does not appear to have national standards or policies covering the protection of the environment during mine action operations.

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## GENDER AND DIVERSITY

The national mine action strategy for 2018–19 stipulated that all mine action activities, particularly those related to risk education and victim assistance, must reflect the different needs of individuals according to age and gender, in a non-discriminatory manner. It also stated that the principles of non-discrimination against women as set out in the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and UN Security Council Resolution 1325 (2000) are to be respected, ensuring that women participate in all essential stages of mine action (planning, implementation, monitoring, and evaluation), and that activities take into account the special needs of women and girls.<sup>14</sup>

CCLAM reported in 2019 that approximately 30% of operational staff in survey and clearance teams were women and only around 7% of managerial or supervisory positions were held by women. It said that local customs limiting the employment roles which are appropriate for women were an obstacle to hiring female staff. CCLAM reported that mine action survey teams are gender balanced and that efforts are undertaken to ensure that all community groups, including women and children, are consulted. It also noted, however, the need to continue raising awareness on gender equality

in certain communities as local customs can discriminate against women undertaking certain categories of work.<sup>15</sup> No updated information was available for 2022 at the time of writing.

UNMAS says promoting gender and inclusion are a priority and it has a Gender and Diversity work plan to ensure it is mainstreamed across the programme. Women were five of UNMAS's fourteen international staff in 2021, including a programme manager, a programme officer, a service support manager, an associate programme officer, and a human resources associate. The 11 national staff included three women (an administration assistant, an administration/human resources associate, and a senior information technology assistant). No information was received for 2022, but in 2023, women made up 46% of UNMAS staff in DR Congo.<sup>16</sup> AFRILAM had 29 staff in 2023, including six women: two EOD operators, a medical officer, two logistics staff, and a multi-task team leader.<sup>17</sup>

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<sup>11</sup> Email from UNMAS Headquarters, 24 July 2023.

<sup>12</sup> Ibid.; UNMAS website, updated March 2022; and email from UNMAS Headquarters, 24 July 2023.

<sup>13</sup> Emails from Jean-Denis Larsen, UNMAS, 31 May 2022; and Miroslav Skoumal, Country Director, DanChurchAid (DCA), 26 April 2023.

<sup>14</sup> "Stratégie Nationale de Lutte Antimines 2018–2019", November 2017, pp. 15–16.

<sup>15</sup> Email from Maître Sudi Alimasi Kimputu, CCLAM, 3 June 2019.

<sup>16</sup> Email from UNMAS Headquarters, 24 July 2023.

<sup>17</sup> Emails from Jean-Denis Larsen, UNMAS, 31 May 2022; and UNMAS Headquarters, 24 July 2023.

## INFORMATION MANAGEMENT AND REPORTING

CCLAM took over responsibility for information management (IM) from UNMAS in 2016 but has lacked the capacity and resources to manage data and operate effectively the national Information Management System for Mine Action (IMSMA) database. As a result, data are not considered up to date or reliable. Operator access is also complicated by the fact that CCLAM decides which information it is prepared to share.

The 2018–19 national strategy acknowledged a need to build staff capacity, improve data collection, update the database on a regular basis, and provide data disaggregated by age and gender.<sup>18</sup> Persistent issues have included gaps in data; lack of maintenance; reporting on land release that did not comply with international terminology; misreporting items of unexploded ordnance (UXO) as mines; and a lack of verification of incoming reports.<sup>19</sup>

Until 2020, CCLAM information management received support from UNMAS, which assisted monthly updates of data to improve operational coordination, collaborated on developing an information management work plan, and provided a range of computer and digital hardware.<sup>20</sup> Norwegian People's Aid (NPA) also previously provided refresher training for CCLAM staff in use of IMSMA and the associated Geographic Information System (GIS).<sup>21</sup> In 2020, CCLAM did not request IM support from UNMAS and a request for support from the GICHD was not met due to the Centre's lack of capacity and the onset of the COVID-19 pandemic.<sup>22</sup>

UNMAS maintains an internal database which is said to be updated regularly.<sup>23</sup>

## PLANNING AND TASKING

In January 2022, DR Congo completed a "National Strategic Plan for the Fight Against Anti-Personnel Mines and Explosive Remnants of War", including cluster munitions, for 2023 to 2032. The plan sets out general objectives for the coming decade, including completing mine clearance by 2025 and CMR clearance by 2032. The strategy aims to ensure all mined areas are cleared, survey of areas affected by cluster munitions and other ERW is completed rapidly, and a decentralised EOD capacity is established to tackle residual contamination.<sup>24</sup> The 76-page strategy sets out a detailed budget for the 10 years of the plan<sup>25</sup> but provides no details or timeline for survey or clearance of hazardous areas.

The new strategy follows on from the National Mine Action Strategy 2018–19, prepared with support from UNMAS and the GICHD, which focused on seeking to fulfil DR Congo's Anti-Personnel Mine Ban Convention's Article 5 obligations by 2020, one year ahead of its extended 2021 deadline.<sup>26</sup> DR Congo has yet to fulfil its APMBC Article 5

clearance obligations. The strategy also set out the objective of completing procedures for ratifying the Convention on Cluster Munitions by the end of 2018.<sup>27</sup> The former strategy had identified three strategic pillars: effective and efficient management of the explosive threat; ensuring the national programme had the capacity to manage residual contamination in a sustainable manner; and that the legal framework of the mine action programme was strengthened through the adoption of national laws and other implementing measures and adherence to relevant treaties.<sup>28</sup> None of these goals was met.

Tasking continues to be challenged by the remote location of many hazardous areas and database weaknesses, including misidentification of ERW as mines and the addition of hazards to the database without robust evidence of the presence of explosive ordnance.

18 "Stratégie Nationale de Lutte Antimines 2018–2019", November 2017, p. 14.

19 Skype interview with Jean-Denis Larsen, NPA, 24 April 2019; and email, 24 May 2019.

20 Email from Aurelie Fabry, UNMAS, 13 April 2020.

21 Email from Jean-Denis Larsen, NPA, 24 May 2019.

22 Emails from Aurelie Fabry, UNMAS, 28 April and 7 June 2021.

23 Email from Jean-Denis Larsen, UNMAS, 31 May 2022.

24 "Plan Stratégique National de Lutte Contre les Mines Antipersonnel et les Restes Explosifs de Guerre en République Démocratique du Congo 2023–2032", January 2022, p. 11.

25 Ibid., p. 63.

26 "Stratégie Nationale de Lutte Antimines 2018–2019", November 2017, p. 4.

27 Ibid., p. 23.

28 Ibid., p. 5.

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

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DR Congo has 24 national standards developed with support from the GICHD<sup>29</sup> and the national strategy for 2018–19 called for revision of the standards and awareness raising of their content through training.<sup>30</sup> CCLAM reported in June 2019 it had revised the National Technical Standards and Guidelines (NTSGs) during 2018, amending mainly the standards relating to demining techniques and safety of deminers.<sup>31</sup>

## OPERATORS AND OPERATIONAL TOOLS

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International engagement with DR Congo's mine action programme decreased following the closure of programmes by NPA in 2019 and The Development Initiative (TDI) in February 2020. That left DanChurchAid (DCA) as the only international humanitarian demining organisation active in DR Congo. In 2022, DCA's mine action operation employed a total of 32 people, including 1 international staff member and 10 deminers. DCA's country office is located in Goma, with an office in Kabalo and a field camp in Kasinge which support its mine action activities in Kabalo district of Tanganyika province. DCA has tackled mine contamination in a project funded by the US State Department Bureau of Political-Military Affairs (PM/WRA) but does not address CMR.<sup>32</sup> A Korean International Cooperation Agency (KOICA) project (2023–24) also focuses on strengthening the capacity of DR Congo's mine clearance efforts by providing training in survey and clearance for national operators and capacity building of CCLAM.<sup>33</sup>

UNMAS deployed an improvised explosive device (IED) disposal team consisting of two international staff based in North Kivu province but its activities did not address CMR. UNMAS also contracted five multi-task teams from AFRILAM in 2021. Three of the teams were engaged largely in tasks in support of MONUSCO in North and South Kivu and Ituri provinces, while the other two were assigned to supporting DR Congo's mine action programme in Kasai central, Kasai Oriental, and Kasai Occidental. None of these teams conducted any CMR clearance.<sup>34</sup> No update for 2022 was available at the time of writing.

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# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2022

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The DR Congo has not reported any survey or clearance of CMR since 2019.

The CCM Article 7 report submitted voluntarily by the DR Congo in May 2022 showed that DR Congo had released a total of 57,857m<sup>2</sup> of cluster munition-contaminated area in five provinces (Equateur, Maniema, Sud Kivu, Tanganyika, and Tshopo) between 2017 and December 2019 and destroyed 572 submunitions.<sup>35</sup> CCLAM has not reported any subsequent clearance of CMR.

## PROGRESS TOWARDS COMPLETION

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The lack of timely reporting by DR Congo on any aspect of survey or clearance prevents a determination of progress towards completion.

As a CCM signatory, DR Congo had set a target of ratifying the convention by the end of 2018 but has left that target unfulfilled and has provided no clarity on its plans for survey or clearance of CMR, nor a timeline for completion.

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29 Statement of DR Congo, APMBC Intersessional Meetings, 2 July 2020.

30 "Stratégie Nationale de Lutte Antimines 2018–2019", November 2017, p. 34.

31 Skype interview with Jean-Denis Larsen, NPA, 24 April 2019; and email, 24 May 2019.

32 Email from Miroslav Skoumal, DCA, 26 April 2023.

33 Email from UNMAS Headquarters, 24 July 2023.

34 Email from Jean-Denis Larsen, UNMAS, 31 May 2022.

35 Article 7 Report (covering the period 1 January 2013 to 31 December 2021), Form F.

# NON-SIGNATORIES

The background of the page is composed of several large, overlapping geometric shapes in various shades of purple and blue. The shapes are angular and create a sense of depth and movement. The colors range from a deep, dark blue to a lighter, lavender purple. The overall effect is a modern, abstract design.

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION: MEDIUM

ACCORDING TO NATIONAL  
AUTHORITY DATA IN 2021

**0.65** KM<sup>2</sup>

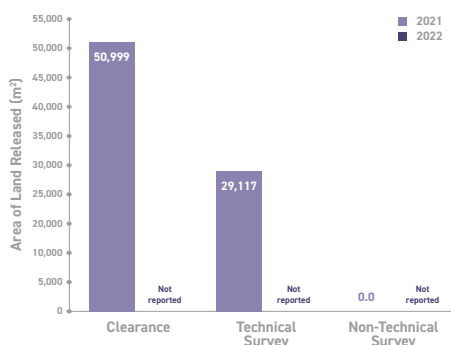
SUBMUNITION  
CLEARANCE IN 2022

**NOT REPORTED**

SUBMUNITIONS  
DESTROYED IN 2022

**NOT REPORTED**

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

In 2022, there were periodic violations of the 10 November 2020 ceasefire that ended the six-week conflict between Armenia and Azerbaijan over Nagorno-Karabakh. The most significant of these involved hostilities on 13–14 September 2022 after Azerbaijan accused Armenia of “large-scale provocations”, including laying mines in its territory,<sup>1</sup> allegations that Armenia denied. There were no reports of either Armenia or Azerbaijan using cluster munitions in 2022. Comprehensive cluster munition remnants (CMR) contamination and land release data were not disclosed by Armenia for 2022.

## RECOMMENDATIONS FOR ACTION

- Armenia should commit to never again use cluster munitions and should accede to the Convention on Cluster Munitions (CCM) as a matter of priority. In the meantime, Armenia should comply with its obligations under international human rights law to clear CMR on territory under its jurisdiction or control as soon as possible.
- Armenia should expedite the adoption of national mine action legislation.
- Armenia should finalise the strategic plan for mine action, including for CMR survey and clearance.

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Center for Humanitarian Demining and Expertise (CHDE)

### NATIONAL OPERATORS

- In addition to serving as the national mine action authority, the CHDE also conducts survey and clearance

### INTERNATIONAL OPERATORS

- The HALO Trust (HALO)

### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Development Project (UNDP)

<sup>1</sup> “Explainer: What happened in Armenia and Azerbaijan on 13-14 September”, Open Caucasus Media (OC Media), 15 September 2022 at: <https://bit.ly/3z0P9Na>.

## UNDERSTANDING OF CMR CONTAMINATION

Prior to the 2020 conflict with Azerbaijan, Armenia had just one confirmed hazardous area (CHA) containing CMR: in Kornidzor, Syunik province.<sup>2</sup> The six-week armed conflict between Armenia and Azerbaijan over the Nagorno-Karabakh region that broke out in September 2020 ended with Azerbaijan regaining control over most of its internationally recognised territories except for a part of Nagorno-Karabakh.<sup>3</sup> In the course of the fighting, both Armenia and Azerbaijan are reported to have used cluster munitions and new cluster munition-contaminated area was recorded in Armenia in 2021.<sup>4</sup>

Armenia's Center for Humanitarian Mining and Expertise (CHDE) reported direct evidence of new explosive ordnance contamination from the 2020 conflict, including unexploded M095 submunitions, in Gegharkunik, Syunik, and Tavush provinces bordering Azerbaijan. According to the CHDE, artillery, including BM-21 rocket launchers, were used to bomb Armenian settlements bordering Azerbaijan.<sup>5</sup> In November 2020, Amnesty International reported a strike by Azerbaijan, possibly from a Grad rocket, which landed in the Armenian village of Davit Bek in Syunik province. Azerbaijan

also used cluster munitions in attacks on Nagorno-Karabakh during the 2020 conflict. (See Mine Action Review's *Clearing Cluster Munition Remnants* report on Nagorno-Karabakh for further information).

As at the end of 2021, the CHDE reported a total of almost 0.65km<sup>2</sup> of cluster munition-contaminated area (including contamination in Kornidzor that pre-dated the 2020 conflict). This comprised nearly 0.36km<sup>2</sup> of CHA and 0.29km<sup>2</sup> of suspected hazardous area (SHA) (see Table 1).<sup>6</sup> Of these totals, 16,341m<sup>2</sup> of CHA and 290,982m<sup>2</sup> of SHA in Davit Bek resulted from the 2020 conflict, contamination that was added to the national Information Management System for Mine Action (IMSMA) database. Another 35,109m<sup>2</sup> was discovered and released in Davit Bek in 2021 following technical survey (TS), 5,992m<sup>2</sup> was cleared and 29,117m<sup>2</sup> was reduced. In 2022, the United Nations Development Programme (UNDP) provided financial and technical support to the CHDE, including the provision of equipment, to conduct TS and clearance for another 11,052m<sup>2</sup> in Davit Bek. Detailed CMR contamination data were not available for 2022.

**Table 1: Cluster munition-contaminated area by province (at end 2021\*)<sup>7</sup>**

Province	CHAs	Area (m <sup>2</sup> )	SHAs that may contain CMR	Area (m <sup>2</sup> )
Syunik (Kornidzor)	1	339,881	0	0
Syunik (Davit Bek)	1	16,341	3	290,982
<b>Totals</b>	<b>2</b>	<b>356,222</b>	<b>3</b>	<b>290,982</b>

\* No contamination data were available for 2022

\*\* 11,052m<sup>2</sup> of hazardous area was released in Davit Bek in 2022 with UNDP support,<sup>8</sup> but Mine Action Review has not deducted this from the contaminated area in Table 1, as it was unclear whether the released land was cluster munition-contaminated area or other battle area.

Between April and September 2022, with UNDP support, the CHDE conducted non-technical survey (NTS) in the Ararat, Gegharkunik, Syunik, Tavush, and Vayots Dzor provinces of Armenia. Following the hostilities of mid-September 2022, again with UNDP support, the CHDE conducted "refreshed" NTS in Syunik, Gegharkunik and Vayots Dzor provinces, to assess new contamination.<sup>9</sup> A baseline NTS launched in 2022 had been expected to determine more precisely the extent of contamination before year end,<sup>10</sup> and by the middle of 2022, the baseline had been completed in Syunik province.<sup>11</sup> It is unclear whether the baseline survey was completed elsewhere by the end of 2022. The Geneva International Centre for Humanitarian Demining (GICHD) supported the CHDE in conducting a Baseline Capacity Assessment of the Armenia programme in 2022.<sup>12</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Armenia is also contaminated with anti-personnel mines and other explosive remnants of war (ERW). (See Mine Action Review's *Clearing the Mines* report on Armenia for further information).

2 Email from Margaret Lazyan, Head of Mine Risk Education and Victim Assistance, Center for Humanitarian Demining and Expertise (CHDE), 26 July 2021.

3 T. De Waal, "Unfinished Business in the Armenia-Azerbaijan Conflict", Carnegie Europe, 11 February 2021, at: <https://bit.ly/3PFvARz>.

4 Email from Vaghinak Sargsyan, SNCO Director, CHDE, 11 May 2022.

5 Emails from Margaret Lazyan, CHDE, 26 April and 26 July 2021.

6 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

7 Ibid.

8 Email from Karinée Khojayan, Project Coordinator, UNDP, 15 March 2023.

9 Emails from Karinée Khojayan, UNDP, 15 March and 16 June 2023.

10 Email from Vaghinak Sargsyan, CHDE, 13 June 2022.

11 Ibid.; and emails from Karinée Khojayan, UNDP, 15 March and 16 June 2023.

12 Email from Stanislav Damjanovic, Country Focal Point, GICHD, 25 May 2023.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The CHDE was established by the Armenian government in 2011 as a non-commercial State body responsible for conducting survey and clearance and identifying contaminated areas. In 2014, the CHDE was designated Armenia's national mine action authority (NMAA).<sup>13</sup> An Advisory Board oversees the CHDE at the Deputy Minister level, with representation from the Ministry of Defence; Ministry of Emergency Situations; Ministry of Territorial Administration and Infrastructure; Ministry of Education, Science, Culture and Sports; the Ministry of Justice; and the Ministry of Foreign Affairs.<sup>14</sup> In 2013, in conformity with a government decree, the CHDE began developing national mine action legislation. But as at May 2022, the draft mine action law was reported to still be under development, with the hope it might be finalised by the end of 2022.<sup>15</sup> At the time of writing, there was no indication that the legislation had been adopted.

Key decisions on mine action are taken centrally by the CHDE, although in December 2022, other stakeholders were invited to a strategy stakeholder workshop and to participate in future work.<sup>16</sup> In 2021, the government allocated AMD317.6 million (approx. US\$695,000) to cover the costs of the CHDE and AMD6.3 million (approx. US\$14,000) for survey and clearance operations.<sup>17</sup> The level of funding provided in 2022 is not known. The national authorities do not provide direct funding to The HALO Trust (HALO), the only international clearance operator present in Armenia. HALO did not conduct CMR land release activities in 2022.<sup>18</sup>

Obtaining visas for Armenia is straightforward for HALO employees and HALO has not faced any significant difficulties in importing demining equipment when it has needed to do so. However, Memorandums of Understanding (MoUs) undergo approval from relevant ministries and the CHDE and the process can be lengthy.

UNDP provides a range of capacity development activities to the CHDE. This includes support with NTS, TS, and other land release activities, as mentioned above. In addition, UNDP has assisted the CHDE with renewing explosive ordnance disposal (EOD) and information technology (IT) equipment; drafting operational plans; reviewing national mine action standards (NMAS), and strengthening risk education and coordination capacities.<sup>19</sup> UNDP and the GICHD also supported the CHDE in installing IMSMA Core and training staff on its use.<sup>20</sup>

Furthermore, UNDP and the GICHD supported the CHDE to review and draft the national mine action strategy.<sup>21</sup> The GICHD facilitated a strategy stakeholder workshop in Yerevan in December 2022 which presented the strategic planning process on strategy development which included international good practice and lessons learnt on strategic planning.<sup>22</sup> In addition, as indicated above, the GICHD supported the CHDE in conducting a baseline assessment of the Armenia programme in 2022.<sup>23</sup>

## ENVIRONMENTAL POLICIES AND ACTION

The CHDE has previously reported that it deploys methods and tools to avoid damaging the environment where possible.<sup>24</sup> In May 2022, the CHDE reported that Armenia did not yet have a national mine action standard on environmental management, but planned to develop one.<sup>25</sup> No update was available as at June 2023.

HALO seeks to minimise the environmental impact when it conducts survey and clearance in Armenia. It minimises fuel consumption by sharing vehicles; it does not burn vegetation during the clearance process and does not remove vegetation unnecessarily; it takes care not to contaminate water sources with fuels, lubricants, and paints; it takes rubbish away when it leaves a task; and removes any metal contamination. HALO also plans clearance operations around agricultural planting and harvesting cycles.<sup>26</sup>

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13 Emails from Ruben Arakelyan, Director, CHDE, 8 June 2015; and Margaret Lazyan, CHDE, 10 August 2020.

14 Emails from Stanislav Damjanovic, GICHD, 13 July 2022; and Ani Zakaryan, Head of Information Management, CHDE, 21 July 2022.

15 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

16 Email from Fiona Kilpatrick-Cooper, Head of Region – Europe (South Caucasus), HALO, 16 March 2023.

17 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

18 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

19 Emails from Karinée Khojayan, UNDP, 15 March 2023.

20 Emails from Karinée Khojayan, UNDP, 15 March 2023; and Stanislav Damjanovic, GICHD, 25 May 2023.

21 Ibid.

22 Email from Stanislav Damjanovic, GICHD, 25 May 2023.

23 Ibid.

24 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

25 Ibid.

26 Emails from Fiona Kilpatrick-Cooper, HALO, 18 May 2022 and 16 March 2023.

## GENDER AND DIVERSITY

In May 2022, the CHDE reported that it did not have a gender policy or associated implementation plan but that gender had been mainstreamed in Armenia's draft national mine action strategy. No update was available as of June 2023. The CHDE reported in 2022 that during survey and community liaison activities, all groups affected by contamination were consulted, including women and children, and ethnic or minority groups. Furthermore, according to the CHDE the needs of women and children in affected communities are taken into account in prioritisation, planning, and tasking of survey and clearance operations. However, as of May 2022, the CHDE did not disaggregate mine action data by sex.<sup>27</sup>

The CHDE is said to offer equal employment opportunities for both men and women. In 2021, seventeen of the fifty CHDE employees were women (32%, down from 36% in 2020), while women held six of sixteen managerial positions. Two of six staff in the Operations Department were women, as were two staff in the training centre and five of six staff in

the Explosive Ordnance Risk Education (EORE) Group. As of May 2022, survey teams did not include representatives from different ethnic or minority groups.<sup>28</sup> No update was available as at June 2023.

HALO, in its limited recent activities in Armenia, disaggregates mine action data by age and sex. It only employed one staff member in Armenia in 2022, a female administrator.<sup>29</sup> While HALO is an equal opportunities employer, due to the local cultural context and nature of the work, the majority of staff it deploys in Armenia are men.<sup>30</sup> NTS and risk education training of trainer teams that worked in Armenia in 2022 comprised men only.<sup>31</sup> HALO's teams adhere to a gender-sensitive approach and relevant policies, and consider the needs of the minority groups, such as internally displaced persons (IDPs). All tasks, however, are allocated by the CHDE, and HALO is not involved in task prioritization.<sup>32</sup>

## INFORMATION MANAGEMENT AND REPORTING

The CHDE manages the national IMSMA database.<sup>33</sup> In 2022, with UNDP and GICHD support, the CHDE completed the installation of IMSMA Core, which had been delayed by COVID-19 since 2019.<sup>34</sup> By May 2023, an in-country server had been set up and configured. Basic IMSMA CORE training was provided to CHDE staff in the summer of 2022, and two CHDE staff members attended the GICHD's advanced administrator training in Spiez, Switzerland, in May 2023.<sup>35</sup>

## PLANNING AND TASKING

The draft National Strategic Plan on Mine Action was originally presented to the Armenian Government for approval in 2018. However, since early 2021, the plan had been under reconsideration primarily due to the emergence of new challenges in the aftermath of the 2020 conflict.<sup>36</sup> The strategy, along with the operational plans, were finalised in 2023 and adopted by the CHDE Board in May 2023.<sup>37</sup> The main objectives of the original draft plan were to address, as a priority, anti-personnel mines in CHAs that have a humanitarian impact, and increasing community safety in support of the achievement of the 2030 Sustainable Development Goals (SDGs).<sup>38</sup> No information is available on the contents of the reviewed strategy.

Tasking for clearance is based on CHDE criteria. Priority is given first to contaminated areas that are up to 1km away from a population centre, then to those near agricultural land, and finally to contaminated areas that negatively affect the environment. These are mostly located in mountainous areas. To optimise efficient deployment of resources, clearance plans are typically drawn up on a community-by-community basis.<sup>39</sup>

In 2022, the CHDE started a baseline non-technical survey to determine the extent of new explosive ordnance contamination arising from the 2020 conflict, and planned to clear 50,000m<sup>2</sup> of explosive ordnance-contaminated area and to reduce a further 60,000m<sup>2</sup>.<sup>40</sup> Priorities for clearance were to be defined when the NTS results were analysed.<sup>41</sup> In June 2022 the CHDE reported

27 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

28 Ibid.

29 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

30 Email from Fiona Kilpatrick-Cooper, HALO, 18 May 2022.

31 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

32 Ibid.

33 Email from Ruben Arakelyan, CHDE, 19 March 2014.

34 Email from Stanislav Damjanovic, GICHD, 25 May 2023.

35 Emails from Stanislav Damjanovic, GICHD, 25 May and 23 June 2023.

36 Emails from Margaret Lazyan, CHDE, 10 August 2020 and 26 April 2021.

37 Emails from Karinée Khojayan, UNDP, 15 March and 10 July 2023.

38 Email from Margaret Lazyan, CHDE, 19 April 2019.

39 Email from Ruben Arakelyan, CHDE, 28 April 2017.

40 Emails from Vaghinak Sargsyan, CHDE, 11 May 2022; and Ani Zakaryan, CHDE, 21 July 2022.

41 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

that it had finalised NTS for all of Syunik province.<sup>42</sup> In March 2022, the CHDE issued an NTS task to HALO for nine areas in Gegharkunik province which was completed in June 2022; no CMR tasks were identified by the survey.<sup>43</sup> There is no available information on whether the land release targets were achieved in 2022.

At the strategy stakeholder workshop in December 2022, the CHDE indicated it would like HALO to provide support with clearance arising from the September 2022 incursion.<sup>44</sup>

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

The CHDE developed the Armenian NMAS, which were approved by the government in 2014.<sup>45</sup> The CHDE has reported that these have been reviewed to ensure they are consistent with International Mine Action Standards (IMAS) and international best practice<sup>46</sup> and in 2022, UNDP supported a review of the NMAS.<sup>47</sup> The overall quality of Armenia's NMAS on land release varies. While some chapters provide sufficient and good-quality information on national requirements, others tend to be overly prescriptive with sections that are more procedural. There are sections on "All Reasonable Effort" (ARE), evidence of criteria, liability, and residual risk. Some are taken directly from the IMAS although the text has been adapted to the local context.<sup>48</sup> The CHDE has initiated a review of the NMAS which could be completed by the end of 2023, and intends to develop a NMAS on accreditation.<sup>49</sup>

The CHDE has been developing standing operating procedures (SOPs) for several years.<sup>50</sup> SOPs on manual mine clearance, battle area clearance (BAC), marking of hazardous areas, and medical support were all elaborated by 2018.<sup>51</sup> In 2020, the CHDE prepared SOPs on Information Management (IM), NTS, TS, EOD and quality management (QM).<sup>52</sup> No update was available for 2022.

When conducting occasional deployments in Armenia, HALO operates under SOPs that were updated in line with those in Nagorno-Karabakh, which are accredited by the CHDE.<sup>53</sup> In terms of residual contamination, Armenia has a limited but sustainable capacity to conduct survey and clearance. In addition to its own staff, the CHDE can also recruit additional staff from a roster of trained people.<sup>54</sup>

## OPERATORS AND OPERATIONAL TOOLS

The CHDE was planning to deploy two more clearance teams in 2022,<sup>55</sup> but it is not known whether this was achieved. In 2021, the CHDE deployed three NTS teams, each comprising a team leader and three surveyors, and two TS teams. This constituted an increase in the number of operational teams from the previous year with the addition of two NTS teams and two TS teams.

In 2022, HALO deployed two NTS teams with a total of eight personnel that continued to work on tasks in nine villages previously assigned by the CHDE in 2022.<sup>56</sup>

QM is conducted in accordance with IMAS and the NMAS. Quality assurance (QA) is conducted by dedicated officers who make regular field visits to inspect cleared land.<sup>57</sup> Quality control (QC) is conducted once clearance of the land has been completed, prior to handover.<sup>58</sup>

There were no demining accidents in 2022 and no attacks on HALO staff.<sup>59</sup> COVID-19 had no significant impact on operations during the year.<sup>60</sup>

42 Email from Vaghinak Sargsyan, CHDE, 13 June 2022.  
43 Emails from Vaghinak Sargsyan, CHDE, 13 June 2022; Fiona Kilpatrick-Cooper, HALO, 16 May 2022; and David Crawford, Programme Manager, Nagorno Karabakh and Armenia, HALO, 19 June 2023.  
44 Emails from Fiona Kilpatrick-Cooper, HALO, 16 March 2023; and David Crawford, HALO, 19 June 2023.  
45 Email from Margaret Lazyan, CHDE, 19 April 2019.  
46 Emails from Margaret Lazyan, CHDE, 19 April 2019 and 26 April 2021.  
47 Email from Karinée Khojayan, UNDP, 15 March 2023.  
48 Email from Stanislav Damjanovic, GICHD, 25 May 2023.  
49 Emails from Stanislav Damjanovic, GICHD, 25 May and 23 June 2023.  
50 Email from Varsine Miskaryan, Operations Manager, CHDE, 8 August 2016.  
51 Email from Margaret Lazyan, CHDE, 8 August 2018.  
52 Email from Margaret Lazyan, CHDE, 26 April 2021.  
53 Email from Fiona Kilpatrick-Cooper, HALO, 18 May 2022.  
54 Email from Stanislav Damjanovic, GICHD, 25 May 2023.  
55 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.  
56 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023; and David Crawford, HALO, 19 June 2023.  
57 Email from Ruben Arakelyan, CHDE, 8 June 2015.  
58 Email from Margaret Lazyan, CHDE, 8 August 2018.  
59 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.  
60 Emails from Stanislav Damjanovic, GICHD, 25 May 2023 and 24 July 2023; and Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

### LAND RELEASE OUTPUTS IN 2022

No comprehensive data on land release were available for 2022. As indicated above, UNDP supported the CHDE in TS, clearance, and land release of 11,052m<sup>2</sup> in Davit Bek in the Syunik region in 2022.<sup>61</sup> This is the same region where CMR had been cleared in 2021. However, it was unclear whether the land released in 2022 was cluster munition-contaminated area or other battle area.

According to data provided previously by the CHDE, in 2021, 80,116m<sup>2</sup> of cluster munition-contaminated area was released: 29,117m<sup>2</sup> reduced through TS, and 50,999m<sup>2</sup> through clearance with the destruction of 25 submunitions (3 during clearance and 22 during EOD spot tasks). No cluster munition-contaminated area was cancelled through NTS in 2021.

### SURVEY IN 2022

No disaggregated data on land release through TS and NTS were available for 2022.

Although no cluster munition-contaminated area was cancelled through NTS in 2021, NTS did result in defining a total of 343,173m<sup>2</sup> of new hazardous areas in Davit Bek consisting of three CHAs totalling 52,191m<sup>2</sup>, and three SHAs totalling 290,982m<sup>2</sup>. Two of the CHAs were subsequently technically surveyed and released through clearance (5,992m<sup>2</sup>) and reduction (29,117m<sup>2</sup>).<sup>62</sup>

Following the end of the conflict in November 2020, the CHDE conducted TS and EOD tasks in Syunik province and by July 2021 had destroyed more than 30 submunitions. In 2021 alone, the CHDE reduced 29,117m<sup>2</sup> of cluster munition-contaminated area through TS.<sup>63</sup>

### CLEARANCE IN 2022

No disaggregated data on the clearance of CMR-contaminated land were available for 2022.

The CHDE reported that a total of 50,999m<sup>2</sup> of CMR contaminated land was cleared in 2021, with three submunitions destroyed.<sup>64</sup> This included 46,007m<sup>2</sup> of battle area in Syunik cleared by HALO where no CMR were found.<sup>65</sup> A further 22 submunitions discovered by the CHDE during EOD spot tasks in 2021 were destroyed by the Armenian army.<sup>66</sup>

### PROGRESS TOWARDS COMPLETION

There is no fixed date for the completion of clearance of remaining CMR contamination in Armenia and NTS continues to determine the extent of new CMR and explosive ordnance contamination. The CHDE has indicated that funding is needed to accelerate progress in clearance.<sup>67</sup>

**Table 2: Five-year summary of CMR clearance**

Year	Area cleared (m <sup>2</sup> )
2022	N/K
2021	50,999
2020	3,850
2019	0
2018	0
<b>Total</b>	<b>54,849</b>

N/K= not known

<sup>61</sup> Email from Karinée Khojayan, UNDP, 15 March 2023.

<sup>62</sup> Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

<sup>63</sup> Ibid.

<sup>64</sup> Ibid.

<sup>65</sup> Email from Fiona Kilpatrick-Cooper, HALO, 18 May 2022.

<sup>66</sup> Emails from Vaghinak Sargsyan, CHDE, 11 May 2022; and Ani Zakaryan, CHDE, 21 July 2022.

<sup>67</sup> Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION: MEDIUM

MINE ACTION REVIEW ESTIMATE

SUBMUNITION  
CLEARANCE IN 2022

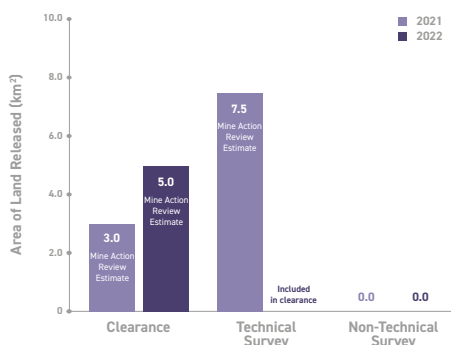
**5km<sup>2</sup>**

MINE ACTION  
REVIEW ESTIMATE

SUBMUNITIONS  
DESTROYED IN 2022

**738**

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

The six-week armed conflict between Armenia and Azerbaijan in September–November 2020 ended with Azerbaijan regaining control over seven districts and a large part of Nagorno-Karabakh. All parties to the conflict used cluster munitions in the course of the conflict but the extent of the resultant contamination from cluster munition remnants (CMR) in areas under Azerbaijan's jurisdiction and control is not yet known. A massive clearance effort of areas containing mines and explosive remnants of war (ERW), including CMR, accelerated in 2022.

In 2022, the Mine Action Agency of the Republic of Azerbaijan (ANAMA, formerly the Azerbaijan National Agency for Mine Action) reported releasing just over 44km<sup>2</sup> of cluster

munition-contaminated area through clearance and technical survey (TS), with the destruction of 738 submunitions.<sup>1</sup> These figures, however, are based on the total size of area for task polygons in which submunitions were found during land release as ANAMA does not currently disaggregate cluster munition tasks from other battle area clearance (BAC) tasks. In order to avoid inflating CMR clearance data, Mine Action Review has estimated that the amount of land actually containing CMR, released through clearance in 2022, was 5km<sup>2</sup> in 2022. This compares to an estimate of clearance output for 2021 of 3km<sup>2</sup>, with the destruction of 387 submunitions.

## RECOMMENDATIONS FOR ACTION

- Azerbaijan should commit to never again use cluster munitions and should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- ANAMA, which serves as the de facto national mine action centre, should work to establish a nationwide baseline of CMR-contaminated area using evidence-based non-technical and technical survey.
- ANAMA should ensure that survey, clearance, and contamination data related to CMR are disaggregated from data relating to other ERW and mines.
- Azerbaijan should adopt the revised National Mine Action Standards (NMAS) without delay to allow cancellation of areas through non-technical survey (NTS), which is not permitted under the existing standards.

<sup>1</sup> Email from Ramil Azizov, Head of risk education, international and public relations department, ANAMA, 19 July 2023.

- ANAMA should elaborate a separate methodology for clearing CMR specifically, distinct from BAC, ensuring that the footprint of a cluster strike is identified and clearance is conducted to fadeout.
- ANAMA should ensure that fencing is used, and not only hazard signs, at the edge of polygons cleared of explosive ordnance where contamination continues beyond edge of the area cleared.
- ANAMA should finalise and adopt the new draft mine action strategy to replace the strategy that expired in 2018, reflecting the significant increase in contamination now under Azerbaijan's control.

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Mine Action Agency of the Republic of Azerbaijan (ANAMA, formerly the Azerbaijan National Agency for Mine Action)

### NATIONAL OPERATORS

- ANAMA
- The Demining Battalion of the Ministry of Defence
- Ministry of Emergency Situations
- Ministry of Internal Affairs
- The State Border Service
- Four national commercial demining companies, each with an international commercial sub-contractor:
  - Qaya Safety Solutions partnering with Safelane Global
  - Safe Point partnering with RPS (a Tetra Tech company)
  - Alpha Demining partnering with Altay Group
  - Azerbaijan Demining Company partnering with Piper
- International Eurasia Press Fund (IEPF, a non-governmental organisation (NGO) based in Azerbaijan)

### INTERNATIONAL OPERATORS

- Turkish Armed Forces

### OTHER ACTORS

- APOPO
- Geneva International Centre for Humanitarian Demining (GICHD)
- International Committee of the Red Cross (ICRC)
- Marshall Legacy Institute (MLI)
- Mines Advisory Group (MAG)
- United Nations Development Programme (UNDP)

## UNDERSTANDING OF CMR CONTAMINATION

Survey in Azerbaijan is ongoing, but according to ANAMA's preliminary data, a total of 8,236km<sup>2</sup> is contaminated with all types of explosive ordnance (including mines, CMR and other ERW). Of this, nearly 1,480km<sup>2</sup> is classified as highly contaminated (and high threat) and an estimated 6,756km<sup>2</sup> as medium and low threat areas.<sup>2</sup> However, not all of the 8,236km<sup>2</sup> is thought to be actually contaminated, especially as the total size of this area roughly equates to size of the entire area in question, and it is therefore likely to include roads, lakes, and other uncontaminated areas. The highly contaminated areas mainly cover territories located along the 254km long former line of contact, defensive frontage around the now liberated district capitals, strategic military points, and confirmed hazard areas from the 1990s hostilities.<sup>3</sup> According to ANAMA, the liberated territories comprise 60% flat agricultural land, 30% grassy hills, and 10% mountains.<sup>4</sup>

CMR only make up a small proportion of total contamination, and while the precise extent of contamination from CMR in Azerbaijan is unknown, it is not believed to be heavy. In 2022, ANAMA identified 44.1km<sup>2</sup> of cluster munition-contaminated-area through TS and NTS survey in the territory over which it regained control in 2020.<sup>5</sup> This was, however, based on the total size of task polygons in which submunitions were found and therefore the size of actual CMR contamination is likely to have been far smaller.

ANAMA has vague plans to establish a national baseline of explosive ordnance contamination through NTS, which will include cluster munition-contaminated areas but the survey will not specifically disaggregate these areas from other ERW.<sup>6</sup> As at May 2023, however, the only actor conducting NTS was the non-governmental organisation (NGO)

2 Mine Action Agency of the Republic of Azerbaijan (ANAMA), Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, pp. 2 and 3; email from Ramil Azizov, then Operations Manager, ANAMA, 17 May 2023, and interview with Samir Poladov, Deputy Chairman, and Ramil Azizov, ANAMA, in Baku, 24 May 2023.

3 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 3.

4 Ibid.

5 Ibid., p. 9.

6 Email from Samir Poladov, ANAMA, 6 June 2022.

International Eurasia Press Fund (IEPF), with support from the United Nations Development Programme (UNDP), and tasked by ANAMA.<sup>7</sup>

CMR contamination resulted first from the 1988–94 conflict between Azerbaijan and Armenia and ammunition abandoned by the Soviet army in 1991. Following the cease-fire in 1994, tensions flared up in April 2016 when fighting broke out briefly along the then line of contact and included the use of cluster munitions. In July 2020, fighting broke out on the international borders between Armenia and Azerbaijan, and on 27 September 2020, Azerbaijan launched a fully-fledged military operation. Fierce fighting for just over six weeks was brought to an end by a Russian-brokered ceasefire agreement, which came into effect on 10 November 2022. Under the agreement, Azerbaijan regained full control in the seven districts adjacent to Nagorno-Karabakh: the four districts (Fuzuli, Jabrayil, Qubadli, and Zangilan) which it took back control from Armenia, and the three districts (Aghdam, Kalbajar, and Lachin) from which Armenia agreed to withdraw its forces, returning the districts to Azerbaijani control.<sup>8</sup> The fragile ceasefire has since been interrupted by sporadic fighting by both parties to the conflict.

Azerbaijan also regained control of a substantial part of Nagorno-Karabakh, the rest of which is patrolled by Russian peacekeeping forces but still governed by the de-facto Nagorno-Karabakh authorities.<sup>9</sup> (See the Mine

Action Review *Clearing Cluster Munition Remnants* report on Nagorno-Karabakh for further information).

Both Armenia and Azerbaijan used cluster munitions in the course of the six-week conflict in 2020. Human Rights Watch documented repeated use of LAR-160 cluster munition rockets and M095 dual-purpose submunitions by Azerbaijan in a civilian neighbourhood in Hadrut and Stepanakert (or Khankendi in Azeri).<sup>10</sup> Another Human Rights Watch report described cluster munition use by Armenia in Barda, Goranboy, and Tartar districts, including Smerch rockets containing 9N235 submunitions.<sup>11</sup> Amnesty International documented four cluster munition strikes resulting in civilian casualties by Armenian forces in towns and villages in Azerbaijan in October 2020. These consisted of three strikes in Barda dispersing dozens of 9N235 submunitions and a fourth in Qarayusufli.<sup>12</sup>

In addition to the cluster munitions reported by the media and humanitarian organisations, the Azerbaijan Campaign to Ban Landmines (AZCBL) reported that the following types of cluster munitions were found in areas regained by Azerbaijan since the 2020 conflict: 9N-210, AO-2.5PTM, PTAB-1M, and ShOAB-05. Submunitions were found in the districts of Fuzuli, Aghdam, Tartar, and Yevlakh.<sup>13</sup> Between the 2020 trilateral statement and 31 December 2022, four persons were injured or killed due to CMR-related incidents. These constituted 1.4% of the total 279 victims to explosive ordnance-related incidents that occurred during the same period.<sup>14</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Many areas, including those formerly occupied by Armenia, are confirmed or suspected to contain ERW, both unexploded ordnance (UXO) and abandoned explosive ordnance (AXO). These include former military testing areas and a former shooting range.<sup>15</sup> Azerbaijan is also contaminated with landmines, the precise extent of which is unknown, but is believed to be massive following Azerbaijan's regaining of control of considerable territory as a result of the 2020 conflict (see Mine Action Review's *Clearing the Mines* report on Azerbaijan for further information).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

ANAMA, the Azerbaijan National Agency for Mine Action, was established by Presidential Decree 854 in 1998. It started its humanitarian demining operations in 2000 to eliminate the socio-economic impact of landmines and ERW. In February 2021, by Presidential decree, ANAMA was restructured and given the status of a public legal entity as the Mine Action Agency of the Republic of Azerbaijan.<sup>16</sup> The rebranded ANAMA has the mandate to plan, coordinate, and oversee humanitarian demining activities of national and international operators.<sup>17</sup> ANAMA currently has a national headquarters in Baku and two regional offices in Horadiz and Goygol.<sup>18</sup> In 2021, a national mine action law was drafted with the support of UNDP. As at June 2023, it was still pending approval.<sup>19</sup>

7 Email from Ramil Azizov, ANAMA, 17 May 2023; and interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

8 See, e.g., International Crisis Group (ICG), "The Nagorno-Karabakh Conflict: A Visual Explainer", Last updated 7 May 2021, at: <https://bit.ly/3ui0ou2>.

9 ICG, "The Nagorno-Karabakh Conflict: A Visual Explainer", Last updated 7 May 2021, at: <https://bit.ly/3ui0ou2>.

10 Human Rights Watch (HRW), "Azerbaijan: Cluster Munitions Used in Nagorno-Karabakh", 23 October 2020, at: <https://bit.ly/3bt3QXE>.

11 HRW, "Armenia: Cluster Munitions Kill Civilians in Azerbaijan", 30 October 2020, at: <https://bit.ly/3wv4UIT>; and HRW, "Armenia: Cluster Munitions Used in Multiple Attacks on Azerbaijan", 15 December 2020, at: <https://bit.ly/3vhYQ6v>.

12 Amnesty International, "In the Line of Fire", Report, 2021, at: <https://bit.ly/3zHXp3H>, pp. 10–11.

13 AZCBL, "Landmines and Unexploded Ordnance Problem in The Liberated Territories of Azerbaijan", Report, November 2022, pp. 1 and 3.

14 Email from Ramil Azizov, ANAMA, 17 May 2023; and ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 4.

15 ANAMA, "Azerbaijan National Agency for Mine Action 2018", p. 17.

16 "Azerbaijan establishes Mine Action Agency", APA news, 15 January 2021, at: <https://bit.ly/35MhtEu>.

17 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 7.

18 UNDP, assessment report, "Gender Organisational Assessment of Mine Action Agency of the Republic of Azerbaijan (ANAMA)", February 2023, p. 12.

19 Email from Mark Buswell, Strategic Advisor, UNDP, 20 March 2023.

Prior to the 2020 conflict, ANAMA had been conducting demining operations with two contracted national operators: Dayag-Relief Azerbaijan (RA) and the IEPF. In March 2020, RA's field personnel were incorporated within ANAMA while RA as an organisation continued to provide logistical support to ANAMA.<sup>20</sup> Since the end of the 2020 conflict, both ANAMA and clearance operations in Azerbaijan have been rapidly scaled up to address the significant mine and ERW contamination newly under Azerbaijan's control. An interministerial mine action working group, chaired by ANAMA, continued to meet twice a month in 2022 and included Azerbaijan's most significant ministries, including of defence, interior, and emergency situations, as well as the State Border Service.<sup>21</sup>

The Azerbaijani government has been funding the vast majority (90%)<sup>22</sup> of the mine action programme's operating costs,<sup>23</sup> and mine action is considered a national priority by the government of Azerbaijan.<sup>24</sup> It is integrated into the Azerbaijan Socio-Economic Development plan 2019–2023 and is considered a key contributor to meeting the 2030 Sustainable Development Goals (SDGs).<sup>25</sup> Azerbaijan has adopted national SDG 18 for mine action for safe return, settlement, recovery, prosperity and peace.<sup>26</sup>

ANAMA has set the following key priorities for international assistance: enhanced planning through the use of data management and technology, including scaling up Remote Aerial Minefield Survey (RAMS) capacity; TS and feasibility studies for accelerating and streamlining humanitarian mine clearance; increase in demining capacity through establishment and accreditation of additional national NGOs; continued support to the institutional capacity building of ANAMA; an increase in ANAMA's mechanical demining capacities; further development of mine detection dog (MDD) training and advising capacity; establishment of and support for female demining teams; demarcation and permanent fencing; explosive ordnance risk education (EORE); and mine victim assistance.<sup>27</sup>

ANAMA says that it stands ready to actively engage with potential donors and organisations interested in contributing to mine action in Azerbaijan.<sup>28</sup> On 31 March–1 April 2022, ANAMA and the UNDP organised an international conference on Mine Action and the SDGs in Baku. The conference brought together key actors from the international mine action community to share best practices and lessons learned in mine action, including in the use of advanced technologies. Among the recommendations made at the conference were

the establishment of an in-country donor coordination mechanism, such as a Mine Action Forum, and of technical working groups (TWGs) to address key challenges (such as land release, information management, EORE, and victim assistance).<sup>29</sup> Since then, ANAMA also organised an international conference "Mine Action: Challenges and Opportunities" in Baku November 2022, while in May 2023, an international conference entitled "Mine Action – the Path to SDGs" was organised in collaboration with UNDP. Another international conference "Explosive Ordnance Seminar: Europe 2023" was planned by ANAMA and Intelligence-Sec (a conference and exhibition company) for July 2023 to discuss clearance methodologies, tools, and equipment in demining operations.<sup>30</sup>

UNDP provides strategic and technical capacity development to ANAMA.<sup>31</sup> In 2020, the capacity development project was extended to 2023.<sup>32</sup> UNDP has supported the creation of an enabling mine action environment, including for the drafting of the national mine action law, and the revision of the NMAS. An analysis by UNDP in May 2022 of ANAMA's "National Needs and Priorities" informs the Ministry of Foreign Affairs, foreign diplomats, and donors. A third edition of the report was published in January 2023. UNDP has also drafted a generic mine action strategy, which was submitted to ANAMA in October 2022 for its consideration. UNDP also elaborated a gender needs assessment, leading to the adoption of a gender policy and strategy and the organisation of a workshop on gender in March 2023. Additional consultancies on victim assistance and EORE are planned for 2023.<sup>33</sup>

The Geneva International Centre for Humanitarian Demining (GICHD) also supported ANAMA in 2022, in particular with respect to information management. The GICHD provided the Information Management System for Mine Action (IMSMA) Core to ANAMA, and gave supporting training in the use of the system.<sup>34</sup>

Mines Advisory Group (MAG) signed a memorandum of understanding (MoU) with ANAMA in December 2021, with funding from the United States (US) and Canada. MAG provided a 10-month supervision technical and practical training in 2022, with 16 ANAMA trainees successfully completing the training. Trainees also received refresher on the deployment of MDDs and mechanical assets. A separate two-week supervision training was provided to 19 ANAMA supervisors. A post-training workshop was held on 19 December 2022, which was attended by the Head and Deputy Head of ANAMA's training and methodological assurance

20 Email from Nijat Karimov, ANAMA, 28 July 2020.

21 Email from Ramil Azizov, ANAMA, 17 May 2023; interview with Vugar Suleymanov, Chairman of the Board, ANAMA; and Samir Poladov, ANAMA, Baku, 29 March 2022; and presentation by ANAMA, International Conference on Humanitarian Mine Action and the Sustainable Development Goals, Baku, 31 March–1 April 2022.

22 Presentation by Hikmet Hajiyev, Assistant to the President, Head of Division for Foreign Policy, Office of the President, Baku, 25 May 2023.

23 Emails from Samir Poladov, ANAMA, 6 June and 7 July 2022.

24 ANAMA, quarterly report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 3.

25 UNDP, assessment report, "Gender Organisational Assessment of ANAMA", February 2023, p. 10.

26 Presentation by Huseyn Huseynov, Head of Department for Sustainable Development and Social Policy, Ministry of Economy of the Republic of Azerbaijan, Aghdam, 24 May 2023.

27 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 2.

28 Ibid., p. 12.

29 Statement of the International Conference on Humanitarian Mine Action and the Sustainable Development Goals, Baku, 31 March–1 April 2022.

30 ANAMA, Quarterly Report "Mine Action in Azerbaijan: priorities and needs", January 2023, p. 12.

31 Email from Ramil Azizov, ANAMA, 17 May 2023.

32 Email from Nijat Karimov, ANAMA, 21 May 2021.

33 Email from Mark Buswell, UNDP, 20 March 2023.

34 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 8.

department.<sup>35</sup> MAG had previously been present in Azerbaijan in 2000–02, training deminers, section and team leaders, and personnel from the training department, of RA.

ANAMA is also receiving capacity development support from the European Union (EU), France, United Kingdom (UK), the US Department of State; the International Committee of the Red Cross (ICRC), the UN Children's Fund (UNICEF), the Office of the UN High Commissioner for Refugees (UNHCR), and the Marshall Legacy Institute (MLI).<sup>36</sup> The ICRC provides training for ANAMA site paramedics<sup>37</sup> and conducts EORE and other activities.<sup>38</sup> The Counter Explosive Defence Engagement office of UK Ministry of Defence (MoD) is providing technical support to ANAMA on explosive ordnance disposal (EOD).<sup>39</sup> MLI has been operational in Azerbaijan since 2005, with an MDD partnership programme. It has provided 60 MDDs to ANAMA to date and agreed a new two-year partnership in 2021, funded by Azerbaijan and the private sector in the United States.<sup>40</sup>

In 2022, ANAMA stepped up its operational capacity and established new mobile field camps for deminers in Aghdam, Fuzuli, Jabrayil, Lachin, Shusha, Xodjavand, and Zangilan. It planned a further increase in the number of mobile camps in 2023. In addition, a base camp was set up in Shusha and a training centre in Goygol.<sup>41</sup> ANAMA plans to use these mobile camps to expand mine clearance operations and increase personnel. The mobile container-type camp can be moved to other areas, depending on the location of demining activities.<sup>42</sup>

Turkey reported training Azerbaijan Armed Forces personnel in mine action, mine clearance, and mine detection, and mine/improvised explosive device (IED) awareness, in addition to deploying Turkish military demining teams and machines (see section on Operators and Operational Tools).<sup>43</sup> It is unclear if Turkish personnel are also addressing CMR as part of their operations in Azerbaijan.

## ENVIRONMENTAL POLICIES AND ACTION

Azerbaijan's newly revised, but as at June 2023 yet to be adopted, national standards (ANMAR), cover all demining activities and include a dedicated chapter on Environmental Protection in its national standards.<sup>44</sup>

According to the ANMAR, "it is the intent of the National Mine Action Programme (MAP) of the Republic of Azerbaijan that these requirements shall be complied with to ensure that the environment is not degraded by mine action work and land is returned in a state that is similar to, or where possible better than, before mine action operations commenced, and that permits its intended use." The Environmental Protection chapter includes information on Azerbaijan's mine action environmental management system (EMS); requirements for

mine action organisations; requirements for the identification, assessment, and mitigation of environmental aspects (including waste disposal, water supplies, burning and removal of vegetation, animals, open burning and demolition, environmental aspects of mechanical mine action operations, emergency preparedness, monitoring, cultural and historical sites, and completion and remediation).

The Government of Azerbaijan may also require the conduct of a formal environmental impact assessment (EIA) in relation to large or publicly significant mine action projects, or ones that will take place in areas of known environmental vulnerability.<sup>45</sup>

## GENDER AND DIVERSITY

In 2022, UNDP, with Foreign, Commonwealth & Development Office (FCDO) funding, supported ANAMA in reviewing gender in mine action, and in partnership with ANAMA developed ANAMA's Gender Policy and Strategy documents.<sup>46</sup> UNDP carried out a gender needs assessment, which led to the drafting of a gender policy and strategy. A workshop on gender was organised in March 2023, and as at June 2023, UNDP was shortly to submit a gender strategy.<sup>47</sup> The assessment underlines ANAMA's willingness to advance gender and diversity mainstreaming.<sup>48</sup>

35 Email from Jeanette Dijkstra, Programme Manager, MAG, 16 May 2023.

36 Email from Samir Poladov, ANAMA, 6 June 2022.

37 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 8.

38 ICRC, "Azerbaijan: Activity highlights for 2022", February 2023, at: <https://bit.ly/3PmE07w>.

39 Presentation by Bert Appleton, Head of the Counter Explosive Defence Engagement office of UK MoD, on "Building capacity through Government to Government (G2G) Initiatives", 25 May 2023.

40 Presentation by Marshall Legacy Institute (MLI), International Conference on Humanitarian Mine Action and the Sustainable Development Goals, Baku, 31 March–1 April 2022.

41 Email from Ramil Azizov, ANAMA, 17 May 2023.

42 "Azerbaijan Plans to Clear 40,000 Hectares of Liberated Land from Armenian Landmines", *Caspian News*, 30 January 2022.

43 Statement by Turkey to the 8th International Pledging Conference to the Anti-Personnel Mine Ban Convention (APMBC), 24 March 2023; and Turkey APMBC Article 7 Report (covering 2021), Forms D and I.

44 Emails from Samir Poladov, ANAMA, 6 June 2022.

45 Azerbaijan National Mine Action Requirements (ANMAR), Section IV Management Systems, Chapter 9 Environmental Protection.

46 Email from Ramil Azizov, ANAMA, 17 May 2023.

47 Email from Mark Buswell, UNDP, 20 March 2023.

48 UNDP, "Gender Organisational Assessment of ANAMA", Report, February 2023, p. 4.

The national Code of Labour denounces any type of discrimination in labour relations, including between men and women. It does, however, include so-called "protective measures" which legally prohibit women from being hired into a wide array of jobs. Traditional norms and gender stereotyping also lead to women and men not being equally included in the different organisational levels. UNDP's assessment underlines the fact that concerns over women's reproductive health (for example, regarding pregnancy) are deeply rooted (if well-intended) cultural norms that aim to protect women rather than exclude them, but yet do present barriers to women's participation in the labour force.<sup>49</sup>

In ANAMA, women are mostly concentrated in the headquarters in Baku and cover administrative roles. In ANAMA's headquarters, women constitute 31% of the team, but only 5% of the total employees in ANAMA's suboffices.<sup>50</sup> No or very few women are in operations or in leadership positions. On the other hand, few men are in non-operational roles, for example in human resources (HR) department.<sup>51</sup> Women make up around 8% of ANAMA's total workforce, mainly employed in administrative positions. In 2022, no women were trained in demining in Azerbaijan.<sup>52</sup>

ANAMA has been working to mainstream gender and diversity and increase the proportion of women in its workforce. Through the EU-UNDP funded project, MAG, in partnership with IEPF, will support ANAMA in deploying two fully equipped women-only multi-task teams conducting

clearance, BAC, TS, animal detection systems (ADS), EORE, and NTS in 2023. MAG and IEPF will also establish two gender balanced/mixed teams through the 12-month US State Department Bureau of Political-Military Affairs (PM/WRA) funding. All four teams began training in June 2023. APOPO will develop the MDD capacity of the four teams alongside the team deployment.<sup>53</sup>

According to ANAMA, survey and community liaison personnel are mostly from affected communities and there are no restrictions on the basis of ethnic groups or religious affiliation. Risk education teams create a network of affected communities, which include women and children. The government's reconstruction and rehabilitation programme is aimed at returning internally displaced persons (IDPs), including women and children, and ensuring sustainable development of repatriated communities in a safe environment.<sup>54</sup>

The rapid upscaling of ANAMA's mine action operations taking place provides a valuable opportunity for ANAMA to improve the proportion of women in operational roles and to mainstream gender and diversity throughout its programme. The development of the gender strategy and the goals set to create female operational teams are hoped to translate into improved female participation in the mine action sector, both in terms of inclusion in positions other than administrative ones, and increase the overall number of females in the workforce.

## INFORMATION MANAGEMENT AND REPORTING

Azerbaijan's newly revised national mine action standards include the establishment of a single, unified, information management system, which ANAMA is implementing.<sup>55</sup> As at May 2023, ANAMA was still transitioning to IMSMA Core but had established an Online ArcGIS Portal.<sup>56</sup>

In 2022, UNDP and the GICHD supported ANAMA's information management (IM) efforts, including evaluations and assessment on how to implement IMSMA Core in compliance with International Mine Action Standard (IMAS) 5.0. The following was achieved in 2022: digitisation and standardisation of data collection forms; production of most land release output and quality management (QM) forms, production of multiple dashboards demonstrating different outputs and analysis; data cleaning and migration; and

capacity building of a new IM staff member who joined the programme in 2022.<sup>57</sup> As at May 2023, an IMSMA charter on mine action procedures had been signed by Prime Minister, and ANAMA was subcontracting a local company, rather than the GICHD, to house its IMSMA database.<sup>58</sup>

ANAMA's efforts, including data quality checks and system improvements to improve the quality of data in the mine action database are ongoing.<sup>59</sup> Verification occurs initially at the regional level and then at headquarters. With the significant upscaling of operations and area of responsibilities since 2020, the progress reporting period was reduced from two weeks to one.<sup>60</sup> ANAMA plans to generate daily progress reports once it has migrated to IMSMA Core.<sup>61</sup>

49 Ibid.

50 Ibid., p. 11.

51 Ibid., p. 4.

52 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 11; and interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

53 Emails from Ramil Azizov, ANAMA, 17 May 2023; Jeanette Dijkstra, MAG, 16 May and 3 July 2023; online interview with Greg Crowther, Director of Programmes, MAG, 26 July 2023; and UNDP, "Gender Organisational Assessment of Mine Action Agency of ANAMA", Report, February 2023, p. 11.

54 Email from Samir Poladov, ANAMA, 6 June 2022.

55 Presentation by ANAMA, International Conference on Humanitarian Mine Action and the Sustainable Development Goals, Baku, 31 March–1 April 2022.

56 Email from Ramil Azizov, ANAMA, 17 May 2023.

57 Email from Mark Buswell, UNDP, 20 March 2023.

58 Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

59 Email from Ramil Azizov, ANAMA, 17 May 2023.

60 Emails from Nijat Karimov, ANAMA, 21 May 2021; and Samir Poladov, ANAMA, 6 June 2022.

61 Email from Samir Poladov, ANAMA, 6 June 2022.

All data on clearance operations, including those of the military, are reported centrally to ANAMA.<sup>62</sup>

But despite improvements being made in IM, ANAMA does not yet fully disaggregate survey, clearance, and contamination data related to CMR, from battle area data related to other types of ERW.

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## PLANNING AND TASKING

The existing national mine action strategy was for 2013–18. Its main aims were to continue mine and ERW clearance in support of government development projects and to provide safe conditions for the local population in affected regions.<sup>63</sup> The strategy expired at the end of 2018 and had not been replaced as of writing. As at March 2023, UNDP had developed and submitted to ANAMA a new mine action strategy but ANAMA was said to be working on a second strategy with the government.<sup>64</sup>

According to its January 2023 progress report, ANAMA said that the area cleared of landmines and ERW so far constitutes around 6.9% of the overall high, medium, and low threat areas. The work plan for 2023 foresaw a massive (and highly improbable) 500km<sup>2</sup> of release through clearance, and the draft strategy for the medium term is to further increase clearance capacity to achieve output of 650km<sup>2</sup> annually.<sup>65</sup> This includes all forms of explosive ordnance clearance, as well as visual search of battle areas, which is not clearance. ANAMA foresees that, over the long term, this level of predicted output will not be maintained, once high priority areas have been cleared and only high-density, but low threat/priority, areas remain.<sup>66</sup>

ANAMA successfully coordinates various activities of several state implementing agencies, NGOs, and commercial contractors in order to execute a work plan elaborated with the involvement of relevant stakeholders and approved by

the Government.<sup>67</sup> ANAMA performs NTS of polygons prior to tasking operators on clearance,<sup>68</sup> but this is more akin to task preparation rather than comprehensive NTS. Therefore, most polygons selected and prioritised by the Cabinet of Ministers and tasked by ANAMA to implement have not been subject to rigorous NTS in advance. IEPF is the only organisation tasked by ANAMA to conduct NTS and generate hazardous area polygons, with support from UNDP, but its capacity is limited.<sup>69</sup>

The Cabinet of Ministers, as the highest level executive body in the country, determines which polygons are cleared with priorities are set in accordance with rehabilitation and reconstruction plans in the regained territories.<sup>70</sup> According to ANAMA'S quarterly report on progress from January 2023, in accordance with its policy of ensuring the safe, voluntary, and dignified return of IDPs, the Government of Azerbaijan prioritises the demining of areas of high importance such as main access roads, key infrastructure (highways, railroads, and electricity lines), agriculture, and planned residential areas.<sup>71</sup> Thus, highly contaminated areas do not necessarily equate to areas that are a high priority for clearance. According to ANAMA, much of the former line of contact (LOC) will not be cleared for years, with the exception of areas where construction of roads, railway lines, or power lines and other infrastructure are required.<sup>72</sup>

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## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Azerbaijan has its own NMAS, known as the Azerbaijan National Mine Action Requirements (ANMAR), which were adopted in 2001 and subsequently revised in 2003, 2004, and 2010.<sup>73</sup> In 2021, all chapters of the ANMAR were fully revised in line with IMAS.<sup>74</sup> As at June 2023 the revised standards were still in the process of being formally adopted,<sup>75</sup> but had been provided to all operators.<sup>76</sup> It is extremely important that the revised standards are formally adopted, as the existing standards do not allow for land release through NTS.

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62 Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.

63 Email from Sabina Sarkarova, ANAMA 2 May 2018.

64 Email from Mark Buswell, UNDP, 20 March 2023.

65 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 10.

66 Ibid.; and interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

67 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 9.

68 Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

69 Interview with UNDP, Baku, 24 May 2023.

70 Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023; presentation by ANAMA, International Conference on Humanitarian Mine Action and the Sustainable Development Goals, Baku, 31 March–1 April 2022; and emails from Samir Poladov, ANAMA, 6 June 2022; and Ramil Azizov, ANAMA, 17 May 2023.

71 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, pp. 3, 5, and 8.

72 Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

73 Email from Turat Mammadov, ANAMA, 19 October 2016.

74 Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.

75 Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

76 Email from Samir Poladov, ANAMA, 6 June 2022.

One of the challenges of conducting NTS in the regained territories is that many of the areas are unpopulated and therefore no local communities are present who can be asked about contamination.<sup>77</sup> There are, though, reports that approximately 800km<sup>2</sup> of land not formally cleared is already being used for agriculture. According to ANAMA, all incidents (including involving the military) are plotted in maps, which can serve as evidence points. ANAMA said that the demand for clearance is so high, however, that it is not always possible to conduct TS each time there is an accident involving a munition.<sup>78</sup>

ANAMA takes into account planned land use in its prioritisation and tasking, and all clearance is conducted to three metres depth in the plots where foundations will be laid for construction.<sup>79</sup> In its January 2023 report, ANAMA referenced an Organization for Security and Co-operation in Europe (OSCE) Technical Assessment Visit Report which reportedly implied that in order to speed up the clearance process and reduce the risk to individual deminers, “a mix of mine-resistant heavy plant (bulldozers, backhoe loaders, and similar protected earth moving machinery)” was needed.<sup>80</sup>

At present, only hazard signs and not also fencing are placed at the edge of each polygon, even when explosive ordnance contamination is known to continue beyond the edge of the cleared polygon. ANAMA said it is considering using fencing, in addition to hazard signs, for polygons in which people will be returned and communities established. In addition, at least 50m<sup>2</sup> is cleared from the polygon boundary.<sup>81</sup> Clearance

is not conducted to full fade-out for CMR clearance, so if contamination extends beyond the polygon boundary tasked to the operator, it is not addressed. This risks losing valuable information on the exact location and footprint of cluster munition strikes, by not clearing the full footprint at the time.

ANAMA delivered on its plan to train operators on the revised standards in 2022.<sup>82</sup> The revised draft ANMAR include a chapter on BAC, but not specifically on CMR clearance.<sup>83</sup> A further review of the ANMAR was underway as at May 2023, and the results were expected to be issued in the second half of 2023.<sup>84</sup> Together with ANAMA and UNDP, MAG is supporting the evaluation and revision of 29 mine action standard operating procedures (SOPs) for the revised national standards. As at May 2023, 10 of the 30 SOPs had been updated and ANAMA expected the process to be completed in the next six months.<sup>85</sup> In 2023, ANAMA was planning to organise training sessions on 22 different topics for mine clearance personnel of all agencies.<sup>86</sup> UNDP considers that the revised ANMAR are in line with IMAS and suitable to the context. However, more work is required for implementing NTS and to disaggregate data.<sup>87</sup>

In 2022, ANAMA did not disaggregate cluster munition tasks from other BAC tasks, prior to tasking polygons for clearance. Land release data for 2022 reported by ANAMA was therefore based on the polygons in which submunitions were found,<sup>88</sup> rather than TS and clearance of areas suspected or confirmed to contain CMR.

## OPERATORS AND OPERATIONAL TOOLS

Survey and clearance of CMR is covered in ANAMA's overall training programme, and ANAMA does not have personnel dedicated to CMR operations. ANAMA has undergone a significant restructuring and upscaling following the conflict with Armenia in 2020.<sup>89</sup> According to UNDP, ANAMA had initially planned to train, equip, and deploy an additional 100 deminers per month in order to respond to the surge in need since the end of the 2020 conflict. This monthly upscaling rate, however, could not be sustained and ANAMA has been encouraging the expansion of other operator capacities instead, including a significant commercial base, as well as seeking to strengthen its role as the national mine action centre.<sup>90</sup>

At the end of 2022, ANAMA's operational capacity consisted of 920 deminers, 34 MDDs, and 24 mine clearance machines.<sup>91</sup> The number of deminers has significantly increased in 2022 compared to 2021 where ANAMA operated with 762 deminers, 34 MDDs, and 25 mine clearance machines.<sup>92</sup> In 2023, ANAMA expects that 630 new recruits will join basic humanitarian demining and BAC courses, and 295 staff members will join in-service training at the ANAMA training centre in Goygol.<sup>93</sup>

The Ministry of Defence, the Ministry of Emergency Situations, and the State Border Service also conduct mine action activities. At the end of 2022, the Ministry of Defence

77 Ibid.

78 Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

79 Ibid.; and email from Ramil Azizov, ANAMA, 19 July 2023.

80 ANAMA, Quarterly Report “Mine Action in Azerbaijan: Priorities and Needs”, January 2023, p. 7.

81 Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

82 Email from Ramil Azizov, ANAMA, 17 May 2023.

83 Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022; and email from Samir Poladov, ANAMA, 7 July 2022.

84 Email from Mark Buswell, UNDP, 20 March 2023.

85 Email from Jeanette Dijkstra, MAG, 16 May 2023; and interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

86 Email from Ramil Azizov, ANAMA, 17 May 2023.

87 Email from Mark Buswell, UNDP, 20 March 2023.

88 ANAMA, Quarterly Report “Mine Action in Azerbaijan: Priorities and Needs”, January 2023, p. 12.

89 “Dying To Go Home: Displaced Azerbaijanis Risk Mines, Munitions To See Homeland”, *Radio Free Europe*, 18 February 2021, at: <https://bit.ly/3vgaKh5>; and “Following war, Armenia and Azerbaijan Reckon with Unexploded Ordnance”, *EurasiaNet*, 23 December 2020.

90 Email from Guy Rhodes, Chief Technical Advisor, UNDP, 23 June 2021.

91 ANAMA, Quarterly Report “Mine Action in Azerbaijan: Priorities and Needs”, January 2023, p. 7.

92 Email from Samir Poladov, ANAMA, 7 July 2022.

93 Email from Ramil Azizov, ANAMA, 17 May 2023; and ANAMA, quarterly report “Mine Action in Azerbaijan: Priorities and Needs”, January 2023, p. 8.

had a capacity of 450 deminers, 4 MDDs, and 20 machines. The Ministry of Emergency Situations was operating 50 deminers, 10 MDDs, and 4 machines, while the State Border Service had at its disposal 30 deminers.<sup>94</sup>

ANAMA is responsible for accrediting and monitoring all humanitarian mine action operators, including state actors involved in demining process in Azerbaijan.<sup>95</sup> As at December 2022, there were also four national commercial demining companies, each with an international commercial sub-contractor, to assist with operational planning and help build capacity. These are: Qaya Safety Solutions partnering with Safelane Global; Safe Point partnering with RPS (a Tetra Tech company); Alpha Demining partnering with Altay Group; and Azerbaijan Demining Company partnering with Piper.<sup>96</sup>

The four commercial companies combined had a capacity of 222 deminers, 11 MDDs, and 7 machines. In addition, as at December 2022, two national NGOs were working in mine action.<sup>97</sup> Only one national demining NGO, IEPF was working on mine clearance in 2022.<sup>98</sup> As noted above, IEPF is the only entity conducting NTS for which purpose it is tasked by ANAMA and supported by UNDP.<sup>99</sup>

The national operator, RA, was conducting EORE. All actors are accredited and trained by ANAMA, in accordance with the Decree, and all data are reported and entered into ANAMA's IMSMA database. ANAMA conducts monitoring and external quality assurance (QA) for operators and issues hand-over certificates after QA.<sup>100</sup>

**Table 1: Operational resources for explosive ordnance clearance (at 31 December 2022)<sup>101</sup>**

Operator	Operational staff	MDDs	Machines
ANAMA	920	34	24
Ministry of Defence	450	4	4
Ministry of Emergency Situations	50	10	4
State Border Service	30	0	0
Alpha Demining	63	5	2
Qaya Safety Solutions	46	2	1
Safety Point	79	0	1
Azerbaijan Demining Company	34	4	3
<b>Totals</b>	<b>1,672</b>	<b>59</b>	<b>55</b>

The Turkish Armed Forces are also conducting mine and ERW clearance in Azerbaijan. According to Türkiye, eight military demining teams have been conducting demining operations since December 2020 to support mine clearance.<sup>102</sup> In addition, six demining machines (MEMATT-I) manufactured in Türkiye were sent to Azerbaijan in 2021 and it plans to complete the deployment of 20 demining machines (MEMATT-II) to Azerbaijan in the coming years.<sup>103</sup>

Azerbaijan continued using RAMS in 2022 to identify suspected areas as part of establishing a baseline survey,<sup>104</sup> collecting information on mines and ERW, and other information, such as the location of trenches and military positions.<sup>105</sup> As at May 2023, there were two RAMS teams which can cover approximately 300km<sup>2</sup> per year. ANAMA is

looking to increase RAMS capacity, but the technology is of limited use in areas with thick vegetation.<sup>106</sup>

ANAMA now has a QM division, reporting to the Chairman of ANAMA and QM capacity has been increased by around 300%, reflecting the significant upscaling of clearance operations in the reclaimed territories of Azerbaijan. Previously, quality control (QC) was conducted on 10% of land, but this has been reduced to 5%, while frequent site visits have been maintained.<sup>107</sup> UNDP supported efforts to enhance ANAMA's QM system by conducting a QM evaluation and organising a workshop on QM for ANAMA staff in 2022.<sup>108</sup>

<sup>94</sup> Ibid., p. 7.

<sup>95</sup> ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 7.

<sup>96</sup> Ibid.; and interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.

<sup>97</sup> Email from Ramil Azizov, ANAMA, 17 May 2023; and ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 7.

<sup>98</sup> AZCBL, "Landmines and Unexploded Ordnance Problem in The Liberated Territories of Azerbaijan", p. 6.

<sup>99</sup> Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

<sup>100</sup> Email from Samir Poladov, ANAMA, 7 July 2022.

<sup>101</sup> Email from Ramil Azizov, ANAMA, 17 May 2023; and ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 7.

<sup>102</sup> Statement by Turkey to the 8th International Pledging Conference to the APMBC, 24 March 2023.

<sup>103</sup> Turkey APMBC Article 7 Report (covering 2021), Forms D and I.

<sup>104</sup> Email from Ramil Azizov, ANAMA, 17 May 2023.

<sup>105</sup> Ibid.; and interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.

<sup>106</sup> Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

<sup>107</sup> Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.

<sup>108</sup> Email from Mark Buswell, UNDP, 20 March 2023.

## DEMINER SAFETY

ANAMA has reported that no personnel were injured or killed by CMR as a result of survey or clearance operations in Azerbaijan in 2022.<sup>109</sup>

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

### LAND RELEASE OUTPUTS IN 2022

ANAMA reported a total of 44.1km<sup>2</sup> of area where CMR were found and the land released in 2022, with the destruction of 738 submunitions. Of this total, almost 4.4km<sup>2</sup> (roughly 10%) was said to be reduced through TS and 39.73km<sup>2</sup> through clearance.<sup>110</sup> No cluster munition-contaminated area was cancelled through NTS in 2022.<sup>111</sup> The 44.1km<sup>2</sup> of CMR-contaminated area released in 2022 is a more than fourfold increase from that of 2021 when 10.5km<sup>2</sup> of area was released through survey and clearance combined and 387 submunitions destroyed.<sup>112</sup> The reported total of CMR-contaminated area released in 2022 was little more than 10% of the total 419km<sup>2</sup> of clearance (containing all types of explosive ordnance, including mines and ERW other than CMR) identified and cleared in 2022, during which a total of 27,863 mines and items of ERW were destroyed.<sup>113</sup>

However, the CMR-contaminated area released in 2022 corresponds to the total size of tasks (polygons) in which submunitions were found. Therefore, the size of the actual cluster munition contamination (i.e. the contaminated area resulting from cluster munition strikes) addressed, is far smaller. To avoid inflating CMR clearance output, Mine Action Review has estimated that 5km<sup>2</sup> was clearance of actual cluster munition contamination, including through clearance of lanes during TS.

### SURVEY IN 2022

A total of almost 4.4km<sup>2</sup> of land with CMR was addressed by TS in 2022. All of this land was located in areas previously under the control of Armenia or the de facto Nagorno-Karabakh authorities, and inaccessible to Azerbaijan, until it regained control of the territory in 2020.<sup>114</sup> This TS comprises the lanes through polygons in which CMR were subsequently discovered. In this respect, it represents a form of clearance, and is included in the 5km<sup>2</sup> clearance figure.

No cluster munition-contaminated area was cancelled through NTS in 2022, but according to ANAMA, non-technical and technical surveys conducted in 2022 identified a total of 44.1km<sup>2</sup> of polygons containing submunitions.<sup>115</sup> The 44.1km<sup>2</sup> is believed to be the total size of task polygons found to contain submunitions, therefore significant portions of polygons are likely to contain ERW other than submunitions, and the actual size of the cluster munition-contaminated area is thought to be far smaller than 44.1km<sup>2</sup>. The majority of these areas are believed to have been cleared the same year.

### CLEARANCE IN 2022

ANAMA reported a total of just over 39.73km<sup>2</sup> was released through clearance in 2022, with the destruction of 738 submunitions.<sup>116</sup> But the reported clearance was based on the total size of task polygons in which submunitions were found during land release, as ANAMA does not currently disaggregate cluster munition tasks from other BAC tasks. Therefore, to avoid inflating clearance output, Mine Action Review has estimated that 5km<sup>2</sup> was clearance of actual cluster munition-contaminated area, including the TS lanes mentioned above. See Table 2, for reported 2022 land release of CMR-contaminated area through clearance and TS combined, disaggregated by district and operator.

109 Email from Ramil Azizov, ANAMA, 19 July 2023.

110 Ibid.

111 Email from Ramil Azizov, ANAMA, 17 May 2023.

112 Email from Samir Poladov, ANAMA, 6 June 2022.

113 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, pp. 9 and 10.

114 Email from Ramil Azizov, ANAMA, 17 May 2023.

115 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 9.

116 Email from Ramil Azizov, ANAMA, 19 July 2023.

**Table 2: Reported land release through clearance and TS combined of polygons containing CMR in 2022<sup>117</sup>**

District	Operator	Area cleared (m <sup>2</sup> )	Submunitions destroyed*
Agdam**	ANAMA	5,664,685	117
	SPT	1,719,365	
Fuzuli**	ALD	3,547,401	119
	ANAMA	5,814,492	
Qubadli	ANAMA	813,042	3
Jabrayil**	ADC	2,450,007	338
	ANAMA	13,527,767	
	QSS	494,721	
Khojavend**	ALD	3,443,969	17
	ANAMA	3,757,197	
Shusha**	ANAMA	0	80
	MOD	0	
Tartar		2,867,495	4
<b>Totals</b>		<b>44,100,141</b>	<b>738</b>

\* Figures include items destroyed during technical survey.

\*\* Previously inaccessible territory over which Azerbaijan regained control in 2020.

## PROGRESS TOWARDS COMPLETION

Azerbaijan has yet to join the CCM. It should do as a matter of priority. In May 2019, Azerbaijan had stated that it would only accede to the Convention once all of its territories are liberated from occupation by Armenia and all IDPs and refugees return to their lands.<sup>118</sup>

No target date has been set for the completion of CMR clearance in Azerbaijan, as the extent of remaining CMR contamination is unknown.<sup>119</sup> In order to plan and address CMR contamination effectively, ANAMA must first quantify the problem. NTS is proceeding slowly, as the main focus is on clearing land to enable the return of IDPs to the regained territories. The establishment of an accurate baseline of CMR contamination is, therefore, still a long way off and there is currently no prioritisation of clearance tasks based on the type of contamination (e.g. prioritising CMR clearance, over clearance of other types of ERW). In addition, ANAMA struggles to disaggregate CMR from other types of ERW, in both data on the extent of contamination and data on the amount of land released. This is something that ANAMA will seek to improve as it strengthens its IM system and reporting.<sup>120</sup>

ANAMA is making impressive progress in rapidly scaling up clearance efforts, and the process is nationally led, drawing on international expertise, such as UNDP and MAG, for capacity development. Systems to support the huge upscaling of the mine action programme in Azerbaijan, such as elaboration of a national mine action strategy and of revised national mine action standards, are being put in place. And applying efficient, evidence-based survey and clearance methodology, supported by strong national standards and a good IM and QM system, will be pivotal for the success of demining efforts in Azerbaijan. ANAMA is also seeking to increase demining capacity through establishment of additional national NGOs accredited to conduct demining. ANAMA believes they could play a vital role in managing a residual risk to support safe repatriation of IDPs.<sup>121</sup>

<sup>117</sup> Emails from Ramil Azizov, ANAMA, 17 May and 19 July 2023.

<sup>118</sup> Email from Sabina Sarkarova, ANAMA, 21 May 2019.

<sup>119</sup> Email from Samir Poladov, ANAMA, 6 June 2022.

<sup>120</sup> Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

<sup>121</sup> ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 10.

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION: HEAVY

NATIONAL ESTIMATE

**730**km<sup>2</sup>

SUBMUNITION  
CLEARANCE IN 2022

**30.36**km<sup>2</sup>

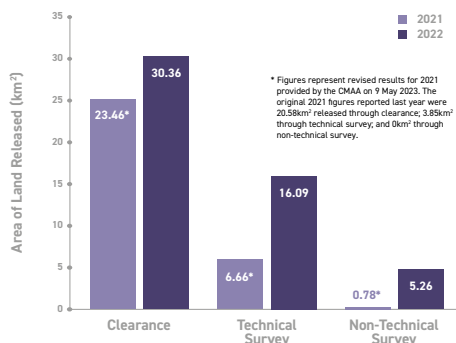
OFFICIAL DATA

SUBMUNITIONS  
DESTROYED IN 2022

**5,254**

(INCLUDING 324 DESTROYED  
IN SPOT TASKS)

### LAND RELEASE OUTPUT



### RECOMMENDATIONS FOR ACTION

- Cambodia should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Cambodia should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- The Cambodia Mine Action and Victim Assistance Authority (CMAA) should work with operators to elaborate a dedicated strategy for CMR survey and clearance, with realistic annual targets for land release and an accompanying resource mobilisation plan.

### CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

#### MANAGEMENT

- Cambodian Mine Action Authority (CMAA)

#### NATIONAL OPERATORS

- Cambodian Mine Action Centre (CMAC)
- Cambodia Self Help Demining (CSHD)

#### INTERNATIONAL OPERATORS

- APOPO
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)

#### OTHER ACTORS

- United Nations Development Programme (UNDP)
- Geneva International Centre for Humanitarian Demining (GICHD)

## UNDERSTANDING OF CMR CONTAMINATION

Cambodia has extensive CMR contamination and is still working to establish an accurate determination of the extent. At the end of 2022, it reported 2,514 hazardous areas in 18 of Cambodia's 25 provinces<sup>1</sup> covering nearly 730km<sup>2</sup> (see Table 1).<sup>2</sup> After years of fluctuating estimates, this represented a 4% rise over the end-2021 estimate.

Cambodia's CMR contamination results from intensive bombing by the United States (US) during the Vietnam War and was concentrated in north-eastern provinces along the borders with the Lao People's Democratic Republic and Vietnam. The US Air Force dropped at least 26 million explosive submunitions, between 1.9 million and 5.8 million of which are estimated to have not exploded on landing.<sup>3</sup> Assessment of the resulting contamination, however, remains a work in progress.<sup>4</sup>

Pinpointing the size of Cambodia's CMR contamination is complicated by the evolution of CMR survey methodologies. Close to 80% of the total CMR contamination data is made up of suspected hazardous areas (SHAs) identified in a baseline survey of explosive ordnance conducted between 2009 and 2020 that used a mine survey methodology ill-suited to CMR hazards. The survey produced inflated polygons that included large amounts of land with no CMR but also missed areas of CMR contamination. From 2015, Cambodia adopted cluster munition remnant survey (CMRS) and cluster munition

technical survey identifying confirmed hazardous areas (CHAs). Continuing survey and resurvey of some Baseline Survey (BLS) polygons applying technical survey (TS) methods is producing more accurate, evidence-based data.<sup>5</sup> CHAs made up 21% of the overall contamination estimate at the end of 2022, compared with 13% two years earlier.<sup>6</sup>

Eight eastern provinces<sup>7</sup> account for 479km<sup>2</sup> or two-thirds of the total estimated area of CMR contamination.<sup>8</sup> Operators have calculated that around one quarter of the polygons in these eight provinces were identified before 2015 and the evidence-based survey now applied by operators is achieving significant cancellation and area reduction.<sup>9</sup> However, in Rattanakiri province, where survey is being conducted by Norwegian People's Aid (NPA) and Mines Advisory Group (MAG), the end-2021 estimate of CMR contamination of 43km<sup>2</sup> was nearly 40% lower than a year earlier but by the end of 2022 had increased again to 72km<sup>2</sup> (see Table 1).<sup>10</sup> The remaining 251km<sup>2</sup> is located in the 10 other provinces located further from Cambodia's borders in the centre, south, and west of the country. The polygons in these areas are believed to be mainly derived from less accurate survey dating back to 2011–12 and are likely to be significantly reduced in size through resurvey, applying updated non-technical survey (NTS), or through dedicated TS.<sup>11</sup>

**Table 1: Cluster munition-contaminated area by province or region (at end 2022)<sup>12</sup>**

Province	CHAs	Area of CHAs (m <sup>2</sup> )	SHAs	Area of SHA (m <sup>2</sup> )	Total area (m <sup>2</sup> )
Battambang	0	0	1	26,872	26,872
Kampong Cham	121	22,478,726	100	21,237,978	43,716,704
Kampong Chhnang	0	0	30	3,231,476	3,231,476
Kampong Speu	0	0	85	12,366,578	12,366,578
Kampong Thom	1	81,860	328	57,207,934	57,289,794
Kampot	0	0	2	103,392	103,392
Kandal	0	0	58	5,494,016	5,494,016
Kratie	95	26,023,657	154	51,197,164	77,220,821
Mondul Kiri	0	0	88	30,065,453	30,065,453
Phnom Penh	0	0	17	1,505,640	1,505,640
Preah Sihanouk	0	0	14	2,984,350	2,984,350
Preah Vihear	0	0	115	178,357,740	178,357,740

1 Including the autonomous municipality of Phnom Penh.

2 Email from Tep Kallyan, Deputy Secretary General, CMAA, 9 May 2023.

3 South East Asia Air Sortie Database, cited in D. McCracken, "National Explosive Remnants of War Study, Cambodia", NPA in collaboration with CMAA, Phnom Penh, March 2006, p. 15; Human Rights Watch, "Cluster Munitions in the Asia-Pacific Region", April 2008; and Handicap International (HI), "Fatal Footprint: The Global Human Impact of Cluster Munitions", HI, Brussels, November 2006, p. 11.

4 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.

5 Email from Portia Stratton, Programme Manager, Norwegian People's Aid (NPA), 19 April 2022, and online interview, 13 May 2022; email from Alexey Kruk, Country Manager, Mines Advisory Group (MAG), 6 May 2022; and online interview with Tony Fernandes, Technical Operations Manager, MAG, 16 May 2022.

6 Emails from Tep Kallyan, CMAA, 9 May 2023; and Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.

7 Kampong Cham, Kratie, Monduliri, Prey Veng, Rattanakiri, Stung Treng, Svay Rieng, and Tbung Khmum.

8 Email from Tep Kallyan, CMAA, 9 May 2023.

9 Email from Portia Stratton, NPA, 19 April 2022.

10 Emails from Tep Kallyan, CMAA, 9 May 2023; and Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.

11 Email from Portia Stratton, NPA, 19 April 2022.

12 Email from Tep Kallyan, CMAA, 9 May 2023.

Prey Veng	123	20,445,657	142	23,485,847	43,931,504
Rattanakiri	240	33,651,881	207	38,464,531	72,116,412
Stung Treng	23	4,871,161	168	121,930,778	126,801,939
Svay Rieng	145	28,926,313	69	15,717,879	44,644,192
Takeo	0	0	9	1,675,366	1,675,366
Tbung Khmum	101	17,942,892	78	10,404,151	28,347,043
<b>Totals</b>	<b>849</b>	<b>154,422,147</b>	<b>1,665</b>	<b>575,457,145</b>	<b>729,879,292</b>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Cambodia has extensive contamination by landmines and explosive remnants of war (ERW) other than CMR. The contamination consists mainly of anti-personnel and anti-vehicle mines estimated to cover 563km<sup>2</sup> at the end of 2022<sup>13</sup> (see Mine Action Review's *Clearing the Mines* report on Cambodia for further information) and extensive unexploded ordnance (UXO) reported in 2022 to amount to 333km<sup>2</sup>.<sup>14</sup>

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The CMAA was established by royal decree in 2000 with the mandate to regulate, monitor, and coordinate the mine action sector in Cambodia. The CMAA has Prime Minister Hun Sen as its President and a government minister, Ly Thuch, as first vice president. Its Secretary General, Ly Panharith, who was appointed in January 2023, manages CMAA's planning and operations.<sup>15</sup> CMAC, which was established in 1992, had previously been responsible for regulating and coordinating the sector in addition to undertaking clearance. Since 2000, CMAC has concentrated on conducting demining, risk education, and training.<sup>16</sup> CMAC, which conducts both humanitarian and commercial survey and clearance, is Cambodia's largest mine action operator.<sup>17</sup>

Since 2004, Cambodia has established Provincial Mine Action Committees (PMACs) and Mine Action Planning Units (MAPUs) in mine- and CMR-affected areas tasked with establishing clearance priorities in consultation with affected communities to ensure that clearance addresses their housing, agricultural, and infrastructure needs.<sup>18</sup> MAPUs meet regularly with all mine action operators to plan annual mine action activities.<sup>19</sup>

The Cambodian government established a Technical Working Group on Mine Action (TWG-MA) as a consultative mechanism facilitating coordination between the government and implementing partners.<sup>20</sup> TWG meetings were suspended in

2020 due to the COVID-19 pandemic<sup>21</sup> but resumed online in 2021 and in-person in 2022.<sup>22</sup> The Mine Action Coordination Committee (MACC) and seven Technical Reference Groups (TRGs) have been established by the CMAA to facilitate coordination and feedback at a strategic and technical level in areas such as survey and clearance, risk education, victim assistance, information management, gender, cluster munitions, and capacity development.<sup>23</sup> A TRG for the survey and clearance of CMR set up by the CMAA in 2020 to share best practice among operators and address challenges did not meet in 2021 due to COVID-19.<sup>24</sup> It resumed meeting in 2022 and agreed to a number of amendments to national standards to expedite and accelerate land release.<sup>25</sup>

The operating environment for mine action in Cambodia is permissive, with the government open to the presence of international operators and supportive in administrative actions such as the granting of visas, approval of Memoranda of Understanding (MoUs), tax exemptions on demining equipment, and facilitating the importation of equipment.<sup>26</sup> The CMAA is open to the trialling and use of innovative survey and clearance methods and tools to improve efficiency.<sup>27</sup>

The CMAA receives technical support from a range of international organisations. The Geneva International Centre for Humanitarian Demining (GICHD) has supported the

13 Email from Tep Kallyan, CMAA, 29 April 2023.

14 Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report (covering 2021), Annex B.

15 CMAA, "Legal framework and mandate", at: <http://bit.ly/2W7r3dJ>.

16 CMAC, "20 Years' Achievement in Mine Action 1998-2018 and Path Ahead", 2018.

17 Interview with Heng Rattana, Director General, CMAC, Phnom Penh, 25 April 2019.

18 Geneva International Centre for Humanitarian Demining (GICHD), "Landmines and Land Rights in Cambodia", December 2010, pp. 9 and 13.

19 Email from Zlatko Vezilic, Programme Manager, NPA, 5 May 2020.

20 CMAA, National Mine Action Strategy 2018-2025, p. 24; and email from Tong Try, National Mine Action Adviser, UNDP, 18 June 2019.

21 Email from Matthew Hovell, Head of Region SE Asia, HALO, 9 April 2021.

22 Emails from HALO, 25 March 2022 and 16 May 2023; phone interview with Portia Stratton, NPA, 13 May 2022.

23 CMAA, National Mine Action Strategy 2018-2025, p. 24; and emails from Tong Try, UNDP, 18 June 2019 and 27 July 2021.

24 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 6 September 2020 and 14 May 2021; and Alexey Kruk, MAG, 6 May 2022; and telephone interview with Portia Stratton, NPA, 13 May 2022.

25 Email from Sron Samrithea, Deputy Programme Manager, NPA, 6 May 2023.

26 Emails from Prum Sophakmonkol, CMAA, 11 September 2019; Rebecca Letven, MAG, 7 April 2020; and Lasha Lomidze, Programme Manager, HALO, 15 May 2020.

27 Emails from Zlatko Vezilic, NPA, 4 April 2019; Rebecca Letven, MAG, 9 May and 28 June 2019; and Damian O'Brien, HALO, 10 April 2019.

upgrade of the CMAA's information management system, gender mainstreaming and the development of Cambodian national mine action standards (CMAS).<sup>28</sup> NPA, with funding from the Norwegian Ministry of Foreign Affairs, provided financial and technical support for the CMAA database unit, including paying the salaries of seven its employees, and it supported the CMAA's quality management (QM) department, providing refresher training and funding one of the CMAA's QM teams.<sup>29</sup>

The Cambodian government contributes funding for management of the mine action sector,<sup>30</sup> which has included covering some of the expenses of the CMAA, and supporting a range of activities including planning and prioritisation, quality assurance/quality control (QA/QC),

information management, Cambodia mine/ERW victim information system (CMVIS), and risk education.<sup>31</sup> The cost of the database unit is, however, shared by NPA and the United Nations Development Programme (UNDP).<sup>32</sup> In 2022 Cambodia also provided financial support to mine and ERW survey and clearance by CMAC and the National Centre for Peacekeeping Forces Management, Mines and Explosive Remnants of War Clearance (NPMEC).<sup>33</sup> Cambodia has estimated it will need almost \$119 million for CMR clearance in 2020–25.<sup>34</sup> The CMAA reported that in 2022 the government supported survey and clearance through expenditure of US\$4.5 million on developing public infrastructure.<sup>35</sup>

## ENVIRONMENTAL POLICIES AND ACTION

The CMAA issued a national Cambodian standard, CMAS 20, on "Environmental Management in Mine Action" in 2022. This requires operators to minimise the adverse impact of their operations on the environment, identify steps necessary to mitigate harm, and ensure that land is left in a suitable condition for its intended use. Operators are required to take account of: erosion or soil degradation; possible pollution of air, water, or soil; and damage to infrastructure, wildlife, and vegetation, while also dealing with litter, debris, and

other waste as well as damage to heritage sites or objects.<sup>36</sup> Operators noted that a workshop held by the GICHD in November 2022 had proposed amendments to the standard,<sup>37</sup> but the CMAA said it did not foresee any changes to the CMAS in 2023.<sup>38</sup> In the meantime, operators already apply their own environmental standing operating procedures (SOPs). MAG rolled out its Global Technical Standards in 2022, including a chapter on environment, which set out an IMAS-compliant, minimum baseline for all programmes to update their SOPs.<sup>39</sup>

## GENDER AND DIVERSITY

The CMAA established a Gender Mainstreaming Team (GMT) in 2019 to coordinate with the Technical Reference Group on Gender (TRG-G), one of seven TRGs ensuring coordination of the sector. The TRG-G is composed of representatives from UNDP, Ministry of Women's Affairs (MoWA), Ministry of Social Affairs, Veterans and Youth Rehabilitation (MoSVY), MAPU, operators, and international and national organisations working in mine risk education (MRE) and victim assistance (VA).<sup>40</sup>

The CMAA is implementing a Gender Mainstreaming in Mine Action Plan (GMMAP) in line with the objectives of the National Mine Action Strategy 2018–2025. Two earlier GMMAPs covered the periods 2013–15 and 2018–22. The latest version, covering the years 2021–25, was approved at the end of 2021 and launched by CMAA First Vice-President Ly Thuch at a workshop in March 2022.<sup>41</sup> It sets out three strategies building on the earlier plans:

developing implementation of GMMAP guidelines through monitoring and evaluation of the performance of MAPUs and operators; building capacity of CMAA gender teams, MAPUs, and operators, and collecting data on the mine action needs of women; promoting inclusive participation in mine action, including through collecting sex, age and disability disaggregated data (SADDD); developing a CMAS on gender mainstreaming; and advocating for more women in decision-making positions.<sup>42</sup>

The CMAA followed up in 2022 by drafting revised gender mainstreaming guidelines to promote equal and inclusive participation of women, men, girls, boys, and persons with disabilities and by drafting a national standard gender mainstreaming with support from GICHD, UNDP and NPA. It conducted a workshop on GMMAP for mine action stakeholders and organised two courses conducted by the GICHD for CMAA staff and for MAPUs and operators

28 Email from GICHD, 1 July 2020.

29 Email from Sron Samrithea, NPA, 6 May 2023.

30 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 12.

31 Email from Prum Sophakmonkol, CMAA, 1 July 2020.

32 Emails from Rune Dale-Andresen, Country Director, NPA, 26 September 2020; and Portia Stratton, NPA, 21 June 2021.

33 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.

34 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 55.

35 Email from Tep Kallyan, CMAA, 9 May 2023.

36 Ibid.; and CMAS 20.

37 Emails from Tony Fernandes, MAG, 31 March 2023; Miles Hawthorn, HALO, 16 May 2023; and Sron Rithea, NPA, 6 May 2023.

38 Email from Tep Kallyan, CMAA, 9 May 2023.

39 Email from Tony Fernandes, MAG, 31 March 2023.

40 CMAA, National Mine Action Strategy 2018–2025, p. 22; and email from Tong Try, UNDP, 27 July 2021.

41 Voun Dara, "CMAA lauds female deminers," *Phnom Penh Post*, 10 March 2022.

42 Gender Mainstreaming in Mine Action Plan 2021–25, December 2021, pp. 6–7.

in August 2022.<sup>43</sup> The CMAA also convened a Technical Reference Group meeting on gender mainstreaming with participation by operators and MAPUs. With support from UNDP and NPA the CMAA made a video, "Women are the catalyst for success in Mine Action in Cambodia", which was based on a number of case studies and released in December 2022.<sup>44</sup>

Women represented a little over a quarter of the CMAA's 157 employees at the end of 2022, up from 20% a year earlier, and made up 18 of the CMAA's 75 management staff (19%) as well as 20 of the 25 office staff (44%). But women occupied only 4 of the 57 field staff (6%) working on QM and VA. MAPUs also employed a low number of women (10 of 83 posts: 11%).

Among operators, The Halo Trust (HALO) employed the most female deminers, who comprised more than 440 of its roughly 1,000 operations staff.<sup>45</sup> HALO said it aims to maintain a 50:50 balance among its operations staff and in 2023 aimed to increase the number of women in managerial positions. CMAC, Cambodia's biggest operator, employed 204 women of a total of 1,276 deminers and explosive ordnance disposal (EOD) staff (16%) while women accounted for 5% of its management and 20% of office staff. MAG introduced a gender and inclusion action plan for 2023-2028 and at the end of 2022 female staff represented 38% of MAG's total employees, including over half (57%) of office management and one-third of the senior management in technical and field roles.<sup>46</sup> NPA reported women made up about half of its total staff (including management) and 28 of 52 field jobs (54%), but it acknowledged a lower proportion of female staff in senior technical positions.<sup>47</sup> The Royal Cambodian Armed Forces (RCAF) and NPMEC did not employ any women deminers.<sup>48</sup>

## INFORMATION MANAGEMENT AND REPORTING

The CMAA's database unit (DBU) is responsible for collecting, storing, analysing, and disseminating data in support of planning and prioritisation.<sup>49</sup> The DBU previously used the Information Management System for Mine Action New Generation (IMSMA-NG) but in 2022 continued the installation and migration of data to IMSMA Core,<sup>50</sup> a process that was expected to be completed in 2023. Explosive ordnance risk education (EORE) and EOD reports were reportedly uploaded to IMSMA Core in 2022 but operators said land release reports were still submitted in IMSMA NG.<sup>51</sup> The DBU receives financial and technical support from Norway through NPA, which pays the salaries of seven of the DBU staff.<sup>52</sup>

The CMAA convenes meetings of its Technical Reference Group on information management discussing issues and solutions for data reporting and sharing. These were conducted online in 2021 in accordance with COVID-19 regulations but in 2022 CMAA organised an in-person meeting which agreed on action to improve data quality. This included CMAA distributing a data verification check list and arranging a quarterly call with operators to verify data and resolve any issues.<sup>53</sup> Operators said the need for QM team field visits and checks resulted in delays uploading results to the database.<sup>54</sup>

## PLANNING AND TASKING

Cambodia's National Mine Action Strategy 2018–2025, officially launched in May 2018, sets out eight goals for the mine action sector, including clearance of mines, CMR, and other ERW. The second of these goals calls for release of prioritised cluster munition-contaminated areas by 2025. The strategy set a target of releasing 80% of known CMR contamination or 499km<sup>2</sup> by 2025.<sup>55</sup> The strategy expressed confidence that 30% of estimated CMR contamination would be released through land reclamation and cancellation. The strategy concluded that the remaining 70% of contamination would require TS and full clearance, calling for release of 44km<sup>2</sup> a year by these means to achieve the strategy's targets.<sup>56</sup>

43 Email from Tep Kallyan, CMAA, 9 May 2023; and UNDP Clearing for Results Phase IV (CfRIV), Annual Project Progress Report 2022, p. 16.

44 Ibid.

45 HALO reported it employed 450 women deminers among 939 operations staff (48%). Email from Miles Hawthorn, HALO, 16 May 2023. SADD statistics reported by UNDP CfRIV showed HALO had 441 female deminers among 1,029 field staff (43%); UNDP CfRIV, Annual Project Progress Report 2022, p. 15.

46 Emails from Tony Fernandes, MAG, 31 March 2023 and Alexey Kruk, MAG, 20 June 2023.

47 Emails from Sron Samrithea, NPA, 6 May 2023; and Rune Dale-Andresen, NPA, 2 July 2023. SADD data showed NPA employed 17 women among 32 office staff (52%) and women held 22 of 47 deminer/EOD positions (47%). UNDP CfRIV, Annual Project Progress Report 2022, p. 15.

48 UNDP CfRIV, Annual Project Progress Report 2022, p. 16.

49 Email from Ros Sopha, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.

50 Email from Tep Kallyan, CMAA, 9 May 2023.

51 Email from Miles Hawthorn, HALO, 16 May 2023.

52 Email from Sron Samrithea, NPA, 6 May 2023.

53 Email from Tep Kallyan, CMAA, 9 May 2023.

54 Email from Tony Fernandes, MAG, 31 March 2023.

55 CMAA, National Mine Action Strategy 2018–2025, p. 9.

56 Ibid., p. 10.

The CMAA compiles the annual national clearance work plan for mines and CMR, which comprises all the provincial clearance work plans. The MAPUs use the provincial work plan to monitor clearance performance and report progress to the PMAC and the CMAA.<sup>57</sup> The current planning and prioritisation practices in Cambodia follow a combination of top-down and bottom-up approaches. The top-down approach involves CMAA establishing a list of priority villages based on agreed criteria. The bottom-up approach involves MAPUs developing their work plans in accordance with the planning and prioritisation guidelines and in consultation with operators and local authorities.<sup>58</sup> The PMACs approve the MAPU's workplans, which are then endorsed by the CMAA.

The prioritisation process for the selection of CMR tasks is not as well established as is the process for releasing mined areas, largely due to the absence of comprehensive, verifiable CMR data.<sup>59</sup> The end use for most clearance tasks is agriculture and often the land is already being cultivated regardless of CMR contamination. This makes it difficult to produce clear prioritisation criteria, so the survey and the clearance plan is based on village-by-village, commune-by-commune, and district-by-district approaches.<sup>60</sup>

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## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

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Mine action is conducted according to the Cambodian standards (CMAS), which are broadly consistent with the International Mine Action Standards (IMAS).<sup>61</sup> The CMAA approved the CMRS methodology in principle in 2017 and signed a national mine action standard for CMRS (CMAS 16) in November 2018, which is being implemented by operators.<sup>62</sup> CMAS 16 is largely based on the experience of other programmes in the region implementing the CMRS method, which combines NTS and TS.<sup>63</sup> However, the CMAA and operators continued to debate criteria for releasing areas of BLS polygons not confirmed as hazardous by TS so as to accelerate land release.<sup>64</sup>

A Technical Reference Group meeting attended by all operators in Kratie province in August 2022 agreed that areas of BLS polygons may be cancelled after clearance of CHAs and after TS has found no further direct or indirect evidence of contamination. The meeting also agreed to adopt the use of a full BLU submunition as the target for calibrating detectors instead of the half submunition previously used. The changes to operating practice were approved by the CMAA Secretary General with effect from October 2022 although CMAS 16 had yet to be formally amended at the time of writing.<sup>65</sup>

Since 2019, the CMAA, with support from NPA with United Kingdom Foreign, Commonwealth & Development Office (FCDO) funding and in consultation with other mine clearance operators, has been developing a number of new standards on animal detection, mechanical demining, information management, and the environment.<sup>66</sup> CMAS chapters on mechanical clearance and on animal detection systems were finalised by the middle of 2022 and awaiting approval by the CMAA. In addition, the CMAS on EORE has also been revised and updated to bring it in line with IMAS.<sup>67</sup>

### OPERATORS AND OPERATIONAL TOOLS

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Survey and clearance of CMR in 2022 was conducted by two national operators CMAC and CSHD, and three international operators, APOPO, MAG, and NPA.

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57 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 5.

58 Ibid.; and interview with Prum Sophakmonkol, CMAA, Geneva, 11 February 2020.

59 Emails from Rebecca Letven, MAG, 7 April and 4 September 2020.

60 Email from Zlatko Vezilic, NPA, 4 April 2019.

61 Emails from Rebecca Letven, MAG, 7 April 2020; and Zlatko Vezilic, NPA, 19 March 2020.

62 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 6 September 2020; and Portia Stratton, NPA, 4 September 2020.

63 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.

64 Online interview with Tony Fernandes, MAG, 16 May 2022; and email from Sron Samrithea, NPA, 5 July 2022.

65 Emails from Tony Fernandes, MAG, 31 March 2023; and from Sron Samrithea, NPA, 6 May 2023.

66 Emails from Zlatko Vezilic, NPA, 5 May 2020; and Lasha Lomidze, HALO, 15 May 2020.

67 Emails from Sron Samrithea, NPA, 5 and 11 July 2022.

Table 2: Operational clearance capacities deployed in 2022<sup>68</sup>

Operator	Manual clearance teams	Total deminers*	Animal detection capacity (dogs and handlers)	Mechanical assets/machines**	Comments
APOPO (in partnership with MAG)	1	4	APOPO, in partnership with MAG, had 1 technical survey dog (TSD) team with 5 dogs and 5 handlers using Garmin trackers for CMTS in Rattanakiri province.	0	
CMAC <sup>69</sup>	4 BAT; 4 BAC-TS; 5 BAC-FC; and 4 BAC-MTT	140	2 teams, totalling 4 explosive detection dogs (EDDs), 4 handlers	N/A	
CSHD	1	12	0	0	
MAG Cambodia	10 BAC teams	85	0	4 drones	MAG also deployed 3 CMTS teams with 30 staff who do not release land. Drones are used for mapping.
NPA <sup>70</sup>	1	8	3 teams totalling 6 dogs and 6 dog handlers		NPA deployed 2 Multi-Tasking Teams (MTTs) trained for CMTS, BAC, and EOD. One team mostly deployed on CMTS, the other mostly on BAC. Both teams can do EOD call-out as requested by MAPU.
<b>Totals</b>		<b>249</b>	<b>15 dogs</b>		

\* Excluding team leaders, medics, drivers. \*\* Excluding vegetation cutters and sifters.  
EOD = Explosive ordnance disposal

APOPO employed technical survey dogs (TSDs) working on a long leash and focused exclusively on survey in 2022.<sup>71</sup> The dogs carry the Garmin track-and-trace system, which allows remote monitoring and generates IMSMA-compatible data.<sup>72</sup> APOPO tested the system working with CMAC in Preah Vihear province in 2021 and in 2022 worked with MAG deploying a TSD team with five dogs and five handlers in Rattanakiri province.<sup>73</sup>

CMAC, much the biggest operator, worked in 2021 with 153 operators said to be split between 17 teams conducting TS and clearance and supported by two explosive detection dogs (EDDs).<sup>74</sup> CMAC's release of CMR-affected land sharply increased in 2022 (see *Land Release Outputs* below) but it did not provide any information on capacity deployed in 2022.

MAG has operations in western Cambodia focused on minefield survey and clearance and an operations base in Ratanak Kiri province concentrating on CMR survey and clearance. In 2022, MAG's 10 battle area clearance (BAC)

teams included two teams working with the Scorpion detection system which uses DGPS as a global positioning platform and advanced detection software on a manually pushed detection platform. It also had one team conducting a field evaluation of VMX10 detectors for the US Humanitarian Demining Research and Development programme.<sup>75</sup> MAG uses Evidence Point Polygon (EPP) mapping pioneered in the Lao People's Democratic Republic which takes the data from EOD tasks to plot initial CHAs. MAG also continues to use drones to conduct NTS, task planning, and post-impact monitoring.<sup>76</sup>

NPA reduced its CMR clearance capacity from three teams with 15 deminers in 2021 to two teams with a total of eight deminers in 2022 who worked alongside three EDD teams employing a total of six handlers and six dogs. NPA looked forward to receiving funding to support a significant increase in capacity in 2023.<sup>77</sup>

68 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022; Michael Raine, Programme Manager, APOPO, 24 and 30 May 2023; Thoeun Theap, Deputy Programme Manager, APOPO, 30 May 2023; Tony Fernandes, MAG, 31 March 2023; and Sron Samrithea, NPA, 6 May 2023.

69 Email from Sron Samrithea, NPA, 15 June 2023.

70 Email from Rune Dale-Andresen, NPA, 2 July 2023.

71 Interview with Michael Raine, APOPO, in Siem Reap, 6 December 2022.

72 GICHD, "Field Trials of the SMART System and Technical Survey Dogs in Cambodia, Final Report", December 2021, pp. 6–7.

73 Emails from Michael Raine, APOPO, 24 and 30 May 2023; and Thoeun Theap, APOPO, 30 May 2023.

74 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.

75 Email from Tony Fernandes, MAG, 31 March 2023.

76 Emails from Rebecca Letven, MAG, 9 May 2019 and 4 September 2020; and Alexey Kruk, MAG, 29 March 2021.

77 Emails from Sron Samrithea, NPA, 6 May 2023; and Rune Dale-Andresen, NPA, 2 July 2023.

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2022

Cambodia said it released a total of almost 51.68km<sup>2</sup> of cluster munition-contaminated area through survey and clearance in 2022, a sharp increase on operating results in 2021 which the CMAA attributed primarily to operating without COVID-19 constraints.<sup>78</sup> Official data may understate the actual amount of land released in 2022. The CMAA initially recorded release of 24.43km<sup>2</sup> in 2021<sup>79</sup> but later revised the figure upwards to 30.9km<sup>2</sup>.<sup>80</sup> However, the amount of land released in both years was still well below the nearly 59km<sup>2</sup> released in 2020.

Most land release resulted from clearance, which topped 30km<sup>2</sup> in 2022 (see Table 5) and led to destruction of 4,930 submunitions, improving on the 4,268 items destroyed through clearance in 2021. The number of items destroyed in the course of EOD spot tasks, however, dropped from 2,375 in 2021 to just 324 in 2022.<sup>81</sup>

## SURVEY IN 2022

Cambodia released a total of 21.35km<sup>2</sup> through survey in 2022,<sup>82</sup> also a significant increase on the previous year's results for 2021 despite another upward revision of the 2021 data. The CMAA initially reported that no cancellation occurred in 2021 and 3.85km<sup>2</sup> was reduced through TS.<sup>83</sup> It subsequently reported cancellation through NTS of 0.78km<sup>2</sup> and reduction through TS of 6.66km<sup>2</sup>.<sup>84</sup>

In 2022, the CMAA reported cancellation by NPA amounting to 5.26km<sup>2</sup> (see Table 3), more than five times the area cancelled in 2021. However, MAG also reported cancelling 125,632m<sup>2</sup>, suggesting cancellation totalled 5.38km<sup>2</sup>.<sup>85</sup>

Table 3: Cancellation through NTS in 2022<sup>86</sup>

Operator	Province	Area cancelled through NTS (m <sup>2</sup> )
NPA	Rattanakiri	5,257,533
Total		5,257,533

Similar discrepancies occur in reporting on the results of TS in 2022. Official data reports CMAC, working in eight provinces, reduced almost 10km<sup>2</sup> and NPA reduced 3.6km<sup>2</sup>, giving a total figure for release through TS of 13.64km<sup>2</sup> (see Table 4).<sup>87</sup>

Table 4: Reduction through TS in 2022<sup>88</sup>

Operator	Province	Area (m <sup>2</sup> )
CMAC <sup>89</sup>	Kampong Cham, Kampong Thom, Kratie, Mondulakiri, Prey Veng, Rattanakiri, Stung Treng, and Svay Rieng	9,978,683
NPA	Rattanakiri	6,116,156
Totals		16,094,839

Official data makes no mention of area reduction by MAG, which reported releasing 5,974,365m<sup>2</sup> through TS in 2022.<sup>90</sup> NPA recorded reduction amounting to 6,116,156m<sup>2</sup> in 2022 and reported area reduction through TS by CMAC amounting to 10,638,889m<sup>2</sup>.<sup>91</sup> The results reported by the three operators suggest a total of more than 22km<sup>2</sup> may have been reduced through TS in 2022, 61% more than in the official data.

## CLEARANCE IN 2022

Clearance data shows similar but much smaller discrepancies between official and operator results. The CMAA reported clearance of 30.36km<sup>2</sup> in 2022 led by CMAC which almost doubled its clearance from 12.7km<sup>2</sup> in 2021 to 24.1km<sup>2</sup> in 2022 (see Table 5).<sup>92</sup> CMAC reported clearing 24.25km<sup>2</sup>,<sup>93</sup> MAG reported clearing 5.57km<sup>2</sup> in 2022,<sup>94</sup> and NPA recorded clearing 917,393m<sup>2</sup>.<sup>95</sup>

78 Emails from Tep Kallyan, CMAA, 9 May 2023; and Ros Sophal, CMAA, 18 June 2023.  
79 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.  
80 Email from Tep Kallyan, CMAA, 9 May 2023.  
81 Ibid.  
82 Emails from Tep Kallyan, CMAA, 9 May 2023; and Ros Sophal, CMAA 18 June 2023.  
83 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.  
84 Email from Tep Kallyan, CMAA, 9 May 2023.  
85 Emails from Tony Fernandes, MAG, 31 March 2023; and Sron Samrithea, NPA, 6 May 2023.  
86 Emails from Tep Kallyan, CMAA, 9 May 2023; and Ros Sophal, CMAA, 18 June 2023.  
87 Ibid.  
88 Emails from Tep Kallyan, CMAA, 9 May 2023; and Ros Sophal, CMAA, 18 June 2023.  
89 NPA, which quality assures CMAC's CMR operations, recorded reduction by CMAC of 10,638,889m<sup>2</sup>. Email from Sron Samrithea, NPA, 15 June 2023.  
90 Email from Tony Fernandes, MAG, 31 March 2023.  
91 Emails from Sron Samrithea, NPA, 6 and 15 May 2023.  
92 Email from Tep Kallyan, CMAA, 9 May 2023.  
93 Email from Sron Samrithea, NPA, 15 May 2023.  
94 Email from Tony Fernandes, MAG, 31 March 2023.  
95 Email from Sron Samrithea, NPA, 6 May 2023.

Table 5: CMR clearance in 2022<sup>96</sup>

Operator	Province	Area cleared (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed
CMAC <sup>97</sup>	Kampong Cham, Kampong Chhnang, Kampong Thom, Kratie, Mondulakiri, Preah Vihear, Prey Veng, Rattanakiri, Stung Treng, Svay Rieng, Tboung Khmum	24,130,169	4,187	866
MAG <sup>98</sup>	Rattanakiri	5,278,562	584	13
NPA	Rattanakiri	917,393	159	41
Spot tasks		N/A	324	
<b>Totals</b>		<b>30,326,124</b>	<b>5,254</b>	<b>920</b>

## PROGRESS TOWARDS COMPLETION

Cambodia's mine action priority is to complete clearance of anti-personnel mines by 2025 but the National Mine Action Strategy 2018–2025 also set a target of releasing 80% of its known CMR contamination by 2025. The remaining 20% would be considered as residual. At the time it estimated CMR contamination at 645km<sup>2</sup> and aimed to release 499km<sup>2</sup> by 2025. Cambodia is not on track to achieve that goal.

Cambodia believed 30% could be released through cancellation or land reclamation and called for release of 44km<sup>2</sup> a year through TS or clearance in order to release the rest. Operations since 2018 have not achieved that annual

land release target. In the five years from 2018 Cambodia released a total of around 190km<sup>2</sup> through TS and clearance instead of the required 220km<sup>2</sup>. In the meantime, estimates of contamination have fluctuated with the progress of survey, dipping from 744km<sup>2</sup> at the end of 2020 to 698km<sup>2</sup> a year later before rising to 729km<sup>2</sup> at a little under the end of 2022. An agreement reached by CMAA and operators in August 2022 that areas of BLS polygons may be cancelled after clearance of CHAs and after TS has found no further direct or indirect evidence of contamination<sup>99</sup> is expected to expedite and accelerate land release going forward.

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Goal Seven of Cambodia's National Mine Action Strategy 2018–2025 is to establish a sustainable national capacity to address residual threats after 2025. Reference to the issue is also included in the foreword to the Strategy signed by the Cambodian Prime Minister and noted throughout the document. The CMAA worked with the GICHD in 2022 drafting a paper on the legal and institutional framework required for a comprehensive response to residual contamination identified after completion.<sup>100</sup>

Table 6: Five-year summary of CMR clearance

Year	Area cleared (m <sup>2</sup> )
2022	30.36
2021	*23.46
2020	30.99
2019	25.33
2018	39.60
<b>Total</b>	<b>149.64</b>

\* Previously reported as 20.58km<sup>2</sup>, but subsequently revised by the CMAA on 9 May 2023.

<sup>96</sup> Email from Tep Kallyan, CMAA, 9 May 2023.

<sup>97</sup> NPA recorded clearance by CMAC of 24,245,895m<sup>2</sup>. Email from Sron Samrithea, NPA, 15 June 2023.

<sup>98</sup> MAG reported clearance of 5,570,030m<sup>2</sup> of CMR-affected land in 2022. Email from Tony Fernandes, MAG, 31 March 2023.

<sup>99</sup> Emails from Tony Fernandes, MAG, 31 March 2023; and Sron Samrithea, NPA, 6 May 2023.

<sup>100</sup> UNDP CfRIV, Annual Project Progress Report 2022, p. 18.

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION:

NOT REPORTED

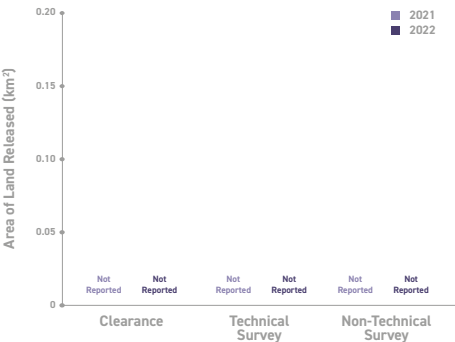
SUBMUNITION  
CLEARANCE IN 2022

NOT REPORTED

SUBMUNITIONS  
DESTROYED IN 2022

13

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

Available data on contamination and land release of cluster munition-affected areas in Iran continue to be extremely limited. There is some evidence to suggest that several submunitions were found in 2022 during commercial clearance operations.

## RECOMMENDATIONS FOR ACTION

- Iran should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Iran should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- Iran should report publicly on the extent and location of CMR and prepare a plan for their clearance and destruction.

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Iran Mine Action Centre (IRMAC)

### NATIONAL OPERATORS\*

- IRMAC
- Iranian Army
- Iranian Revolutionary Guard Corps
- Commercial operators

### INTERNATIONAL OPERATORS

- None

### OTHER ACTORS

- International Committee of the Red Cross (ICRC)

\* This is based on information from earlier years. It is not known if the information remains accurate.

## UNDERSTANDING OF CMR CONTAMINATION

The areas of Iran most significantly affected by weapons contamination, including mines and explosive remnants of war (ERW), are believed to be in the five western provinces of West Azerbaijan, Ilam, Kurdistan, Kermanshah, and Khuzestan.<sup>1</sup> However, the extent of cluster munition remnant (CMR) contamination in Iran is not known.

Some contamination is believed to remain from the Iran-Iraq war in 1980–88,<sup>2</sup> when cluster munitions were widely used in Khuzestan and to a lesser extent in Kermanshah. Iraqi forces are believed to have air-dropped cluster bombs in 1984 against Iranian troops.<sup>3</sup> They used mostly French- and Russian-made cluster munitions in attacks on oil facilities at Abadan and Mah-Shahr, and Spanish-made cluster munitions in attacks on troop positions at Dasht-e-Azadegan. Iraq also reportedly used Ababil-50 surface-to-surface cluster munition rockets during the later stages of the 1980–88 war.<sup>4</sup> A United States (US) Navy aircraft used 18 Mk-20 Rockeye bombs in attacks on Iranian Revolutionary Guard speedboats and an Iranian Navy ship on 18 April 1988.<sup>5</sup>

Air Force explosive ordnance disposal (EOD) teams cleared many unexploded submunitions after attacks but, as at 2014, contamination remained around Mah-Shahr and the port of Bandar Imam Khomeini, according to a retired Iranian Air Force colonel.<sup>6</sup> Commercial operator, SafeLane Global, was operational in Iran in 2009 when it was called BACTEC.<sup>7</sup> SafeLane Global noted on its website that cluster munitions used against oil facilities during the Iran-Iraq conflict left an ERW threat stating that: “while the Iranian government and its partners have made good progress, cluster munition contamination is still considered a possibility in some areas”.<sup>8</sup>

The extent to which Iran is undertaking or planning survey to establish a baseline of CMR contamination is not known. It is also not known to what extent Iran disaggregates areas identified as contaminated by weapon type, for example unexploded submunitions from other ERW.

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Iran also has areas containing anti-personnel mines (see Mine Action Review’s *Clearing the Mines* report on Iran for further information).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Iran Mine Action Centre (IRMAC) was established as the national mine action centre in 2005, taking the place of a mine action committee within the Ministry of Defence. In 2014, IRMAC reported that it was responsible for planning, data, managing survey, procurement, and the accreditation of demining operators. It was also tasked with setting standards, providing training for clearance operators, concluding contracts with demining operators, and ensuring quality assurance (QA) and quality control (QC) of their operations. IRMAC also coordinated mine action with the General Staff of the Armed Forces, the Ministry of Interior, the Management and Planning Organisation of Iran, and other relevant ministries and organisations, while also managing international relations.<sup>9</sup> At the time of writing, Mine Action Review had not been able to establish if this description of IRMAC’s role and responsibilities remained up to date.

The amount of national resources Iran contributes to support the cost of IRMAC or the survey and clearance of CMR-contaminated areas is not known. However, Iran is believed to have dedicated significant resources and effort to clearing areas on its territory contaminated by other ERW and mines.<sup>10</sup> The results of survey and clearance have not been made publicly available.

As part of an ongoing mine action programme in Iran, which also includes victim assistance and mine risk education (MRE), the International Committee of the Red Cross (ICRC) reports that it has undertaken some technical training of mine action actors in co-operation with IRMAC, though no dates for this are given.<sup>11</sup> In 2020, the ICRC reported that it had signed a mine action partnership memorandum of understanding (MoU), with IRMAC, which included support to Iran for safe humanitarian demining.<sup>12</sup> Land release of cluster munition-contaminated areas was not specifically mentioned.

1 International Committee of the Red Cross (ICRC), “Weapon Contamination”, accessed 9 February 2023 at: <https://bit.ly/30TC55t>.

2 Statement by Gholamhossein Dehghani, Ministry of Foreign Affairs of Iran, Convention on Cluster Munitions (CCM), Second Meeting of States Parties, Beirut, 13 September 2011.

3 Landmine and Cluster Munition Monitor, “Iran Cluster Munition Ban Policy”, 4 September 2020, at: <http://bit.ly/3uRJDQ>.

4 Landmine and Cluster Munition Monitor, “Special Five-Year Review. Cluster Munition Monitor 2015”, accessed 24 May 2023, at: <https://bit.ly/43r2c7Z>, p. 35.

5 Ibid., p. 34.

6 Interview with Air Force Colonel (ret.) Ali Alizadeh, Tehran, 8 February 2014.

7 Email from Åsa Gilbert, Business Development Manager, SafeLane Global, 19 July 2023.

8 SafeLane Global, “Iran”, accessed 13 February 2023 at: <https://bit.ly/3MJFAC6>.

9 IRMAC PowerPoint Presentation, Tehran, 9 February 2014; and IRMAC, “Presentation of IRMAC”.

10 ICRC, “Experts from over 15 nations attend round-table on humanitarian mine action”, Press release, 15 March 2019, at: <https://bit.ly/3N7Ca4e>; and ICRC, “Weapon Contamination”.

11 ICRC, “Weapon Contamination”.

12 F. Arabpour (Weapon Contamination Coordinator, ICRC delegation in Tehran), “ICRC Mine Action activities in the I.R. of Iran”, Presentation to the 23rd International Meeting of National Mine Action Program Directors and United Nations Advisors, Geneva, 11–14 February 2020, at: <https://bit.ly/43EjVZD>

In November 2019, Iran opened its first international humanitarian demining training centre in Tehran, with the aim of offering training courses related to humanitarian demining to other countries in the region struggling with landmine contamination.<sup>13</sup>

In late 2022, an MoU for the development of mutual co-operation in mine action was signed between the national mine action centres of Iran and Armenia, following a visit to IRMAC from the Director of the Armenian Center for Humanitarian Demining and Expertise (CHDE).<sup>14</sup> It has been reported that demining will begin in the near future at the Armenia-Iran border, on the Armenian side, for the development of a market.<sup>15</sup>

## ENVIRONMENTAL POLICIES AND ACTION

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It is not known whether Iran has a national mine action standard (NMAS) on environmental management and/or a policy on environmental management. It is also not known how, if at all, the environment is taken into consideration during planning and tasking of survey and clearance of CMR in order to minimise potential harm from clearance. It has been reported, however, that Iran's Ministry for the Environment does impose some relevant regulations around environmental practices in mine action.<sup>16</sup>

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## GENDER AND DIVERSITY

The extent to which gender and diversity are mainstreamed into mine action in Iran is not known.

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## INFORMATION MANAGEMENT AND REPORTING

It is not known to what extent IRMAC is able to disaggregate CMR contamination and clearance output from that of other explosive ordnance. It has been reported that IRMAC's database is comprehensive and accurate and that operators provide regular activity reports to IRMAC on both humanitarian and commercial mine action projects.<sup>17</sup> However, Mine Action Review has not been able to obtain further information on this from IRMAC.

In 2020, IRMAC reported that it has a geographic information system (GIS), web-based, integrated information management system, which integrates information on quality, safety, and the environment.<sup>18</sup> In 2022, IRMAC launched an application for smartphones, which is reported to contain all data from historical and current clearance operations and intended to provide mine action organisations with a comprehensive view of contaminated and cleared areas identified by IRMAC. The application is also said to contain information about explosive accidents and is updated on a regular, even daily, basis. The application is available to operators and interested parties upon request.<sup>19</sup> At the time of writing, it had not been possible to ascertain whether it includes data on cluster munition-affected areas.

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## PLANNING AND TASKING

It is not known whether Iran has a national mine action strategy or an annual work plan for the survey and clearance of CMR or agreed and specified criteria for the prioritisation of tasks.

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## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

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Iran reportedly has national mine action standards in place.<sup>20</sup> At the time of writing no information was available on quality management (QM) procedures for humanitarian demining in Iran, although it was reported in 2023 that a subsidiary of IRMAC performs quality assurance (QA) and quality control (QC) of commercial demining.<sup>21</sup>

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13 "1st International Humanitarian Demining Training Center opens in Tehran", *Mehr News Agency*, 12 November 2019, available at: <http://bit.ly/2C7wRzG>.

14 "Iran, Armenia ink MoU on humanitarian demining cooperation", *Iran Press News Agency*, 19 September 2022, at: <https://bit.ly/3WyehpJ>.

15 Email from Narges Jahanparast, Ambassadors for Development Without Borders, 6 June 2023.

16 Ibid., 26 April 2023.

17 Email from Reza Amaninasab, Director, Ambassadors for Development Without Borders, 23 March 2023.

18 IRMAC PowerPoint presentation, available at: <http://bit.ly/38ALojt>; and presentation by Mr Pourbagher, Deputy Director of IRMAC, 23rd International Meeting of Mine Action National Directors and UN Advisers, 11–14 February 2020, Geneva.

19 Emails from Reza Amaninasab, Ambassadors for Development Without Borders, 23 March 2023; and Narges Jahanparast, Ambassadors for Development Without Borders, 26 April and 6 May 2023.

20 Email from Narges Jahanparast, Ambassadors for Development Without Borders, 6 June 2023.

21 Ibid., 26 April 2023.

## OPERATORS AND OPERATIONAL TOOLS

As of writing, no up-to-date information was available on Iran's national survey and clearance capacity. In 2023, it was reported that IRMAC continued to undertake humanitarian demining<sup>22</sup>, though it was not clear what capacity, if any, was being deployed to survey or clear cluster munition-contaminated areas.

The Iranian Army and Iranian Revolutionary Guard Corps assisted demining efforts to support the response to the flash flooding which affected Iran in March and April 2019.<sup>23</sup> No information was available as to whether the Army or Revolutionary Guard Corps currently conduct clearance activities.

In 2022, commercial operators included Immen Zamin Spadana, Immen Gostaran Mohit (reportedly working in western and south-west Iran), and Zamin Pak Persia (reportedly working in western Iran).<sup>24</sup>

Petroleum Engineering and Development Company (PEDEC), the development arm of the National Iranian Oil Company (NIOC), contracts and monitors commercial operators conducting clearance of Iran's oil and gas producing areas which are concentrated in mine-affected areas of western and south-western Iran bordering Iraq.<sup>25</sup>

Commercial mine and ERW clearance in Iran is conducted to ensure that land is free from explosive ordnance before it is used for economic purposes or developed. It is separate to humanitarian demining of areas known or suspected to contain explosive ordnance in order to make the land safe for civilian use, which comes under the remit of IRMAC. In a number of countries, commercial demining is applied to areas whether or not there is firm evidence of a threat from explosive ordnance.

## DEMINER SAFETY

It is not known whether there were any accidents as a result of CMR survey or clearance activities in Iran in 2022. In the past, exceedingly high levels of demining accidents have been reported. In 2020, IRMAC stated that since its establishment in 2005, 200 deminers had been killed or injured during clearance of mines and ERW, equating to one accident for every 15,000 mines or ERW detected.<sup>26</sup>

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

Only limited information is available on land release activities in Iran in 2022 and it is not known if any cluster munition-contaminated areas were released through survey or clearance. While reports suggest that a small number of submunitions were found, at the time of writing it had not been possible to verify this information with IRMAC. It is also not known if any new areas of CMR contamination were added to the national database in 2022.

## SURVEY IN 2022

It has been reported that both non-technical and technical survey took place in the provinces of Khuzestan and Ilam in the south-west of Iran 2022.<sup>27</sup> However, it is not known whether these surveys included any specific survey of CMR-contaminated areas. It is also not known whether any nationally coordinated CMR survey has taken place in Iran since Mine Action Review initially reported on the issue in 2016.

## CLEARANCE IN 2022

It is not known whether any clearance of cluster munition-contaminated areas took place in Iran in 2022.

It has been reported that two mine action projects of approximately 32km<sup>2</sup> were underway in western Iran in 2022, of which more than half had been cleared. No data were available regarding humanitarian clearance of this area. However, it was reported that commercial clearance activity had resulted in the destruction of 13 submunitions as well as 188 landmines and 1,690 items of UXO, with the majority of these items found in 2022.<sup>28</sup>

22 Ibid.

23 Information provided by Reza Amaninasab, Ambassadors for Development Without Borders, September 2019.

24 Email from Narges Jahanparast, Ambassadors for Development Without Borders, 6 May 2023.

25 Ibid., 6 June 2023.

26 IRMAC PowerPoint presentation, available at: <http://bit.ly/38ALojt>; and presentation by Mr Pourbagher, Deputy Director, IRMAC, 23rd International Meeting of Mine Action National Directors and UN Advisers, Geneva, 11–14 February 2020.

27 Email from Narges Jahanparast, Ambassadors for Development Without Borders, 6 May 2023.

28 Ibid., 26 April, 6 May, and 6 June 2023.

It was also reported in 2023 that two other major commercial mine action projects were in place in the south-west of Iran; one was due to commence in June 2023 in the Sohrab oil field development, which may be contaminated with both CMR and landmines. The other ongoing project concerns an area covering 17km<sup>2</sup>, contaminated with CMR and other ERW. Clearance of 10% of the area had been completed as at May 2023, with approximately 20 items of UXO discovered so far, most of which had been found in 2022.<sup>29</sup> It was not known whether any submunitions had been found.

Very little information is available on CMR clearance in Iran in previous years. In 2020, 18 submunitions were discovered during ERW clearance of some 7km<sup>2</sup> in a commercial clearance project in Khuzestan province in the south-west of Iran.<sup>30</sup> As part of the project, the Pasargad Energy Development Company (PEDC) subcontracted a demining operator and subcontracted QA/QC for the project.<sup>31</sup>

According to a 2020 presentation by IRMAC, at that time more than 2 million mines and over 1 million items of ERW had been destroyed since the start of its national programme.<sup>32</sup>

## PROGRESS TOWARDS COMPLETION

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As the extent of CMR contamination in Iran remains unknown and little information is available on the overall effectiveness of Iran's national mine action programme, it is not possible to comment on the extent to which Iran is making reasonable progress towards release of CMR-affected areas.

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

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It is not known to what extent Iran is making provision for a sustainable capacity to address previously unknown CMR-contaminated areas following completion (i.e. residual contamination).

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<sup>29</sup> Ibid.

<sup>30</sup> Information provided by Reza Amaninasab, Ambassadors for Development Without Borders, August 2020.

<sup>31</sup> Ibid., September 2020.

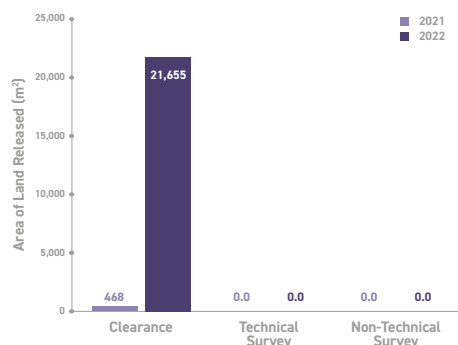
<sup>32</sup> IRMAC PowerPoint presentation, available at: <http://bit.ly/38ALojt>; and presentation by Mr Pourbagher, 23rd International Meeting of Mine Action National Directors and UN Advisers, Geneva, 11–14 February 2020.

## KEY DATA

CLUSTER MUNITION  
CONTAMINATION:UNKNOWN BUT BELIEVED  
TO BE LIGHTSUBMUNITION  
CLEARANCE IN 202221,655<sub>M<sup>2</sup></sub>SUBMUNITIONS  
DESTROYED IN 2022

28

## LAND RELEASE OUTPUT



## RECOMMENDATIONS FOR ACTION

- Libya should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Libya should conduct a baseline survey to identify the extent of cluster munition remnants (CMR) contamination and begin systematic clearance based primarily on humanitarian priorities.
- Libya should establish an interministerial national mine action authority and adopt a national mine action strategy.
- Libya should facilitate the granting of visas to international clearance operators.

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

## MANAGEMENT

- The Libyan Mine Action Centre (LibMAC)

## NATIONAL OPERATORS

- Free Fields Foundation (3F)
- The Safe Trust Non-governmental organisation (NGO), (Al-Thiqa al-Amna, accredited and supported by DCA)
- The Communication NGO (Al-Tawasol)
- Libyan Peace Organisation (accredited, and supported by DRC)

## INTERNATIONAL OPERATORS

- DanChurchAid (DCA)
- Danish Refugee Council Humanitarian Disarmament and Peacebuilding sector (formally known as Danish Demining Group (DDG). Hereafter referred to as DRC)
- The HALO Trust (HALO)
- Humanity and Inclusion (HI)

## OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

## UNDERSTANDING OF CMR CONTAMINATION

CMR contamination in Libya is largely the consequence of use in the armed conflicts in 2011 and renewed conflict since 2014. Additional contamination by CMR occurred as a result of kick-outs from ammunition storage areas bombed by North Atlantic Treaty Organization (NATO) forces in 2011.<sup>1</sup> The full extent of contamination is unknown, but is thought to be light. In 2011, armed forces used at least three types of cluster munition: MAT-120 mortar projectiles, RBK-250 PTAB-2.5M cluster bombs, and Dual-Purpose Improved Conventional Munitions (DPICMs), which were delivered remotely by rockets.<sup>2</sup> In early 2015, fighting between Libya's rival armed groups saw reported new use of cluster munitions, including RBK-250 PTAB-2.5M bombs, in attacks on Bin Jawad near the port of Es-Sidr in February, and in the vicinity of Sirte in March. The Libyan Air Force, controlled by the internationally recognised government of the time, had bombed both locations, though it denied using cluster munitions.<sup>3</sup>

In July 2019, the Libyan Mine Action Centre (LibMAC) reported finding evidence of the use of RBK-250-275 cluster bombs in three areas: Al-Hira Bridge (Al-Sawani); the Bir al-Ghanam area south-west of Tripoli (Nafusa Mountains); and Aziziya (south of Tripoli).<sup>4</sup> The same year, Humanity and Inclusion (HI) reported three areas containing CMR on the basis of its own operations. One cluster munition-contaminated area was confirmed in 2017 through non-technical survey (NTS) in the Nafusa mountains region, near the town of Kikla, in north-west Libya. Then in 2018–19, HI found further cluster munition strikes in Tawargha and Al Karareem.<sup>5</sup>

In May 2019, the self-styled Libyan National Army (LNA), led by commander Khalifa Haftar was accused of using cluster bombs in attacks in and around Tripoli.<sup>6</sup> On 15 and 16 August 2019, aircraft of forces affiliated with the LNA dropped cluster

munitions on Zuwarah International Airport, according to the United Nations (UN) Panel of Experts report of December 2019.<sup>7</sup> Human Rights Watch (HRW) has stated that forces aligned to Haftar also used cluster munitions in an airstrike in a residential area in Tripoli on or around 2 December 2019. The organisation visited the site on 17 December 2019 and found remnants of two RBK-250 PTAB-2.5M cluster bombs. The area was not known to be contaminated by cluster munitions before the attack.<sup>8</sup>

According to LibMAC, more than 15.35km<sup>2</sup> of land have been identified as hazardous area, of which 62% is in the east of the country, 33% in Tripoli and Al Jefarah (north-west), and the remaining 5% in Misrata and Sirte (north-centre). Additional areas could still be identified as hazardous in 2023 as NTS continues.<sup>9</sup> It is not known which of these hazardous areas, if any, contains CMR. According to the United Nations Support Mission in Libya (UNSMIL), 19 persons have died due to ERW explosions in Libya in 2022.<sup>10</sup> LibMAC reported a high presence of improvised explosive devices (IEDs) in Sirte and of factory-made IEDs in the South of Tripoli.<sup>11</sup>

The HALO Trust (HALO) reports well-documented evidence of kicked-out cluster munitions from ammunition storage areas in Misrata and Mizdah (north). In Sirte (north centre), there is minimal evidence of presence of CMR, although 22 DPICMs were found by HALO in 2021.<sup>12</sup> None of the operators reported discovering previously unknown areas of CMR contamination in Libya in 2022.

As at June 2023, LibMAC, in collaboration with the local operator Free Fields Foundation (3F) intended to conduct a comprehensive assessment for the CMR contamination in Libya.<sup>13</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Libya is also contaminated by unexploded ordnance (UXO) other than unexploded submunitions as well as by anti-personnel mines, including those of an improvised nature (see Mine Action Review's *Clearing the Mines* report on Libya for further information), and by other IEDs.<sup>14</sup> According to the UN Mine Action Service (UNMAS), ongoing conflict has resulted in significant explosive remnants of war (ERW) contamination in cities across Libya.<sup>15</sup> In particular, large amounts of UXO resulting from the siege of Tripoli in 2019, as well as from previous conflicts, continue to pose a threat.<sup>16</sup>

1 Cluster Munition Monitor, "Libya: Cluster Munition Ban Policy", Last updated 27 July 2019, at: <http://bit.ly/2YAbygi>.

2 Ibid.

3 Human Rights Watch, "Libya: Evidence of new cluster bomb use", 15 March 2015.

4 Email from Col. Adel Elatwi, Chief of Operations, on behalf of Brig. Turjoman, LibMAC, 4 July 2019.

5 Email from Catherine Smith, Head of Mission, HI, 12 March 2019.

6 Cluster Munition Monitor, "Libya: Cluster Munition Ban Policy", Last updated 27 July 2019; and "Tripoli forces claim successes and accuse Haftar of using cluster bombs and internationally banned phosphorus bombs", *Libya Herald*, 20 June 2019.

7 Human Rights Watch, "Libya: Banned Cluster Munitions Used in Tripoli", 13 February 2020, at: <http://bit.ly/3gAfq9G>.

8 Human Rights Watch, "Libya: Banned Cluster Munitions Used in Tripoli", 13 February 2020.

9 Email from Sharmeela Aminath, Chief Mine Action Programme, United Nations Mine Action Service (UNMAS), 16 March 2023.

10 UNSMIL, Statement on the International Day for Awareness of the Risks of Mine and Remnants of Wars (Arabic), 4 April 2023, accessed on 30 April 2023, at: <https://bit.ly/3neVHWb>.

11 Interview with Ahmad Al-Shibani, Director, LibMAC, 26th International Meeting of Mine Action National Directors and United Nations Advisors (26th NDM), Geneva, 21–22 June 2023.

12 Email from Zita Andrassy, Programme Officer Libya, HALO, 27 February 2022.

13 Interview with Ahmad Al-Shibani, LibMAC, Geneva, 21–22 June 2023.

14 "Lives and Limbs Shattered by Libya Mines", *Asharq Al-Awsat*, 5 April 2018.

15 UNMAS, "Programmes: Libya", accessed 16 May 2019, at: <http://bit.ly/2WMTzTk>.

16 UN Office for the Coordination of Humanitarian Affairs (OCHA), Libya Humanitarian Overview 2023, December, at: <https://bit.ly/3o4xPEM>, p. 10.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Mine action exists in a fragmented and occasionally violent political context. Following years of armed conflict, a new UN-backed “unity” government, the Government of National Accord (GNA), was formally installed in a naval base in Tripoli in early 2016. It has faced armed opposition from the rival LNA authority and a host of militia forces. The warring parties reached a ceasefire agreement to halt hostilities in October 2020, which culminated in the election of an interim government following the five-day UN-sponsored Geneva talks in February 2021, with a roadmap leading to national elections in December 2021.

Since then, Libya's progress towards elections have stalled amid disputes over the eligibility of major candidates. In March 2023, Libya's UN envoy said that national elections could be held by the end of 2023 provided that a clear roadmap and electoral laws are put in place by June.<sup>17</sup> Despite the deadlock in the political process, Libya has been slowly moving towards stability since the UN-brokered ceasefire agreement of October 2020.<sup>18</sup>

LibMAC was mandated by the Minister of Defence to coordinate mine action in December 2011.<sup>19</sup> Operating under the UN-backed GNA, LibMAC's headquarters are in Tripoli, in the west of the country, and it also has offices in Benghazi<sup>20</sup> and Misrata.<sup>21</sup> Enhancing Human Security (ITF) has been supporting the overhead costs of LibMAC since it started its programme in Libya in 2014. In 2022, ITF paid the salaries of 27 employees and covered the day-to-day costs of LibMAC.<sup>22</sup>

In March 2022, HALO carried out an explosive ordnance disposal (EOD) 1 and 2 course in Tripoli for 12 people, including LibMAC staff members and personnel from the local non-governmental organisation (NGO) Libyan Peace Organisation. HALO has also been providing ad-hoc support to LibMAC's transition to the Information Management System for Mine Action (IMSMA) Core in 2022, and intended to conduct an EOD Level 3 training for LibMAC in 2023. There was concern, though, that the training might not be possible due to difficulties in obtaining visas.<sup>23</sup>

UNMAS, which is an integral part of UNSMIL, has largely been operating from Tunis since November 2014.<sup>24</sup> UNMAS returned with international personnel to Libya in 2018, and since then has maintained permanent presence of critical operational and technical staff.<sup>25</sup> UNMAS helped LibMAC

to develop the Libyan mine action standards on explosive ordnance risk education (EORE), the migration of the database, and the accreditation assessments of four mine action organisations in 2022.<sup>26</sup>

UNMAS also acts as the mine action lead, providing non-technical coordination through information sharing, and represents the mine action sector in various fora, including the UN protection cluster, the inter-sectoral coordination group, and the UN country team.<sup>27</sup> UNMAS and LibMAC chair monthly mine action sub-cluster working groups. The meetings are attended by nearly 20 participants, including implementing partners, members from the diplomatic community, UN Agencies, the Libyan Red Crescent Society (LRCS), the International Committee of the Red Cross (ICRC), and ITF. The meetings aimed to improve coordination among partners, share information, harmonise technical standards, mobilise resources, and provide an advocacy platform for LibMAC to solve technical and operational issues.<sup>28</sup>

UNMAS sought a budget of US\$7.5 million for the mine action sector in Libya in 2022 and was able to secure 99% of the requested amount.<sup>29</sup>

In 2022, UNMAS provided six EOD kits to the National Security Agency, and delivered EOD and Emergency Trauma Bag training to 18 of its personnel. UNMAS also delivered Individual first-aid kits, tactical first-responder and tactical first-responder training of trainer courses to 22 diplomatic police officers, and provided them with specialised equipment.<sup>30</sup>

The DanChurchAid (DCA), Danish Refugee Council (DRC), and HALO have all experienced an eight-month long visa blockade for international staff, which has substantially impacted their operations. Operators have also unanimously reported that LibMAC has been doing what it can to support their visa requests, but to no avail.<sup>31</sup> DCA said that annual Memorandum of Understanding (MoU) between LibMAC and the international mine action organisations has seen delays whilst accreditation and registration was being worked on.<sup>32</sup> Both DRC and HALO faced difficulties moving equipment within the country, and in the case of HALO, also into the country.<sup>33</sup> For DCA, there was no problem bringing equipment into the country aside from the UN arms embargo which prohibits detonators and personal equipment.<sup>34</sup>

17 “Libya elections: Presidential poll postponed”, *BBC News*, 23 December 2021, at: <https://bbc.in/39ohwez>; and “Libyan elections are possible this year, U.N. envoy says”, *Reuters*, 11 March 2023, at: <https://bit.ly/40FCHy1>.

18 OCHA, *Libya Humanitarian Overview 2023*, December, p. 8.

19 LibMAC website, accessed 20 March 2020, at: <http://bit.ly/2JqVr0S>.

20 Email from Jakob Donatz, Associate Programme Officer, UNMAS, 21 June 2018.

21 Email from Roman Turšič, Head of Implementation Office Libya/Afghanistan, ITF, 26 February 2017; and interview with Brig. Turjoman, LibMAC, in Geneva, 10 January 2017.

22 ITF, “Annual Report 2022”, p. 143, at: <https://bit.ly/3o5ulMO>.

23 Email from Charles Fowle, HALO, 5 May 2023.

24 UNMAS, “Programmes: Libya”, accessed 14 May 2022, at: <http://bit.ly/31tU1tB>.

25 Email from Samir Becirovic, UNMAS, 2 March 2022.

26 Emails from Sharmeela Aminath, UNMAS, 16 March 2023, and Samir Becirovic, UNMAS, 2 March 2022.

27 Ibid.

28 Emails from Sharmeela Aminath, UNMAS, 16 March 2023; and Samir Becirovic, UNMAS, 10 June 2022.

29 Email from Sharmeela Aminath, UNMAS, 16 March 2023.

30 Ibid.

31 Emails from Graeme Ogilvie, DCA, 17 March 2023; Anna Salvari, DRC, 2 April 2023; and Charles Fowle, HALO, 5 May 2023.

32 Email from Graeme Ogilvie, DCA, 17 March 2023.

33 Emails from Anna Salvari, DRC, 2 April 2023; and Charles Fowle, HALO, 5 May 2023.

34 Email from Graeme Ogilvie, DCA, 17 March 2023.

## GENDER AND DIVERSITY

LibMAC does not have a gender and diversity policy for mine action in place. LibMAC disaggregates mine action data by sex and age.<sup>35</sup>

DCA's Libya programme has an active policy of employing women into programme roles to increase their financial independence and teach them transferable skills that they may use beyond their current employment with DCA.<sup>36</sup> Gender mainstreaming and mainstreaming of marginalised groups form part of the programme's core policies. DCA also employs all-women teams, including two all-female EORE teams and one all-female multi-task team, to be able to engage with female-headed households. DCA engages early with municipal councils, civil society organisations, community leaders and representatives of groups working for the rights of minorities. These engagements drive project design and ensure community ownership. Women constituted 27% of all DCA employees in 2022. Of operational and managerial positions, 27% and 54% were occupied by women, respectively.<sup>37</sup>

DRC takes into consideration gender and age factors when collecting information on how contamination impacts different groups. DRC adopts a transparent and inclusive recruitment process to ensure that staff as much as possible originate from the area of operations and are representative

of the local social context. DRC employed mixed gender teams in the field in 2022, and continues where possible.<sup>38</sup> DRC contracted the Geneva International Centre for Humanitarian Demining (GICHD) to carry out a gender and diversity assessment in the first quarter of 2023.<sup>39</sup> Women made up 15% of DRC total employees in 2022.<sup>40</sup>

HALO's community liaison officers in Libya are all women who can engage with both men and women. As of writing, HALO staff were not specifically trained to work directly with children, but rather to ask parents for specific considerations for vulnerable persons under their responsibility, including children, elderly, and persons with disabilities. Data collected are disaggregated by gender and age so that representation can be targeted in a proportionate manner. HALO community liaison activities are performed at the same time as surveys, including focus group discussions when applicable, ensuring that women's voices are also heard. HALO staff are required to complete the online "Gender and Diversity in Mine Action" training module developed by the GICHD after their recruitment. HALO, however, reported difficulty in hiring women for operational roles.<sup>41</sup> Of a total of 39 national staff in 2022, 4 (10%) were women. In terms of supervisory positions, 3 out of 7 (43%) were filled by women. Women did not occupy any operational positions in 2022.<sup>42</sup>

## INFORMATION MANAGEMENT AND REPORTING

LibMAC receives technical support for the IMSMA from the GICHD and UNMAS. With support of both organisations, LibMAC's transition from IMSMA New Generation (NG) to IMSMA Core, which started in 2020,<sup>43</sup> was nearly 80% complete at the time of writing.<sup>44</sup> All EORE, EOD, and victim assistance data were expected to be fully migrated by the end of May 2023. From June, data on all these activities will be submitted via IMSMA CORE. The remaining activities will follow the same process by the end of the 2023.<sup>45</sup> It is hoped that this transition leads to an improvement in the quality of mine action data.

IMSMA is accessible to clearance organisations and data collection forms are reported to be consistent and enable collection of necessary data.<sup>46</sup> According to HALO, software user-friendliness could be improved, especially with the shift towards IMSMA Core. This transition should allow all actors to view the entirety of data in the form of online maps, which should allow more quality checks of the information. While IMSMA NG did not support the collection of mechanical clearance data, the change to IMSMA Core is expected to enable adding this type of activity to the clearance form. LibMAC promised to organise a workshop to finalise adding mechanical clearance data to the IMSMA database, which requires an operational solution and not on a technical one.<sup>47</sup>

Both HALO and DCA agree that the IMSMA database is largely reliable, accurate, and up to date. DCA reported that LibMAC lacks resources to ensure or improve the quality of data as only one person works on IMSMA. Some concerns related to the quality of data from the source (i.e. the calculation of direct beneficiaries, the reporting on ERW-related scrap during spot tasks). In addition, some data, such as on specific land use, are not always available because the previous IMSMA NG system did not consider it as a minimum reporting.<sup>48</sup> Data is made available in the system three or four days after its reporting.<sup>49</sup>

35 Email from Col. Adel Elatwi, LibMAC, 22 April 2021.

36 Email from Graeme Ogilvie, DCA, 20 April 2021.

37 Emails from Graeme Ogilvie, DCA, 1 April 2022 and 17 March 2023.

38 Emails from Alessandro Di Giusto, DRC, 7 March 2022; and Anna Salvari, DRC, 26 June 2023.

39 Email from Anna Salvari, DRC, 2 April 2023.

40 Email from Anna Salvari, DRC, 26 June 2023.

41 Email from Zita Andrassy, HALO, 27 February 2022.

42 Emails from Charles Fowle, HALO, 5 May 2023.

43 Email from Nicholas Torbet, HALO, 14 April 2020.

44 Interview with Ahmad Al-Shibani, LibMAC, Geneva, 21–22 June 2023.

45 Email from Charles Fowle, HALO, 5 May 2023.

46 Emails from Catherine Smith, HI, 12 March 2019; and Charles Fowle, HALO, 5 May 2023.

47 Email from Charles Fowle, HALO, 5 May 2023.

48 Email from Graeme Ogilvie, DCA, 17 March 2023.

49 Ibid.

According to HALO, organisations submit their information in a timely fashion. There are entities, however, who are not working under the MoD who are thought not to submit their reports regularly, if at all.<sup>50</sup>

Mine action data are checked by both the implementing organisation and LibMAC. Ongoing NTS remains critical to ensure that data are up to date. Otherwise, there is a risk that data maintenance is perceived as a static and not a dynamic activity.<sup>51</sup>

LibMAC organised a workshop on data flow in August 2022. The workshop and additional correspondence that followed resulted in the finalisation of the intact data flow process. HALO, together with other actors, has been sending “dummy” reports to test and provide feedback. This has helped LibMAC improve the forms and migrate issues more smoothly and effectively.<sup>52</sup>

## PLANNING AND TASKING

There is no national mine action strategy for Libya.<sup>53</sup> In April 2021, LibMAC reported that it had a national short-term operational plan.<sup>54</sup> LibMAC prioritises survey and clearance operations based on humanitarian, security, and development indicators,<sup>55</sup> and is responsible for issuing task orders. DCA considers that LibMAC is doing its best to issue task orders in a timely and effective manner within its limited capacity and resource, and reported that task orders were mostly received in a timely manner in 2022.<sup>56</sup> According to HALO, the issuance of clearance and/or survey task orders varied in timeliness depending on the geographic location and security situation at the time of request, which allowed LibMAC to ensure the safety of the implementing partners.<sup>57</sup>

DCA continues to clear ERW in support of electricity and water supply facilities, and to survey and clear schools, medical facilities, and housing so that internally displaced people (IDPs) can return safely. This approach is in line with the “triple nexus” approach, which seeks to link humanitarian action to development projects as well as to contribute to stability and peace.<sup>58</sup> Mine action operators liaise with the municipal councils, community leaders, and security

providers to build a picture of priority areas for survey and follow-on clearance. Operators then apply for task orders through LibMAC. Due to the small number of clearance teams and personnel in Libya, the priority is responding to call-outs, particularly from returning IDPs. Therefore, much of the clearance is reactive EOD spot tasks in order to minimise an immediate threat to life.<sup>59</sup>

HALO responds to the tasks as issued by LibMAC.<sup>60</sup> HALO’s prioritisation criteria for NTS are: number of conflict events, population density, critical infrastructure, duration of active fighting in a given area, recorded mines removed, and explosive ordnance accidents. For technical survey (TS) and clearance, HALO’s criteria are: access, land use, number of beneficiaries, and direct evidence of contamination.<sup>61</sup>

While the above considerations are integrated in the assessment of contamination impact, survey, and community liaison activities, final decisions on task prioritisation fall to LibMAC, which ultimately issues task orders based on its set of criteria, plans, and engagement with local authorities.<sup>62</sup>

## ENVIRONMENTAL POLICIES AND ACTION

Libya does not have a national mine action standard (NMAS) or a policy on environmental management.<sup>63</sup>

DCA has an environmental management system and standard operational procedures (SOPs) in place. It takes into account the impacts of the destruction of ERW prior to any battle area clearance (BAC) or EOD spot task, and puts in place mitigation measures. DCA has a policy of non-use of explosives in favour of thermite to stop more nitrates from contaminating topsoil when operating in farmland. No open burning takes place and sandbags are made from hemp instead of plastic.<sup>64</sup>

50 Email from Charles Fowle, HALO, 5 May 2023.

51 Ibid.

52 Ibid.

53 Email from Col. Adel Elatwi, LibMAC, 22 April 2021.

54 Ibid.

55 Ibid.

56 Emails from Graeme Ogilvie, DCA, 1 April 2022 and 17 March 2023.

57 Email from Charles Fowle, HALO, 5 May 2023.

58 Email from Graeme Ogilvie, DCA, 1 April 2022.

59 Emails from Graeme Ogilvie, DCA, 20 April 2021 and 17 March 2023.

60 Emails from Zita Andrassy, HALO, 27 February 2022; and Charles Fowle, HALO, 5 May 2023.

61 Emails from Lucy Reeve, HALO, 23 April 2021; and Zita Andrassy, HALO, 27 February 2022.

62 Emails from Alessandro Di Giusto, DRC, 7 March 2022; Zita Andrassy, HALO, 27 February 2022; and Charles Fowle, HALO, 5 May 2023.

63 Emails from Graeme Ogilvie, DCA, 1 April 2022; Alessandro Di Giusto, DRC, 7 March 2022; and Zita Andrassy, HALO, 27 February 2022.

64 Emails from Graeme Ogilvie, DCA, 17 March 2023 and 1 April 2022.

DRC does not have an environmental management system. DRC takes into account “do-not-harm” elements in consideration of environmental impact and policy when planning its operations.<sup>65</sup>

HALO does not have an environmental management system. A global environment advisor was recruited in January 2022 to support progress in this regard, but the advisor has not visited the Libya programme nor developed an environmental management system at the global or programme level.<sup>66</sup> HALO’s work in Libya is focused on urban clearance and therefore has little impact on biodiversity and vegetation.

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

There is no national mine action legislation in Libya, but national mine action standards (LibMAS), in Arabic and English, have been elaborated with the support of the GICHD and UNMAS, and were approved by the GNA in August 2017. The LibMAS are available on the LibMAC website.<sup>67</sup> According to international clearance operators, the NMAS are sufficient and aligned to the International Mine Action Standards (IMAS).<sup>68</sup> Further, while the Arabic version of the LibMAS is largely accurate, the English version misstates the issue of liability after land release, which remained uncorrected in 2022.<sup>69</sup> The LibMAS have not been updated since being first approved in 2017. UNMAS helped LibMAC to develop the Libyan mine action standard on EORE in 2022.<sup>70</sup>

LibMAC and HALO are collaborating on how best to establish land release principles for urban clearance. In the interim, LibMAC accepts completion reports detailing the outputs of mechanical BAC as mechanical clearance.<sup>71</sup> The NMAS for mechanical clearance were likely to be updated in the last quarter of 2023.<sup>72</sup>

### OPERATORS AND OPERATIONAL TOOLS

Table 1: Operational survey capacities deployed in 2022<sup>73</sup>

Operator	NTS teams	Total NTS personnel	TS teams	Total TS personnel	Comment
3F <sup>74</sup>	2	6	0	0	
DCA	6	39	6	39	The 39 personnel (multi-task teams), are the same as the NTS and clearance team.
DRC	2	6	0	0	One team leader and two surveyors per team.
HALO	2	7	1	4	Four TS personnel are also clearance personnel .
Libya Peace Organisation <sup>75</sup>	2	6	0	0	
Totals	14	64	7	43	

NTS = Non-technical survey TS = Technical survey

65 Email from Alessandro Di Giusto, DRC, 7 March 2022.

66 Email from Charles Fowle, HALO, 5 May 2023.

67 LibMAC website, accessed 20 May 2022 at: <https://bit.ly/3ldhvx2>. Report of the Secretary-General on UNSMIL, UN doc. S/2018/140, 12 February 2018, p. 12; and UNMAS, “Programmes: Libya”, accessed 14 May 2022 at: <http://bit.ly/31tU1tB>.

68 Emails from Catherine Smith, HI, 12 March 2019; and Nicholas Torbet, HALO, 14 April 2020, and Charles Fowle, HALO, 5 May 2023.

69 Email from Graeme Ogilvie, DCA, 1 April 2022 and 17 March 2023.

70 Email from Sharmeela Aminath, UNMAS, 16 March 2023.

71 Emails from Zita Andrassy, HALO, 27 February and 19 June 2022.

72 Email from Charles Fowle, HALO, 5 May 2023.

73 Emails from Col. Adel Elatwi, LibMAC, 22 April 2021; Graeme Ogilvie, DCA, 17 March 2023; Anna Salvari, DRC, 2 April 2023; and Charles Fowle, HALO, 5 May 2023.

74 This information was last updated in April 2021, and might not be up to date as at May 2023.

75 This information was last updated in April 2021, and might not be up to date as at May 2023.

Table 2: Operational clearance capacities deployed in 2022<sup>76</sup>

Operator	Manual clearance teams	Total deminers*	Dog teams(dogs and handlers)	Mechanical assets/machines
DCA	5	39	0	3
HALO Trust	1	4	0	4 <sup>77</sup>
<b>Totals</b>	<b>6</b>	<b>43</b>	<b>0</b>	<b>7</b>

\* Excluding team leaders, medics, and drivers.

Mine action operations have been conducted by the army engineers, a police unit, and the Ministry of Interior's national safety authority (NSA), also known as Civil Defence.<sup>78</sup> Military engineers reportedly lack mine detectors and are working with basic tools.<sup>79</sup> The NSA is mandated to conduct EOD in civilian areas.<sup>80</sup> These institutions liaise with LibMAC but are not tasked or accredited by them, nor do they provide clearance reports to the Centre.<sup>81</sup>

LibMAC contacted all operators in May 2023 with instructions to shift EOD-focused activities to systematic release of land, which is the direction LibMAC would like to change to.<sup>82</sup>

The national operator, 3F, was operational in 2022, working with DRC,<sup>83</sup> and is accredited to conduct clearance and EOD tasks.<sup>84</sup> In 2020, LibMAC reported having accredited two additional local operators: The Safety Trust NGO (*Al-Thiqat al-Amena*) and the Communication NGO (*Al-Tawasol*).<sup>85</sup> Another national operator, the Libyan Peace Organisation, was present in Libya in 2022, and collaborated with DRC on EOD, EORE, and NTS.<sup>86</sup>

DCA is operational in Libya conducting risk education, clearing residential, commercial, education, medical, and agricultural sites of mines and ERW, and providing training in clearance, search, and EOD, to help strengthen the capacity of national authorities.<sup>87</sup> Now in its thirteenth year of working in Libya, DCA has offices in Benghazi, Misrata, Sirte, and Tripoli, and is accredited to conduct clearance and EOD tasks.<sup>88</sup> In 2022, DCA had part of its funding discontinued, which led to it losing one multi-task team, its all-female survey team, and one clearance team. Human capacity from 2022 was expected to continue unchanged in 2023.<sup>89</sup>

DRC has been set up in Libya since 2011 and has two offices in Benghazi and Tripoli. Its offices in Misrata and Zwara were closed at the end of 2020, and its Sabha office closed in December 2021, resulting in the reduction of the number of EOD, NTS, and EORE teams.<sup>90</sup> DRC established a new EOD team in Tripoli in September 2022. In 2022, DRC performed NTS activities and continued to partner with the Libyan Peace Organization. In 2023, DRC was losing one NTS team as donors prioritised EORE and EOD.<sup>91</sup>

HALO has been present in Libya since November 2018, and has offices in Misrata, Sirte, and Tripoli. HALO's main operation focused on mechanical clearance in Sirte in the Jeeza Navy area and at a Misrata ammunition storage area where it found CMR in 2022. HALO accredited two TS teams and one EOD team in 2021. The EOD team was deployed to support the clearance activities in Misrata in 2022. HALO also conducted NTS in Misrata in February 2022, and in Sirte between January and March 2022.<sup>92</sup>

HALO's programme in Libya saw a decrease in the number of survey and clearance teams in 2022 compared to 2021. Going forward, HALO expects further reductions in the numbers of clearance personnel due to donor cuts. HALO has used the T Jet (a pyrotechnic torch used for low-order deflagration of UXO) in Libya in 2022.<sup>93</sup>

In 2022, LibMAC personnel opened 130 tasks mostly for NTS activities performed by international and local NGOs in southern areas of Tripoli, Tawargha, Sirte, and Benghazi. In addition, LibMAC personnel conducted 134 quality control (QC) and quality assurance (QA) missions. LibMAC also conducted 38 accreditation procedures for international local NGOs for NTS, risk education, and EOD tasks. LibMAC recorded 90 finished tasks during 2022.<sup>94</sup>

<sup>76</sup> Emails from Graeme Ogilvie, DCA, 1 April 2022; and Charles Fowle, HALO, 5 May 2023.

<sup>77</sup> In mid 2022, one machine was transferred to 3F.

<sup>78</sup> Interview with Brig. Turjoman, LibMAC, in Geneva, 10 January 2017.

<sup>79</sup> "Mines still claim legs and lives in Libya's Benghazi, months after war ceased", *Reuters*, 21 January 2018.

<sup>80</sup> Email from Diek Engelbrecht, UNMAS Libya, 20 July 2013.

<sup>81</sup> Email from Col. Adel Elatwi, LibMAC, 22 April 2021.

<sup>82</sup> Interview with Ahmad Al-Shibani, LibMAC, Geneva, 21–22 June 2023.

<sup>83</sup> Emails from Alessandro Di Giusto, DRC, 7 March 2022; and Samir Becirovic, UNMAS, 2 March 2022.

<sup>84</sup> Email from Graeme Ogilvie, DCA, 1 April 2022.

<sup>85</sup> Email from Col. Adel Elatwi, LibMAC, 22 April 2021.

<sup>86</sup> Email from Anna Salvari, DRC, 2 April 2023.

<sup>87</sup> DCA website, accessed 3 May 2021, at: <http://bit.ly/2vYatmb>.

<sup>88</sup> Emails from Graeme Ogilvie, DCA, 1 April 2022 and 17 March 2023.

<sup>89</sup> Email from Graeme Ogilvie, DCA, 17 March 2023.

<sup>90</sup> Email from Alessandro Di Giusto, DRC, 7 March 2022.

<sup>91</sup> Email from Anna Salvari, DRC, 2 April 2023.

<sup>92</sup> Emails from Zita Andrassy, HALO, 27 February 2022; and Charles Fowle, HALO, 5 May 2023.

<sup>93</sup> Email from Charles Fowle, HALO, 5 May 2023.

<sup>94</sup> ITF, "Annual Report 2022", p. 143.

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2022

HALO mechanically cleared a total area of 21,665m<sup>2</sup> in Misrata and destroyed 28 submunitions in the process. The submunitions were a result of kick-outs from ammunition storage areas. In addition, HALO disposed of a total of 1,607 items of UXO in Libya in 2022.<sup>95</sup>

The Office for the Coordination of Humanitarian Affairs (OCHA) and UNMAS reported that humanitarian mine action partners disposed of 27,478 items of ERW in 2022.<sup>96</sup> It is not known how many, if any, were submunitions.

## SURVEY IN 2022

None of the international operators reported CMR survey in Libya in 2022.

## CLEARANCE IN 2022

HALO mechanically cleared a total area of 21,665m<sup>2</sup> in Misrata, destroying 28 submunitions in the process. The submunitions were a result of kick-outs from ammunition storage areas. In addition, HALO disposed of a total of 1,607 items of UXO in Libya in 2022.<sup>97</sup>

Table 3: CMR clearance by HALO in 2022<sup>98</sup>

District	Area cleared (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed
Misrata	21,665	28	1,576
Tripoli	0	0	14
Sirte	0	0	17
Totals	21,665	28	1,607

## PROGRESS TOWARDS COMPLETION

LibMAC describes the following challenges to implementation of mine action operations: the high level of contamination; ongoing conflict and the continued presence of Islamic State; the difficulty in convincing IDPs to delay their return until the ERW threat is addressed; security and access to priority areas; the limited ERW and EOD capacity in Libya; the vast geographical area; and limited governmental and international support.<sup>99</sup> The strengthening of LibMAC as a mine action coordination entity in Libya continues to be needed, support by efforts to build its capacity and enhance its resources.

<sup>95</sup> Email from Charles Fowle, HALO, 5 May 2023.

<sup>96</sup> Email from Sharmeela Aminath, UNMAS, 16 March 2023; and OCHA, Libya Humanitarian Overview 2023, December, p. 10.

<sup>97</sup> Email from Charles Fowle, HALO, 5 May 2023.

<sup>98</sup> Ibid.

<sup>99</sup> PowerPoint presentation by Brig. Turjoman, LibMAC, UN National Programme Directors' Meeting, Geneva, 8 February 2017.

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION: LIGHT

LESS THAN 1KM<sup>2</sup> IN AREAS UNDER CIVILIAN  
CONTROL, AND EXTENT OF CONTAMINATED  
AREAS UNDER MILITARY CONTROL NOT  
REPORTED

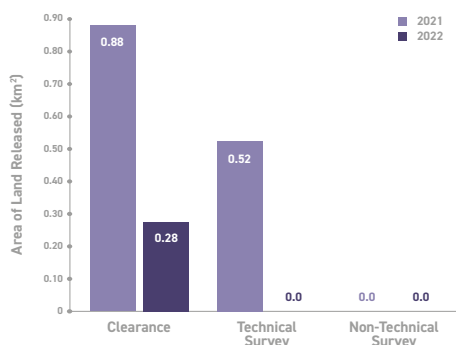
SUBMUNITION  
CLEARANCE IN 2022

**0.28**km<sup>2</sup>

SUBMUNITIONS  
DESTROYED IN 2022

**2**

### LAND RELEASE OUTPUT



### RECOMMENDATIONS FOR ACTION

- Serbia should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Serbia should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- Serbia should consider using its armed forces to conduct clearance of CMR as they are already clearing other unexploded ordnance (UXO).
- The Serbian Mine Action Centre (SMAC) should conduct non-technical and technical survey, rather than full clearance, in instances where survey represents the most efficient means to release part or all of areas suspected or confirmed to contain CMR.
- SMAC should seek to develop National Mine Action Standards (NMAS) as soon as the new mine action decree is adopted.

### CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

#### MANAGEMENT

- The Sector for Emergency Management, Ministry of Interior
- The Serbian Mine Action Centre (SMAC)

#### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- Norwegian People's Aid (NPA)

#### NATIONAL AND INTERNATIONAL OPERATORS

- In 2022, 11 companies/organisations were accredited for demining, but only one conducted clearance of CMR:
  - NGO In Demining

# UNDERSTANDING OF CMR CONTAMINATION

At the end of 2022, Serbia had a total of just over 0.74km<sup>2</sup> of cluster munition-contaminated area, comprising one area confirmed to contain CMR covering almost 0.03m<sup>2</sup> and two areas suspected to contain CMR covering almost 0.72m<sup>2</sup> (see Table 1).<sup>1</sup> This is a slight decrease compared to the total of nearly 1km<sup>2</sup> of CMR-contaminated area (one area confirmed to contain CMR covering more than 0.28km<sup>2</sup> and two areas suspected to contain CMR covering almost 0.72km<sup>2</sup>) as at the end of 2021,<sup>2</sup> which is the result of release through clearance of CMR-contaminated area in 2022.<sup>3</sup>

SMAC does not possess data on explosive ordnance contamination in any areas under the Ministry of Defence (MoD)'s responsibility in Serbia, including former military sites bombed in 1999.<sup>4</sup>

Table 1: Cluster munition-contaminated area by municipality (at end 2022)<sup>5</sup>

Municipality	Village	CHAs	Area (m <sup>2</sup> )	SHAs	Area (m <sup>2</sup> )
Bujanovac	Borovac	1	*25,570	0	0
Tutin	Istočni Mostir	0	0	1	131,900
Užice	Bioska	0	0	1	584,567
Totals		1	*25,570	2	716,467

CHAs = confirmed hazardous areas SHAs = suspected hazardous areas  
\* Additional cluster munition-contaminated area identified during completion of an existing clearance task in 2022 using cluster munition remnants survey (CMRS), which resulted in the development of a new clearance project totalling 25,570m<sup>2</sup>.

CMR resulted from North Atlantic Treaty Organization (NATO) air strikes in 1999. According to Serbia, cluster munitions struck 16 municipalities: Brus, Bujanovac, Čačak, Gadžin Han, Knić, Kraljevo, Kuršumlija, Niš City-municipality of Crveni Krst, Niš City-municipality of Medijana, Preševo, Raška, Sjenica, Sopot, Stara Pazova, Tutin, and Vladimirci.<sup>6</sup> Only three municipalities are considered to still contain contamination today.

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Serbia is also contaminated by other explosive remnants of war (ERW), including unexploded aircraft bombs, both on land and in its internal waterways, and by anti-personnel mines<sup>7</sup> (see Mine Action Review's *Clearing the Mines* report on Serbia for further information).

# NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

According to a Government Decree on Protection against Unexploded Ordnance, the Sector for Emergency Management, under the Ministry of Interior, acts as the national mine action authority (NMAA).<sup>8</sup> The NMAA is responsible for developing standard operating procedures (SOPs), accrediting demining operators, and supervising the work of SMAC.<sup>9</sup>

SMAC was established on 7 March 2002, with a 2004 law making it responsible for coordinating survey and clearance; collecting and managing mine action information (including

casualty data); and surveying SHAs. It also has a mandate to plan demining projects, conduct quality control (QC) and monitor operations, ensure implementation of international standards, and conduct risk education.<sup>10</sup> As from 1 January 2014, according to the Government Decree on Protection against Unexploded Ordnance, the Sector for Emergency Management, under the Ministry of Interior, was made responsible for accrediting demining operators. Previously, SMAC was responsible for doing so.<sup>11</sup>

1 Email from Slađana Košutić, Senior Advisor for Planning, International Cooperation and European Integrations, Serbian Mine Action Centre (SMAC), 11 April 2023.  
2 Email from Slađana Košutić, SMAC, 25 March 2022; and Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request (2022), pp. 28–29.  
3 Email from Slađana Košutić, SMAC, 11 April 2023.  
4 Ibid.  
5 Ibid.  
6 SMAC, "Mine Situation", accessed 21 April 2023, at: <http://bit.ly/1Nom1V7>.  
7 Ibid.  
8 Official Gazette of the Republic of Serbia, No. 70/13.  
9 Emails from Darvin Lisica, Regional Programme Manager, Norwegian People's Aid (NPA), 6 May and 12 June 2016.  
10 Law of Alterations and Supplementations of the Law of Ministries, Official Gazette, 84/04, August 2004; interview with Petar Mihajlović and Slađana Košutić, SMAC, Belgrade, 26 April 2010; and APMBC 2022 Article 5 deadline Extension Request, p. 19.  
11 APMBC 2022 Article 5 deadline Extension Request, p. 20.

The current director of SMAC was appointed by the Serbian government in July 2019.<sup>12</sup> As at April 2023, thirteen people were employed at SMAC – the Director, two assistant directors, and ten other employees.<sup>13</sup>

SMAC is fully funded by Serbia, including salaries and running costs, as well as for survey activities, development of project tasks for demining and clearance of contaminated areas, follow-up on implementation of project tasks, and quality assurance (QA) and QC of demining. In 2022, Serbia reported that around €320,000 per annum was allocated from the national state budget for the work of SMAC,<sup>14</sup> the same amount as in 2021.<sup>15</sup> In addition, the UXO disposal work of the Sector for Emergency Situations of the Ministry of Interior is also State funded.<sup>16</sup>

National funding for survey and clearance remained at €260,000 for 2022,<sup>17</sup>—the same as the previous year—and was expected to be maintained at this level through to 2025, matched with available donor funds through ITF Enhancing Human Security.<sup>18</sup> None of the national funding for survey and clearance in 2022 was allocated to CMR operations, as SMAC will continue to prioritise its national funding to mine survey and clearance with a view to meeting its obligations under Article 5 of the Anti-Personnel Mine Ban Convention (APMBC).<sup>19</sup>

In March 2020, SMAC and the Serbian MoD signed an Agreement on Cooperation in the field of demining and UXO/ERW removal. The Agreement is reported to envisage, among others, the joint participation in training of personnel to conduct demining and ERW demolition operations, training certification, joint participation in survey, collection of data on ERW-suspected and contaminated areas, as well as implementation of ERW removal projects, with monitoring and implementation of the International Mine Action Standards (IMAS) and regulations in the field of demining. The initial focus was said to be on training personnel in ERW demolition operations, including in CMR clearance.<sup>20</sup> In November 2022, SMAC organised training for MoD personnel on magnetometry. SMAC also organised this training for the personnel of the MoD's Technical Test Centre, and in February 2023, SMAC concluded a contract on cooperation in mine action with the Technical Test Centre, relating to use of their demolition site.<sup>21</sup> A training centre within SMAC became operational in 2020. Together with experts from the Ministry of Interior, SMAC provides different training modules, including on ERW recognition, IMAS, medical aspects, and risk reduction.<sup>22</sup>

The Geneva International Centre for Humanitarian Demining (GICHD) is supporting SMAC to implement Information Management System for Mine Action (IMSMA) Core.<sup>23</sup>

## ENVIRONMENTAL POLICIES AND ACTION

SMAC said that it has been committed to taking environmental aspects into account and minimising potential harm from demining activities ever since its foundation. It reported that for each survey or clearance project task there is an obligation on the contractor (the demining operator) to include in its execution plan an environmental protection and a fire protection plan, together with a plan for health and safety at work. Illustrative examples related to environment being taken into consideration during CMR clearance operations include contaminated areas cleared in Kopaonik National Park. For these tasks, a special regime was required for the protection of native trees and other plant species. The chopping down of trees, and the cutting of tree branches and blueberry and juniper bushes, as well as the removal of plants could only be conducted in justified cases and after obtaining the consent of relevant authorities.<sup>24</sup>

12 Email from Slađana Košutić, SMAC, 23 April 2020.

13 Email from Slađana Košutić, SMAC, 11 April 2023.

14 Ibid.

15 Email from Slađana Košutić, SMAC, 25 March 2022.

16 SMAC, "Mine situation", accessed 21 April 2023, at: <http://bit.ly/1Nom1V7>.

17 Email from Slađana Košutić, SMAC, 11 April 2023.

18 Statement of Serbia on Clearance, APMBC Nineteenth Meeting of States Parties (virtual meeting), 15–19 November 2021; and 2022 Article 5 deadline Extension Request, pp. 8 and 34.

19 Email from Slađana Košutić, SMAC, 11 April 2023.

20 Article 7 Report (covering 2020), Form H; and email from Slađana Košutić, SMAC, 11 May 2021.

21 Email from Slađana Košutić, SMAC, 11 April 2023.

22 Emails from Slađana Košutić, SMAC, 23 April 2020 and 26 March 2021.

23 Email from Slađana Košutić, SMAC, 11 April 2023; and SMAC, "GICHD Workshop on IMSMA Core for Mine Action Actors in the Republic of Serbia", 27 March 2023, at: <https://bit.ly/42PgTC7>.

24 Emails from Slađana Košutić, SMAC, 25 March 2022 and 11 April 2023.

## GENDER AND DIVERSITY

In 2014, following the initiative of the Prime Minister, Deputy Prime Minister, and the Minister of Construction, Transportation and Infrastructure, a Coordination Body for Gender Equality was formed as a national coordinating mechanism for gender equality in Serbia. The coordination body recognises the importance of improving the position of women, focusing in particular on increasing the number of female entrepreneurs, as well as their equal participation in management bodies in education, science, culture, information, sports, agriculture, and rural development, among others.<sup>25</sup>

SMAC does not have a gender policy in place and does not disaggregate relevant mine action data by sex and age. However, it does ensure women and children are consulted during survey and community liaison activities. SMAC also reports that it ensures ethnic or minority groups are consulted.<sup>26</sup>

Serbia reports there is equal access to employment for qualified women and men in survey and clearance operations.<sup>27</sup>

At SMAC, five of the thirteen employees (38%) are women, with women holding two of the three managerial/supervisory level positions (67%) and three of the ten operations positions (30%).<sup>28</sup>

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## INFORMATION MANAGEMENT AND REPORTING

SMAC currently uses its own information management system. In early 2020, following initial discussions several years previously, SMAC informally discussed with the GICHD the possibility of installing IMSMA.<sup>29</sup> In August 2022, SMAC signed an agreement with the GICHD to enable it to support SMAC to implement IMSMA Core over a project period of one year. In March 2023, the GICHD visited SMAC to hold a workshop with relevant stakeholders to better understand the context and the requirements of SMAC with the aim of defining and planning the next steps of their IMSMA Core Implementation.<sup>30</sup>

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## PLANNING AND TASKING

The Government of Serbia adopts SMAC's annual work plans.<sup>31</sup> SMAC's 2022 work plan included one CMR clearance project in Bujanovac municipality totalling 281,169m<sup>2</sup> and one technical survey project in Tutin municipality totalling 131,900m<sup>2</sup>. The projects were funded by the United States and the Republic of Korea, through ITF.<sup>32</sup> The clearance project was completed in 2022, but the technical survey project planned for 2022 was postponed to 2023, due to unfavourable weather conditions.<sup>33</sup>

SMAC's 2023 work plan included four CMR clearance project tasks in Užice, totalling 584,567m<sup>2</sup>, and one clearance project totalling 25,570m<sup>2</sup> in Bujanovac. The project tasks will be funded, via ITF Enhancing Human Security, by available donor funds. In addition, the above-mentioned postponed technical survey project task in Tutin, totalling 131,900m<sup>2</sup>, was due to be completed in the first half of 2023.<sup>34</sup>

SMAC said that implementation of the planned project tasks in 2023 will see Serbia complete clearance of known civilian-controlled cluster munition-contaminated areas, excluding military areas.<sup>35</sup> SMAC will be receiving requests from the MoD to clear former military compounds, bombed during the NATO strikes, that are intended for civilian use, and which were not in SMAC's database.<sup>36</sup>

Serbia prioritises release of areas that directly affect the local population, such as those close to settlements where local people have abandoned their houses and stopped cultivating land due to fear of landmines and explosive ordnance.<sup>37</sup> SMAC also noted that donors themselves sometimes also influence the choice of the areas which will be cleared first, depending on availability and amount of their funds.<sup>38</sup>

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25 Article 5 deadline Extension Request (2022), p. 20.

26 Emails from Slađana Košutić, SMAC, 23 April 2020, 26 March 2021, and 11 April 2023.

27 Emails from Slađana Košutić, SMAC, 23 April 2020 and 11 April 2023.

28 Email from Slađana Košutić, SMAC, 11 April 2023.

29 Email from Slađana Košutić, SMAC, 23 April 2020.

30 Emails from Slađana Košutić, SMAC, 11 April 2023; and GICHD, 26 May 2023.

31 APMBC 2022 Article 5 deadline Extension Request, pp. 18 and 21.

32 Email from Slađana Košutić, SMAC, 25 March 2022.

33 Email from Slađana Košutić, SMAC, 11 April 2023.

34 Ibid.

35 Email from Slađana Košutić, SMAC, 11 April 2023.

36 Ibid.

37 Email from Slađana Košutić, SMAC, 26 March 2019.

38 Email from Slađana Košutić, SMAC, 12 April 2018.

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

According to SMAC, survey and clearance operations in Serbia are conducted in accordance with the IMAS.<sup>39</sup>

Serbia is planning to issue a new decree on protection against ERW. The draft decree, developed by SMAC and the Ministry of Interior, will introduce the concept of land release, which was not defined in the former decree, and foresees the development of national mine action standards (NMAS). As at April 2023, the decree was still in the final stages of being adopted by the government.<sup>40</sup>

Under new directorship in late 2015, SMAC reassessed its land release methodology in order to prioritise full clearance over technical survey of hazardous areas.<sup>41</sup> This does not correspond to international best practice and is an inefficient use of scarce clearance assets. In February 2016, SMAC reported to Mine Action Review that while SMAC supports the use of high-quality non-technical survey to identify areas

suspected of containing CMR, it will fully clear these areas, rather than using technical survey to identify the boundaries of contamination more accurately.<sup>42</sup>

As at April 2023, SMAC's position on its preferred land release methodology remained the same under the current Director, but there was a continued willingness to conduct technical survey in a form "adjusted to the context of Serbia", in response to the stated preference of international donors for technical survey above clearance, where appropriate.<sup>43</sup>

As part of NPA's project on enhancing quality management systems of national mine action authorities and centres in the Western Balkans, a consultant was hired to conduct a detailed capacity assessment of SMAC in 2023, to identify gaps and discuss required improvements, action points, and priorities, and to develop NMAS chapters as prioritised by SMAC.<sup>44</sup>

### OPERATORS AND OPERATIONAL TOOLS

SMAC does not itself conduct clearance or employ clearance personnel but does conduct survey of areas suspected to contain mines, CMR, or other ERW. Clearance is conducted by commercial companies and non-governmental organisations (NGOs), which are selected through public tender procedures executed by ITF, supported by international funding.<sup>45</sup>

The Ministry of Interior issues accreditation to mine action operators that is valid for one year. In 2022, 11 companies/organisations, were accredited for demining,<sup>46</sup> but only one organisation conducted clearance of CMR (see Table 2).<sup>47</sup>

**Table 2: Operational CMR clearance capacities deployed in 2022<sup>48</sup>**

Operator	Manual teams	Total deminers*	Dogs and handlers	Machines**
NGO in Demining	3	31	0	0
<b>Totals</b>	<b>3</b>	<b>31</b>	<b>0</b>	<b>0</b>

\* Excluding team leaders, medics, and drivers. \*\* Excluding vegetation cutters and sifters.

Table 2 represents a decrease in clearance capacity in 2022 compared to the previous year, when a total of 52 deminers were deployed across four clearance operators.

NGO Stop Mines was due to conduct technical survey of a CMR task in 2022, but this was postponed to 2023 due to unfavourable weather conditions.<sup>49</sup>

An explosive ordnance disposal (EOD) department within the Sector for Emergency Management, in the Ministry of Interior, responds to call-outs for individual items of ERW, and is also responsible for demolition of items found by SMAC survey teams and by contractors/operators during clearance.<sup>50</sup>

39 SMAC, "Mine Situation", accessed 21 April 2023, at: <http://bit.ly/1Nom1V7>; and APMBC Article 7 Report (covering 2019), Section 4.

40 Email from Slađana Košutić, SMAC, 11 April 2023.

41 Interview with Jovica Simonović, SMAC, in Geneva, 18 February 2016.

42 Ibid.

43 APMBC 2018 Article 5 deadline Extension Request, p. 30; and email from Slađana Košutić, SMAC, 11 April 2023.

44 Email from Slađana Košutić, SMAC, 11 April 2023.

45 APMBC Article 5 deadline Extension Request (2018), p. 18.

46 Email from Slađana Košutić, SMAC, 11 April 2023.

47 Ibid.

48 Ibid.

49 Ibid.

50 Interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017; APMBC Article 5 deadline Extension Request (2018), p. 18; and email from Slađana Košutić, SMAC, 3 June 2022.

In September 2022, representatives of SMAC, the Ministry of Interior, and Serbian demining operator PMC Engineering, attended the regional course on quality management in mine action, in Rome. The course was organised by the GICHD in cooperation with the Italian counter-improvised explosive device (C-IED) Centre of Excellence and held for representatives of the Balkan countries.<sup>51</sup>

In November 2022, SMAC attended the 86<sup>th</sup> Partnership for Peace (PfP) training course on IMAS and conformance in Spiez, organised by the GICHD and Switzerland.<sup>52</sup>

In December 2022, representatives from SMAC, the Ministry of Internal Affairs – Police Directorate, Sector for Emergency Management, and the Gendarmerie, participated in a regional workshop in Sarajevo for NPA's project on enhancing quality management systems of national mine action authorities and centres in the Western Balkans. The project, financed by the Swiss Agency for Development and Cooperation, aims to help improve the management capabilities and support national ownership and leadership in mine action.<sup>53</sup>

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

### LAND RELEASE OUTPUTS IN 2022

A total of just over 0.28km<sup>2</sup> of CMR-contaminated area was released through clearance in 2022, during which two submunitions and fourteen other items of UXO were destroyed. No CMR-contaminated area was released through technical survey or non-technical survey.<sup>54</sup>

### SURVEY IN 2022

No land was reduced through technical survey in 2022. This is a decrease compared to the 515,000m<sup>2</sup> of CMR-contaminated area reduced through technical survey by NGO Stop Mines in 2021,<sup>55</sup> although technical survey of a CMR task totalling 131,900m<sup>2</sup> had been planned for 2022, but was postponed to 2023 due to bad weather.

No CMR-contaminated area was cancelled through non-technical survey in 2022<sup>56</sup> or 2021.<sup>57</sup>

### CLEARANCE IN 2022

A total of 281,169m<sup>2</sup> of CMR-contaminated area was cleared in 2022, during which two submunitions and fourteen items of other UXO were destroyed (see Table 3).<sup>58</sup> This was significantly less than the 877,738m<sup>2</sup> of CMR-contaminated area cleared in 2021, during which 28 submunitions and 392 items of other UXO were destroyed.<sup>59</sup>

Table 3: CMR clearance by municipality in 2022<sup>60</sup>

Municipality	Village	Operator	Area cleared (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed
Bujanovac	Borovac	NGO in Demining	281,169	2	14
Totals			281,169	2	14

SMAC did not have available data on the number or type of individual items of cluster munition remnants destroyed by the EOD department within the Sector for Emergency Management during spot tasks in 2021.<sup>61</sup> SMAC also does not possess data on explosive ordnance contamination of military areas in Serbia.<sup>62</sup>

51 Email from Slađana Košutić, SMAC, 11 April 2023.

52 Email from Slađana Košutić, SMAC, 11 April 2023; and SMAC, "SMAC Participation in IMAS and Conformance Training Course in Spiez, Switzerland", 8 November 2022, at: <https://bit.ly/41PVI1F>.

53 Email from Slađana Košutić, SMAC, 11 April 2023; and SMAC, "Participation of SMAC at Regional Workshop 'Assessment of Needs and Planning of Improvement of Quality management Capacities of National/State Mine Action Authorities' in Sarajevo", 15 December 2022, at: <https://bit.ly/3AiX0et>.

54 Email from Slađana Košutić, SMAC, 11 April 2023.

55 Email from Slađana Košutić, SMAC, 25 March 2022.

56 Email from Slađana Košutić, SMAC, 11 April 2023.

57 Email from Slađana Košutić, SMAC, 26 March 2021.

58 Email from Slađana Košutić, SMAC, 11 April 2023.

59 Email from Slađana Košutić, SMAC, 25 March 2022.

60 Email from Slađana Košutić, SMAC, 11 April 2023.

61 Ibid.

62 Ibid.

## PROGRESS TOWARDS COMPLETION

A total of 1.6km<sup>2</sup> has been cleared in the last five years (see Table 4).

**Table 4: Five-year summary of CMR clearance**

Year	Area cleared (m <sup>2</sup> )
2022	0.28
2021	0.88
2020	*0.30
2019	**0.14
2018	0.00
<b>Total</b>	<b>1.60</b>

\* Previously reported as 0.28km<sup>2</sup>, but subsequently revised upwards, as the earlier figure excluded a 12,805m<sup>2</sup> clearance task that had been completed, but not reported.

\*\* Previously reported as 0.12km<sup>2</sup>, but subsequently revised upwards, as excluded a 22,280m<sup>2</sup> clearance task that had been completed, but not reported.

In its most recent APMBC Article 5 deadline extension request, dated 31 March 2022, Serbia had included a work plan for completion of all ERW clearance by 2025, at a predicted total cost of €20 million. CMR were not disaggregated from other ERW.<sup>63</sup> Serbia has said that once it has implemented the CMR tasks planned for 2023, it will have finished clearance of all known cluster munition-contaminated areas under civilian control, excluding

military areas.<sup>64</sup> SMAC has received a request from the MoD to clear former military compounds bombed during the NATO strikes, that are intended for civilian use and which are not currently in SMAC's database.<sup>65</sup> The compounds were targeted during the NATO strikes,<sup>66</sup> and so a number of these compounds may contain CMR.

In addition to CMR clearance, SMAC also implements multiple other ERW clearance projects which contribute to socio-economic development. A total of almost 0.5km<sup>2</sup> was cleared of ERW in 2022, with the destruction of 136 items of UXO, funded by the Serbian government or public companies.<sup>67</sup>

In its 2022 APMBC Article 5 extension request Serbia stated that: "In the territory of the Autonomous Province of Kosovo and Metohija, there are mined areas, as well as areas contaminated with cluster bombs remaining after the armed conflicts. Pursuant to Resolution 1244 of the United Nations Security Council (Annex II, item 6), it is envisaged that after the withdrawal, an agreed number of the Republic of Serbia personnel will be allowed to return to perform certain functions, including marking and clearing minefields. As this provision of Annex II has not been implemented, this issue is still within the competence of UNMIK in accordance with Resolution 1244."<sup>68</sup>

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

SMAC expects to need both national and international capacity to deal with any residual contamination that may be discovered following completion of planned CMR clearance.<sup>69</sup>

63 APMBC 2022 Article 5 deadline Extension Request, pp. 37–38.

64 Email from Slađana Košutić, SMAC, 11 April 2023.

65 Emails from Slađana Košutić, SMAC, 25 March 2022 and 11 April 2023.

66 Email from Slađana Košutić, SMAC, 3 June 2022.

67 Email from Slađana Košutić, SMAC, 11 April 2023.

68 APMBC Article 5 deadline Extension Request (2022), p. 9.

69 Emails from Slađana Košutić, SMAC, 23 April 2020 and 11 April 2023.

# SOUTH SUDAN

MINE  
ACTION  
REVIEW

CLEARING CLUSTER  
MUNITION REMNANTS  
2023

ON 4 AUGUST 2023, SOUTH SUDAN ACCEDED TO THE CONVENTION ON CLUSTER MUNITIONS, WHICH WILL ENTER INTO FORCE ON 1 FEBRUARY 2024  
SOUTH SUDAN'S ARTICLE 4 DEADLINE WILL BE 1 FEBRUARY 2034

## KEY DATA

### CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

**5.28km<sup>2</sup>**

A REVIEW OF CMR CONTAMINATION IS EXPECTED TO RESULT IN AN INCREASE IN CONTAMINATED AREA.

SUBMUNITION  
CLEARANCE IN 2022

**4.3km<sup>2</sup>**

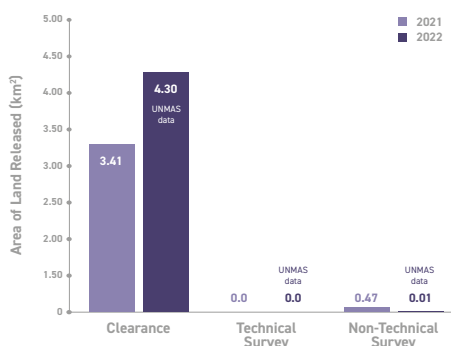
UNMAS DATA

SUBMUNITIONS  
DESTROYED IN 2022

**3,320**

(INCLUDING 90 DESTROYED  
DURING SPOT TASKS)

## LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

In 2022, clearance of cluster munition remnants (CMR) and other unexploded ordnance (UXO) continued to be prioritised over mine clearance due to the higher number of victims. Despite a background of ongoing insecurity, CMR-contaminated area released in 2022 increased slightly to 4.3km<sup>2</sup> up from 3.9km<sup>2</sup> in 2021. It is, however, increasingly unlikely that South Sudan will meet its self-imposed deadline for clearing all CMR of July 2026. Having acceded to the Convention on Cluster Munitions (CCM) on 4 August 2023, the Treaty will enter into force for South Sudan on 1 February 2024 and its Article 4 clearance deadline will 1 February 2034. South Sudan should be able to fulfil its Article 4 obligations within the initial 10-year CCM deadline.

## RECOMMENDATIONS FOR ACTION

- South Sudan should increase its financial support for mine action operations as well as to the National Mine Action Authority (NMAA).
- South Sudan should strengthen the coordination of mine action and develop a resource mobilisation strategy.
- South Sudan should ensure that the voluntary Article 7 reports it submits contain accurate data consistent with the International Mine Action Standards (IMAS), disaggregated by suspected hazardous area (SHA) and confirmed hazardous area (CHA).

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

## MANAGEMENT

- National Mine Action Authority (NMAA)

## NATIONAL OPERATORS

- None

## INTERNATIONAL OPERATORS

- Danish Church Aid (DCA) Danish Refugee Council – Mine Action (DRC)

- G4S Ordnance Management (G4S)
- Mines Advisory Group (MAG)
- The Development Initiative (TDI)
- SafeLane Global (SLG)

## OTHER ACTORS

- UN Mine Action Service (UNMAS)
- Geneva International Centre for Humanitarian Demining (GICHD)

## UNDERSTANDING OF CMR CONTAMINATION

At the end of 2022, South Sudan had 127 CMR-contaminated areas covering an area estimated at just under 5.3km<sup>2</sup>: almost 4.6km<sup>2</sup> of CHA and more than 0.7km<sup>2</sup> of SHA.<sup>1</sup> Seven of South Sudan's ten states have areas suspected to contain CMR (see Table 1), with Central and Eastern Equatoria, in the south of the country, by far the most heavily contaminated. Contamination has decreased from an estimated 6.1km<sup>2</sup> across 130 hazardous areas the previous year.<sup>2</sup> Just over 4.3km<sup>2</sup> of CMR-contaminated area was released in 2022, which suggests a far greater decrease in hazardous area. However, the United Nations Mine Action Service (UNMAS) accounts for this indicating that contaminated area and clearance often increase during clearance as operators accurately define the CMR footprint and use a 50-metre fade-out.<sup>3</sup>

**Table 1: Cluster munition-contaminated area by state (at end 2022)<sup>4</sup>**

State	CHAs	Area (m <sup>2</sup> )	SHAs	Area (m <sup>2</sup> )	Total CHAs/SHAs	Total area (m <sup>2</sup> )
Central Equatoria	48	2,084,017	2	475,503	50	2,559,520
Eastern Equatoria	52	2,203,136	2	50,194	54	2,253,330
Jonglei	6	95,676	2	0	8	95,676
Lakes	1	85,358	0	0	1	85,358
Upper Nile	3	52,702	0	0	3	52,702
Warrap	1	19,745	0	0	1	19,745
Western Equatoria	9	36,480	1	175,698	10	212,178
<b>Totals</b>	<b>120</b>	<b>4,577,114</b>	<b>7</b>	<b>701,395</b>	<b>127</b>	<b>5,278,509</b>

A countrywide baseline survey was never conducted in South Sudan due to insecurity and poor access.<sup>5</sup> In 2017, UNMAS initiated a review of the national Information Management System for Mine Action (IMSMA) database followed by targeted re-survey to determine more accurately the size of SHAs. Re-survey of SHAs is now part of the process whenever clearance teams are tasked to clear cluster munition-contaminated area.<sup>6</sup> In 2023, UNMAS began a small pilot baseline survey in Unity state.<sup>7</sup>

In recent years, South Sudan's national mine action programme has greatly improved the accuracy of estimates of contamination. The total estimate of remaining mine, CMR,

and other explosive remnants of war (ERW) contamination decreased from nearly 89km<sup>2</sup> at the end of 2017 to just over 18km<sup>2</sup> at the end of 2021.<sup>8</sup> However, despite continued land release, CMR contamination increased over the same period, before reducing in 2022. The review of existing database records and re-survey indicated that the increase in contamination in the four years to 2021 was because some task records had been wrongly recorded and were re-classified as CMR-contaminated areas; several overly conservative estimates of existing CHAs in the database were increased to reflect the actual extent of contamination more accurately; and previously unrecorded areas containing CMR were added to the database.<sup>9</sup>

1 Email from Matt Williams, Senior Programme Officer, United Nations Mine Action Service (UNMAS) South Sudan, 23 March 2023.

2 Email from Fran O'Grady, Chief of Mine Action, United Nations Mission in South Sudan (UNMISS), 9 March 2022.

3 Email from Matt Williams, UNMAS South Sudan, 3 May 2023.

4 Ibid., 23 March 2023.

5 Ibid.

6 Email from Fran O'Grady, UNMISS, 9 March 2022.

7 Remarks by Goran Tomasevic, Deputy Chief of Operations, at a meeting with UNMAS, Juba, 30 May 2023.

8 Email from Ayaka Amano, Associate Programme Officer, UNMAS, 2 May 2019; and UNMAS, South Sudan IMSMA Monthly Report, March 2004 to December 2021, at: <https://bit.ly/34nv9VK>.

9 Email from Ayaka Amano, UNMAS, 2 May 2019.

While 127 hazardous areas across South Sudan were reported at the end of 2022, historically the size of cluster munition strike sites has been underestimated, as indicated above, with analysis of previous clearance suggesting that the average task size is around 70,000m<sup>2</sup> (often reflecting multiple, overlapping strikes). It is likely therefore that the current assessment of CMR contamination still underestimates the scale of the problem.<sup>10</sup> In addition, as refugees start to return, it is expected that they will encounter previously unrecorded submunitions as the areas with the highest levels of contamination, especially in Central and Eastern Equatoria, are sparsely populated.<sup>11</sup> Moreover, information about contamination in hazardous areas in remote or sparsely populated areas is difficult to verify through non-technical survey (NTS).<sup>12</sup> According to UNMAS, the number of CMR contaminated areas is reasonably accurate. Although additional hazardous areas are likely to be identified in remote areas, these are not expected to increase dramatically the overall number of CHAs. However, given that contaminated area has generally increased during clearance operations, in April 2023 UNMAS began a review

of the size of CHAs to improve the accuracy of recorded CMR-contaminated area.<sup>13</sup>

Cluster munitions were used during the decade-long war between Sudan and the Sudan People's Liberation Army / Movement (SPLA/M) that ended in 2005. From 1995 to 2000, prior to South Sudan's independence, Sudanese government forces are believed to have dropped many cluster bombs over southern Sudan. In early 2014, remnants of Soviet-era RBK 250-275 AO-1SCh cluster bombs, including intact unexploded submunitions, were found near a major road in Jonglei State, 16km south of the State capital, Bor.<sup>14</sup> The area was not previously known to be CMR-contaminated and it is not known who was responsible for their use. Uganda denied using cluster bombs near Bor in early 2014, when it was providing air support to the government of South Sudan against opposition forces. The South Sudanese government also denied that its forces or the Ugandan military used cluster munitions during the conflict. It described the use as an "unfortunate incident" and pledged not to use cluster munitions.<sup>15</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

South Sudan has a significant problem with mines and especially ERW, resulting from large-scale use of explosive weapons during armed conflicts in 1955–72 and 1983–2005 (see Mine Action Review's *Clearing the Mines 2023* report on South Sudan for further information on landmines).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The South Sudan Demining Authority (SSDA)—since renamed the South Sudan National Mine Action Authority (NMAA)—was established by presidential decree in 2006 to function as the national agency for planning, coordination, and monitoring of mine action in South Sudan.<sup>16</sup> There is no national mine action legislation in place,<sup>17</sup> although this was expected to be adopted in 2023.<sup>18</sup>

In May 2023, the parliament of South Sudan took the decision to accede to the Convention on Cluster Munitions (CCM)<sup>19</sup> in line with a decision by the Council of Ministers in September 2017. On 4 August 2023, South Sudan deposited its instrument of accession with the UN Secretary-General in New York. The CCM enters into force for South Sudan on 1 February 2024 and its Article 4 clearance deadline will be 1 February 2034.

10 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

11 Email from Brendan Ramshaw, Operations Manager, DanChurchAid (DCA), 22 April 2021.

12 Email from Lisa Müller-Dormann, then Programme Officer/Co-coordinator Mine Action Sub-cluster, Mines Advisory Group (MAG), 22 March 2022.

13 Emails from Matt Williams, UNMAS South Sudan, 23 March 2023, and 3 May 2023.

14 Landmine and Cluster Munition Monitor, "South Sudan", accessed 11 April 2023, at <https://bit.ly/3Kqz5cU>.

15 Ibid.

16 "South Sudan De-Mining Authority", undated, at: <http://bit.ly/2Y5Eb4o>.

17 Email from Ayaka Amano, UNMAS, 2 May 2019.

18 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

19 UNMAS Facebook post, 12 May 2023, at <https://bit.ly/3C1CgEj>.

In 2011, UN Security Council Resolution 1996 tasked UNMAS with supporting South Sudan in demining and strengthening the capacity of the NMAA and UNMAS derives its current responsibilities from the United Nations Mission in South Sudan (UNMISS) mandate.<sup>20</sup> Working together, UNMAS and the NMAA oversee mine action across the country. The NMAA and UNMAS both have offices in Juba, UNMAS has sub-offices in Bentiu, Bor, Malakal, and Wau, while the NMAA also has offices in Wau and Yei.<sup>21</sup> UNMAS and the NMAA accredit, task, monitor, and evaluate mine action organisations; conduct route verification and clearance; provide escorts for convoys on high-threat routes to enable the delivery of humanitarian assistance; and collect data and map hazardous areas.<sup>22</sup>

The NMAA continues to expand its responsibilities gradually. However, it still faces serious financial and technical limitations preventing it from managing mine action operations effectively and UNMAS and international non-governmental organisations (NGOs) continue to support the authority.<sup>23</sup> The NMAA is, though, reported to play a significant role in facilitating mine action operations.<sup>24</sup> Meetings of monthly coordination meetings co-chaired by the NMAA and UNMAS with all operators (commercial and international NGOs), which have been largely dormant in recent years, resumed in 2023.<sup>25</sup> But there is no platform for regular in-country dialogue involving both national and international partners on progress, challenges, and support for mine action.

There is generally an enabling environment for mine action operations in South Sudan and the authorities support the necessary administrative processes for granting visas to international staff and importing equipment, and approve memoranda of understanding.<sup>26</sup> The Ministry of Labour sometimes reject work permit applications for international mine action staff if they deem there to be national workers with the required skills.<sup>27</sup> Delays are often encountered when importing demining equipment as multiple approvals are required from different government offices. If equipment is no longer needed after the end of a programme, it is usually handed over to the government or an identified partner in South Sudan; equipment cannot be re-exported.<sup>28</sup>

In 2022, UNMAS provided training to NMAA staff in operational management, quality management (QM), and monitoring and evaluation.<sup>29</sup> A pilot project between August

2021 and March 2022 resulted in the development of an explosive ordnance disposal (EOD) mobile team within the national authority that was trained and accredited to conduct surveys, EOD spot tasks, and explosive ordnance risk education (EORE). They received a total of 10 EOD spot task requests during the programme and disposed of 17 items of UXO and 1 unexploded submunition.<sup>30</sup>

Mines Advisory Group (MAG) provided capacity building support to the NMAA through its secondment programme whereby NMAA staff are seconded to MAG teams as deminers for an average of three years. The programme aims to equip staff with the skills necessary to lead potential future technical teams within the NMAA. Secondees develop on-the-job experience as deminers, attend technical training courses such as EOD Level 2, and develop leadership and management skills. In 2022, one secondee was promoted to the role of Site Supervisor; the first NMAA staff member to reach this leadership level;<sup>31</sup> others have become team leaders.<sup>32</sup> In March 2023, three NMAA staff were on secondment with MAG.<sup>33</sup> In addition, following an institutional capacity assessment of the NMAA by MAG in 2021, MAG recruited a capacity development advisor to work with the NMAA to strengthen its human resources, procurement, financial management, and logistics processes for nine months from September 2022.<sup>34</sup>

DanChurchAid (DCA) has employed an NMAA staff member who worked as a National Site Supervisor from October 2019, is training to become a Technical Advisor, and has periodically acted as Technical Advisor for several months at a time.<sup>35</sup> In addition, DCA is providing capacity building on EORE to a national NGO, Support for Peace and Education Development Programme (SPEDP).<sup>36</sup> Danish Refugee Council (DRC) is training the national NGO, Community In Need Aid (CINA), on clearance and EORE procedures and nine CINA staff are seconded to DRC teams.<sup>37</sup> DRC and DCA highlight the peacebuilding and development slant they bring to mine action.<sup>38</sup> The Geneva International Centre for Humanitarian Demining (GICHD), in partnership with UNDP, has undertaken a study on the sustainable development outcomes of mine action in South Sudan which will be published in 2023.<sup>39</sup> The study highlights the value of mine action in South Sudan as an enabler of broader humanitarian, peace, and development efforts.<sup>40</sup> In 2022, UNMAS and DRC were the co-coordinators

20 Remarks by Fran O'Grady, Chief of Mine Action, at a meeting with UNMAS, Juba, 30 May 2023.

21 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

22 UNMAS, "Mine Action Portfolio 2019".

23 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

24 Remarks by Fran O'Grady, Chief of Mine Action, at a meeting with UNMAS, Juba, 30 May 2023.

25 Remarks by Jurkuch Barach, Chairperson, NMAA, Monthly NMAA Mine Action Coordination Meeting, Juba, 30 May 2023.

26 Email from Lisa Müller-Dormann, Humanitarian Disarmament and Peacebuilding Programme Manager, Danish Refugee Council (DRC), 27 March 2023.

27 Email from Eric Okoth, Country Director, MAG, 20 March 2023.

28 Ibid.

29 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

30 Ibid.

31 Ibid.

32 Email from Eric Okoth, MAG, 20 March 2023.

33 Ibid.

34 Emails from Eric Okoth, MAG, 12 and 20 June 2023.

35 Email from Hajrudin Osmanovic, Interim Operations Manager, DCA, 13 June 2023.

36 Ibid., 18 April 2023.

37 Email from Lisa Müller-Dormann, DRC, 27 March 2023.

38 Interview with Lisa Müller-Dormann, DRC, 21 May 2023; and email from Hajrudin Osmanovic, DCA, 13 June 2023.

39 Email from Sasha Logie, Country Focal Point, GICHD, 28 March 2023.

40 Ibid., 12 June 2023.

of the Mine Action Sub-Cluster,<sup>41</sup> although there has been a lack of engagement with the sub-cluster in recent years and it has not been very active.<sup>42</sup>

The Government of South Sudan has reported funding NMAA staff salaries and its sub-offices in Wau and Yei, although as at March 2023, the Yei office was still not operational, having closed in 2021 for security reasons.<sup>43</sup> The government's total support to the NMAA was reported as below US\$100,000 in 2022, and there was no national funding for CMR survey or clearance.<sup>44</sup>

In South Sudan's revised 2020 Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request, completing all clearance by July 2026 was estimated to require US\$148 million.<sup>45</sup> In 2021, funding for mine action from external sources, including through UNMAS, was in the region of US\$35.5 million,<sup>46</sup> while in 2022 it was about US\$42 million.<sup>47</sup> In 2022, UNMISS provided about US\$29 million for mine action in South Sudan (about 70% of mine action funding in 2022), all of which was managed by UNMAS.<sup>48</sup> UNMAS contracted 24 commercial demining teams in 2022 to undertake a range of clearance, survey, disposal work, and risk education activities for a range explosive ordnance. The

operational contracts were worth almost \$22.5 million.<sup>49</sup>

The international NGOs do not currently have any of the UNMAS operational contracts. They indicated that the requirements of UNMAS contracts make it difficult for them to tender,<sup>50</sup> and they largely rely on bilateral donor support. In recent years, the South Sudan Humanitarian Fund run by the UN Office for the Coordination of Humanitarian Affairs (OCHA) has not allocated any funding to mine action survey or clearance operations.<sup>51</sup> By May 2023, both DCA and DRC were facing funding shortfalls.<sup>52</sup>

The NMAA has requested international funding and technical support covering 2022 to 2024 for CMR clearance and for training on residual capacity.<sup>53</sup> South Sudan does not have a mine action resource mobilisation strategy. The GICHD will support the NMAA in developing a new Mine Action Strategy to replace the 2018–22 strategy,<sup>54</sup> and this should include a resource mobilisation strategy.<sup>55</sup> The UNMAS Chief of Mine Action did, however, conduct a range of advocacy activities in support of funding for international and national NGOs in 2022. These included presenting to key Juba-based donors and to UN Member State representatives at UN headquarters in New York, as well as advocating to UNMISS leadership.<sup>56</sup>

## ENVIRONMENTAL POLICIES AND ACTION

UNMAS has incorporated environmental considerations into mine action operations, in collaboration with the NMAA, providing guidance in the National Technical Standard and Guidelines (NTSGs).<sup>57</sup> South Sudan has an NTSG on Health and Safety, Social and Environment (HSSE), which was introduced in 2018, in line with IMAS 07.13 on Environmental Management in Mine Action.<sup>58</sup> This is updated annually to incorporate lessons learned and in 2022, amendments were made to the NTSG on conducting environmentally compliant disposal and the subsequent treatment of the "Free From Explosives" metal scrap.<sup>59</sup>

Implementing partners in South Sudan establish their own standard operating procedures (SOPs) and policies based on the NTSG to safeguard the environment. When survey and clearance are completed, an area should be restored in accordance with the wishes of the local community. At a minimum, restoration should include the removal of large

items of scrap metal, the filling in of any pits or craters due to EOD, and the fencing off of any areas where there may be residual non-explosives hazardous materials left in the ground.<sup>60</sup> To minimise the impact of mine action activities on the environment, UNMAS continued to sensitise mine action operators in South Sudan on environmental considerations in planning demolitions and in post-demolition procedures, in mechanical operations, and in conducting vegetation clearance.<sup>61</sup>

On MAG's worksites and temporary accommodation facilities, the NTSGs are reported to be strictly followed with robust sanitary and waste management systems and environmental considerations integrated into daily operations and programming. MAG employs a comprehensive post-demolition site remediation in which teams leave the ground as close to its original state as possible. Mechanical assets and road transport are only used when necessary.

41 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

42 Interview with Lisa Müller-Dormann, DRC, 21 May 2023; and remarks by Matt Williams, Senior Programme Officer, at a meeting with UNMAS, Juba, 30 May 2023.

43 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

44 Ibid.

45 Revised 2020 APMBC Article 5 deadline extension request, p. 75.

46 Emails from Fran O'Grady, UNMISS, 9 March 2022; and Matt Williams, UNMAS South Sudan, 19 June 2023.

47 Updated Work Plan for the period from January 2022 to June 2026, submitted to the APMBC Article 5 Committee, dated 31 April 2022, p. 34.

48 Zoom interview with Fran O'Grady, UNMISS, 7 March 2023; and emails from Matt Williams, UNMAS South Sudan, 3 May and 19 June 2023.

49 Email from Matt Williams, UNMAS South Sudan, 3 May 2023.

50 Interviews with Andrew Steele, Logistics Manager, MAG, 20 May 2023; Lisa Müller-Dormann, DRC, 21 May 2023; and Janardhan Rao, Country Director, DCA, 26 May 2023.

51 Remarks by Matt Williams, Senior Programme Officer, at a meeting with UNMAS, Juba, 30 May 2023.

52 Interviews with Lisa Müller-Dormann, DRC, 21 May 2023; and Janardhan Rao, DCA, 26 May 2023.

53 Voluntary Article 7 Report (covering 2020), Form I.

54 Remarks by Fran O'Grady, Chief of Mine Action, at a meeting with UNMAS, Juba, 30 May 2023.

55 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

56 Ibid.

57 Ibid.

58 Voluntary Article 7 Report (covering 2020), Form I.

59 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

60 Article 7 Report (covering 2021), Form B.

61 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

MAG's community liaison teams maintain contact with community leaders to inform them of operations and provide an opportunity for feedback, including about possible environmental damage.<sup>62</sup> DRC's SOP limits the felling of trees above a certain height and supports the restoration of soil following demolitions, while its bases in Magwi use

solar power.<sup>63</sup> In 2023, DCA initiated an organisation-wide environmental assessment in South Sudan,<sup>64</sup> which includes an assessment of the environmental impact of clearance, and the development of a self-assessment tool to minimise environmental degradation.<sup>65</sup>

## GENDER AND DIVERSITY

South Sudan's second national mine action strategy for 2018–22 includes a section on gender, focusing on how different gender and age groups are affected by mines and ERW and have specific and varying needs and priorities. Guidelines on mainstreaming gender considerations in mine action planning and operations in South Sudan are also incorporated in the strategy, including on the collection of data disaggregated by sex and age.<sup>66</sup> UNMAS reported that the programme was also implementing the UN Gender Guidelines for Mine Action, monitored by a gender focal point, who also encourages implementing partners to provide equal employment opportunities and consider the role and the behaviour of male and female beneficiaries when planning, implementing, and managing projects.<sup>67</sup> UNMAS has said that, in theory, employment opportunities for qualified men and women in survey and clearance teams across the organisations operating in South Sudan are equal. However, redressing the gender balance is a long-term challenge and a work in progress.<sup>68</sup>

South Sudan's NTSGs contain provisions requiring all community liaison teams to tailor activities on the basis of the gendered needs of beneficiaries, and to address the specific risks faced by women and girls.<sup>69</sup> All teams are reportedly gender balanced and trained to be inclusive, for example by ensuring outreach through NTS and risk education is done separately for different age and gender groups, and taking local cultural practices into consideration.<sup>70</sup> Ethnic identity is taken into account within survey and clearance teams to ensure safe access and acceptance by local communities.<sup>71</sup> But UNMAS has indicated that ethnic identity continues to

limit the participation of different ethnic minority groups in survey and clearance operations across the country.<sup>72</sup> Community liaison staff capture the needs of different groups including vulnerable and minority groups such as internally displaced persons (IDPs) and refugees, which feeds into operational priorities.<sup>73</sup> UNMAS has reported, though, that task prioritisation is predominantly dependent on security and that resources are concentrated on tasks within limited geographical areas.<sup>74</sup>

All UNMAS operational teams are mixed gender.<sup>75</sup> Workshops for the NMAA and mine action partners on gender equality, gender-based violence (GBV), and gender mainstreaming programming in mine action, delayed by COVID-19, are yet to take place.<sup>76</sup>

Among UNMAS contracted commercial partners, through an increased focus on gender and diversity in procurement processes, female participation in technical and managerial functions is increasing,<sup>77</sup> though the overall proportion of female staff remains low. SafeLane Global (SLG), maintains an overall staffing ratio of 24% women in various positions, including operational staff, The Development Initiative (TDI) maintains 17%, while G4S has 13% female representation including in operational and managerial positions.<sup>78</sup> There is a female Programme Manager for one G4S contract, the first time that a woman has held such a senior position within an UNMAS-contracted operator in South Sudan.<sup>79</sup>

62 Email from Eric Okoth, MAG, 20 March 2023.

63 Email from Lisa Müller-Dormann, DRC, 27 March 2023.

64 Interview with Janardhan Rao, DCA, 26 May 2023.

65 Email from Hajrudin Osmanovic, DCA, 13 June 2023.

66 Emails from Tim Lardner, Chief Mine Action, UNMAS, 27 February and 1 March 2018.

67 Emails from Ayaka Amano, UNMAS, 2 May 2019; and Fran O'Grady, UNMISS, 9 March 2022.

68 Email from Ayaka Amano, UNMAS, 2 May 2019.

69 Ibid.

70 Ibid.

71 Email from Richard Boulter, UNMAS, 8 July 2020.

72 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

73 Ibid.

74 Emails from Ayaka Amano, UNMAS, 2 May 2019; and Matt Williams, UNMAS South Sudan, 23 March 2023.

75 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

76 Ibid., 3 May 2023.

77 Ibid.

78 Ibid.

79 Ibid.

**Table 2: Gender composition of operators (at March 2023)<sup>80</sup>**

Organisation	Total staff	Women employed	Total staff in managerial or supervisory positions	Women in managerial or supervisory positions	Total staff in operational positions	Women in operational positions
UNMAS	46	13	3	1	16	3
G4S*	548	75	110	13	413	62
SLG*	174	41	15	1	155	37
TDI*	69	11	16	2	42	9
MAG	141	48	35	5	109	41
DRC	47	16	7	1	45	16
DCA	42	8	6	0	6	0
<b>Totals</b>	<b>1,067</b>	<b>212</b>	<b>192</b>	<b>23</b>	<b>786</b>	<b>168</b>

\* The figures for G4S, SLG, and TDI were provided as at May 2023.

As regards international NGO operators, the proportion of female staff is generally slightly higher. As at March 2023, MAG reported that gender balance within its teams significantly improved following two female deminer-only training courses in 2022. In 2021, the first woman was awarded an EOD Level 2 qualification and received UNMAS accreditation.<sup>81</sup> While representation of women in managerial and supervisory positions is improving, it remains low, and women have been allocated half of the spaces on the next specialist training cycle, which will provide the skills needed for leadership and management positions.<sup>82</sup> MAG holds women-only focus groups to ensure that women's views are taken into consideration. It aims to recruit team members from the 60 plus ethnic groups within South Sudan and tries

to ensure that at least one team member speaks the local language in areas of operation.<sup>83</sup>

At DRC, four in every ten members of survey and community liaison teams are female. As co-coordinator of Mine Action Sub-Cluster, DRC has been advocating for female deminers to be integrated into security sector training programmes run by UN Women.<sup>84</sup> Clearance teams are composed of different ethnic groups and are roving unless there are security concerns for certain ethnicities.<sup>85</sup> DCA's survey team is gender balanced and runs separate sessions for children and women as well as mixed groups.<sup>86</sup> DCA is working to include different ethnicities among team members to facilitate engagement with different communities.<sup>87</sup>

## INFORMATION MANAGEMENT AND REPORTING

A comprehensive review of all data in South Sudan's IMSMA database was undertaken in 2018, along with re-survey of recorded SHAs and CHAs where the size was thought to be exaggerated or location mis-recorded. The database review found that past efforts to upgrade the IMSMA software package had led to serious data loss, which inhibited efforts to present an accurate record of the history of mine action in South Sudan. The review resulted in significant gains in the understanding of mine and ERW contamination.

In 2021, South Sudan was supported by the GICHD to upgrade its IMSMA database to IMSMA Core,<sup>88</sup> and in 2022 the major transition of IMSMA information to Survey123 was completed.<sup>89</sup>

<sup>80</sup> Emails from Matt Williams, UNMAS South Sudan, 23 March 2023 and 2 June 2023; Eric Okoth, MAG, 20 March 2023; Lisa Müller-Dormann, DRC, 12 June 2023; and Hajrudin Osmanovic, DCA, 22 March and 13 June 2023.

<sup>81</sup> Email from Lisa Müller-Dormann, then MAG, 22 March 2022.

<sup>82</sup> Email from Eric Okoth, MAG, 20 March 2023.

<sup>83</sup> Email from Lisa Müller-Dormann, then MAG, 22 March 2022.

<sup>84</sup> Email from Lisa Müller-Dormann, DRC, 27 March 2023.

<sup>85</sup> Ibid.

<sup>86</sup> Email from Hajrudin Osmanovic, DCA, 14 March 2023.

<sup>87</sup> Ibid.

<sup>88</sup> Emails from Fran O'Grady, UNMISS, 9 March 2022; and Sasha Logie, GICHD, 21 April 2022.

<sup>89</sup> Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

South Sudan submitted a voluntary CCM Article 7 report for the first time in 2020, despite not having yet acceded to the Convention. South Sudan submitted its fourth voluntary Article 7 report (covering 2022) in April 2023. The land release data contained within the most recent report (submitted on 30 April 2023 and accessed) contained discrepancies with that provided by UNMAS. As at July 2023, errors on the voluntary Article 7 report covering 2022 were expected to be corrected and a revised report resubmitted (further detail is provided below under the section, "Land Release Outputs and Progress towards Completion").<sup>90</sup> On 4 August 2023, South Sudan acceded to the CCM and will become a State Party on 1 February 2024. Under the CCM, South Sudan is legally required to report to the Secretary-General of the United Nations on Article 7 as soon as practicable, and no later than 180 days after becoming a State Party.

## PLANNING AND TASKING

The GICHD will support the NMAA with the development of a new mine action strategy in 2023.<sup>91</sup> South Sudan's most recent National Mine Action Strategy 2018–2022, developed with support from the GICHD with funding from Japan, had three strategic goals.<sup>92</sup>

- Goal 1: Advocacy and communication of South Sudan's mine/ERW problem continues through national and international awareness-raising and adoption and implementation of international conventions to facilitate a mine-/ERW-free South Sudan.
- Goal 2: The extent of mine/ERW contamination is clarified and confirmed and the problem addressed through appropriate survey and clearance, ensuring safe land is handed back to affected communities for use.
- Goal 3: Safe behaviour is promoted among women, girls, boys, and men to reduce mine/ERW accidents and promote safe livelihood activities.

A mid-term strategic review of the national strategy was conducted in January 2020 with national and international stakeholders and supported by the GICHD.<sup>93</sup> This fed into the operational clearance plan for 2020–21 which adopted a pragmatic approach to prioritisation focusing on efficient deployment of resources. In 2021–22 the operational focus was on securing safe access and creating a more secure environment for affected communities and returnees by conducting survey, mechanical and manual area clearance, and road clearance.<sup>94</sup> The programme continues to practise a proven approach based on efficient deployment of available resources in line with prioritisation defined by the annual clearance work plan. The plan is normally approved in June and reviewed mid-term, to reflect any operational changes.<sup>95</sup>

In an updated work plan covering January 2022 to June 2026, submitted to the APMBC Committee on Article 5 Implementation, dated 31 April 2022 [sic], the NMAA indicated that going forward, CMR clearance teams were expected to clear 2,500m<sup>2</sup> per team per day with a 10% margin of safety added to the overall requirement.<sup>96</sup> According to its revised 2020 APMBC Article 5 deadline extension request, South Sudan intended to address all explosive contamination by its new deadline of 2026,<sup>97</sup> and the updated work plan indicates that it would clear 7,200,000m<sup>2</sup> in the five years to 2026.<sup>98</sup> However, UNMAS has reported more recently that South Sudan is unlikely to clear CMR contamination by 2026 due to the historical underestimated size of cluster strikes, access difficulties, discovery of additional cluster strikes, and a high likelihood of a decrease in funding for clearance operations.<sup>99</sup>

There has been no progress with developing an independent national capacity for clearing residual contamination. However, through their implementing partners, UNMAS fielded 24 commercial demining teams, employing national deminers, with four teams led by national team leaders. The three international NGOs (DCA, DRC, and MAG) fielded another 12 national demining teams.<sup>100</sup>

Coordination between UNMAS and the international NGO operators could be stronger. International NGOs, for example, usually pre-select task locations with donors without reference to UNMAS,<sup>101</sup> and UNMAS reportedly allocates tasks to commercial operators in areas where international NGOs are already present with established relationships with the local community.<sup>102</sup>

90 Email from Matt Williams, UNMAS South Sudan, 19 June 2023.

91 Remarks by Fran O'Grady, Chief of Mine Action, at a meeting with UNMAS, Juba, 30 May 2023.

92 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018; and Richard Boulter, UNMAS, 6 June 2018.

93 Email from GICHD, 29 June 2021.

94 Email from Fran O'Grady, UNMISS, 9 March 2022.

95 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

96 South Sudan's updated work plan, p. 34, submitted to the APMBC Committee on Article 5 Implementation, 31 April 2022 [sic].

97 Revised 2020 Article 5 deadline Extension Request, p. 75.

98 South Sudan's updated work plan, submitted to the APMBC Committee on Article 5 Implementation, 31 April 2022 [sic], p. 14.

99 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

100 Ibid.

101 Remarks by Matt Williams, Senior Programme Officer, at a meeting with UNMAS, Juba, 30 May 2023.

102 Interview with Lisa Müller-Dormann, DRC, 21 May 2023.

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

South Sudan's NTSGs, which outline the technical requirements expected of all demining operators working in South Sudan, are adapted from the IMAS. The NTSGs are annually reviewed and revised by UNMAS in consultation with implementing partners and the NMAA,<sup>103</sup> taking into account any lessons learned during the year and addressing any changes in IMAS.<sup>104</sup> These standards and guidelines contain provisions specific to CMR survey and clearance<sup>105</sup> and are said to be fully adapted to the local context for survey and clearance.<sup>106</sup>

Both UNMAS and MAG have reported that a considerable number of initial survey reports of CMR-contaminated areas have underestimated the extent of the contamination. According to UNMAS, initial survey reports normally consider the known locations of submunitions, creating polygons around them in the form of a minimal 50 metre fade-out from the last item. UNMAS reports that while this ensures accurate information in terms of reporting CHAs, it underestimates the real extent of contamination which, as indicated above, is revealed only through actual clearance and fade-out expansion.<sup>107</sup>

MAG has indicated that this often makes it difficult to accurately plan for the time and resources needed to address each task so begins CMR clearance with the expectation

that the task area will reach at least 60,000m<sup>2</sup> and at times has encountered CMR tasks that had to be expanded by more than 100,000m<sup>2</sup> above the original estimate. MAG has also indicated that the fade-out requirements of the NTSGs sometimes resulted in handover of cleared land while simultaneously creating a new "hazardous area" comprising the fade-out distance.<sup>108</sup> UNMAS reported that often in a recorded strike area, multiple cluster munition canisters are found, with the consequence that the overall contaminated area extends well beyond an expected standard footprint.<sup>109</sup>

South Sudan reports having developed a strong methodology for clearing CMR using large-loop detectors, allowing operators to discriminate between potential submunitions and metallic clutter. Operators have further enhanced productivity by using mechanical vegetation-cutting equipment.<sup>110</sup>

UNMAS has noted that the NTSGs require all mine action teams to conduct regular internal quality assurance (QA), along with quality control (QC) sampling of 10% of each area cleared.<sup>111</sup> The minimum frequency for the organisational senior management internal QA visits to each team was set at one per month in 2021 and a standardised scoring matrix was introduced for the EOD written examination.<sup>112</sup>

## OPERATORS AND OPERATIONAL TOOLS

Clearance teams in South Sudan are normally accredited for and deployed to a variety of tasks, including CMR, anti-personnel mine (AP mine) and anti-vehicle mine (AV mine) clearance, EOD, and EORE. None is exclusively allocated to CMR activities.<sup>113</sup> All teams, except four NTS teams (see Table 3), are accredited to conduct multiple mine action activities, including clearance.

Table 3: Operational NTS capacities deployed in 2022<sup>114</sup>

Operator	NTS teams	Total NTS personnel	Comments
MAG	2	5	NTS/EOD spot capability
DRC	1	8	
DCA	1	12	
Totals	4	25	

103 Article 7 Report (covering 2019), Form 4; email from Matt Williams, UNMAS South Sudan, 23 March 2023.

104 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

105 Email from Robert Thompson, Chief of Operations, UNMAS, 21 April 2016; and responses to questionnaire, 30 March 2015; and email from Augustino Seja, Norwegian People's Aid (NPA), 11 May 2015.

106 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

107 Ibid.

108 Email from Katie Shaw, Programme Officer, MAG, 26 April 2019.

109 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.

110 South Sudan's updated work plan, p. 19, submitted to the APMBC Committee on Article 5 Implementation, 31 April 2022 [sic].

111 Email from Ayaka Amano, UNMAS, 2 May 2019.

112 Email from Fran O'Grady, UNMISS, 9 March 2022.

113 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

114 Ibid.

UNMAS reported that 36 teams from three commercial companies (G4S, TDI, and SLG) and three international NGOs (DCA, DRC, and MAG) conducted CMR survey and clearance tasks in 2022.<sup>115</sup> This is an increase from 22/23 teams in 2021 while the number of operators stayed constant.<sup>116</sup> The number of operational personnel involved in CMR technical survey (TS) and clearance during 2022 was 447 (see Table 4), up from 290 personnel in 2021.<sup>117</sup> No major changes in the number of survey or clearance personnel were expected in 2023.<sup>118</sup> MAG expects to deploy an additional team focused on NTS and other assessments to support its operations,<sup>119</sup> while in January 2023, the number of DCA teams decreased from two to one.<sup>120</sup> By May 2023, however, DRC and DCA were both facing funding shortfalls and the prospect of cutting staff and operations.<sup>121</sup> The only increase in mechanical capacity in 2022 was DCA's deployment of a MW240 from August 2022; another slight increase was expected in 2023 (one MW240 and one GCS100 are to be used by integrated clearance capacity teams).<sup>122</sup>

**Table 4: Operational TS and clearance capacities deployed in 2022 (data provided by UNMAS)<sup>123</sup>**

Operator	Manual teams	Total personnel	Dogs and dog handlers	Mechanical assets
G4S	12	180	3/3	2 x TRAXX RC562
SLG	8	120	0	0
TDI	4	50	6/6	2 (1 x MW240, 1 x MW330)
MAG*	4	60	0	3 (1 x PT300, 2 x Bozena 4)
DRC	2	20	0	0
DCA	2	17	0	1 MW240 from August 2022
<b>Totals</b>	<b>32</b>	<b>447</b>	<b>9/9</b>	<b>8</b>

\* MAG had six teams at the start of 2022 with 78 personnel, which decreased to four clearance teams with 60 staff in September.<sup>124</sup>

There were two incidents in 2022 where UNMAS implementing partner demining teams were robbed at gunpoint. One resulted in the minor loss of equipment and some personal belongings and the other involved the loss of demining supplies, including 13 lithium rechargeable detector batteries and medical equipment. No personnel were injured in either incident.<sup>125</sup>

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

### LAND RELEASE OUTPUTS IN 2022

According to UNMAS, a total of just over 4.3km<sup>2</sup> of CMR-contaminated area was released through survey and clearance in 2022. Of this, less than 0.02km<sup>2</sup> was cancelled through NTS and just over 4.29km<sup>2</sup> was cleared; a miniscule amount, just 359m<sup>2</sup>, was reduced through TS.<sup>126</sup> However, as previously mentioned and footnoted below, there are significant discrepancies with data provided in South Sudan's voluntary Article 7 report covering 2022 (submitted on 30 April and accessed), and as at July 2023 it was planned for the errors to be corrected and a revised Article 7 report re-submitted. In addition, a total of 157,189m<sup>2</sup> of previously unrecorded CMR contamination was added to South Sudan's mine action information management database in 2022.<sup>127</sup>

<sup>115</sup> Ibid.

<sup>116</sup> Emails from Fran O'Grady, UNMISS, 9 March 2022; Lisa Müller-Dormann, then MAG, 22 March 2022; and Matt Williams, UNMAS South Sudan, 23 March 2023.

<sup>117</sup> Ibid.

<sup>118</sup> Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

<sup>119</sup> Email from Eric Okoth, MAG, 20 March 2023.

<sup>120</sup> Email from Hajrudin Osmanovic, DCA, 22 March 2023.

<sup>121</sup> Interviews with Lisa Müller-Dormann, DRC, 21 May 2023; and Janardhan Rao, DCA, 26 May 2023.

<sup>122</sup> Email from Matt Williams, UNMAS South Sudan, 3 May 2023.

<sup>123</sup> Emails from Matt Williams, UNMAS South Sudan, 23 March 2023; and Clement Suwali, Operations Manager, DRC, 2 May 2023.

<sup>124</sup> Email from Leah Grace, Programme Officer, MAG, 25 April 2023.

<sup>125</sup> Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

<sup>126</sup> Ibid; and email from Matt Williams, UNMAS South Sudan, 19 June 2023.

<sup>127</sup> Email from Matt Williams, UNMAS South Sudan, 23 March 2023. South Sudan's original Voluntary CCM Article 7 Report (covering 2022), pp. 13–14, indicated that 587,815m<sup>2</sup> of previously unrecorded CMR contamination was discovered in 2022.

## SURVEY IN 2022

In 2022, a total of 15,433m<sup>2</sup> was cancelled through NTS, all in Eastern Equatoria (see Table 5),<sup>128</sup> a huge decrease from the 466,954m<sup>2</sup> of suspected CMR contamination cancelled through NTS in Eastern Equatoria, Western Equatoria, and Western Bahr El Ghazal in 2021.<sup>129</sup> The main reason for the decrease in area cancelled was the "exhaustion" of recorded open hazardous areas requiring resurvey and revision of polygon sizes.<sup>130</sup>

In 2022, just 359m<sup>2</sup> of hazardous area was reduced through TS (see Table 6), also in Eastern Equatoria,<sup>131</sup> whereas no land was reduced in 2021.<sup>132</sup>

**Table 5: Cancellation through NTS in 2022 (data provided by UNMAS)<sup>133</sup>**

State	Operator	Area cancelled (m <sup>2</sup> )
Eastern Equatoria	SLG	2,784
Eastern Equatoria	MAG	10,168
Eastern Equatoria	DRC	2,481
<b>Total</b>		<b>15,433</b>

**Table 6: Reduction through TS in 2022 (data provided by UNMAS)<sup>134</sup>**

State	Operator	Area cancelled (m <sup>2</sup> )
Eastern Equatoria	G4S	359
<b>Total</b>		<b>359</b>

## CLEARANCE IN 2022

In 2022, a total of almost 4.3km<sup>2</sup> of CMR-contaminated area was cleared with 3,320 submunitions destroyed, including 90 during EOD spot tasks (see Table 7).<sup>135</sup> This is an increase from the 3.4km<sup>2</sup> of CMR-contaminated area cleared and the 2,851 submunitions destroyed in 2021.<sup>136</sup>

The main reason for the increase in clearance in 2022 was a six-month restriction imposed by national security services in 2021 on operations to the south and east of Juba in areas with a high level of CMR contamination. Teams were allocated to other tasks, mainly anti-personnel minefields in the east of the country, resulting in lower CMR clearance.

**Table 7: CMR clearance in 2022<sup>137</sup>**

State	Operator	Area cleared (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed
Central Equatoria	G43	209,109	71	7
Central Equatoria	SLG	157,034	92	79
Eastern Equatoria	DCA	223,983	387	0
Eastern Equatoria	DRC	425,177	232	2
Eastern Equatoria	G4S	644,685	479	12
Eastern Equatoria	MAG	939,651	1,247	4
Eastern Equatoria	SLG	305,812	195	2
Jonglei	SLG	282,667	20	10
Lakes	G4S	197,591	82	1

<sup>128</sup> Emails from Matt Williams, UNMAS South Sudan, 23 March and 19 June 2023. South Sudan's original Voluntary CCM Article 7 Report (covering 2022), submitted 30 April 2023, pp. 15 and 21, indicated that 4,452,613m<sup>2</sup> of CMR contamination was cancelled through NTS in 2022, but the figure appears to include cancelled area from earlier years.

<sup>129</sup> Email from Fran O'Grady, UNMISS, 9 March 2022.

<sup>130</sup> Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

<sup>131</sup> Ibid. The original Voluntary CCM Article 7 Report (covering 2022), submitted 30 April 2023, alternatively suggests that 611,629m<sup>2</sup> (p. 22) or 3,611,629m<sup>2</sup> (p. 44) of CMR-contaminated area was "reduced" through "non-technical survey", although the latter figure may include NTS from earlier years.

<sup>132</sup> Email from Fran O'Grady, UNMISS, 9 March 2022.

<sup>133</sup> Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

<sup>134</sup> Ibid.

<sup>135</sup> Ibid. The Voluntary CCM Article 7 Report (covering 2022), pp. 22–44, indicates that 28,391,041m<sup>2</sup> of contaminated area was cleared, with 20,632 submunitions and 2,089 other items of unexploded ordnance (UXO) destroyed; the figures may include clearance and destruction of submunitions from earlier years.

<sup>136</sup> Email from Fran O'Grady, UNMISS, 9 March 2022.

<sup>137</sup> Emails from Matt Williams, UNMAS South Sudan, 23 March and 19 June 2023.

Upper Nile	G4S	109,346	18	9
State	Operator	Area cleared (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed
Upper Nile*	DRC	191,188	30	4
Western Bahr El Ghazal	SLG	47,280	29	0
Western Equatoria	G4S	564,234	348	7
Spot tasks		N/A	90	
<b>Totals</b>		<b>4,297,757</b>	<b>3,320</b>	<b>137</b>

Only one task, cleared by MAG in Central Equatoria and covering 89,837m<sup>2</sup>, contained no CMR.<sup>138</sup>

In addition, a total of 90 submunitions were destroyed during EOD spot tasks,<sup>139</sup> an increase on the 71 submunitions destroyed during EOD spot tasks in 2021.<sup>140</sup>

## PROGRESS TOWARDS COMPLETION

On 4 August 2023, South Sudan deposited its instrument of accession with the UN Secretary-General in New York. South Sudan becomes a State Party on 1 February 2024 and its Article 4 clearance deadline will therefore be 1 February 2034. South Sudan should be able to complete clearance of CMR well within its initial 10-year deadline under the CCM.

Until recent years, primarily due to conflict, it was impossible to predict when South Sudan might complete clearance of CMR, or even assess the true extent of contamination.<sup>141</sup> With improvements in the security situation, progress in the release of CMR-contaminated areas, and a comprehensive database review, the situation had begun to look more positive. However, it is reported that not all political parties are adhering to the 2018 Revitalized Agreement on the Cessation of Hostilities in South Sudan (R-ARCSS),<sup>142</sup> and that other insecurity issues continue. Frequent relocation of large teams has affected the implementation of the work plan and hindered operational efficiency.<sup>143</sup>

According to South Sudan's revised 2020 APMBC Article 5 deadline extension request, clearance of all CMR-contaminated areas was expected by July 2026 along with completion of mine clearance. The extension request clearly set out the primary assumptions and risk factors in the implementation of land release targets,

which were contingent on the level of funding being maintained and having access to contaminated areas.<sup>144</sup> In 2022, South Sudan needed to release 1.8km<sup>2</sup> of CMR- and other UXO-contaminated area to meet its target for the year<sup>145</sup> and far exceeded this, releasing almost 4.3km<sup>2</sup> of CMR-contaminated area alone.

Yet a range of logistical challenges remain. The poor state of South Sudan's infrastructure and seasonal rains and flooding mean that clearance in much of the country is only possible for eight months of the year, and in some areas, access is possible for as few as four months annually.<sup>146</sup> Furthermore, the methodology previously used to clear roads was flawed and several mines have been discovered on roads that had been declared safe, resulting in the need for re-clearance. Though this is occurring less frequently, it has diverted resources from clearance of CMR.<sup>147</sup> UNMAS has reported that South Sudan is now unlikely to be able to clear all CMR contamination by its own deadline of July 2026 primarily because of the underestimated size of CMR-contaminated areas; continued access difficulties due to insecurity and climatic factors; discovery of additional cluster strikes; and the high likelihood of a decrease in funding for clearance operations in coming years.<sup>148</sup>

138 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

139 Ibid.

140 Email from Fran O'Grady, UNMISS, 9 March 2022.

141 Email from Ayaka Amano, UNMAS, 2 May 2019.

142 Presentation by South Sudan, APMBC Twentieth Meeting of States Parties, Geneva, 21–25 November 2022.

143 Ibid.

144 Email from Richard Boulter, UNMAS, 11 April 2021.

145 South Sudan's updated work plan, p. 14, submitted to the APMBC Committee on Article 5 Implementation, 31 April 2022.

146 Presentation by South Sudan, APMBC Twentieth Meeting of States Parties, Geneva, 21–25 November 2022.

147 Revised 2020 Article 5 deadline Extension Request, pp. 46–48; and email from Matt Williams, UNMAS South Sudan, 3 May 2023.

148 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION:

##### NOT KNOWN

0.14KM<sup>2</sup> ACCORDING TO A  
PARTIAL ESTIMATE IN 2021

##### SUBMUNITION CLEARANCE IN 2022

**0.19KM<sup>2</sup>**

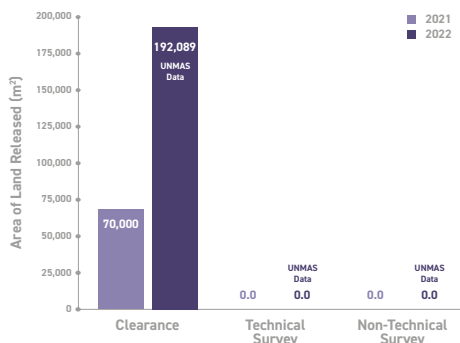
(UNMAS DATA)

##### SUBMUNITIONS DESTROYED IN 2022

**444**

(INCLUDING 440 DESTROYED  
DURING SPOT TASKS)  
(UNMAS DATA)

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

On 15 April 2023, fighting broke out in Khartoum between the Sudan Armed Forces (SAF) and the Rapid Support Forces (RSF), an autonomous paramilitary force. Both sides have used explosive weapons delivered by tanks, artillery, and rockets, and the SAF has deployed air-delivered munitions.<sup>1</sup> As at June 2023, however, there were no indications that this included any use of cluster munitions. The functioning of the National Mine Action Centre (NMAC) and the work of the United Nations Mine Action Service (UNMAS) were, though, interrupted by the hostilities. While UNMAS provided hazardous area release data, very little other information relating to the clearance of cluster munition remnants (CMR) was available for 2022.

## RECOMMENDATIONS FOR ACTION

- Sudan should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Sudan should submit an annual voluntary Article 7 report to the CCM and should ensure that reporting disaggregates submunitions from other unexploded ordnance (UXO) and that mine action data is recorded and reported according to International Mine Action Standards (IMAS) land release terminology.
- Sudan should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- Sudan should make every effort to address CMR and other UXO as soon as reasonably possible and should elaborate a work plan on how this will be achieved.

<sup>1</sup> Human Rights Watch, "Sudan: Explosive Weapons Harming Civilians", 4 May 2023.

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY\*

## MANAGEMENT

- Sudanese National Mine Action Authority (NMAA)
- Sudan National Mine Action Centre (NMAC)

## NATIONAL OPERATORS

- National Units for Mine Action and Development (NUMAD)
- JASMAR for Human Security
- Global Aid Hand (GAH)

## INTERNATIONAL OPERATORS

- Danish Refugee Council (DRC) – accredited in 2021
- SafeLane Global (SLG)

## OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

\* Information provided for the end of 2021; no updated information was available for 2022.

## UNDERSTANDING OF CMR CONTAMINATION

The most recent comprehensive data on cluster munition contamination dates from the end of 2021. Sudan had five hazardous areas covering an estimated 0.14km<sup>2</sup>. Two were very small confirmed hazardous areas (CHAs) and three were suspected hazardous areas (SHAs) covering most of the total area (see Table 1).<sup>2</sup> Two of the hazardous areas in Blue Nile state (totalling 5,820m<sup>2</sup>) only became accessible in 2021, and were added to the national information management database.<sup>3</sup>

Available data at the end of 2021 only provided a partial picture of contamination across the country, as two other SHAs believed to contain unexploded submunitions—in South Kordofan and West Kordofan states—were in areas not under government control and were therefore inaccessible.<sup>4</sup> Between December 2020 and late January 2021, SafeLane Global (SLG) surveyed an area at Ulu airstrip in Blue Nile state and cleared approximately 70,000m<sup>2</sup>, partially clearing a cluster munition strike.<sup>5</sup> Full clearance did not take place as SLG's contract ended. Discovery of CHAs and SHAs and clearance of contaminated land in Blue Nile state continued in 2022<sup>6</sup> when 192,089m<sup>2</sup> of hazardous area was reported cleared in Blue Nile state.<sup>7</sup>

**Table 1: Cluster munition-contaminated area by state (at end 2021\*)<sup>8</sup>**

State	CHAs	Area (m <sup>2</sup> )	SHAs	Area (m <sup>2</sup> )	Total SHA/CHA	Total area (m <sup>2</sup> )
Blue Nile**	2	5,820	1	136,580	3	142,400
South Kordofan	0	0	1	N/K	1	N/K
West Kordofan	0	0	1	N/K	1	N/K
<b>Totals</b>	<b>2</b>	<b>5,820</b>	<b>3</b>	<b>136,580</b>	<b>5</b>	<b>142,400</b>

N/K = Not known \* No updated contamination data was available for 2022. \*\* UNMAS reported that 192,089m<sup>2</sup> of cluster munition-contaminated area was cleared in Blue Nile state in 2022, which is not taken into account in Table 1.

In 2017 NMAC, which took over the mine action responsibilities of the United Nations Mine Action Organisation (UNMAO) in June 2011, reported that of the nine open areas reported by UNMAO in 2011, seven were cleared in 2011–13.<sup>9</sup> In March 2018, NMAC informed Mine Action Review that the size of the seven areas cleared during this period totalled 15,318m<sup>2</sup> and that 13 PM-1 submunitions were found and destroyed during clearance.<sup>10</sup> In June 2018, NMAC informed Mine Action Review that it had deployed a team to address the remaining hazardous area in West Kordofan, located in Aghabish village, Lagawa locality, which it later reported was cancelled as no evidence of the presence of CMR was found.<sup>11</sup>

2 Email from Hatim Khamis Rahama, Technical Advisor, Sudan National Mine Action Centre (NMAC), 12 May 2022.

3 Ibid.

4 Email from Hatim Khamis Rahama, NMAC, 1 May 2019; and interview in Geneva, 24 May 2019.

5 Email from Aimal Safi, Senior Operations and QM Advisor, UNMAS, 19 June 2021.

6 Email from Hatim Khamis Rahama, NMAC, 23 June 2022.

7 Email from Robert Thompson, Head of Project Unit (HPU)/Chief of Operations (COO), UNMAS, UN Integrated Transition Assistance Mission in Sudan (UNITAMS), 10 July 2023.

8 Email from Hatim Khamis Rahama, NMAC, 23 June 2022.

9 Emails from Hatim Khamis Rahama, NMAC, 14 June 2017; and Ali Abd Allatif Ibrahim, NMAC, 18 May 2017. In June 2016, however, NMAC had reported that no CMR-contaminated areas were "recorded as remaining hazards to be cleared" and that no separate survey or clearance operations for CMR occurred in 2015 and claimed that no cluster munitions had been found in all mine action activities "to date". Email from Ahmed Elser Ahmed Ali, Chief of Operations, NMAC, 8 June 2016.

10 Email from Hatim Khamis Rahama, NMAC, 3 March 2018.

11 Ibid., 1 May 2019 and 14 June 2018.

In the 1990s, Sudanese government forces are believed to have sporadically air dropped cluster munitions in its armed conflict with the Sudan People's Liberation Movement/Army (SPLM/A). Government forces were reported as having used several types of cluster munitions, including Spanish-manufactured HESPIN 21; US-manufactured M42 and Mk118 (Rockeye), and a Brazilian copy; Chinese Type-81 dual-purpose improved conventional munitions (DPICM); Chilean-made PM-1s; and Soviet-manufactured PTAB-1.5 and AO1-Sch submunitions. In 2012 and 2015, use of cluster munitions was recorded in five separate attacks on villages in South Kordofan state. Each attack involved air-dropped RBK-500 cluster munitions containing AO-2.5RT submunitions.<sup>12</sup>

In April 2017, the African Union-UN Mission in Darfur (UNAMID) reported finding two AO-1Sch submunitions in North Darfur (at Al Mengara village in Al Liet locality). Villagers stated that the bombs were dropped in 2008, had been identified by UNAMID at that time, and that the military had stated that they would dispose of the items.<sup>13</sup> The Sudanese Armed Forces Engineers destroyed the items in February 2018 and no further CMR were reported or identified.<sup>14</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Sudan also has a significant problem with anti-personnel mines (AP mines), anti-vehicle mines (AV mines), and unexploded ordnance (UXO), primarily as a result of the more than 20 years of civil war that led to the Comprehensive Peace Agreement in 2005 and South Sudan's independence in July 2011 (see Mine Action Review's *Clearing the Mines* report on Sudan for further information). The 2023 conflict was expected to add considerable explosive remnants of war (ERW) to the existing problem, mainly in Khartoum and other urban areas.<sup>15</sup>

Since South Sudan's independence, new conflicts in the disputed area of Abyei, which straddles the border between Sudan and South Sudan (under its mandate, the UN Interim Security Force for Abyei (UNISFA) has a mandate to provide security and protect civilians as well as to monitor the border between Sudan and South Sudan<sup>16</sup>), and in Blue Nile and South Kordofan states have resulted in increased UXO contamination in Sudan.<sup>17</sup> The extent of mine and ERW contamination within the disputed area of Abyei and the Safe Demilitarized Border Zone (SDBZ) between Sudan and South Sudan is unknown due to security and political issues.<sup>18</sup>

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Sudanese National Mine Action Authority (NMAA) and NMAC manage Sudan's mine action programme. The NMAC assumed the lead role for mine action in Sudan from UNMAS in 2013.<sup>19</sup> It has responsibility for coordinating and supervising the implementation of all mine action activities, including quality assurance (QA), accreditation, and certification of clearance operators.

Having first started an emergency programme in 2002, UNMAS re-established itself in an advisory and support capacity in Sudan in 2015, following an invitation from the Sudanese Government.<sup>20</sup> Since January 2021, UNMAS has supported the United Nations Integrated Transition Assistance Mission in Sudan (UNITAMS) established in June 2020, providing mine action services as part of the mission's mandate. It works with the NMAC to mobilise funds, manage land release, conduct explosive ordnance risk education (EORE) and victim assistance (VA) activities; and to ensure mine action activities are coordinated to support

humanitarian, development, and peacebuilding needs. With the closure of the African Union-United Nations Hybrid Operation in Darfur (UNAMID) in 2020, UNMAS took over responsibility for the ERW response in Darfur from UNAMID's Ordnance Disposal Office (ODO).<sup>21</sup>

As part of its mandate, UNMAS provides organisational and individual capacity development to NMAC.<sup>22</sup> In 2021, UNMAS delivered a range of training including in demining techniques to 28 female deminers, and to ex-combatants from one of the armed opposition groups. In 2022, UNMAS planned to deliver training on land release, online data collection, and quality management, among other issues,<sup>23</sup> but this was not achieved.<sup>24</sup> It is not known whether this was achieved. In May 2023, Mine Action Review was informed that the conflict had scattered NMAC staff and its Khartoum offices had been looted. UNMAS international staff had been withdrawn from Sudan and had no access to the mine action database.<sup>25</sup> In response to the conflict in 2023, UNMAS has

<sup>12</sup> See Cluster Munition Monitor, "Country Profile: Sudan: Cluster Munition Ban Policy", updated 23 August 2014.

<sup>13</sup> Email from Dandan Xu, Associate Programme Management Officer, UNMAS, 12 July 2017.

<sup>14</sup> Email from Colin Williams, Deputy Programme Manager, Ordnance Disposal Office (ODO), UNAMID, 1 June 2018.

<sup>15</sup> Email from UNMAS Headquarters, 24 July 2023.

<sup>16</sup> UNISFA website, accessed on 26 June 2023, at <https://bit.ly/3NrgUWb>.

<sup>17</sup> Human Rights Watch, "Under Siege: Indiscriminate Bombing and Abuses in Sudan's Southern Kordofan and Blue Nile States", 6 December 2012; "Unexploded Ordnance Kill 13 People in South Kordofan", *Al Africa*, 10 August 2013; and UN, "UNMAS Annual Report 2012", New York, August 2013, p. 10.

<sup>18</sup> UNMAS, "2019 Portfolio of Mine Action Projects, Sudan".

<sup>19</sup> UNMAS webpage on Sudan, accessed 9 June 2023, at: <https://bit.ly/43Shldk>.

<sup>20</sup> UNMAS, "Sudan (excluding Darfur)", Updated March 2019, at: <http://bit.ly/2Y3IDUg>.

<sup>21</sup> UNMAS webpage on Sudan, accessed 9 June 2023.

<sup>22</sup> Email from Aimal Safi, UNMAS, 31 May 2020.

<sup>23</sup> *Ibid.*, 27 March 2022.

<sup>24</sup> Email from UNMAS Headquarters, 24 June 2023.

<sup>25</sup> Emails from Robert Thompson, Head of Project Unit (HPU)/Chief of Operations (COO), UNMAS, UNITAMS, 5 and 18 May 2023.

provided EORE messages on social media and in hard copy, and plans to do the same on television and radio. It has also delivered explosive ordnance safety briefings to UN agencies, non-governmental organisations (NGOs), and civil society organisations (see below the section Planning and Tasking for further details of UNMAS's planned response to the recent conflict).<sup>26</sup>

In 2021, the Geneva International Centre for Humanitarian Demining (GICHD) provided remote support on the implementation of the Information Management System for Mine Action (IMSMA) Core. In the first five months of 2022, Sudan participated in two Arab Regional Cooperation Programme (ARCP) training workshops run by the GICHD in support of IMSMA Core implementation and EORE with an additional IMSMA Core training held in June 2022.<sup>27</sup>

In recent years, the government of Sudan has maintained a consistent level of national funding for mine action in local currency, but due to the devaluation of the local currency against the US dollar, this had fallen from \$2 million worth of funding in 2019 and 2020 to only \$500,000 in 2021 and 2022. Sudan had expected national funding to be maintained and potentially to increase as the political and economic situation across the country improved,<sup>28</sup> but the 2023 conflict throws this into serious doubt.

Sudan had calculated that it required \$32.6 million for land release activities (for all explosive ordnance, not just CMR)

from 2022 to 2027, which works out as \$6,975,000 per year for 2022 to 2025, \$3,555,000 for 2026, and \$1,150,000 for 2027. As at 2022, international donors had been funding the mine action programme through UNMAS and the amount that had been confirmed for 2022 and 2023, \$2,902,000 and \$1,852,000 respectively, falls far short of what Sudan has projected that it needs, although some additional funds were pledged for 2022. Sudan and UNMAS had been working on resource mobilisation and had managed to expand the donor pool.<sup>29</sup> Given the conflict that broke out in April 2023, all plans and costings will have to be revisited when it is possible to do so.

In Sudan, not including Jebel Marra and the disputed territory of Abyei (where UNMAS UNISFA supports humanitarian mine action), NMAC reported that up until 2022, UNMAS and NMAC led the mine action sub-cluster which coordinated progress, tackled challenges, and supported the Anti-Personnel Mine Ban Convention (APMBC) Article 5 implementation in Sudan. All relevant implementing partners, NGOs, UN agencies, and government authorities participated. During sub-cluster meetings mine action projects for the annual Humanitarian Response Plan (HRP) were developed and prioritised through a consultative process.<sup>30</sup> In addition, NMAC ordinarily held Country Coordination Forums with all stakeholders twice a year, though only one took place in 2021 due to the political and security situation,<sup>31</sup> and following the military takeover in October 2021, none was held in 2022 either.<sup>32</sup>

## ENVIRONMENTAL POLICIES AND ACTION

Sudan reported in 2022 that it had a policy on environmental management which included information on how mine action operators should minimise potential harm from demining activities.<sup>33</sup> A dedicated national mine action standard (NMAS) on environmental management and an environmental impact assessment had been introduced which were due to be implemented in 2022,<sup>34</sup> although at the time of writing it was not known whether they had taken effect.

## GENDER AND DIVERSITY

NMAC reported that in 2021 a new gender and diversity policy was developed and endorsed and that gender was mainstreamed in the national mine action strategic plan for 2019–23 and in the NMAS for EORE, survey, clearance, and victim assistance.<sup>35</sup> It stated that under those standards, all survey and community liaison teams were to be gender balanced, and that women and children were to be consulted during survey and community liaison activities. Gender was also considered in the prioritisation, planning, and tasking of survey and clearance, in line with the NMAS and the new standard IMSMA forms.<sup>36</sup>

NMAC has previously reported that mine action data are disaggregated by sex and age.<sup>37</sup> UNMAS reported working with NMAC and implementing partners to improve this aspect of mine action reporting and information management because sex and age disaggregated data of land release beneficiaries were not being captured in IMSMA.<sup>38</sup> As a result, new reporting tools were added to the system and new reporting formats were developed for NGOs to include this information.<sup>39</sup>

26 UNMAS Sudan webpages, accessed on 10 July 2023 at: <https://bit.ly/43Shldk>.

27 Emails from Henrik Rydberg, Country Focal Point, GICHD, 13 April, 3 June, and 10 August 2022.

28 Anti-Personnel Mine Ban Convention (APMBC) 2022 Article 5 deadline Extension Request, p. 4.

29 Ibid., pp. 8 and 30.

30 UNMAS, "2019 Portfolio of Mine Action Projects, Sudan" at: <http://bit.ly/3d0FtVH>; and email from Hatim Khamis Rahama, NMAC, 9 April 2020.

31 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

32 Email from UNMAS Headquarters, 24 July 2023.

33 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

34 Email from Aimal Safi, UNMAS, 27 March 2022.

35 Ibid.

36 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

37 Ibid., 9 April 2020.

38 Email from Aimal Safi, UNMAS, 31 May 2020.

39 Ibid., 22 July 2020.

NMAC has reported that ethnic minority groups in affected communities are consulted during survey and considered during the planning of mine action activities. Survey teams are also structured to address all affected groups within a community, including ethnic minorities.<sup>40</sup> As part of the implementation of Juba Peace Agreement and peacebuilding efforts, as indicated above, 21 ex-combatants from one of the Sudan People's Liberation Movement-North (SPLM-N) factions, Malik Agar located in Bau/Ulu and the Ingasana mountains, completed training in IMAS Explosive Ordnance Disposal (EOD) Level 1 during 2021. The ex-combatants were integrated into mine action operations to conduct land release in the Ulu and the Ingasana mountain areas that were found to be heavily contaminated with landmines and ERW including CMR.<sup>41</sup>

NMAC has stated that it always encourages women to apply for employment in the national programme, whether at the office level or in the field. In 2021, 30% of NMAC staff employed at the managerial or supervisory levels were women, as were 20% of staff in operational positions.<sup>42</sup> The first female deminer was employed in late 2019.<sup>43</sup> In 2021, as mentioned, a group of 28 women from different states

and ethnic groups completed basic demining training. They were due to begin working within the different mine action operators during 2022 and 2023,<sup>44</sup> but it is not known whether this went ahead as planned.

UNMAS reported that, as at March 2022, around 50% of non-technical survey (NTS) teams were female. UNMAS Sudan had 16 staff members at this time, of whom four programme officers and one of the support service staff were women. In addition, within the national operators contracted by UNMAS there were women working in managerial positions and the medics and community liaison officers in most of the field teams were female.

In 2020–21, NMAC took part in the Arab Regional Cooperation Programme (ARCP) Gender Equality and Inclusion programme run by the GICHD. Two participants from NMAC received training and guidance from experts in the Gender and Mine Action Programme (GMAP) on how to mainstream gender and diversity in all mine action activities. The NMAC then created a dedicated Gender Focal Point (GFP) who connected with other GFPs from the region to share experiences and good practice.<sup>45</sup>

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## INFORMATION MANAGEMENT AND REPORTING

In 2018, NMAC began upgrading the IMSMA software to a more recent New Generation version, with assistance from the GICHD. Significant efforts to correct errors in the database were also undertaken.<sup>46</sup> In 2022, Sudan began the migration to IMSMA Core, which was ongoing as of June 2022.<sup>47</sup> In 2021, an IMSMA Officer deployed from the Swiss government was embedded within the NMAC to support the information management department and an agreement was signed to grant Sudan a licence for the geographic information system (Arc GIS) software.<sup>48</sup>

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## PLANNING AND TASKING

In March 2022, NMAC reported that the new national mine action strategic plan for 2019–23 had been finalised but was still awaiting approval.<sup>49</sup> In its latest APMBC Article 5 deadline extension request, Sudan predicted that a revised mine action strategy would be approved and issued in February 2023.<sup>50</sup> The strategy was shared with stakeholders and the Director of the NMAA has indicated that this is the final version.<sup>51</sup>

In 2021, a systematic prioritisation system was introduced as part of the new NMAS and linked with IMSMA with each SHA and CHA classified as high, medium, or low impact and prioritised accordingly.<sup>52</sup>

UNMAS has indicated that in response to the conflict that broke out in April 2023, it plans to: assess new contamination; continue to provide emergency EORE; set up a hotline to receive reports of explosive ordnance items and accidents; and to develop a database using reported information to share with the humanitarian community. In addition, when security permits, UNMAS will deploy EOD and survey teams for clearing high-priority contaminated areas to protect civilians and enable humanitarian action. UNMAS also plans, in collaboration with NMAC, to coordinate the mine action response in Sudan, working with the Protection Cluster.<sup>53</sup>

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40 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

41 2022 Article 5 deadline Extension Request, p. 22.

42 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

43 Email from Aimal Safi, UNMAS, 12 April 2021.

44 2022 Article 5 deadline Extension Request, pp. 65–66.

45 Email from GICHD, 29 June 2021.

46 Emails from Ahmed Elser Ahmed Ali, NMAC, 9 May and 8 June 2016; and Third APMBC Article 5 deadline Extension Request, March 2018, pp. 37–38.

47 Email from Henrik Rydberg, GICHD, 3 June 2022.

48 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

49 Ibid.

50 2022 Article 5 deadline Extension Request, p. 19.

51 Email from UNMAS Headquarters, 24 July 2023.

52 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

53 UNMAS Sudan webpages, accessed on 10 July 2023 at: <https://bit.ly/43Shldk>.

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

In May 2021, NMAC reported that a review of Sudan's NMAS had been completed and the revised standards had been endorsed.<sup>54</sup> The NMAS were reviewed by a technical committee comprised of representatives from NMAC, UNMAS, and national operators with the support of an international expertise from UNAMID. UNMAS was working with the NMAC and national operators to develop their standard operating procedures (SOPs) to ensure they were compliant with the new NMAS.<sup>55</sup>

In 2021, the Sudanese Regional Training Center was established to deliver mine action training to the Sudan programme, with two NMAC staff participating in a technical survey training course organised by the GICHD, and to provide support to neighbouring mine action programmes.<sup>56</sup> No information about subsequent developments is available.

### OPERATORS AND OPERATIONAL TOOLS

National operators that conducted demining operations in Sudan in 2021 were JASMAR for Human Security (JASMAR), National Units for Mine Action and Development (NUMAD), and Global Aid Hand (GAH).<sup>57</sup> There are also two international operators, SLG, which became operational in December 2020, and DRC, which was granted organisational accreditation in 2021.<sup>58</sup> In 2022, DRC trained an NTS team consisting of a team leader (male) and two operators (one female and one male) along with a driver. The training was completed on 10 of January 2023 and was followed by two-day operational assessment conducted by NMAC when DRC achieved operational accreditation.<sup>59</sup> At the end of February 2023, the team was deployed in the Kadugli locality in a government-controlled area of South Kordofan State.<sup>60</sup> At the beginning of June 2023, DRC's humanitarian mine action teams (two EORE teams including one from its partner GAH, and one NTS team) continued to work in Kadugli with the approval of the local Humanitarian Aid Commission (the governmental body that manages and organises humanitarian work in Sudan) and NMAC offices, but by mid June, the NMAC office in Kadugli had instructed DRC to suspend these operations due to insecurity.<sup>61</sup>

**Table 2: Operational clearance capacities deployed in 2021<sup>62\*</sup>**

Operator	Manual clearance teams (MCTs)/ Multi-task teams (MTTs)	Total deminers	Dogs and handlers	Machines
NUMAD	0	0	2 dogs & 2 handlers	RVCT mainly for mine clearance on roads
JASMAR	1 MCT 9 MTTs	8 32	0	0
SLG	2 MTTs	10	0	0
GAH	1 MTT	4	0	0
<b>Totals</b>	<b>13 teams</b>	<b>54</b>	<b>2 dogs &amp; 2 handlers</b>	<b>0</b>

\* No updated data were available for 2022.

54 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

55 Email from Aimal Safi, UNMAS, 12 April 2021.

56 Emails from Hatim Khamis Rahama, NMAC, 31 March 2022; and Henrik Rydberg, GICHD, 3 June 2022.

57 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

58 2022 Article 5 deadline Extension Request, p. 45.

59 Emails from Johannes de Jager, Operations Manager, Humanitarian Mine Action, DRC, 28 February and 12 June 2023.

60 Email from Johannes de Jager, DRC, 28 February 2023.

61 Ibid., 12 June and 26 June 2023.

62 Emails from Hatim Khamis Rahama, NMAC, 31 March 2022; and Aimal Safi, UNMAS, 27 March 2022.

**Table 3: Operational survey capacities deployed in 2021<sup>63\*</sup>**

Operator	NTS teams	Total NTS personnel	TS teams	Total TS personnel
JASMAR	3	12	10	44
NUMAD	0	0	1	8
GAH	5	20	3	12
<b>Totals</b>	<b>8</b>	<b>32</b>	<b>14</b>	<b>64</b>

TS = Technical survey \* No updated data available for 2022.

The multi-task teams (MTTs) and manual clearance team (MCT) were deployed for the clearance of all priority hazardous areas, but the focus was on mined areas containing anti-personnel mines. There was a slight decrease in operational capacity from 2020 to 2021 as NUMAD had some internal issues and could not take part in tendering process. Due to a drop in funding, operational capacity was expected to decrease further for the operational year 2022–23.<sup>64</sup>

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

### LAND RELEASE OUTPUTS IN 2022

In May 2023, Mine Action Review was informed that the conflict had scattered NMAC staff and its Khartoum offices had been looted, and UNMAS international staff had been withdrawn from Sudan and had no access to the mine action database.<sup>65</sup> As a result, little data on survey and clearance of CMR were available for 2022. UNMAS did report that 192,089m<sup>2</sup> of hazardous area were released in 2022, all through clearance, and 444 submunitions were destroyed, including 440 as spot tasks. All clearance and destruction of submunitions took place in Blue Nile state. In addition, UNMAS reported 943 other UXO were destroyed (793 in Blue Nile state and 150 in South Kordofan) during CMR clearance (see Table 4 for further details).<sup>66</sup> It is not known whether any new CMR contamination was added to the database in 2022.

### SURVEY IN 2022

In 2022, as in 2021, no hazardous area was reported as released through NTS or TS.<sup>67</sup>

### CLEARANCE IN 2022

In 2022, UNMAS reported that 192,089m<sup>2</sup> of hazardous area was cleared by JASMAR in Blue Nile state. A total of 444 submunitions were destroyed, including 440 as spot tasks.<sup>68</sup> This compares with 2021, when SLG cleared 70,000m<sup>2</sup> of hazardous area in Blue Nile state, a partial clearance of a cluster munition strike at Ulu airstrip, and 34 PM-1 submunitions were destroyed.<sup>69</sup> In addition, four submunitions were destroyed by JASMAR in 2021 during EOD spot tasks.<sup>70</sup>

<sup>63</sup> Ibid.

<sup>64</sup> Ibid.

<sup>65</sup> Emails from Robert Thompson, UNMAS, UNITAMS, 5 and 18 May 2023.

<sup>66</sup> Ibid., 10 July 2023.

<sup>67</sup> Ibid.

<sup>68</sup> Ibid.

<sup>69</sup> Emails from Aimal Safi, UNMAS, 19 and 26 June 2022.

<sup>70</sup> Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

Table 4: CMR clearance in 2022<sup>71</sup>

State	Operator	Area cleared (m <sup>2</sup> )	Submunitions destroyed	Submunitions destroyed during spot tasks	Other UXO destroyed
Blue Nile	JASMAR	192,089	4	440	793
South Kordofan	JASMAR	0	0	0	150
<b>Totals</b>		<b>192,089</b>	<b>4</b>	<b>440</b>	<b>943</b>

### PROGRESS TOWARDS COMPLETION

Sudan is not a State Party to the CCM and therefore does not have a specific clearance deadline under Article 4. Nonetheless, it has obligations under international human rights law to clear CMR as soon as possible.

In May 2017, NMAC informed Mine Action Review that Sudan was “with the spirit of the Convention on Cluster Munitions” and that the national authorities were aware of the convention and Sudan's current status as not yet having joined.<sup>72</sup> In March 2022, the NMAC stated that there had been no developments in 2021 with regard to Sudan's accession to the CCM.<sup>73</sup>

### PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Sudan had a plan in place to deal with residual risk and liability post-completion.<sup>74</sup> As at March 2022, NMAC was dealing with any residual contamination in the eastern states with government funding.<sup>75</sup> However, it was planned that, in the long term, Sudan would establish a sustainable national capacity within the military or police.<sup>76</sup>

<sup>71</sup> Email from Robert Thompson, UNMAS, UNITAMS, 10 July 2023.

<sup>72</sup> Email from Ali Abd Allatif Ibrahim, NMAC, 18 May 2017.

<sup>73</sup> Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

<sup>74</sup> Email from Hatim Khamis Rahama, NMAC, 9 April 2020.

<sup>75</sup> Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

<sup>76</sup> Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

### KEY DATA

**CLUSTER MUNITION  
CONTAMINATION:  
UNKNOWN**

SUBMUNITION  
CLEARANCE IN 2022

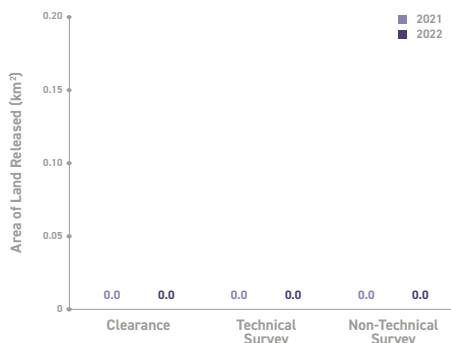
**0**km<sup>2</sup>

SUBMUNITIONS  
DESTROYED IN 2022

**510**

(10 DURING BATTLE AREA  
CLEARANCE AND 500 DESTROYED  
DURING SPOT TASKS)

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

A ceasefire agreement brokered in March 2020 between Türkiye and Russia, who support opposing sides in the Syrian conflict, has brought a relative but fragile calm to the country. The earthquake that hit the north of Syria on 6 February 2022 may have displaced explosive ordnance, including cluster munition remnants (CMR), into areas that were previously cleared or had not been previously impacted. On 6 November 2022, Syrian and Russian forces fired cluster munitions on four camps for internally displaced people (IDPs), killing eight civilians and wounding dozens of others. In December 2022, United Nations Mine Action Service (UNMAS) officially handed over the first plot of cleared land to the local authorities in the outskirts of Damascus.

In the north-east of Syria, the mine action sector faced operational delays due to the newly established de-facto mine action centre of the north-east (the north-east of

Syria mine action office, NESMAO), requesting signature of memorandums of understanding (MoUs) as a precursor to operators continuing their field activities. The discussions with NESMAO reached a stalemate on two occasions, leading to the suspension of activities for four months. Restrictions were eventually lifted, MoUs signed, and operations resumed. The HALO Trust (HALO), which operates in the north-west of Syria, received authorisation to carry out explosive ordnance disposal (EOD) and use explosives to dispose of explosive ordnance in July 2022.

In government-controlled territories, the number of qualified clearance operators has increased with Norwegian People's Aid (NPA) receiving its accreditation in early 2023. UNMAS has taken a role of coordinating the mine action area of responsibility covering the whole of Syria.

## RECOMMENDATIONS FOR ACTION

- Syria and its ally, Russia, should immediately cease the use of cluster munitions.
- Syria should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Syria should create the necessary structures to oversee an efficient mine action programme, namely: a national mine action centre (NMAC), a national mine action authority (NMAA), and a centralised information management (IM) system. The process should be underpinned by the adoption of mine action legislation and a multiyear strategic plan.

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

## MANAGEMENT

- The interministerial Mine Action Coordination Committee

## NATIONAL OPERATORS

- Syria Civil Defence (SCD) (also called the White Helmets), operating in the north-west
- Roj Mine Control Organization (RMC0), operating in the north-east

## INTERNATIONAL OPERATORS

- The Armenian Centre for Humanitarian Demining and Expertise (ACHDE), operating in government-controlled areas
- DanChurchAid (DCA), operating in the north-east
- Mines Advisory Group (MAG), operating in the north-east
- The HALO Trust (HALO), operating in the north-west
- Enhancing Human Security (ITF), operating in the north-east
- Humanity and Inclusion (HI), operating in the north-east
- Norwegian People's Aid (NPA), accredited in early 2023

## OTHER ACTORS

- Information Management and Mine Action Programs (IMMAP)
- United Nations Mine Action Service (UNMAS)

## UNDERSTANDING OF CMR CONTAMINATION

The full extent of CMR contamination is unknown but is certainly widespread due to the repeated use of cluster munitions during the decade-long conflict in Syria. No comprehensive countrywide survey has taken place to date, but several assessments continue to be conducted by various actors and operators across Syria. Thirteen of the country's fourteen governorates (all except Tartus) have experienced persistent use of cluster munitions since 2012.<sup>1</sup> Between 2020 and 2022, cluster munition attacks were recorded in Aleppo, Hama, and Idlib governorates. On 6 November 2022, Syrian and Russian forces reportedly used cluster munitions on four IDP camps in Idlib governorate (north-west). Remnants of a M27K-series Uragan cluster munition rocket and at least one unexploded 9N235 submunition were found on the site. The attack killed eight civilians and wounded dozens of others, including two children and a pregnant woman with her foetus.<sup>2</sup>

The Syrian Network of Human Rights (SNHR) recorded at least 496 cluster munition attacks in Syria between July 2012 and January 2023 attributing them to the Syrian forces, Russian forces, or the alliance of the two.<sup>3</sup> Cluster munition attacks have resulted in the deaths of 1,053 civilians, including 394 children and 219 women. Furthermore, no fewer than 382 civilians, including 124 children and 31 women, were killed due to the explosion of submunitions left by previous cluster munition attacks.<sup>4</sup> A range of Russian-made cluster munitions have been used in the conflict.<sup>5</sup>

## SYRIA EARTHQUAKE

On 6 February 2023, Syria was struck by a devastating 7.8 magnitude earthquake followed by a series of more than 14,000 aftershocks. The tremors severely affected the north-west of Syria, most notably, the governorates of Idlib, Aleppo, and to a lesser extent, Latakia and Hama in the north-west and Raqqah and Al-Hassakeh in the north-east. In a rapid assessment conducted by the United Nations High Commissioner for Refugees (UNHCR) one month after the earthquake, mines and explosive remnants of war (ERWs) have been found in 13% of the locations assessed across Syria.<sup>6</sup>

HALO conducted a rapid protection assessment between February and March 2023. The assessment identified explosive ordnance contamination in 42 earthquake-affected communities, affecting 730,000 people. Some specific population groups were deemed to be at an increased risk of explosive ordnance-related accidents, including IDPs who may be unfamiliar with their new environment, and rubble removers who may need to operate in contaminated areas. According to HALO, the earthquake may have led explosive items to move or resurface, and has invalidated the previous mapping work. Resurvey is now critically needed in impacted communities, especially communities who received significant displacement and in rubble removal sites.<sup>7</sup>

1 Landmine and Cluster Munition Monitor, Syria Cluster Munition Ban Policy, last updated 24 November 2020, at: <https://bit.ly/3yHIY0i>.

2 Human Rights Watch, "Syria: Cluster Munitions Used in November 6 Attacks", 23 November 2022, at: <https://bit.ly/3NfkqEq>.

3 SNHR, "Cluster Munitions Remnants are an Open-Ended Threat to the Lives of Syria's Future Generations", Report, 30 January 2023, at: <https://bit.ly/40NlcQ0>, p. 10.

4 Ibid.

5 Ibid., pp. 11–20.

6 OCHA, Data Friendly Space, and DEEP, "Syria Earthquake March 2023", 10 March 2023, at: <https://bit.ly/3Mj2DtS>, p. 3.

7 Email from Damian O'Brien, Programme Manager, HALO, 10 April 2023.

According to Humanity and Inclusion (HI), it is extremely likely that many of the explosive ordnance that littered buildings, streets and waterways have been moved as a result of the earthquake. A collapse of a water dam 'Al-Taloul' in Idlib governorate, combined with the rising water levels of the Orontes River, has resulted in the flooding of some villages. The rising water could potentially cause flash floods and migrate explosive ordnance into areas that were previously cleared or had not been previously impacted.<sup>8</sup> Weapons and ammunition that were stored in houses are now buried under the rubble. Returnees expose themselves to danger by returning to their destroyed homes to gather belongings, or by starting to remove the rubble to try and rebuild their homes.<sup>9</sup>

Mines Advisory Group (MAG) received information from the protection working group that the earthquake impact was lighter in the north-east than in the north-west. In the north-east, houses and buildings have been badly shaken and some MAG staff members reported cracks appearing in their houses' walls, especially in multistorey buildings. The earthquake impact was the most in Kobani city, in the north-eastern part of Aleppo governorate in the vicinity of the Turkish border. In Raqqqa, some organisations reported that a few buildings which were previously shelled have completely collapsed. These were unpopulated buildings as they were previously damaged by the shelling.<sup>10</sup>

Before the earthquake, the 2023 Syria Humanitarian Needs Overview, which was published in December 2022, estimated that a third of communities across Syria were affected by some form of explosive contamination, with the highest percentages being in Aleppo, Damascus, Daraa, Quneitra, Raqqqa, Rural Damascus, and Sweida.<sup>11</sup> In 2020, an average of 76 explosive incidents per day were recorded in Syria.<sup>12</sup>

HALO conducted an explosive ordnance community contamination impact assessment in north-west Syria (in Idlib and Aleppo governorates) between 2018 and 2020. The assessment confirmed contamination in more than 400 communities (equating to 41% of all those assessed).<sup>13</sup> Unexploded submunitions were the most frequent type of ordnance encountered, accounting for 36% of total recorded contamination.<sup>14</sup> Other contamination was from landmines and improvised explosive devices (IEDs) (4% combined), and a mixture of other unexploded ordnance (UXO).<sup>15</sup> Submunitions caused 42% of recorded casualties.<sup>16</sup> Another rapid assessment survey conducted by HALO in 2021 identified 91 suspected cluster munition strike zones (50 in Idlib and 41 in Aleppo).<sup>17</sup>

The International Committee of the Red Cross (ICRC) and the Syrian Arab Red Crescent (SARC) conducted a joint mine risk needs assessment of 573 communities in Al-Hassakeh, Aleppo, Daraa, Deir Ezzor, Hama, Homs, Idlib, Quneitra, and Sweida governorates. According to the assessment, 530 (92%) of the assessed communities reported the presence of explosive remnants of war (ERW). Of the assessed communities, 57% reported presence of anti-personnel mines; 46% of CMR; and 25% of IEDs.<sup>18</sup>

The Information Management and Mine Action Programs (iMMAP) estimates that 27km<sup>2</sup> of north-east Syria is EO-contaminated as a result of the armed conflict against the Islamic State of Iraq and Syria (ISIS), and continuing violence in and around Turk controlled areas. Raqqqa, Deir Ezzor, and Al-Hassakeh governorates are the most affected. The EO contamination includes a widespread use of IEDs especially around the homes and various critical infrastructures in both rural and urban areas.<sup>19</sup>

MAG has been conducting surveys across several governorates in the north-east of Syria since 2016. As at May 2022, MAG had recorded 97,365m<sup>2</sup> of CMR-contaminated land. MAG has also received reports of CMR in Deir Ezzor governorate, but these are in areas that MAG could not currently access.<sup>20</sup>

The Syria Civil Defence (SCD), better known as the White Helmets, has been conducting clearance in the north-west of Syria since March 2016, and has operated in Daraa and Quneitra governorates in the South between 2017–18.<sup>21</sup> In 2021, SCD conducted a non-technical survey in Aleppo, Hama, and Idlib governorates and recorded explosive ordnance contamination in 145 out of 385 surveyed communities (37.6%). Of the 426 EO items recorded, 177 (41.5%) were submunitions. As at May 2022, explosive ordnance contamination was recorded in 73 of 335 communities surveyed (21.7%), and 42.7% of the total of 194 items of explosive ordnance found were submunitions. SCD and other operators report encountering mainly Russian-made cluster munitions, including SHOAB-0.5, AO-2.5RT, 9N235, AO1-SCH, M77-HEAT, SPBE-HEAT, and PTAB-1M and 2.5M submunitions.<sup>22</sup>

8 Humanity and Inclusion (HI), "Earthquakes may have moved explosive weapons contamination", accessed on 21 May 2023, at: <https://bit.ly/41UA9ww>.

9 HI, "Safety messages in the wake of the earthquake", accessed on 3 July 2023, at: <https://bit.ly/3pwz05R>.

10 Email from Najat al Hamri, MAG, 3 July 2023.

11 Syria 2023 Humanitarian Needs Overview, 22 December 2022, at: <https://bit.ly/3NcDL9l>, p. 81.

12 Syria 2022 Humanitarian Needs Overview, March 2021, at: <https://bit.ly/43biWQZ>, p. 10.

13 The HALO, "Syria, A Hidden Emergency", Report, at: <https://bit.ly/3fD4w4x>, p. 3.

14 Ibid., p. 7.

15 Ibid.

16 Ibid., p. 11.

17 Emails from Mairi Cunningham, Programme Manager, HALO, 7 June 2021; and Damian O'Brien, HALO, 1 March 2022.

18 ICRC and SARC, Mine Risk Needs Assessment and Education, PowerPoint presentation to the 24th National Director's Meeting, Geneva, 25 May 2021.

19 iMMAP, "Northeast Syria: Progress, Challenges, and Forecast of Humanitarian Mine Action", September 2021 – April 2022, at: <https://bit.ly/41PZasC>, pp. 6–7.

20 Email from Fabrice Martin, Country Director, MAG, 9 March 2022.

21 Email from Michael Edwards, Explosive Hazard Operations Manager, SCD, 15 June 2022; and Mayday Rescue, "Syria Civil Defence, Explosive Hazard Mitigation Project Overview, Nov 2015–Mar 2018", 1 March 2018.

22 Emails from Michael Edwards, SCD, 11 May 2021 and 15 June 2022.

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

The continued use of cluster munitions adds to the existing CMR problem in addition to dense contamination from other explosive ordnance, in particular landmines, including those of an improvised nature (see Mine Action Review's *Clearing the Mines* report on Syria for further information).

Working from the Syrian capital, Damascus, UNMAS completed in June 2022 an explosive ordnance assessment team (EOAT) survey in Rural Damascus (South) that it had started in August 2020. The EOAT survey assessed more

than 4,200 residential buildings in Daraya (Rural Damascus) and Yarmouk neighbourhood (Damascus), confirming the presence of explosive ordnance in 142 buildings, identifying 774 buildings as suspected to be hazardous, with the possible presence of explosives and need for future mechanical clearance. In addition, more than 2km<sup>2</sup> of mostly agricultural lands were assessed in Daraya (Rural Damascus), of which around 71% was confirmed hazardous.<sup>23</sup>

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

There is no national mine action authority in Syria. In government-controlled areas, an Interministerial National Mine Action Coordination Committee is said to have been formed by presidential decree in 2019 and is chaired by the Minister of Foreign Affairs and Expatriates (MoFA), Dr Faisal Mikdad.<sup>24</sup> MoFA assigned a focal point for liaison with UNMAS for all mine action. UNMAS is informed that the committee meets on an ad-hoc basis as needed.<sup>25</sup>

Mine action in Syria is coordinated by three response mechanisms:

- Damascus-based Mine Action Sub-Sector (MASS) coordinated by UNMAS;
- The north-west MASC coordinated by HALO; and
- The north-east Mine Action Working Group (MAWG), which sits under the protection working group in the non-governmental organisation (NGO) forum-led response that is coordinated by iMMAP.<sup>26</sup>

Coordinators of the three structures organise monthly meetings with the respective mine action actors,<sup>27</sup> but since November 2022, the MAWG's monthly meetings have been temporarily suspended, then resumed following the replacement of the mine action coordinator.<sup>28</sup> The Damascus-based MASS meets on a monthly basis, and is attended by a variety of mine action partners, including UN agencies, NGOs, and the ICRC.<sup>29</sup>

The local authorities of the north-east of Syria established a north-east Syria Mine Action Office (NESMAO) in 2022. NESMAO introduced the signature of an MoU for all humanitarian mine action operators as a prerequisite to continuation of field operations. This led to the two to four months suspension of all humanitarian demining activities in 2022.

UNMAS continues to represent the mine action area of responsibility within the UN-led coordination mechanism for Syria, as well as supporting the hub-based coordination mechanisms. UNMAS provides technical expertise and support to the humanitarian clusters, sectors, and mine action partners.<sup>30</sup> As part of this undertaking, UNMAS provides explosive ordnance risk awareness (EORE) and training to UN and humanitarian personnel. UNMAS has directly supported the implementation of risk education and victim assistance projects in cooperation with local Syrian NGOs.<sup>31</sup>

Given the lack of critical national mine action structures, UNMAS liaises with the National Mine Action Coordination Committee chaired by the Syrian MoFA and accredits clearance operators on a de-facto basis.<sup>32</sup> UNMAS does not provide capacity building to the national authorities, but as a mine action coordination body in 2020, UNMAS drafted national technical standards and guidelines for mine action and has provided them to the Syrian government for consideration.<sup>33</sup>

23 Emails from UNMAS, 30 June 2021; and Francesca Chiaudani, UNMAS, 31 March 2022 and 30 April 2023.

24 This information was provided on condition of anonymity.

25 Emails from UNMAS, 30 June 2021; and Francesca Chiaudani, UNMAS, 31 March 2022 and 30 April 2023. According to Syria's statement to the APMBC 20MSP, "a National Committee on Demining was established in June [of 2022] under the chairmanship of the Minister of Foreign Affairs and Expatriates". Mine Action Review believes that the committee Syria refers to is the same Interministerial Committee that was established in 2019, and that Syria's statement has incorrectly indicated the formation date of the committee.

26 Emails from UNMAS, 30 June 2021; and Francesca Chiaudani, UNMAS, 31 March 2022 and 30 April 2023.

27 iMMAP, Coordination Support to Humanitarian Mine Action, 2020, at: <https://bit.ly/3yGh9nQ>; and emails from Mairi Cunningham, HALO, 7 and 17 June 2021; and UNMAS, 30 June 2021.

28 Emails from Akram Alsaedi, MAG, 24 March 2023; Najat El Hamri, MAG, 3 July 2023; and Kevin Starker, Humanitarian Mine Action Operations Manager, DCA, 28 June 2023.

29 Email from Francesca Chiaudani, UNMAS, 30 April 2023.

30 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

31 Ibid., 30 April 2023.

32 Information was provided on condition of anonymity.

33 Email from UNMAS, 30 June 2021.

Until November 2022, the north-east MAWG coordination meetings were held on monthly and ad-hoc basis, and attended regularly by MAG, HI, DanChurchAid (DCA), and Enhancing Human Security (ITF) among others.<sup>34</sup> The working group mainly discussed context updates, coordination of activities, challenges faced, the relationship with authorities, gaps in the provision of humanitarian mine action services, and mine action information management system.<sup>35</sup> In 2022, MAWG was planning a non-technical survey (NTS) project with iMMAP and various mine action operators.<sup>36</sup> In 2023, iMMAP, in collaboration with DCA, HI, MAG, and ITF, initiated the NTS project, prioritising communities across the north-east of Syria.<sup>37</sup>

The humanitarian mine action sector faced some operational challenges late 2021 and early 2022. Discussions about an MoU between NESMAO and the humanitarian mine action actors, which were led and facilitated by the humanitarian mine action coordinator of the north-east, iMMAP, stalled and reached a stalemate, forcing the mine action actors to cease operating for almost two months at the beginning of 2022. Restrictions were eventually lifted, and all parties returned to the discussions.<sup>38</sup>

According to MAG, the main challenges to efficient mine action in the north-east were the continuous security threat, the four-month suspension of operations due to the ongoing negotiations around the signature of the MoU (indicated above), the temporary suspension in MAWG coordination meetings, the limited access but high needs in Deir Ezzor governorate, and the shortage of funding for mine action activities.<sup>39</sup>

MAG is providing capacity-building support to NESMAO, to its own staff members, and those of other organisations present in the north-east such as the Syria Justice and Accountability Centre (SJAC). MAG is also providing support to the north-east educational council to integrate EORE safety messages into school curricula. In close collaboration with NESMAO, MAG has constructed two explosives' storehouses and was planning for the construction of one more, to help operators store recovered explosives until their demolition.<sup>40</sup>

DCA reported a cooperative relationship with NESMAO. In April 2023, NESMAO representatives took part in DCA's NTS training course as part of the NTS project in the north-east of Syria. DCA intends to continue capacity building support to the NESMAO. The main challenges reported by DCA were the lack of national mine action standards (NMAS), the lack of formal tasking and prioritisation, alignment of mine action activities with humanitarian needs and development projects,

as well as the different donor requirements from different operators.<sup>41</sup>

According to iMMAP, mine action actors face a drastic reduction in funding for the north-east of Syria as more donors are withdrawing from mine action support. This affects the crucial need to clear water sources and agricultural land due to the ongoing drought and increasing food prices.<sup>42</sup>

In the north-west, mine action was coordinated by the MASC cross-border response from Gaziantep (Türkiye-based response) and was co-chaired by HALO and UNMAS. Since May 2022, HALO started chairing the meetings from Amman,<sup>43</sup> and UNMAS stopped being a co-chairmanship to the MASC due to lack of personnel and funding. Some 15 partners attend the MASC monthly meetings, with SCD attending as observers.<sup>44</sup> HALO and its partners coordinate and receive approvals from the local Turkish authorities for its work across the border with Türkiye.<sup>45</sup> HALO reported generally good coordination with the local authorities when it comes to access and security, but the range of mine action activities has been limited and varied due to the complexities of the operating context.<sup>46</sup> For example, the Turkish authorities do not permit the export of some EOD materials such as T-jets, nor authorises operators to conduct NTS or EOD in northern Aleppo.<sup>47</sup>

According to HALO, the coordination of mine action in the immediate aftermath of the earthquake has been challenging. The immediate needs of the affected population were very high and the emphasis was put on vital assistance such as food and shelter. Mine action operators redirected their activities to respond to these vital needs in the most efficient way possible. For example, HALO purchased a tracked excavator in January 2023 and had begun modifying it for minefield clearance when the earthquake struck. In coordination with local authorities, the excavator was temporarily deployed on rubble removal in earthquake-impacted communities.<sup>48</sup>

The MASC coordination meetings were held every two months in 2022 after a gap in early 2022 during which no meetings were held. MASC meetings include many organisations that are not operationally involved in mine action beyond risk education. The meetings discuss security and access, response coordination, organisations' updates of their activities, funding mechanism and opportunities, experience sharing, the humanitarian programme cycle process, and partnership opportunities, among other topics.<sup>49</sup>

34 Emails from Fabrice Martin, MAG, 9 March 2022, and Akram Alsaedi, MAG, 24 March 2023.

35 Ibid.

36 Email from Kevin Straker, DCA, 15 March 2023.

37 Ibid., 28 June 2023.

38 iMMAP, "Northeast Syria: Progress, Challenges, and Forecast of Humanitarian Mine Action", September 2021–April 2022, p. 15.

39 Email from Akram Alsaedi, MAG, 24 March 2023.

40 Email from Akram Alsaedi, MAG, 24 March 2023.

41 Emails from Kevin Straker, DCA, 15 March and 28 June 2023.

42 iMMAP, "Northeast Syria: Progress, Challenges, and Forecast of Humanitarian Mine Action", September 2021 – April 2022, p. 4.

43 Email from Damian O'Brien, HALO, 10 April 2023.

44 Email from Francesca Chiaudani, UNMAS, 30 April 2023.

45 Emails from Mairi Cunningham, HALO, 7 and 17 June 2021; and Damian O'Brien, HALO, 1 March 2022.

46 Emails from Damian O'Brien, HALO, 1 March 2022 and 10 April 2023.

47 Ibid., 10 April 2023.

48 Ibid.

49 Ibid.

According to SCD, limited funding and access, and difficulties in importing equipment constitute the main challenges to mine action operators in north-west Syria. SCD was able to secure funding for 2022 and early 2023, and, at the time of writing, was in the process of negotiating funding until the end of 2024. However, other organisations have limited options for importing equipment and there is a continued decrease in available funding due to donor fatigue. SCD continues to have sufficient stocks of demining equipment and has therefore not needed to import any such equipment in 2022. However, restrictions that are currently in place continue to prevent such equipment being imported, should it be required. Consumable items, such as marking materials, electric cables, and sandbags, can be procured locally within the north-west of Syria.<sup>50</sup>

UNMAS was seeking US\$25 million for its mine action programme in Syria through to the end of 2023.<sup>51</sup> UNMAS expects a decrease in the funding available for mine action, particularly in the aftermath of the February 2023 earthquake, as the majority of the immediate response of humanitarian actors is focused on shelter and health. A progressive inclusion of mine action in damage assessment and rubble removal work is also to be expected.<sup>52</sup> In a statement to the 24<sup>th</sup> International Meeting of Mine Action National Directors and UN Advisors (24<sup>th</sup> NDM) in 2021, Syria appealed to the international community to boost its financial support to UNMAS so the UN could expand its operation in Syria, provide equipment to the existing qualified national resources, and encourage international NGOs to step in and help Syria clear explosive ordnance.<sup>53</sup>

## ENVIRONMENTAL POLICIES AND ACTION

DCA's global Strategy has a commitment to advance its climate and sustainability work in fragile contexts and crisis. DCA is exploring greener approaches to humanitarian mine action activities across all of its humanitarian mine action country programmes.<sup>54</sup> The HALO's environmental policy has been established by executive management at its headquarters. In line with this policy, HALO's activities seek to minimise negative environmental impacts wherever possible and enhance positive impacts in pursuit of improved lives and livelihoods. HALO complies with the international mine action standards (IMAS) to ensure that activities are conducted with appropriate measures in place to minimise environmental damage, and respect national laws and local needs. HALO has also established an Environment and Conservation Cross-Cutting Network to provide continued guidance on how environmental impacts can be reduced.<sup>55</sup>

MAG's community liaison standing operating procedures (SOPs) include consultations with affected communities about the use of mechanical assets and the timing of clearance, to minimise impact on the environment, agricultural land, or other local activities, including consultations on water use, rubbish disposal, land erosion, and burning of vegetation.<sup>56</sup> MAG conducts demolition activities in a very remote areas of Al-Hassakeh governorate, in agreement with the local authorities, community members, far from any animal movements or farming activities, and in accordance with IMAS.<sup>57</sup>

UNMAS reports that it takes into consideration the impacts of assessing and removing explosive ordnance on the landscape, for instance, when the removal of vegetation is a necessary precondition for the successful implementation of operations. As UNMAS is a secretariat entity, it globally refers to the environment strategy of the UN Department of Field Support (DFS). UNMAS also benefits from the United Nations Office for Project Services (UNOPS) environmental policies, of which the 2018–21 strategic plan explicitly mentions "environmental respect" and "environmental impact". As such, UNMAS's partnership with implementing partners is governed by guidelines that refer to environmental requirements for task implementation.<sup>58</sup>

50 Emails from Michael Edwards, SCD, 5 March 2022 and 27 March 2023.

51 UNMAS website, Syria programme, accessed on 19 May 2023, at: <https://bit.ly/3uCiBON>.

52 Email from Francesca Chiaudani, UNMAS, 30 April 2023.

53 Statement of Syria to the 24th NDM Meeting, 25–27 May 2021, p. 3.

54 Email from Kevin Straker, DCA, 28 June 2023.

55 Email from Damian O'Brien, HALO, 1 March 2022.

56 Email from Fabrice Martin, MAG, 9 March 2022.

57 Email from Akram Alsaedi, MAG, 24 March 2023.

58 Emails from Francesca Chiaudani, UNMAS, 31 March 2022 and 30 April 2023.

## GENDER AND DIVERSITY

There is no national gender and diversity policy for the mine action programme.

DCA has a country-specific gender and diversity policy and implementation plan, in addition to its global gender and diversity policy that is aligned to its Diversity, Inclusion, and Belonging principles. All national staff recruitment is done through candidate lists put forward by NESMAO as specified in the MoU. Although DCA asks for gender-balanced candidate lists for all positions, such conditions are seldom met. In 2022, 20% of DCA's employees were women, with 19% and 36% of operational positions and managerial positions filled by women, respectively.<sup>59</sup>

In Syria, access to female beneficiaries has long been challenging because of the lack of women in the workforce. Employing women not only allows HALO to empower them, but also to ensure their interventions are inclusive and gender sensitive. HALO field teams include at least two women each for better access to women and girls. HALO's employment policy promotes non-discrimination, gender equality, and diversity. Women staff have access to female-friendly spaces in the office as per local cultural norms. HALO provides women with opportunities to be trained in technical field roles to recognised international standards, offering transferable and skills and qualifications that enhance their earning potential. By doing so, HALO empowers women and contributes to shifting gender norms in the north-west. In 2022, 43% of HALO's employees were women, with 38% of operational positions and 54% of managerial positions filled by women.<sup>60</sup>

MAG has an institutional gender and diversity policy and implementation plan. MAG's community liaison, survey, and clearance activities take gender into account during the planning and implementation phases. These activities are guided by MAG's own SOPs and those of IMAS, and are implemented by gender and language balanced community liaison teams. All mine action data are disaggregated by sex and age.<sup>61</sup> In 2022, 18% of MAG's employees were women, with 17% of operational positions and 22% of managerial positions filled by women.<sup>62</sup> MAG's national mine action strategy and annual work plans integrate gender and diversity on a programme and beneficiary levels. Guided by its SOPs, MAG consults with women, children, ethnic, and minority groups in all its activities, and ensures these groups are consulted separately to identify diverse needs.<sup>63</sup> MAG is using mine action as a tool to advocate gender importance and encourage the employment of women in mine action. The number of female staff members has increased compared to previous years.<sup>64</sup>

Women made up 45% of the total NPA Syria programme workforce in 2023.<sup>65</sup> SCD has a gender and a diversity strategy in place. In 2022, SCD successfully trained and deployed 12 female survey operators, with two volunteers joining one of each of the six SCD NTS teams. In 2023, SCD will train and deploy at least six female clearance operators. As at April 2023, SCD was in the final stages of recruiting candidates, with a clearance course expected in July 2023. After the course, the female clearance operators will deploy within three of SCD's six clearance teams. SCD intends to train and deploy additional female volunteers in 2024 as and when replacement staff are needed to backfill both survey and clearance teams. In 2022, about 11% of SCD's total employees are female, and 11% of managerial and operational positions were filled by women.<sup>66</sup> SCD teams are trained to gather information from a variety of sources and to interview and liaise with all segments within a community, including those from ethnic and minority groups. The names, gender, and age of each focal point and interviewee are recorded as part of the survey reporting process and are reviewed by the management team to ensure that the process remains as inclusive as possible. SCD volunteers are recruited from the communities they serve and thus reflect the various ethnic and minority groups which reside in their area of operations. SCD has procedures and policies in place to ensure that individuals do not face discrimination due to their ethnicity, religion, or sex.<sup>67</sup>

UNMAS has a gender and diversity strategy, and gender and diversity considerations are addressed in implementation of activities. During survey and liaison activities, UNMAS teams usually consult with community focal points or representatives from communities and interact with women and children living in close vicinity to the working sites.<sup>68</sup>

UNMAS risk education teams are fully gender balanced, and its clearance contractor, the Armenian Centre for Humanitarian Demining and Expertise (ACHDE), has integrated gender and diversity elements in its work. A diverse set of indicators, including sex and age of victims and beneficiaries, are used to evaluate prioritisation. In 2022, women made up 57% of all UNMAS Syria staff, with 57% of operational and 33% of managerial positions.<sup>69</sup> UNMAS has deployed to communities with ethnic and minority groups (Druze in Sweida for instance), and engaged with all community members to gather feedback.<sup>70</sup>

59 Emails from Kevin Straker, DCA, 15 March and 28 June 2023.

60 Email from Damian O'Brien, HALO, 10 April 2023.

61 Email from MAG, 24 May 2021.

62 Email from Akram Alsaedi, MAG, 24 March 2023.

63 Email from Fabrice Martin, MAG, 9 March 2022.

64 Email from Akram Alsaedi, MAG, 24 March 2023.

65 Email from Claus Nielsen, Programme Manager, NPA, 30 June 2023.

66 Email from Michael Edwards, SCD, 27 March 2023.

67 Emails from Michael Edwards, SCD, 5 March and 15 June 2022.

68 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

69 Email from Francesca Chiaudani, UNMAS, 30 April 2023.

70 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

UNMAS's context analysis appeared to indicate that ethnic/minority groups are not affected by explosive ordnance contamination differently, but rather that all population groups are vulnerable regardless of ethnicity.<sup>71</sup> But Mine Action Review believes that minority groups loyal to the Syrian government are significantly less affected by CMR contamination by virtue of their lesser exposure to the attacks carried out by the Syrian and Russian armed forces.

## INFORMATION MANAGEMENT AND REPORTING

DCA employs an IM GIS coordinator and an officer, using Aeronautical Reconnaissance Coverage Geographic Information (ArcGis), Environmental Systems Research Institutions (ESRI), and Survey123 for its information management. Survey and clearance data is collected using Information Management System for Mine Action (IMSMA) data collection forms and shared monthly with iMMAP, which helps build a clear and accurate contamination mapping across the north-east of Syria. The ongoing iMMAP NTS project is expected to improve the accuracy of existing explosive ordnance contamination data, enabling better prioritisation of subsequent clearance activities.<sup>72</sup>

HALO uses the IMSMA data collection forms and regularly reports to the north-west MASC and the Office of the UNHCR-led Gaziantep coordination response. HALO uses Kobo to collect NTS data, as well as pre- and post-EORE survey to monitor the quality of sessions and knowledge increase of participants. In 2023, Kobo forms will be used as well for pre- and post-clearance survey to measure the impact of mechanical clearance. Data collection tools are reviewed regularly by HALO's Syria information management (IM) staff and the HALO global monitoring, evaluation, and learning (MEAL) team. Data visualisation and mapping tools are also being regularly developed and improved. At the MASC level, HALO collects data from operators through forward planning and the 4Ws tools, using protection cluster templates. In 2023, the 4Ws data collection tool became the 5Ws data collection tool as more data and details have been added to the template, such as more locations, more detailed activities, and sub-activities.<sup>73</sup>

MAG continues to use the online server, SharePoint, to preserve and archive its mine action data. In October 2022, MAG established the Global MAG Operational Management Information System (OMIS). Data is collected from the field through the Survey 123 mobile data application, using the IMSMA form then verified by technical managers through the online OMIS portal, which is linked to the ArcGis maps,

and then validated by the IM department. MAG continues to develop and improve OMIS, and started to use the satellite imagery for more accurate coordinates of the identified hazardous areas in 2023. MAG shares its data with the iMMAP on monthly basis, which is part of the protection working group coordination tools. MAG also shares its operations plans with road maps with the NESMAO on a weekly basis.<sup>74</sup>

iMMAP has been providing mine action coordination support and information management services in compliance with the IMAS in the north-east since 2017. The project's primary goal was providing a comprehensive picture of explosive hazard contamination and progress of intervention measures to stakeholders.<sup>75</sup>

Despite concerted efforts to establish a centralised database representing the whole of Syria, SCD reported that its survey and clearance data continue not to be accepted in the north-west MASC mine action database and the 4W<sup>76</sup> reporting mechanism. This is reportedly because SCD's application to join the protection coordination cluster had not yet been granted, with membership of the cluster a pre-condition for active membership in the MASC. SCD remains ready to provide data to the MASC, which it was unable to do under an observer status.<sup>77</sup> It is of course important that all relevant data on explosive ordnance contamination, survey efforts, and clearance operations are captured in a central information management database.

SCD uses Survey123 for data collection IMSMA Core for data keeping and management. SCD continues to employ a multitier validation process for all activities (survey, clearance, and EORE), with each report being checked by three individuals, at increasing levels of seniority. Furthermore, at the end of each month, the data for all tasks is compiled and a final check carried out to ensure no errors are present.<sup>78</sup>

71 Ibid.

72 Emails from Kevin Straker, DCA, 15 March and 28 June 2023.

73 Email from Damian O'Brien, HALO, 10 April 2023.

74 Emails from Akram Alsaedi, MAG, 24 March 2023; and Najat El Hamri, MAG, 3 July 2023.

75 iMMAP, "Northeast Syria: Progress, Challenges, and Forecast of Humanitarian Mine Action", September 2021–April 2022, p. 4.

76 The 4W is an excel-based reporting matrix that feeds into the UN HRP. The term 4W stands for Who (which operator) is doing What, Where, and When. It is used as both a coordination and planning tool.

77 Emails from Michael Edwards, SCD, 5 March 2022 and 27 March 2023.

78 Ibid.

In 2021, UNMAS completed the establishment of IMSMA Core as the national mine action information management system in Damascus, although it continues to have another IMSMA database outside of Damascus for reasons of data confidentiality.<sup>79</sup> UNMAS manages the database, collating explosive ordnance data from partners across Syria in a central database. To improve data quality, UNMAS regularly provides training in Arabic and English to mine action organisations, explaining reporting procedures, data handling, and technicalities. UNMAS further collects mine action data through the Office of Coordination of Humanitarian Affairs (OCHA)-led humanitarian response tracking.<sup>80</sup> Since its accreditation in 2020, the ACHDE has been providing monthly reports on areas worked and items found to UNMAS IMSMA.<sup>81</sup> It is believed, however, that clearance by Syrian and Russian forces largely goes unreported.

## PLANNING AND TASKING

Syria does not have a national mine action strategic plan. Mine action is fragmented and has a long way to develop into a coherent national response. Different actors have set different priorities for survey and clearance as dictated by the circumstances and the authorities under which they operate.

In the north-east of Syria, there is neither a central tasking and prioritisation body to issue tasks nor a strategic mine action plan, but operators have their own plans.<sup>82</sup> DCA has a five-year global and country office strategy, which is reviewed annually.<sup>83</sup> In 2022, following the capacity building provided by MAG, NESMAO started to follow MAG's prioritisation criteria. The prioritisation criteria are the following: persons or animals injured or killed by landmines or UXO spots during the past 24 months; IEDs, landmines or UXO spots found; blocked irrigated agricultural fields, pasture lands, non-agricultural areas, housing, roads, or infrastructure; the number of the population using the land; and the presence of persons with disabilities among the population who use the land.<sup>84</sup>

The north-west of Syria has no central tasking or prioritisation body. HALO uses data collected from its previous community assessments and NTS to identify high-priority communities for EOD, focusing on removing contamination from agricultural areas to support economic activities, sustainable livelihoods, and mitigate food insecurity. Incident data shows that a large percentage of detonations affect adult men and that two of the most at-risk

occupations are farming and herding. HALO engages with communities where it conducts EOD to obtain their informed consent and considers requests from the local authorities for future interventions.<sup>85</sup>

SCD prioritises tasks based upon a number of factors which ultimately determine the level of risk to the community. These factors include the type of item, its location (whether close to inhabited buildings or blocking vital infrastructure), the number of items, as well as logistical information, such as the location of the task relative to the clearance team, and whether there are multiple tasks within the same area. Following an assessment of these factors, tasks that are deemed to pose the highest risk to the community are prioritised. At present, the number of tasks identified through survey does not yet exceed the operational capacity of the clearance teams, meaning that once items are identified they are cleared within one or two days, thus reducing the need to prioritise.<sup>86</sup>

UNMAS continued its survey and clearance tasks in 2022 in high priority areas in Rural Damascus based on the agreed list of priority locations that it had discussed with partners and the Government of Syria. UNMAS also follows its own internal country programme strategy and annual work plans, which are done in consultation with its partners. Tasks are prioritised and selected based on a set of criteria, including severity of humanitarian needs, presence of humanitarian partners, delivery of humanitarian activities, IDP flows, and historic data on explosive incidents.<sup>87</sup>

79 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

80 Email from Francesca Chiaudani, UNMAS, 30 April 2023.

81 Emails from UNMAS, 30 June 2021.

82 Emails from Akram Alsaeedi, MAG, 24 March 2023; and Kevin Straker, DCA, 15 March 2023.

83 Email from Kevin Straker, DCA, 15 March 2023.

84 Email from Akram Alsaeedi, MAG, 24 March 2023.

85 Emails from Mairi Cunningham, HALO, 7 June 2021; and Damian O'Brien, HALO, 1 March 2022 and 10 April 2023.

86 Emails from Michael Edwards, SCD, 5 March 2022 and 27 March 2023.

87 Emails from Francesca Chiaudani, UNMAS, 31 March 2022 and 30 April 2023.

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

There are no formal NMAS in Syria, but in 2020, UNMAS drafted NMAS and associated guidelines and submitted them to the Syrian government for its review and approval. Despite having received informal positive feedback, no official response had been given on the proposed NMAS as at April 2023.<sup>88</sup> In its statement as an observer to the Anti-Personnel Mine Ban Convention (APMBC) Twentieth Meeting of State Party (20MSP) in 2022, Syria stated that: "Technical standards and guidelines have been developed that will define the operational framework for all mine action activities in Syria, in line with the International Mine Action Standards."<sup>89</sup>

In the non-government-controlled north-east and north-west of Syria, local authorities do not endorse the Damascus-developed NMAS. As a result, most of the operators work to their own SOPs. For example, DCA works in accordance with its global SOPs which derive from IMAS, and applies best practice guidelines from the Geneva

International Centre for Humanitarian Demining (GICHD).<sup>90</sup> In the absence of a formal land release policy, a signing of a handover land-release certificate happens between DCA, the landowner, and NESMAO. This process was introduced to NESMAO by DCA.<sup>91</sup>

MAG Syria continues to work to its own established SOPs which are in line with IMAS and the needs in the north-east. MAG's own SOPs were last updated in December 2021 to align with MAG's new Global Technical Standards. There was no need for the revision of MAG's SOPs in 2022. MAG started a capacity-building plan on NMAS development for NESMAO and plans to elaborate NMAS in the long-term.<sup>92</sup>

HALO increased its efforts to refine its quality assurance (QA) mechanisms through stronger integration of field teams using Kobo software for mobile data collection.<sup>93</sup> SCD teams also operate according to IMAS for clearance, survey, and risk education.<sup>94</sup>

### OPERATORS AND OPERATIONAL TOOLS

Mine action in Syria has been conducted by a wide range of organisations, largely determined by the circumstances and forces controlling the region at a given time. In areas under government control these have included mainly Russian and Syrian military engineers and civil defence organisations.<sup>95</sup>

DCA has been present in Syria since 2015. Due to the frequent shifts and outbreaks of violence, its Syria country offices have closed and reopened several times. Its staff were relocated to Türkiye, Iraq, and then back to Syria in 2020.<sup>96</sup> In January 2022, DCA consolidated its capacity to Raqqa governate. This included all humanitarian mine action staff: four manual clearance teams, international technical staff, project support staff, and the existing mechanical assets. DCA continues survey and clearance operations from its established Forward Operating Base in Raqqa city. In 2023, DCA has tentatively extended its outreach to Deir Ezzor where previous humanitarian interventions have been hindered by security and other political, social, and economic obstacles. DCA's manual teams cover both TS and NTS. They are supported by a mechanical team which consists of two armoured excavators, two front-end loaders, two dump trucks, one bobcat, and nine mechanical and maintenance staff. Between February and September 2022, the number of clearance teams was reduced to two due to a shortage in funding.<sup>97</sup> DCA is continuing its localisation efforts by extending the existing agreement with its local partner: Roj

Mine Control Organisation (RMCÖ). This partnership has had unique benefits in terms of reaching difficult locations and sensitive communities. In 2022, the partnership was centred on EORE activities. As at mid 2023, the focus had shifted to implementing the iMMAP NTS project where DCA/ RMCÖ are working in the hard-to-access areas of Deir Ezzor and Kobani.<sup>98</sup>

Operating in the north-east, ITF, which had started phase I of its explosive hazards clearance and EORE with agricultural recovery in the north-east in 2021, has completed the second phase of the programme in August 2022. Clearance operations were conducted in several locations in the north-east, particularly in contaminated agricultural lands that were no longer being used due to contamination.<sup>99</sup>

HALO, which has been present in Syria since 2016, is operational in the north-west of Syria in the opposition-controlled territories of Idlib and Aleppo. HALO conducts NTS, EOD, risk education, and victim assistance. In July 2022, after receiving permission to conduct NTS and EOD for the first time in Idlib and western Aleppo in areas controlled by the Syria Salvation Government (SSG), HALO trained and deployed two teams composed of four members, including two women, for NTS and EOD spot tasks since July-August 2022. In February 2023, HALO's EOD teams received authorisation to use explosives for demolitions. This

88 Ibid.

89 Statement of Syria, APMBC Twentieth Meeting of States Parties, Geneva, 21–25 November 2022.

90 Email from Lene Rasmussen, DCA, 13 April 2021.

91 Email from Kevin Straker, DCA, 15 March 2023.

92 Emails from Fabrice Martin, MAG, 9 March 2022; and Akram Alsaedi, MAG, 24 March 2023.

93 Email from Damian O'Brien, HALO, 1 March 2022.

94 Email from Michael Edwards, SCD, 5 March 2022.

95 "Russian military boosts qualified Syrian sappers to demine war-ravaged country", Tass, 9 January 2018.

96 Email from Lene Rasmussen, DCA, 13 April 2021.

97 Emails from Kevin Straker, DCA, 15 March and 28 June 2023.

98 Email from Kevin Straker, DCA, 28 June 2023.

99 ITF, "Annual Report 2022", at: <https://bit.ly/3o5ulMO>, p. 134.

has been a major step forward in its operational capacity as previously HALO had to rely on burning techniques, which limited the types and quantity of devices that could be disposed of. HALO is planning to conduct mechanical clearance using an excavator in the north-west. The excavator was delivered to Idlib in January 2023, and as at April 2023, had nearly finished being armoured. HALO intends to conduct mechanical clearance by a team of four personnel that will be extended to five or six if additional funding is secured.<sup>100</sup>

MAG has been operational in the north-east of Syria since 2016, following a forced suspension of its activities in October 2019, it resumed its activities in the north-east in late 2020.<sup>101</sup> In 2022, MAG operated in Al-Hassakeh (north-east) and Raqqa governorates, conducting contamination survey, NTS, TS, risk education, training of community focal points, and clearance. MAG operated with six mine action teams, four multi-task teams, 20 community liaison teams, and two mechanical teams with seven machines in 2022: two Scarifiers, two Tracked Excavators, and three Bobcats. MAG established a mechanical workshop and a training centre in Al-Hassakeh governorate, which is the main centre for mine action capacity building. It also established a smaller training centre in Raqqa. MAG capacity remained unchanged for the first four months of 2023, and in May, MAG decreased its EORE capacity to 50% but maintained the same clearance capacity.<sup>102</sup>

Following the signature of an MoU with the Syrian government in 21 December 2021,<sup>103</sup> NPA received accreditation and completed its inception phase in 2022. The inception phase included the recruitment of national key staff, setting up of NPA's permanent office in Damascus, identification of future working areas, recruitment, and training. The operational training took place in Damascus and Rural Damascus governorates, and as at April 2023, NPA was deploying four multi-skilled clearance teams and NTS teams in these governorates.<sup>104</sup> As at July 2023, NPA was deploying two multi-skilled operational teams and two NTS teams within the Palestinian refugee camp of Yarmouk (at the outskirts of Damascus), in addition to two multi-skilled operational teams and three NTS teams deployed within the sub-district of Al-Nashrabiyyeh (Rural Damascus).<sup>105</sup> A local organisation, RMCO, was established in 2016, and was conducting clearance in north-east Syria but reportedly sustained heavy casualties among its deminers attempting clearance of improvised devices.<sup>106</sup> In 2022, RMCO partnered with DCA for the provision of EORE. As noted above, the two

organisations extended their partnership in 2023 with the focus on NTS activities in hard-to-reach areas.<sup>107</sup>

In the north-west, HALO and HI carried out survey activities. HALO and SCD were the only two organisations that carried out clearance and/or EOD.<sup>108</sup>

The SCD was operational in Aleppo, and Idlib governorates (in the north and north-west of the country), and continued to conduct surface level battle area clearance (BAC), NTS, EORE, and single item disposal. SCD encounters items that are predominantly CMR, but its teams also dispose of anti-personnel mines when they are encountered. SCD has maintained its operational capacity of six NTS and six clearance teams in 2022. All SCD teams are trained to deliver risk education.<sup>109</sup>

SCD mine action activities were temporarily suspended in the aftermath of the earthquake as SCD staff assisted in the wider response. SCD teams participated in urban search and rescue operations, provided medical care and specialist support when hazardous items were discovered or suspected to be present. Since then, SCD has prioritised the delivery of EORE due to the large number of people displaced by the earthquake, and the likelihood of families moving to or travelling through unfamiliar areas.<sup>110</sup>

UNMAS signed an MoU with the Syrian government in July 2018. After meeting the then Deputy Foreign Minister, Faisal Mikdad in Damascus in October 2019, UNMAS Director Agnes Marcaillou reported the government had agreed to the involvement of international demining organisations. They would be registered by the government and coordinated by UNMAS.<sup>111</sup>

UNMAS reported the lack of qualified in-country operators as one of the major challenges to progress in mine action in 2020. This led UNMAS to hire its own UN personnel to conduct the explosive ordnance assessment survey, which normally would be conducted through implementing partners.<sup>112</sup> To facilitate access for clearance operators, UNMAS conducted a global pre-qualification exercise for Syria. Ten mine clearance operators from a wide range of countries were pre-qualified to participate in UNMAS procurement for clearance operations.<sup>113</sup> As at April 2023, two operators: the ACHDE and NPA had been accredited by UNMAS for conducting mine action activities in government-controlled areas. Another three organisations, DRC, SHIELD, and Global Clearance Solutions, were undergoing desk accreditation as at May 2023.<sup>114</sup>

100 Emails from Damian O'Brien, HALO, 1 March 2022 and 10 April 2023.

101 Email from MAG, 24 May 2021.

102 Emails from Akram Alsaedi, MAG, 24 March 2023; and Najat El Hamri, MAG, 3 July 2023.

103 NPA, New Humanitarian Mine Action in Syria, at: <https://bit.ly/3MHNXTF>.

104 Email from Claus Nielsen, Programme Manager, NPA, 12 April 2023.

105 Emails from Claus Nielsen, NPA, 12 April and 30 June 2023.

106 S. Kajjo, "Landmine removal crucial in post-IS Syria", Voice of America, 3 April 2019; and interview with operators, Erbil, Iraq, May 2019.

107 Emails from Kevin Straker, DCA, 15 March and 28 June 2023.

108 Email from Damian O'Brien, HALO, 10 April 2023.

109 Emails from Michael Edwards, SCD, 5 March 2022 and 27 March 2023.

110 Email from Michael Edwards, SCD, 27 March 2023.

111 Statement by Agnes Marcaillou, Director, UNMAS, to the UN Security Council, 24 October 2019.

112 Email from UNMAS, 30 July 2021.

113 The ten operators originate from Afghanistan, Croatia, Denmark, Norway, Russia, Switzerland, Ukraine, and the United Arab Emirates.

114 Email from Francesca Chiaudani, UNMAS, 30 April 2023.

In late 2019, UNMAS identified 50 locations in Rural Damascus, Daraa, and Homs for survey and clearance operations. All areas were classified as level three or above on the humanitarian response plan and protection sector severity scale. In February 2020, UNMAS shared the list of these 50 recommended areas/sub-districts with the Syrian government for its acceptance and granting access for the explosive ordnance assessment. Among the 50 locations, it was jointly agreed with government of Syria to start the assessment in eight locations of high humanitarian priority, also taking into consideration access and logistics questions in Rural Damascus and Homs.<sup>115</sup> In December 2021, UNMAS started the pilot clearance project of the priority area of

western Ghouta, in the outskirts of the capital Damascus. Two ACHDE clearance teams started BAC in Daraya (western Ghouta).<sup>116</sup>

UNMAS's operational capacity for the first half of 2022 was two explosive ordnance assessment teams, which consisted of seven TS personnel, and two NTS personnel. Following the completion of project funding in June 2022, the teams work was discontinued. UNMAS does not expect changes in its operational capacity in 2023. UNMAS opened a sub-office in Aleppo in 2021, which then closed in May 2022 due to the lack of funding. The ACHDE deployed two clearance teams of 18 deminers.<sup>117</sup>

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

Syria's continuing instability prevented progress towards a coordinated national programme of mine action. Comprehensive information on outcomes of survey and clearance in any area was unavailable.

In the north-east of Syria, MAG destroyed a total of 46 submunitions and 35 items of UXO in Al-Hassakeh and Raqqa governorates during spot tasks. MAG released a total area of 2.42km<sup>2</sup> of contaminated land through mechanical clearing, pressing 89,962m<sup>3</sup> of rubble, and carrying out 383 spot tasks. No CMR was destroyed as a result of these activities.<sup>118</sup> Since the beginning of its operation in 2016, MAG has released more than 43km<sup>2</sup> and removed over 78,000 items of explosive ordnance in the north-east of Syria.<sup>119</sup>

From June 2021 to August 2022, as part of its explosive hazards clearance and EORE with agricultural recovery project in the north-east of Syria, ITF surveyed, cleared, and subsequently handed back to the local community 5.64km<sup>2</sup> of land that was previously contaminated with explosive hazards.<sup>120</sup> It is not clear if how many of the explosive hazards were CMR, if any.

According to iMMAP, between September 2021 and April 2022, a total of 3,654 explosive devices were found and destroyed in the north-east of Syria, bringing the total to date to 113,787 devices, among which there were 16,807 landmines, 90,756 items of UXO, and 6,224 IEDs for the whole period from 2017.<sup>121</sup> It is not known what proportion of the explosive ordnance were CMR, if at all.

In the north-west, HALO conducted EOD in 17 communities in the districts of Ariha and Idlib (Idlib governorate). A total of 86 items were disposed of through 54 call-outs, including 14 submunitions.<sup>122</sup>

The SCD destroyed a total of 440 submunitions in Aleppo and Idlib governorates in north-west Syria during EOD call-outs. SCD disposed of a further 512 items of UXOs that were not submunitions in 2022.<sup>123</sup>

In April 2022, UNMAS obtained approval for the use of explosives, and conducted the first bulk demolition of items in Rural Damascus. This was the first demolition entirely conducted, controlled, and quality checked by mine action actors in a government-controlled area of Syria. In 2022, a total of 3.26km<sup>2</sup> of land was cleared, of which 1.95km<sup>2</sup> was of surface area and 1.31km<sup>2</sup> of sub-surface area. A total of 10 submunitions and 264 other items of UXO were destroyed during the clearance. In December 2022, the first plot of cleared land in Daraya was officially handed over to local authorities.<sup>124</sup>

115 Statement of Syria to the 24th NDM Meeting, 25–27 May 2021, p. 2.

116 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

117 Emails from Francesca Chiaudani, UNMAS, 31 March 2022 and 30 April and 30 June 2023.

118 Email from Akram Alsaeedi, MAG, 24 March 2023.

119 Email from Najat El Hamri, MAG, 3 July 2023.

120 ITF, "Annual Report 2022", p. 134.

121 iMMAP, "Northeast Syria: Progress, Challenges, and Forecast of Humanitarian Mine Action", September 2021 – April 2022, P. 15.

122 Email from Damian O'Brien, HALO, 10 April 2023.

123 Email from Michael Edwards, SCD, 27 March 2023.

124 Email from Francesca Chiaudani, UNMAS, 30 April 2023.

**Table 1: Submunitions destroyed in Syria in 2022<sup>125</sup>**

Governorate	Operator	Submunitions destroyed
North-east (non-government controlled)	MAG <sup>126</sup>	46
North-west (non-government controlled)	HALO <sup>127</sup>	14
	SCD <sup>128</sup>	440
Centre and South (government-controlled)	UNMAS <sup>129</sup>	10
<b>Total</b>		<b>510</b>

In its statement to the 20MSP to the APMBC in November 2022, Syria stated that its armed forces removed more than 50,000 explosive devices, 84,000 unexploded shells, 45,000 miscellaneous mines, and cleared more than 550km<sup>2</sup> of mines and ammunitions. Syria described the "The occupation, the illegal foreign presence in some areas of Syria, and the use of mines and improvised devices by armed terrorist groups in those areas, constitute obstacles to access and clearance of all mine-contaminated areas." In the same statement, Syria called on an "immediate and unconditional lifting of western unilateral coercive measures imposed on Syria, and for supporting efforts to cleanse its entire territory of the evils of mines".<sup>130</sup>

<sup>125</sup> Emails from Francesca Chiaudani, UNMAS, 30 April 2023; Damian O'Brien, HALO, 10 April 2023; Akram Alsaeedi, MAG, 24 March 2023; and Michael Edwards, SCD, 27 March 2023.

<sup>126</sup> All submunitions destroyed by MAG were in Raqqa and Al-Hassakeh governorates.

<sup>127</sup> HALO conducted its EOD operations in Idlib district (Sarmin, Idlib, Maaret Tamsrin, and Bennish sub-districts), and Ariha (Ariha sub-district).

<sup>128</sup> All the 440 submunitions destroyed by SCD were located in Aleppo and Idlib governorate in the following sub-districts: Azaz (11), Al-Bab (14), Al-Maara (2), Ariha (51), As-Suqaylabiyah (2), Harim (11), Idlib (143), Jebel Saman (80), and Jisr Ash-shughur (126).

<sup>129</sup> All submunitions destroyed by UNMAS were located in Rural Damascus governorate (Daraya sub-district).

<sup>130</sup> Statement of Syria, APMBC Twentieth Meeting of States Parties, Geneva, 21–25 November 2022.

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION: LIGHT

NATIONAL AUTHORITY ESTIMATE

**4** km<sup>2</sup>

SUBMUNITION  
CLEARANCE IN 2022

**0.61** km<sup>2</sup>

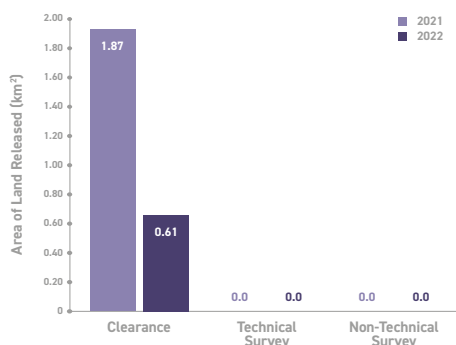
(NATIONAL AUTHORITY  
ESTIMATE)

SUBMUNITIONS  
DESTROYED IN 2022

**122**

(INCLUDING 12 DESTROYED  
DURING EOD SPOT TASKS)

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

Tajikistan's clearance output decreased significantly in 2022 compared to the previous year. The national authority estimates that total contamination from cluster munition remnants (CMR) increased hugely to almost 4.04 km<sup>2</sup> at the end of 2022 from 1.87 km<sup>2</sup> a year earlier. This increase was due to the identification of previously unrecorded contamination.

## RECOMMENDATIONS FOR ACTION

- Tajikistan should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Tajikistan should comply with its obligations under international human rights law to clear CMR on territory under its jurisdiction or control as soon as possible.
- The Tajikistan National Mine Action Center (TNMAC) should seek to confirm the extent of remaining CMR contamination and ensure timely clearance and release of the contaminated areas.

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Commission for the Implementation of International Humanitarian Law (CIIHL)
- Tajikistan National Mine Action Center (TNMAC)

### NATIONAL OPERATORS

- Union of Sappers Tajikistan (UST)
- Ministry of Defence – Humanitarian Demining Company (HDC)
- Border Guard Forces of Tajikistan

### INTERNATIONAL OPERATORS

- Norwegian People's Aid (NPA)
- FSD

### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- Organization for Security and Co-operation in Europe (OSCE)

# UNDERSTANDING OF CMR CONTAMINATION

Tajikistan has a CMR problem that is estimated by TNMAC to cover a total of 4.03km<sup>2</sup> in 16 confirmed hazardous areas (CHAs) (see Table 1).<sup>1</sup> Tajikistan reports no suspected hazardous areas (SHAs).

TNMAC's current estimate of contamination represents a more than doubling on the 1.86km<sup>2</sup> identified by TNMAC at the end of 2021.<sup>2</sup> CMR contamination is spread across three regions, with the largest concentration in Rasht in the Districts of Republican Subordination (DRS) region, a further third concentrated in the mountainous district of Darvoz in the Gorno-Badakhshan Autonomous region, and almost one quarter in Vahdat, also in DRS region.<sup>3</sup> The significant increase in the estimate of cluster munition-contaminated area is the result of nine battle areas being confirmed as

containing CMR, with a total area of 2.67km<sup>2</sup> being added to the national database in 2022.<sup>4</sup> Contamination data is disaggregated by weapon type in the national database, with CMR disaggregated from other explosive remnants of war (ERW).<sup>5</sup>

TNMAC cautioned in 2021 that "taking into account the scale of the past civil war, unexplored military ranges, unexplored difficult areas where battles took place, it can be assumed that the number of explosive remnants of war sites and dangerous areas may exceed those discovered and cleared so far".<sup>6</sup> Tajikistan plans to finish surveying all explosive ordnance contamination by the end of 2025 in the districts of Darvoz, Rasht, and Vahdat where cluster munition-contaminated areas have continued to be identified.<sup>7</sup>

Table 1: Cluster munition-contaminated area (at end 2022) (National Authority estimate)<sup>8</sup>

Region	District	CHAs	Area (m <sup>2</sup> )
Gorno-Badakhshan Autonomous Region (VKMB)	Darvoz	5	1,404,463
DRS	Rasht	6	1,651,400
DRS	Vahdat	5	979,313
Totals		16	4,035,176

Tajikistan traces its CMR contamination back to the civil war of 1992–97 but has not clarified who was responsible for using cluster munitions.<sup>9</sup> Most of the submunitions being cleared are Soviet-era AO 2.5RT/RTM type.<sup>10</sup> SHOAB-0.5 submunitions have also been found.<sup>11</sup>

Tajikistan faces several challenges in determining an accurate baseline of CMR contamination. Owing to a lack of nationwide survey, Tajikistan has no recorded SHAs and continues to discover areas of contamination for which no previous information exists.<sup>12</sup> As the Union of Sappers Tajikistan (UST) notes, many cluster munitions were used without documentation. As such, non-technical survey (NTS) teams are investing effort into finding former military

personnel and other informants who were involved in the civil war and can help survey teams build a picture of likely contamination. Information about previously unknown areas of contamination also comes from explosive accidents, such as the one in 2021 involving two civilians and the explosion of a SHOAB-0.5 cluster bomb in the Romit Gorge in Vahdat district. This prompted survey and eventually led to confirmation of a previously unrecorded total of 1.74km<sup>2</sup> of cluster munition-contaminated area.<sup>13</sup> Tajikistan's terrain can present a challenge to determining an accurate baseline of contamination in a given area. Mudslides, landslides, avalanches, and rockfalls can cause submunitions to move or become more deeply buried.<sup>14</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND MINES

Tajikistan is also contaminated with anti-personnel mines. See Mine Action Review's *Clearing the Mines* reports on Tajikistan for further information.

1 Email from Muhabbat Ibrohimzoda, Director, TNMAC, 31 March 2023.  
2 Ibid., 19 June 2022.  
3 Ibid., 31 March 2023.  
4 Ibid.  
5 Ibid., 16 June 2023.  
6 Convention on Certain Conventional Weapons (CCW) Protocol V Article 10 Report (covering 2021), Form A.  
7 Emails from Muhabbat Ibrohimzoda, TNMAC, 19 and 24 June 2022 and 31 March 2023.  
8 Ibid., 31 March and 16 June 2023. Based on reconciliation of data provided by TNMAC in 2021 with that provided by TNMAC in 2022, Mine Action Review estimates that contaminated area in Vahdat may be slightly higher than that given in Table 1, at 1.07km<sup>2</sup>.  
9 Statement of Tajikistan, Anti-Personnel Mine Ban Convention (APMBC) Fourteenth Meeting of States Parties, Geneva, 1 December 2015.  
10 Email from Melissa Andersson, Country Director, Norwegian People's Aid (NPA), 29 April 2020.  
11 Email from Saynurridin Kalandarov, Director, Union of Sappers Tajikistan (UST), 14 April 2023.  
12 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.  
13 Email from Saynurridin Kalandarov, UST, 14 April 2023.  
14 Presentation by Muhabbat Ibrohimzoda, TNMAC, APMBC Intersessional Meetings, Geneva, 22 June 2022; and email from Saynurridin Kalandarov, UST, 14 April 2023.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Commission for the Implementation of International Humanitarian Law (CIIHL), chaired by the First Deputy Prime Minister, and comprising senior representatives from relevant line ministries, acts as Tajikistan's national mine action authority, responsible for mainstreaming mine action in the government's socio-economic development policies.<sup>15</sup>

TNMAC is the executive arm of CIIHL and the body coordinating mine action, responsible for issuing task orders, information management, quality assurance (QA), and quality control (QC).<sup>16</sup> It was set up by government decree in 2014, replacing the Tajikistan Mine Action Centre and assuming responsibility for the transition to a fully nationally-owned programme.<sup>17</sup> Tajikistan's Parliament adopted a Law on Humanitarian Mine Action in 2016.<sup>18</sup> The Ministry of Defence (MoD) plays a significant role in the mine actor sector through the Humanitarian Demining Company (HDC), the biggest national operator, which is funded by the United States.<sup>19</sup>

TNMAC has submitted an evidence-based, costed, and time-bound mine action strategy for 2021–30 and an action plan for its implementation, both of which have been approved by the government.<sup>20</sup> However, as Tajikistan has not yet adhered to the Convention on Cluster Munitions (CCM), the problem of cluster munitions is not integrated into its national mine action strategy. TNMAC does, however include instructions regarding CMR when tasking demining operators with survey and clearance.<sup>21</sup>

The Government of Tajikistan and TNMAC are enabling and highly supportive of mine action activities in the country. This includes the granting of visas, concluding memoranda of understanding with operators, facilitating imports, and involving operators in decisions as and when needed.<sup>22</sup>

In 2022, the Tajik government provided modest funding for mine action, including US\$480,000 in “technical and non-technical assistance” (the same level of funding it provided in 2021) to facilitate the implementation of the

Tajikistan's obligations under the Anti-Personnel Mine Ban Convention (APMBC). A further US\$56,400 (a slight increase compared to 2021), was allocated to support operational mine action.<sup>23</sup> TNMAC reports that, as Tajikistan has not yet adhered to the CCM, no separate funding was allocated specifically for survey and clearance of cluster munition-contaminated area in Tajikistan in 2022.<sup>24</sup>

The Organization for Security and Co-operation in Europe Programme Office in Dushanbe (OSCE POiD), has previously supported the Ministry of Defence to update its multi-year plan, entitled “Ministry of Defence of the Republic of Tajikistan Co-operation Plan for Humanitarian Demining 2018–2023”.<sup>25</sup> In 2022, the OSCE continued to support mine action, providing €278,000 to TNMAC (a similar level of funding to 2021), as well as two vehicles (a pick-up truck and an ambulance), for use by MoD demining teams.<sup>26</sup>

TNMAC receives support on information management from the Geneva International Centre for Humanitarian Demining (GICHD) through regular online consultations.<sup>27</sup> Norwegian People's Aid (NPA), does not have a formal capacity development agreement with TNMAC but assists informally with capacity development activities as and when requested.<sup>28</sup> In February 2023, NPA provided International Mine Action Standards (IMAS)-compliant medical training for staff from NPA and other demining organisations in Tajikistan.<sup>29</sup>

Prior to the COVID-19 pandemic, a multi-stakeholder mine action forum for Tajikistan met on a regular basis. NPA believes it would be good to revive the forum.<sup>30</sup> Monthly technical co-ordination meetings were held in 2022 involving participants from TNMAC, the demining operators, senior staff from the central offices of the MoD engineering units, Border Troops, the Committee for Emergency Situations and Civil Defence, and the National Guard.<sup>31</sup>

## ENVIRONMENTAL POLICIES AND ACTION

TNMAC states that environmental issues are taken into consideration during survey and clearance to ensure that operations are conducted without negative environmental impact and that hazardous areas released and handed over to communities in a state suitable for intended use.<sup>32</sup>

15 2019 APMBC Article 5 deadline Extension Request, p. 20.

16 Ibid., pp. 20–21.

17 Ibid., p. 1.

18 Ibid., pp. 20–21.

19 Ibid., p. 23.

20 Emails from Muhabbat Ibrohimzoda, TNMAC, 22 April 2021 and 7 July 2022.

21 Ibid., 31 March 2023.

22 Emails from Melissa Andersson, NPA, 21 May 2022 and 29 March 2023; Saodat Asadova, National Programme Officer, OSCE, 30 March 2023; and Nickwah Din Mohammed, Country Director, FSD, 24 March 2023.

23 Emails from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022 and 31 March 2023.

24 Ibid., 31 March 2023.

25 Emails from Luka Buhin, OSCE Tajikistan, 9 October 2017; and Muhabbat Ibrohimzoda, TNMAC, 7 July 2022.

26 Email from Saodat Asadova, OSCE, 30 March 2023.

27 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.

28 Emails from Melissa Andersson, NPA, 21 May 2022 and 29 March 2023.

29 Ibid., 29 March 2023.

30 Ibid.

31 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.

32 Ibid., 19 June 2022.

Clearance activities are undertaken according to Tajikistan's national mine action standards (NMAS), which contain a chapter on the environment, health, and safety. This chapter covers issues such as safeguarding of the environment during the establishment and removal of worksites and accommodation, waste disposal, air quality, water supply, as well as the recording and reporting of environmental "incidents".<sup>33</sup> As part of compliance with this chapter, demining organisations have developed a pro forma book for recording environmental incidents in minefields and battle areas. There were no updates to the environmental chapter of the NMAS in 2022.<sup>34</sup>

Tajikistan does not have an environmental management policy for mine action but a 2011 law on environmental protection and other regulatory documents define the legal basis for all state policy on the environment.<sup>35</sup>

NPA has its own environmental management system in place, which includes a policy adapted to the local context from NPA's Head Office guidelines. NPA also has an environmental standard operating procedure (SOP) and an annual action plan linked to the environmental policy.<sup>36</sup>

FSD has an environmental policy and SOP at headquarter level and was due to begin the ISO 14001 accreditation process in 2023. Refresher training on the SOP and FSD's organisational level commitments to sound environmental practices takes place each year with all management and operational staff, following the winter stand-down period.<sup>37</sup>

UST has an SOP on environmental protection based on Tajikistan's NMAS, which has been approved by TNMAC.<sup>38</sup>

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## GENDER AND DIVERSITY

TNMAC adopted a gender programme in October 2018 that was prepared by the GICHD (GMAP, now a programme of the GICHD), and is committed to improving the situation of women in the mine action sector.<sup>39</sup> With the assistance of the GICHD, gender and diversity issues were integrated into Tajikistan's national mine action strategy, updated to cover the period 2021 to 2030, with annual plans also addressing the issues.<sup>40</sup> Tajikistan reports that gender is mainstreamed in all aspects of their mine action programme.<sup>41</sup> Relevant mine action data continue to be disaggregated by sex and age.<sup>42</sup>

TNMAC asserts that both men and women with relevant work experience and qualifications in demining have equal access to employment in the sector in Tajikistan.<sup>43</sup> However, TNMAC also acknowledges that it is challenging to achieve gender balance in view of the predominance of men in the military, where service is compulsory for men and voluntary for women. TNMAC states that where it can identify key positions that can be filled by female candidates, such as paramedics and/or QA/QC officers, this will be prioritised. In addition, TNMAC seeks to increase female civilian capacity in mine action in coordination with other implementing partners.<sup>44</sup>

In 2022, 28% of TNMAC's staff were women and 38% of managerial/supervisory positions were occupied by women (an increase on the 30% of 2021). However, no women were employed in operational positions in TNMAC.<sup>45</sup> No women were employed by MoD's HDC in either operational or managerial/supervisory positions in 2021 or 2022.<sup>46</sup>

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33 Emails from Saodat Asadova, OSCE, 3 and 9 June 2022; and Muhabbat Ibrohimzoda, TNMAC, 19 June 2022; and National Mine Action Standards (NMAS), Chapter 20: "Environment, Health and Safety".

34 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.

35 Ibid.

36 Email from Melissa Andersson, NPA, 21 May 2022.

37 Email from Nickhwah Din Mohammed, FSD, 24 March 2023.

38 Email from Saynurridin Kalandarov, UST, 14 April 2023.

39 Email from Muhabbat Ibrohimzoda, TNMAC, 14 June 2019.

40 Emails from Melissa Andersson, NPA, 21 May 2022; and Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

41 APMBC Committee on the Implementation of Article 5, Preliminary Observations on Tajikistan, Intersessional meetings, Geneva, 20–22 June 2022.

42 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.

43 Ibid.

44 2019 APMBC Article 5 deadline Extension Request, Additional Information received 3 August 2019.

45 Emails from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022 and 31 March 2023.

46 Emails from Saodat Asadova, OSCE, 3 June 2022; and Muhabbat Ibrohimzoda, TNMAC, 16 June 2023.

Table 2: Gender composition of operators in 2022<sup>47</sup>

Organisation	Total staff	Women employed	Total staff in managerial or supervisory positions	Women in managerial or supervisory positions	Total staff in operational positions	Women in operational positions
TNMAC	25	7	8	3	4	0
NPA	81	16	14	4	60	12
FSD	12	3	3	1	9	2
MoD HDC	117	0	15	0	84	0

The OSCE seeks to promote gender awareness by collecting comprehensive relevant information during its work.<sup>48</sup> The OSCE also insists that a module on gender and human rights be included in all pre-season basic training of demining teams, in accordance with IMAS. The OSCE confirmed that these measures continued throughout 2022 and that it will continue to emphasise the importance of gender mainstreaming and balance throughout project implementation.<sup>49</sup>

NPA has integrated a gender and diversity policy into its Tajikistan operations and employs staff from every region.<sup>50</sup> In 2022, 20% of NPA's staff in Tajikistan were women and 29% of managerial/supervisory positions were occupied by women (the same proportions as in 2021). 20% of operational positions were occupied by women in 2022 (compared to 14% in 2021).<sup>51</sup> Despite continuing cultural constraints that inhibit women's employment in mine action, particularly in field positions, NPA has found that greater knowledge about the activities of its female deminers has made it easier to recruit female staff.<sup>52</sup> There is a special focus on staff capacity development around gender and diversity and a specific budget set aside. No significant changes were made to NPA's Gender and Diversity Policy or implementation plan in 2022.<sup>53</sup>

While focused on CMR clearance in 2022, NPA confirms that, when it does conduct survey, it deploys gender-balanced teams. NPA ensures women and children in communities affected by cluster munitions are consulted during community liaison and impact assessment activities, but highlights that consulting with women and children is more challenging in the border regions, where the military/border

guard forces are mainly, if not exclusively, male. NPA also highlights that the majority of cluster munition incidents in Tajikistan involve young men or boys working as shepherds. NPA explains that, while ethnic groupings are not as pronounced in Tajikistan as they are in some other contexts, to the extent that this is relevant, community liaison teams take this into consideration when conducting their work.<sup>54</sup>

FSD employs a diverse workforce in Tajikistan in line with the organisation's Gender, Diversity and Inclusion policy. In 2022, 25% of FSD's staff in Tajikistan were female with one third of managerial/supervisory positions and 22% of operational positions occupied by women. FSD disaggregates all relevant mine action data by sex and age.<sup>55</sup>

UST supports equal access to employment for qualified women and men in UST survey and clearance teams in Tajikistan, including for managerial/supervisory positions, but does not yet employ any women among its 54 staff. Although survey teams are not yet mixed gender, UST does consult all groups during survey and community liaison activities, including women and children and representatives from ethnic or minority groups. UST does not yet have a Gender and Diversity policy or implementation plan. Survey data are disaggregated by sex and age.

NPA and TNMAC revived meetings of a gender working group in early 2020. Its meetings were interrupted by the COVID-19 pandemic but the group then met twice annually in 2021 and 2022.<sup>56</sup> NPA hopes that this group can become more active in the future.<sup>57</sup>

47 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March and 16 June 2023; and Nickwah Din Mohammed, FSD, 24 March and 23 April 2023; and Melissa Andersson, NPA, 29 March, 4 May, and 23 May 2023.

48 Email from Johan Dahl, Acting Head, Political-Military Department, OSCE Programme Office, Dushanbe, 13 May 2020.

49 Emails from Saodat Asadova, OSCE, 9 June 2022 and 30 March 2023; and interview with Saodat Asadova, OSCE, 24 June 2022.

50 Email from Melissa Andersson, NPA, 21 April 2020.

51 Emails from Melissa Andersson, NPA, 23 June 2022, 29 March, and 4 and 23 May 2023.

52 Emails from Melissa Andersson, NPA, 21 April and 4 July 2021.

53 Email from Melissa Andersson, NPA, 29 March 2023.

54 Emails from Melissa Andersson, NPA, 21 May 2022 and 29 March 2023.

55 Emails from Nickwah Din Mohammed, FSD, 24 March and 23 April 2023.

56 Emails from Melissa Andersson, NPA, 21 April and 4 July 2021, 21 May 2022, and 29 March 2023; and Muhabbat Ibrohimzoda, TNMAC, 19 June 2022 and 31 March 2023.

57 Email from Melissa Andersson, NPA, 29 March 2023.

## INFORMATION MANAGEMENT AND REPORTING

TNMAC uses the Information Management System for Mine Action (IMSMA) Core to maintain its national database.<sup>58</sup> There were no significant measures taken to improve the database in 2022, mainly because the reporting system has matured and stakeholders are satisfied with the data. TNMAC regularly receives support on information management through online consultations with the GICHD.<sup>59</sup>

NPA maintains an accurate and up-to-date picture of activities through daily reporting into the IMSMA Core Portal, using the data collection forms introduced and the updated by TNMAC in 2020–21. The portal also contains completion reports and details of outstanding contaminated areas that are scheduled for further survey and clearance work.<sup>60</sup>

## PLANNING AND TASKING

TNMAC does not have an annual work plan specifically for the survey and clearance of cluster munition-contaminated areas. However, Tajikistan's General Land Release Operations Plan for 2023 does outline the list of remaining confirmed battle areas, including those containing CMR.<sup>61</sup>

Land release tasks for cluster munition-contaminated areas are prioritised by TNMAC through application of Tajikistan's SOP 1.2 (Planning and Tasking of Mine Action Operations), taking into consideration the following criteria:

- Government and local authority requests
- Donor requirements

- The area's status in relation to the district-by-district approach
- Distance of the task site from populated areas
- The need to complete any previously suspended areas
- The local security situation.<sup>62</sup>

NPA is tasked by TNMAC after discussions that take into account humanitarian impact, national planning priorities, and seasonal access constraints.<sup>63</sup> Operators report that dossiers are issued in a timely matter by TNMAC.<sup>64</sup>

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Tajikistan's revised National Mine Action Standards were approved in April 2017. The revised standards have been translated into Russian and English.<sup>65</sup> While no updates were made to Tajikistan's NMAS or SOPs in 2022,<sup>66</sup> TNMAC states that when any updates to the NMAS or SOPs are made, this is undertaken in consultation with clearance operators.<sup>67</sup> In general, demining operators update their SOPs once every three years during the accreditation process.<sup>68</sup>

Operators report that Tajikistan's NMAS are appropriately adapted to the local threat and enable effective, efficient, and safe survey and clearance work.<sup>69</sup> FSD suggest a minor improvement would be to increase provision for Casualty Evacuation (CASEVAC), and Medical Evacuation (MEDIVAC), when teams are working at high altitude in remote areas.<sup>70</sup>

While the Cluster Munition Remnant Survey (CMRS) methodology originally pioneered in south-east Asia was pilot-tested in Tajikistan in 2019–20, TNMAC concluded that standard survey methods are more suitable in Tajikistan's typically mountainous terrain.<sup>71</sup>

All cluster munition-contaminated areas cleared in Tajikistan in 2022 were found to contain CMR.<sup>72</sup>

58 Email from Muhabbat Ibrohimzoda, TNMAC, 28 May 2020; and APMBC Committee on the Implementation of Article 5, Preliminary Observations on Tajikistan, Intersessional meetings, Geneva, 20–22 June 2022.

59 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.

60 Emails from Melissa Andersson, NPA, 21 May 2022 and 29 March 2023.

61 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.

62 Ibid.

63 Email from Melissa Andersson, NPA, 29 March 2023.

64 Ibid.; and email from Saynurridin Kalandarov, UST, 14 April 2023.

65 Email from Muhabbat Ibrohimzoda, TNMAC, 22 May 2017; and Second APMBC Article 5 deadline Extension Request (draft), 31 March 2019, p. 21.

66 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023; and Melissa Andersson, NPA, 29 March 2023.

67 Email from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022; and APMBC Committee on the Implementation of Article 5, Preliminary Observations on Tajikistan, Intersessional meetings, Geneva, 20–22 June 2022.

68 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.

69 Emails from Melissa Andersson, NPA, 29 March 2023; and Dr Nickhwah Din Mohammed, FSD, 24 March 2023.

70 Email from Nickhwah Din Mohammed, FSD, 21 April 2023.

71 Email from Muhabbat Ibrohimzoda, TNMAC, 7 July 2022.

72 Ibid., 31 March 2023.

## OPERATORS AND OPERATIONAL TOOLS

Only UST has non-technical survey (NTS) teams. There are no dedicated technical survey (TS) teams in Tajikistan.

**Table 3: Operational NTS and TS capacities deployed in Tajikistan in 2022<sup>73</sup>**

Operator	NTS/TS teams	Total NTS/TS personnel*	Comments
UST	4	36	The NTS teams also conduct TS and clearance.
<b>Totals</b>	<b>4</b>	<b>36</b>	

\* Excluding team leaders, medics, drivers etc.

**Table 4: Operational clearance capacities deployed in Tajikistan 2022<sup>74</sup>**

Operator	Manual CMR clearance teams	Total deminers*	Mechanical assets/machines**	Comments
FSD	0	6	0	Deployed for EOD spot tasks and to destroy submunitions found during clearance by UST.
UST	4	36	0	These teams also conduct NTS and TS.
NPA	5	43	MoD has 1 Mini-MineWolf machine, also available for use by NPA.	These are battle area clearance (BAC) teams. Also conduct TS.
HDC MoD	6	84		
<b>Totals</b>	<b>15</b>	<b>169</b>	<b>1</b>	

\* Excluding team leaders, medics, drivers etc. \*\* Excluding vegetation cutters and sifters

Tajikistan slightly increased mine action capacity in 2022 to 169 personnel across the combined survey and clearance teams of all operators (see Tables 3 and 4), compared to 150 personnel in 2021.<sup>75</sup> This overall increase was made possible by US Department of State funding.<sup>76</sup>

NPA remains the only international operator undertaking CMR clearance in Tajikistan, with multi-task teams capable of conducting both mine and battle area clearance (BAC) and engaged in conducting CMR clearance at some point during the year in conjunction with other mine clearance tasks.<sup>77</sup> NPA decreased the number of manual clearance teams from six in 2021 to five in 2022, due to a decrease in funding.<sup>78</sup> NPA continues to cooperate with Tajikistan's Border Guard Forces, annually seconding a number of personnel, typically trained in both demining and BAC, into NPA's multi-task teams. Twelve officers were seconded in 2022, forming part of NPA's five multi-task teams of 43 deminers.<sup>79</sup>

<sup>73</sup> Ibid.; and emails from Nickhwah Din Mohammed, FSD, 24 March 2023, Melissa Andersson, NPA, 29 March 2023; and Saynurridin Kalandarov, UST, 14 April 2023.

<sup>74</sup> Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023; Nickhwah Din Mohammed, FSD, 24 March 2023; Melissa Andersson, NPA, 29 March and 23 May 2023; and Saynurridin Kalandarov, UST, 14 April 2023.

<sup>75</sup> Emails from Muhabbat Ibrohimzoda, TNMAC, 19 and 24 June 2022.

<sup>76</sup> Ibid., 31 March 2023.

<sup>77</sup> Emails from Melissa Andersson, NPA, 21 May and 23 June 2022; and interview with Muhabbat Ibrohimzoda, TNMAC, 24 June 2022.

<sup>78</sup> Email from Melissa Andersson, NPA, 29 March 2023.

<sup>79</sup> Email from Melissa Andersson, NPA, 23 May 2023.

UST, a national not-for-profit organisation received accreditation for manual demining and BAC in 2020<sup>80</sup> and started to conduct CMR survey in the same year, working initially on a joint task with one of NPA's teams for three months to build UST's capacity.<sup>81</sup> UST conducted CMR clearance in 2022. However, UST is in the process of obtaining a license for the use of explosive materials and devices from the relevant authorities.<sup>82</sup> As such, currently all submunitions discovered by UST are destroyed by FSD. UST reports no change in the number of personnel between 2021 and 2022.<sup>83</sup> UST teams report directly to TNMAC, which funds UST's survey and clearance operations.<sup>84</sup>

FSD's Weapons and Ammunition Disposal (WAD) teams in Tajikistan have previously responded to explosive ordnance disposal (EOD) spot tasks. However, at the time of writing, FSD was expected to transition from WAD to demining in Tajikistan, commencing in August 2023, increasing from their current capacity of one team of six deminers up to two teams of 15 personnel each. These teams were expected to conduct NTS, TS, clearance and, most likely, EOD spot tasks located close to their demining tasks.<sup>85</sup>

One mechanical asset, a Mini-MineWolf owned by HDC MoD, was available for use by both HDC MoD and NPA in Tajikistan in 2022.<sup>86</sup> However, there were some technical issues and NPA deployed the machine only for a limited amount of time and for landmine clearance only.<sup>87</sup> TNMAC and all operators expected to maintain the same operational capacity for CMR survey and clearance in 2023 as they did in 2022.<sup>88</sup>

Despite some disruption to operations during earlier stages of the COVID-19 pandemic, TNMAC and operators reported that it caused no disruption to the effective deployment of teams or operational capacity in 2022.<sup>89</sup>

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## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

### LAND RELEASE OUTPUTS IN 2022

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A total of 612,168m<sup>2</sup> of cluster munition-contaminated area was cleared in 2022 (see Table 5). No areas were reduced through TS or cancelled through NTS.<sup>90</sup> 122 submunitions were destroyed, including 110 during clearance<sup>91</sup> and 12 during EOD spot tasks. A total area of 2.67km<sup>2</sup> previously unrecorded CMR contamination was added to the national database in 2022.<sup>92</sup>

### SURVEY IN 2022

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As was the case in 2021, no areas were released through survey in Tajikistan in 2022. Nine battle areas across an area of 2.67km<sup>2</sup> were confirmed as contaminated with cluster munition remnants and added to the national database.<sup>93</sup>

### CLEARANCE IN 2022

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A total of 422,495m<sup>2</sup> of cluster munition-contaminated area was cleared in 2022 by NPA in the Vahdat district of DRS region, including 27,038m<sup>2</sup> in an area that was not complete as at the end of 2022. During this clearance 86 submunitions and 6 other items of unexploded ordnance (UXO) were destroyed.<sup>94</sup> A further 159,073m<sup>2</sup> was cleared by UST, also in Vahdat. This task was not complete as at the end of 2022.<sup>95</sup> The MoD's HDC cleared 30,600m<sup>2</sup> in Rasht; again, a task that was not complete as at the end of 2022.<sup>96</sup> The 24 submunitions and 33 other items of UXO discovered during these tasks by UST and MoD HDC were destroyed by FSD.<sup>97</sup> UST is awaiting its licence from the national authority to use explosives.<sup>98</sup>

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80 Email from Muhabbat Ibrohimzoda, TNMAC, 16 June 2023.

81 Emails from Melissa Andersson, NPA, 29 April and 27 August 2020.

82 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023; and Saynurridin Kalandarov, UST, 14 April 2023.

83 Email from Saynurridin Kalandarov, UST, 14 April 2023.

84 Ibid., 16 May 2023.

85 Email from Nickhwah Din Mohammed, FSD, 24 March 2023.

86 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023; and Melissa Andersson, NPA, 23 May 2023.

87 Emails from Melissa Andersson, NPA, 23 May and 22 June 2023.

88 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023; Nickhwah Din Mohammed, FSD, 24 March 2023; Melissa Andersson, NPA, 29 March 2023; and Saynurridin Kalandarov, UST, 14 April 2023.

89 Ibid.

90 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.

91 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023; and Melissa Andersson, NPA, 8 May 2023.

92 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.

93 Ibid.

94 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March and 16 June 2023; and Melissa Andersson, NPA, 29 March and 8 May 2023.

95 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023; and Saynurridin Kalandarov, UST, 14 April 2023.

96 Email from Muhabbat Ibrohimzoda, TNMAC, 16 June 2023.

97 Emails from Saynurridin Kalandarov, UST, 14 April 2023 and Muhabbat Ibrohimzoda, TNMAC, 16 June 2023.

98 Email from Saynurridin Kalandarov, UST, 14 April 2023.

Overall, clearance undertaken in 2022 represents a considerable decrease on the 1.87km<sup>2</sup> cleared in 2021.<sup>99</sup> TNMAC states this was due to the main effort in Tajikistan in 2022 being focussed on release of mined areas.<sup>100</sup>

**Table 5: CMR clearance in 2022<sup>101</sup>**

Operator	Region/ District	Areas released	Area cleared (m <sup>2</sup> )	Submunitions destroyed	Submunitions destroyed during spot tasks	Other UXO destroyed
NPA	DRS/Vahdat	1	395,457	79	0	6
NPA	DRS/Vahdat	0	*27,038	7	0	0
UST	DRS/Vahdat	0	*159,073	**14	0	**33
HDC MoD	DRS/Rasht	0	*30,600	**10	0	0
FSD	VMKB/Darvoz	0	0	0	***2	***3
FSD	DRS/Rasht	0	0	0	***10	0
<b>Totals</b>		<b>1</b>	<b>612,168</b>	<b>110</b>	<b>12</b>	<b>42</b>

\* Clearance of these areas was not complete as at the end of 2022.

\*\* Submunitions and UXO discovered during clearance of these areas by UST and HDC MOD were destroyed by FSD.

\*\*\*FSD reports that these items were collected by security forces and destroyed as part of bulk destruction by FSD, rather than destroyed in the course of survey or clearance.

## PROGRESS TOWARDS COMPLETION

TNMAC stated in May 2020 that Tajikistan hoped to complete CMR clearance by 2023,<sup>102</sup> although it made clear that progress towards achieving that target depended on the availability of funding.<sup>103</sup> Furthermore, previously unknown areas of contamination have been added to the national database annually for the last three years: 2km<sup>2</sup> in 2020,<sup>104</sup> 2.85km<sup>2</sup> in 2021,<sup>104</sup> and 2.67 km<sup>2</sup> in 2022.<sup>105</sup> TNMAC now states that, with contaminated areas still being found for which no information was previously available, Tajikistan does not have a set target for the completion of CMR clearance.<sup>106</sup> Given that Tajikistan continues to find new areas of contamination, if operational capacity does not grow, this will also impact Tajikistan's expected date of completion.

Tajikistan has a well-functioning mine action programme with strong national ownership and effective collaboration between stakeholders. However, Tajikistan outlines several ongoing challenges for mine action, including difficult terrain, harsh weather conditions, natural disasters such as rockfalls, avalanches and landslides, as well as dense vegetation. Tajikistan identifies a need for an increase in suitable equipment and cross-country vehicles to deal with these conditions.<sup>107</sup> As such, the rate of progress towards completion will be heavily determined by available resources. Furthermore, while TNMAC does task operators with CMR clearance where possible and Tajikistan's General Land Release Plan does include details of known battle areas contaminated with CMR, progress towards completion will also be influenced by the extent to which Tajikistan directs its finite resources towards resourcing its commitment to clear landmines as a State Party to the APMBC.

99 In an email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023, TNMAC stated clearance in 2021 as 1.72km<sup>2</sup>. However, this excludes the tasks that were not complete at the end of 2022. As such, Mine Action Review calculates that 1.87km<sup>2</sup> was cleared in 2021. See *Clearing Cluster Munition Remnants 2022*, p. 207.

100 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.

101 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March and 16 June 2023; Nickhwah Din Mohammed, FSD, 24 March and 19 May 2023; Saynurridin Kalandarov, UST, 14 April 2023; and Melissa Andersson, NPA, 29 March and 8 May 2023.

102 Emails from Muhabbat Ibrohimzoda, TNMAC, 28 May 2020 and 19 June 2022.

103 Ibid., 4 May 2021.

104 Ibid., 19 June 2022.

105 Ibid., 31 March 2023.

106 Ibid.

107 Presentation by Muhabbat Ibrohimzoda, TNMAC, APMBC Intersessional Meetings, Geneva, 22 June 2022.

Table 6: Five-year summary of CMR clearance

Year	Area cleared (m <sup>2</sup> )
2022	0.61
2021	1.87
2020	0.08
2019	0.52
2018	0.41
Total	3.49

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Tajikistan is taking measures to prepare for the management of residual risk upon completion. In March 2022, with the support of the OSCE, an adviser for residual risk management took up post, tasked with identifying improvements to the risk management of explosive hazards and to develop residual risk management guidelines to complement the NMAS.<sup>108</sup> Since the introduction of this post a technical manual on residual risk management has been produced, which TNMAC highlights as a legal prerequisite before any further work can progress. With this step completed, TNMAC asserts that the issue of residual risk management will receive higher prioritisation in 2023.<sup>109</sup>

TNMAC also highlights that issues related to residual risk management are discussed during monthly technical meetings with implementing partners, and that residual risk reduction recommendations are reflected in the annual General Land Release Operations Plans. Furthermore, TNMAC is developing the operational capacity of UST and plans that UST will deal with residual risk of unexploded submunitions upon completion of area clearance.<sup>110</sup>

108 Emails from Saodat Asadova, OSCE, 3 June 2022; and Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

109 Email from Saodat Asadova, OSCE, 30 March 2023.

110 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION:

#### UNKNOWN BUT VERY LARGE

SUBMUNITION  
CLEARANCE IN 2022

**325,483 M<sup>2</sup>**

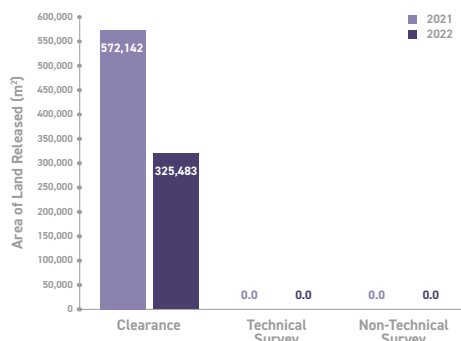
BASED ON NGO DATA

SUBMUNITIONS  
DESTROYED IN 2022

**70**

BASED ON NGO DATA

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

From the outset of its attack against Ukraine that began in late February 2022, Russia's armed forces have used cluster munitions extensively against Ukrainian military objectives, as well as, in violation of international law, against the civilian population and civilian objects. The exact number of cluster munition attacks is unknown, but hundreds have been documented or reported, adding significantly to the existing contamination.<sup>1</sup> Wherever possible, the State Emergency Services of Ukraine (SESU) have cleared the contamination resulting from the use of explosive ordnance, including cluster munition remnants (CMR), immediately after use.<sup>2</sup> Prior to July 2023, Ukrainian forces had also used cluster munitions in their military operations against Russian forces on Ukrainian territory at least three times. In 7 July 2023, however, the United States (US) Department of Defense supplied Ukraine with dual-purpose improved conventional munitions (DPICM), a type of cluster munition,<sup>3</sup> and Ukraine began using the US cluster munitions against Russian forces the same month, likely adding to existing CMR contamination.<sup>4</sup>

The scale of the new CMR contamination in Ukraine is estimated to be large, but there is no credible estimate yet. Sources have suggested that the threat from unexploded submunitions might require a decade or more of concerted action.

In November 2021, the Ukrainian Cabinet of Ministers issued a long-awaited resolution on the establishment of the national mine action authority (NMAA). The NMAA was said to have assumed its full responsibilities in 2022. The two National Mine Action Centres under the Ministry of Defence (MoD) and the Ministry of Interior (MoI) were accredited and became fully operational in 2022. Additional international operators started operations in Ukraine and were undergoing accreditation in 2022 including the DanChurchAid (DCA), Humanity and Inclusion (HI), Mines Advisory Group (MAG), and Norwegian People's Aid (NPA) who has received its accreditation in 2023.

- 1 Human Rights Watch (HRW), "Intense and Lasting Harm: Cluster Munition Attacks in Ukraine", Report, 11 May 2022, at: <https://bit.ly/3wJ6Or4>; Amnesty International, "Everything is on fire": One month since the Russian invasion of Ukraine", 24 March 2022, at: <https://bit.ly/3lyZrgK>; Article 36, "Article 36 condemns Russia's use of cluster munitions in Ukraine", 16 March 2022, at: <https://bit.ly/3PymSES>; and Cluster Munition Coalition, *Cluster Munition Monitor 2022*, Report, 25 August 2022, at: <https://bit.ly/3miGxyT>.
- 2 "See how Kharkiv's bomb squad neutralizes cluster bombs in Ukraine", *National Public Radio (NPR)*, 24 April 2022, at: <https://n.pr/3NqnQ47>; and Ukraine's State Emergency Service Facebook page, 8 May 2022, at: <https://bit.ly/3G04DDJ>.
- 3 U.S. Department of Defense press release, "Biden Administration Announces Additional Security Assistance for Ukraine", 7 July 2023, at: <https://bit.ly/305Glnz>.
- 4 "Cluster bombs: Ukraine using munitions 'effectively', says US", *BBC*, 21 July 2023, at: <https://bbc.in/30t3eLO>.

## RECOMMENDATIONS FOR ACTION

- Ukraine should immediately halt all use of cluster munitions and accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- As soon as conditions allow, Ukraine should undertake a baseline survey to understand the extent and nature of its CMR contamination in all areas to which it has effective access.
- Ukraine should ensure that survey, clearance, and contamination data related to CMR are disaggregated from data relating to other explosive remnants of war (ERW) and mines.
- Given the increasing number of mine action stakeholders, Ukraine should improve the coordination among mine action stakeholders to ensure an effective and sustainable response.
- Ukraine should facilitate and expedite its processes for permission to operators to use explosives in clearance and destruction operations as well as subsequent accreditation to conduct explosive ordnance disposal (EOD).

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- National Mine Action Authority (NMAA)
- Humanitarian Demining Centre (HDC, under the State Emergency Services of Ukraine)
- Social-Humanitarian Response Centre (under the Ministry for Reintegration of the Temporarily Occupied Territories)
- Mine Action Centre (MAC, under MoD)
- State Special Transport Service (SSTS)
- Military Engineering School

### NATIONAL OPERATORS

- State Emergency Services of Ukraine (SESU)
- Armed Forces of Ukraine
- National Police
- SSTS
- State Border Service
- Demining Solutions
- GK Group
- The Demining Team of Ukraine
- Ukrainian Deminers Association (UDA)
- Safe Path Group

### INTERNATIONAL OPERATORS

- DanChurchAid (DCA) - seeking accreditation
- Danish Refugee Council's (DRC's) Humanitarian Disarmament and Peacebuilding sector (formally known as Danish Demining Group (DDG). Hereafter referred to as DRC
- Swiss Foundation for Mine Action (FSD)
- The HALO Trust (HALO)
- Humanity and Inclusion (HI) – seeking accreditation
- Mines Advisory Group (MAG) – seeking accreditation
- Norwegian People's Aid (NPA) – accredited in 2023

### OTHER ACTORS

- Enhancing Human Security (ITF)
- Geneva International Centre for Humanitarian Demining (GICHD)
- Organization for Security and Co-operation in Europe (OSCE)
- Mine Action Sub-cluster chaired by the United Nations Development Programme (UNDP)
- Tetra Tech

## UNDERSTANDING OF CMR CONTAMINATION

The extent of contamination from CMR in Ukraine is not known but is expected to be very large due to the widespread use of cluster munitions in the course of the Russian assault on Ukraine. Explosive ordnance, including submunitions, are littered across cities and agricultural land, but are most highly concentrated in the east and south of Ukraine.<sup>5</sup> Russia used at least two newly developed types of cluster munition in Ukraine in 2022.<sup>6</sup> Prior to July 2023, Ukrainian forces appear to have used cluster munitions at least three times in its fight against the Russian forces on Ukrainian territories.<sup>7</sup> However, on 7 July 2023, the US Department of Defense supplied cluster munitions to Ukraine (see below), which Ukraine is now using against Russian forces, potentially adding to existing CMR contamination.<sup>8</sup>

Hundreds of Russian cluster munition attacks have been documented, reported, or alleged in at least 10 of Ukraine's 24 regions (known as oblasts): Chernihiv, Dnipropetrovsk, Donetsk, Kharkiv, Kherson, Luhansk, Mykolaiv, Odesa, Sumy, and Zaporizhzhia. Preliminary data shows at least 689 civilian casualties from cluster munition attacks in Ukraine between February and July 2022.<sup>9</sup>

According to the Office of the United Nations High Commissioner of Human Rights (OHCHR), the vast majority of civilian casualties documented by OHCHR in Ukraine since 24 February 2022 were caused by the use of explosive weapons in populated areas. Some of these weapons, such as rockets, missiles, and air-dropped bombs, carry cluster munitions. They were mostly used by Russian forces, but were also, albeit to a far lesser extent, used by Ukrainian forces.<sup>10</sup>

The OHCHR identified and corroborated at least 10 attacks by Russian armed forces and 25 attacks by Ukrainian armed forces with the use of Tochka-U missiles. Of these 35 attacks,

in at least 20 cases according to the High Commissioner's Office, the missiles were carrying submunitions that hit populated areas.<sup>11</sup>

Ukrainian forces appear to have used cluster munitions, including Uragan cluster munition rockets, in at least three locations that were under the control of Russia's armed forces or affiliated armed groups at the time. Such use was reported in Donetsk, Kharkiv, and Kherson regions (oblasts). Ukraine has not denied using cluster munitions in 2022.<sup>12</sup> In a letter to the Security Council in March 2022, Russia accused Ukraine of having launched a Tochka-U missile with a cluster warhead at a residential block in Donetsk on 14 March 2022. According to the letter, the attack led to the death of more than 20 civilians and injuries to at least 37 others.<sup>13</sup>

Human Rights Watch documented the use of six types of cluster munitions: 220mm 9M27K-series Uragan, 300mm 9M55K-series Smerch, 300mm 9M54-series guided missile, 9M79-series Tochka ballistic missile, Iskander-M 9M723 ballistic missile, and RBK-series air-dropped cluster bombs. All these cluster munitions, apart from the RBK-series, were fired from the ground by missiles and rockets. Some of these munitions were manufactured as recently as 2021, and certain have self-destructing features.<sup>14</sup>

Media sources reported that Turkey began sending cluster munitions to Ukraine, notably DPICMs, in late 2022.<sup>15</sup> Several media outlets reported that Ukraine requested cluster munitions from Estonia and the United States (US) in 2022.<sup>16</sup> Ukraine has defended its call for cluster munitions on the basis that the weapons would be used only against Russian troops and tanks, and would only target areas in Eastern Ukraine that are already largely depopulated.<sup>17</sup>

5 Geneva International Centre for Humanitarian Demining (GICHD), "Ukraine faces massive explosive contamination one year into the conflict", 23 February 2023, at: <https://bit.ly/3KNEZVU>.

6 *Cluster Munition Monitor 2022*, Report, Cluster Munition Coalition, 25 August 2022, at: <https://bit.ly/3miGxyT>, p. 17.

7 "To Push Back Russians, Ukrainians Hit a Village With Cluster Munitions", *New York Times*, 18 April 2022, at: <https://bit.ly/41NMZgv>; HRW, "End Cluster Munition Attacks in Ukraine", 11 May 2022, at: <https://bit.ly/3lx3cTX>; Office of the United Nations High Commissioner of Human Rights (OHCHR), "Situation of human rights in Ukraine in the context of the armed attack by the Russian Federation", Report, 29 June 2022, at: <https://bit.ly/3AkenqJ>, p. 12.

8 U.S. Department of Defense press release, "Biden Administration Announces Additional Security Assistance for Ukraine", 7 July 2023, at: <https://bit.ly/305Ghwz>; and "Cluster bombs: Ukraine using munitions 'effectively', says US", *BBC*, 21 July 2023, at: <https://bbc.in/30t3eLO>.

9 HRW, "Growing Civilian Toll from Russian Cluster Munition Attacks", 25 August 2022, at: <https://bit.ly/3mEd07C>; and *Cluster Munition Monitor 2022*, p. 14.

10 OHCHR, "Situation of human rights in Ukraine in the context of the armed attack by the Russian Federation", Report, 29 June 2022, at: <https://bit.ly/3AkenqJ>, p. 11.

11 *Ibid.*, p. 12.

12 "To Push Back Russians, Ukrainians Hit a Village With Cluster Munitions", *New York Times*, 18 April 2022; HRW, "End Cluster Munition Attacks in Ukraine", 11 May 2022; OHCHR, "Situation of human rights in Ukraine in the context of the armed attack by the Russian Federation", Report, 29 June 2022, p. 12; and *Cluster Munition Monitor 2022*, p. 15.

13 "Letter dated 15 March 2022 from the Permanent Representative of the Russian Federation to the United Nations addressed to the Secretary-General and the President of the Security Council", at: <https://bit.ly/41DGvRG>.

14 HRW, "Intense and Lasting Harm: Cluster Munition Attacks in Ukraine", Report, 11 May 2022; and online presentation to the CCM Intersessional Meetings by Mary Wareham, Advocacy Director, Human Rights Watch, 16 May 2022.

15 "Turkey Is Sending Cold War-Era Cluster Bombs to Ukraine", *Foreign Policy*, 10 January 2023, at: <http://bit.ly/3KwekwG>.

16 "Ukraine seeks US cluster bombs to adapt for drone use – lawmakers", *Reuters*, 7 March 2023, at: <http://bit.ly/3GuBL8e>; "Estonia weighing giving Ukraine cluster munitions", *Estonian Public Broadcasting*, 26 January 2023, at: <http://bit.ly/3GrCpTW>; "Exclusive: Biden administration weighs Ukrainian requests for access to US stockpile of controversial cluster munitions", *CCN*, 8 December 2022, at: <https://bit.ly/3Ghwiv2>.

17 "Ukrainian Foreign Minister Defends Call For Cluster Weapons", *Radio Free Europe*, 18 February 2023, at: <http://bit.ly/3MvmaZP>.

A US Senator visiting Kyiv in May 2023 stated that it supported the provision of the longer-range ATACMS missiles and cluster munitions as soon as possible, adding that this would increase the likelihood of Ukraine being successful on the battlefield.<sup>18</sup> On 7 July 2023, the US Department of Defence announced it would supply DPICM to Ukraine,<sup>19</sup> which Ukraine is now using on its own territory against Russian forces.<sup>20</sup> Following the US announcement, Ukrainian Defense Minister Oleksii Reznikov presented five principles that he said the armed forces would respect upon receiving the cluster munitions: use them only in Ukraine; not use them in "urban areas (cities)" but only "in the fields where there is a concentration of Russian military"; keep a strict record of where the munitions were used; conduct clearance activities after the de-occupation of the areas where the munitions were used; and report to partners on the use of the munitions and their efficiency.<sup>21</sup>

The supply of cluster munitions by the US to Ukraine has prompted denunciations in diplomatic and humanitarian circles. The United Nations Secretary-General, in support of the CCM, expressed his concern regarding continued use of cluster munitions,<sup>22</sup> while leaders from at least eleven countries expressed concern over US supply: Austria, Belgium, Cambodia, Canada, Germany, Italy, Laos, New Zealand, Norway, Spain, and the United Kingdom.<sup>23</sup>

Ukraine claimed in several statements between March and July 2023 that about 30% of its territory is to be surveyed for mine contamination or other explosive ordnance. This equates to an area of nearly 174,000km<sup>2</sup>. Despite the vast extent of contamination this figure is not credible. To date, only about 50km<sup>2</sup> of all potentially contaminated territories have been identified as mined areas or areas contaminated with explosive ordnance. Non-technical survey (NTS) of regained territories continues.<sup>24</sup> The threat from unexploded submunitions might require a decade or more of concerted action according to the Danish Refugee Council (DRC).<sup>25</sup> In April 2023, SESU told the media that it had found more than 55,000 explosives in Kharkiv region alone.<sup>26</sup>

**Table 1: Explosive ordnance contamination in Ukraine (at June 2023)<sup>27</sup>**

Region	Hazardous areas	Area (m <sup>2</sup> )	Mined areas	Area (m <sup>2</sup> )	Former battle areas	Area (m <sup>2</sup> )
Chernihiv	135	18,780,520	49	4,674,440	86	14,106,108
Kharkiv	49	5,915,613	32	4,423,439	17	1,492,173
Kherson	NTS not yet carried out					
Kijiv	127	20,932,413	92	10,501,741	35	10,430,672
Mykolaiv	24	4,019,322	8	514,855	16	350,446,673
Sumy	14	567,959	1	455,227	3	11,273,266
<b>Totals</b>	<b>349</b>	<b>50,215,827</b>	<b>192</b>	<b>20,569,702</b>	<b>157</b>	<b>387,748,864</b>

Before 2022, Ukraine said that many unexploded submunitions contaminated the Donetsk and Luhansk regions,<sup>28</sup> with the most intensive use of cluster munitions said to have occurred in and around the city of Debalcevo in Donetsk region.<sup>29</sup> The heaviest mine and ERW contamination was believed to be inside the non-delineated 15km buffer areas on either side of the frontline separating Ukrainian government-controlled areas (GCA) from territories controlled by the self-proclaimed Donetsk and Lugansk Republics.<sup>30</sup> The HALO Trust (HALO)'s NTS identified a total area of 3.77km<sup>2</sup> across 45 tasks that are suspected or confirmed to contain CMR. HALO's teams worked on 17 tasks with confirmed or suspected cluster munition threats, covering a total area of 1,646,690m<sup>2</sup>. During the clearance process, cluster munitions were identified in four tasks, with a total area of 208,938m<sup>2</sup>. The remaining 13 tasks were still undergoing clearance, but no cluster munition threats had been found as at the time of writing.<sup>31</sup>

18 "US senators talked about cluster munitions for Ukraine", *Militaryini*, 28 May 2023, at: <https://bit.ly/42ZKtDH>.  
19 US Department of Defense press release, 'Biden Administration Announces Additional Security Assistance for Ukraine', 7 July 2023, at: <https://bit.ly/305Glvz>.  
20 'Cluster bombs: Ukraine using munitions 'effectively', says US', BBC, 21 July 2023, at: <https://bbc.in/30t3eL0>.  
21 HRW, "Ukraine: Civilian Deaths from Cluster Munitions", 6 July 2023, at: <https://bit.ly/3rHBgmN>.  
22 UN, "Daily Press Briefing by the Office of the Spokesperson for the Secretary-General", 7 July 2023, available at: <https://bit.ly/448QWgq>.  
23 HRW, "Ukraine: Civilian Deaths from Cluster Munitions", 6 July 2023, at: <https://bit.ly/3rHBgmN>.  
24 Statement of Ukraine to the Eight Pledging Conference for the Implementation of the APMB, 24 March 2023; US Department of State, "Demining Ukraine: A Pre-requisite for Recovery: Michael Tirre Remarks before the U.S. Helsinki Commission", 8 December 2022, at: <https://bit.ly/3KFdXzJ>; and Anti-Personnel Mine Ban Convention (APMB) Article 5 deadline Extension Request, 2023, pp. 1 and 2.  
25 Online presentation by Hannah Rose Holloway, Humanitarian Disarmament and Peacebuilding Coordinator, Danish Refugee Council (DRC), CCM Intersessional Meeting, Geneva, 16 May 2022.  
26 "Ukraine war: The deadly landmines killing hundreds", *BBC News*, 19 April 2023, at: <https://bit.ly/3AusQjE>.  
27 2023 APMB Article 5 deadline Extension Request, p. 2.  
28 National Security and Defence Council and State Emergency Services of Ukraine (SESU), "Humanitarian demining in Ukraine: current issues and challenges", APMB Fourteenth Meeting of States Parties (14MSP), Side event, Geneva, 2 December 2015.  
29 Interview with Lt.-Col. Yevhenii Zubarevskiy, Mine Action Department, MoD, in Geneva, 20 May 2016.  
30 Emails from Yuri Shahramanyan, Programme Manager, HALO Ukraine, 24 May 2017; and Henry Leach, Head of Programme, DDG Ukraine, 29 May 2017.  
31 Email from Denys Holovetskyi, Head of Operations, HALO, 29 May 2023.

A total of 2.2km<sup>2</sup> of previously unrecorded CMR contamination was discovered and added to the database in Ukraine in 2022. Of this total, DRC identified 0.14km<sup>2</sup> across three confirmed hazardous areas (CHAs) and one suspected hazardous area (SHA), while HALO identified 2.06km<sup>2</sup> in Kyiv and Chernihiv oblasts. All of the newly identified contamination in 2022 has occurred since the beginning of Russia's invasion of Ukraine.<sup>32</sup> According to the Ministry of Reintegration of the Temporarily Occupied Territories of Ukraine, the number of victims of explosive devices as a result of the Russian invasion of Ukraine since February 2022 is 770, of whom 237 died and 533 were injured.<sup>33</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Ukraine is contaminated by considerable quantities of other ERW as well as by anti-personnel and anti-vehicle mines used during the different conflicts (see Mine Action Review's *Clearing the Mines* report on Ukraine for further information on the mine problem). It is also affected by unexploded ordnance (UXO) and abandoned explosive ordnance (AXO) remaining from the First World War and Second World War<sup>34</sup> and remnants of Soviet military training and abandoned stockpiles.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

There are four national supervisory and management bodies in Ukraine: a national mine action centre under the MoD (for operational matters); a Humanitarian Demining Centre (HDC) under SESU; an inter-ministerial National Mine Action Authority (served by a secretariat); and, since 2023, at the top of the hierarchy, an inter-ministerial committee on humanitarian demining. This complex structure will inevitably lead to overlap and confusion.<sup>35</sup>

The bodies involved in the national mine action centre (MAC) in Ukraine include the MoD; the Ministry of Interior, under which sits the SESU; the Ministry for Reintegration of the Temporarily Occupied Territories; the State Special Transport Services (SSTS), which sits under the MoI; the National Police; and the State Border Service.

In November 2021, the Cabinet of Ministers issued a resolution to provide the framework for an NMAA.<sup>36</sup> The Law defined the NMAA as an interagency State body acting on an advisory and collegial basis under the chairing of the Minister of Defence. The chair will be transferred, by decision of the Cabinet of Ministers, to "the head of the Ministry that ensures the formation and implementation of State policy in the field of civil protection" once Ukraine restores territorial integrity over its internationally recognised borders.<sup>37</sup> The NMAA coordinates the ministries, central and local state bodies, local government, and other organisations (including mine action operators). The NMAA approves and ensures national mine action State policy; monitors and reports on State progress in fulfilling its obligations in mine action field taken

under international treaties; and coordinates the development and execution of mine action strategy, the national mine action programme, and action plans.<sup>38</sup> While the NMAA sits at a ministerial level, it is serviced by a secretariat that also has "some" managerial functions.<sup>39</sup>

A national mine action law was adopted by Ukraine's parliament in 2018.<sup>40</sup> But the government did not proceed with its implementation on the grounds it was inconsistent with a number of other legal acts.<sup>41</sup> Amended legislation was passed in December 2020 with final amendments based on recommendations from the mine action working group. But the new law failed to address two major concerns of the mine action community, namely: operators' licence to conduct disposal, destruction, and transportation of explosive items for EOD procedures; and operators' permits for the importation and employment of dual-use items.<sup>42</sup>

The amended law created two National Mine Action Centres (NMACs): a National Mine Action Centre (MAC), under the MoD and a Humanitarian Demining Centre (HDC), under SESU (which sits under the STSS which is under the purview of the MoI). The secretariat of the NMAA has the responsibility of coordinating the work of the MAC and HDC. The two Centres share the remits of information management (IM), quality assurance (QA), monitoring, planning, and certification of the operators.<sup>43</sup> Both the MAC and the HDC have staff conscripted under the terms of the martial law. As a result, both centres are reported to have been overstretched and not functioning efficiently.<sup>44</sup>

32 Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; and Denys Holovetskyi, HALO, 29 May 2023.

33 2023 APMBBC Article 5 deadline Extension Request, p. 4.

34 See, e.g., "During a Year in Kerch and Sevastopol neutralized 33,000 munitions", *Forum*, 4 December 2009.

35 According to the mine action Law, the MAC is tasked with the planning, organisation, and coordination of mine action activities, while the authority of the HDC is for "practical implementation of humanitarian demining". These tasks appear to overlap considerably. The NMAA and the inter-ministerial committee on humanitarian demining also appear to duplicate each other's work.

36 Resolution No. 1207 "On Establishment of National Mine Action Authority".

37 The Law of Ukraine on Mine Action N.2642-VIII, N.2642-VIII, at: <https://bit.ly/30V007x>, Chap. II, Art. 11; DRC Special Legal Alert – "NMAA Framework 2022", Issue 73, January 2022; and email from Miljenko Vahtarić, OSCE PCU, 1 July 2022.

38 The Law of Ukraine on Mine Action, N.2642-VIII, Chap. III, Art. 23; and DRC Special Legal Alert – "NMAA Framework 2022", Issue 73, January 2022.

39 The Law of Ukraine on Mine Action, N.2642-VIII, Chap. III, Art. 23; and email from GICHD, 17 June 2022.

40 OSCE, "Ukrainian parliament adopts legal framework for mine action, with OSCE advice provided", 10 December 2018, at: <http://bit.ly/2QdTaQo>; and interview with Miljenko Vahtarić, OSCE PCU, 7 February 2019; and email, 13 June 2019.

41 DRC-DDG Legal Alert Special, "Mine Action Law Amendment", Issue 56, September 2020.

42 Email from Ronan Shenhav, HALO, 20 April 2021.

43 The Law of Ukraine on Mine Action, N.2642-VIII, Chap. III, Art. 23; DRC-DDG Legal Alert Special, "Mine Action Law Amendment", Issue 56, September 2020; and interview with Miljenko Vahtarić, OSCE PCU, 13 February 2020.

44 Email from Denys Holovetskyi, HALO, 29 May 2023.

In 2022, the Ministry for Reintegration of the Temporarily Occupied Territories set up the Social-Humanitarian Response Centre, a consultative and advisory body focused on promoting the formation and implementation of state policy in mine action. This includes informing the population about the dangers of explosive items, assisting victims, promoting their rehabilitation, conducting survey for the presence of UXO, and marking and compiling specialised maps. The Ministry has also developed a mine and explosive ordnance victims database.<sup>45</sup> As at June 2023, the Geneva International Centre of Humanitarian Demining (GICHD) was in the process of incorporating these data into the Information Management System of Mine Action (IMSMA) database. Ukraine is using IMSMA Core.<sup>46</sup>

The NMAA was reported to be fully operational and to have played a central role in planning and coordination throughout 2022.<sup>47</sup> During the same year, the roles and responsibilities of both the MAC and the HDC have continued to evolve. The MAC underwent accreditation from April to September at the National Accreditation Agency of Ukraine. It finally received accreditation for NTS, technical survey (TS), battle area clearance (BAC), manual mine clearance, and explosive ordnance risk education (EORE). In view of the potential number of international and national mine action operators and the volume of mine action tasks in Ukraine, the MAC began preparing for the expansion of its accreditation in 2023 for use of machines, mine detection dogs (MDDs), underwater demining, and EOD. The HDC was also accredited for NTS, TS, BAC, manual mine clearance, and EOD in 2022.<sup>48</sup>

Following a temporary suspension in February 2022, subcluster meetings restarted in the middle of March and mine action stakeholders continued to meet virtually twice per month. The topics discussed varied from updates on operator's progress and coordination of mine action efforts in high-priority areas, thematic presentations, and planning of upcoming events and challenges. The meetings were attended by the Ukrainian authorities (MoD, SESU, and the Ministry for Reintegration of the Temporarily Occupied Territories), operators (DCA, Demining Solutions, DRC, The Swiss Foundation for Mine Action (FSD), HALO, HI, MAG, NPA), UN agencies, other stakeholders (the Organization for Security and Co-operation in Europe (OSCE), and Tetra Tech), and donors.<sup>49</sup>

In 2023, an inter-ministerial committee on humanitarian demining was newly created, adding to the bureaucracy. This committee, which is headed by the First Deputy Prime Minister and the Minister of Economy, sits above the NMAA

and appears to have taken over some of the high-level tasks previously accorded to the NMAA.<sup>50</sup> The exact responsibilities of this newly created body are not yet clear, but they seem to overlap with these of NMAA.

There is an overall positive environment and facilitation of the operators' work by the Ukrainian government (e.g. granting of visas and collaboration on security matters).<sup>51</sup> But operators face difficulties in acquiring permission to transport or dispose of explosives. As a result, operators could not commence the accreditation process to conduct EOD in 2022. In September 2022, the NMAA presented the requirements for obtaining permission to use explosives, a five-step process that no non-governmental organisation (NGO) has completed since. In March 2023, and under the martial law, the NMAA announced a simplified process for obtaining permissions within a three-month period. The national operator, Demining Solutions, will reportedly be able to conduct EOD in 2023. Both the MAC and HDC have also started the process as well.<sup>52</sup> Ukraine has also eased procedures for the recognition of the foreign documents of demining specialists and their compliance with the requirements under the national martial law.<sup>53</sup>

According to MAG, preventing operators disposing of explosive items has negatively impacted the capacity and resources of SESU.<sup>54</sup> The importation of dual-use items, which has been reported to be problematic in previous year, eased in 2022, and none of the operators has faced difficulties in this process.

Ukraine stated that the funding of all demining activities is expended from the budget allocations of SESU under the programme: 'Support Activities of Civil Protection Forces', and that no additional funding for mine action countermeasures is provided. Ukraine's MoD is working on providing its demining units with modern means for searching for explosive objects through centralised purchases and logistical assistance from donor states and international organisations. Ukraine, however, is in short of demining equipment, particularly, of transportation means of personnel and explosive materials, mine detectors, and personal protective equipment (PPE).<sup>55</sup>

DanChurchAid (DCA) supported SESU with demining equipment and provided them with training on how to identify and report on explosive ordnance. DCA was also collaborating with SESU on the development of a digital platform and an online application to report on the discovery of explosives by the public.<sup>56</sup>

45 Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; and Denys Holovetskyi, HALO, 29 May 2023.

46 Email from GICHD, 26 May 2023.

47 Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; and Denys Holovetskyi, HALO, 29 May 2023.

48 Ibid.

49 Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; and Denys Holovetskyi, HALO, 29 May 2023.

50 Email from GICHD, 26 May 2023.

51 Emails from Almedina Musić, DRC, 7 February 2022; and Imogen Churchill, HALO, 23 March 2022.

52 Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; and Denys Holovetskyi, HALO, 29 May 2023.

53 Ukraine Ministry of Defence website, 20 March 2023, accessed on 22 June 2023, at: <https://bit.ly/3qY5Ubd>.

54 Email from Nick Guest, MAG, 23 March 2023.

55 2023 APMB Article 5 deadline Extension Request, pp. 3 and 4. A detailed list of the equipment requested by Ukraine is published online by the SESU at: <https://bit.ly/46j4Pe3>.

56 "One year in Ukraine", DCA website, accessed 24 April 2023 at: <https://bit.ly/440DDzC>; and email from GICHD, 26 May 2023.

The DRC capacity-building programme continued in 2022 with the provision of PPE and EOD kits for 10 SESU teams as well as technical assistance to the Interregional Centre for Humanitarian Demining and Rapid Response. DRC conducted on-the-job non-technical survey training for 16 SESU staff in Chernihiv Oblast and an additional 16 SESU staff in Kharkiv Oblast. In August 2022, one SESU clearance team was deployed in Chernihiv Oblast. With the technical support of DRC, the SESU team reported clearing 8,700m<sup>2</sup> of land and disposed of 2,627 items of explosive ordnance.<sup>57</sup>

FSD has sponsored a training in Croatia for eight personnel of the NMAC on the MV4 mechanical ground preparation machine in 2022–23. Between February and March 2023, FSD trained staff from both the NMAC and SESU on manual demining, NTS, and EORE.<sup>58</sup> The GICHD is establishing a dedicated country programme for Ukraine, which is mandated to provide capacity-development support in a broad range of areas based on request from the national authorities. The GICHD delivered courses on quality management (QM) and NTS between October and November 2022. The country programme will also be able to provide capacity development in other areas, including National Mine Action Standards (NMAS), EORE, and donor coordination. The GICHD has been providing a full-time dedicated information management (IM) support for Ukraine since 2020.<sup>59</sup>

In November 2022, the GICHD facilitated the first Ukraine Mine Action Donor Coordination Workshop in Geneva. The event, which was organised by Ukraine's national mine action authorities and supported by Switzerland and Germany, aimed to establish a common understanding of national Ukrainian priorities among both national and international stakeholders, discuss long-term sustainable capacities of national staff through training, and promote standardisation across all mine action activities. Next steps, including clear responsibilities and timelines, were identified during the workshop with progress being monitored by the GICHD.<sup>60</sup>

During 2022, HALO conducted several training courses on NTS and demining for personnel from the Ukrainian authorities. In October 2022, HALO ran a Level 3 EOD training course on International Mine Action Standards (IMAS) in Kosovo to increase the EOD capacity of HALO staff and national authorities. The course included HALO staff and eight external participants from the SESU and SSTs. In November 2022, HALO handed over nine vehicles, five unmanned aerial vehicles (UAVs), and PPE to the SESU.<sup>61</sup>

NPA equipped 10 SESU EOD and demining teams in 2022 with technical and safety equipment such as vehicles, detectors, pipes, blasting machines, EOD kits, hook and line kits, trauma bags, first aid kits. NPA has been working with SESU on a capacity-development project to introduce the MDDs in Ukraine for use by SESU and NPA teams. The project includes building training and testing areas for MDDs, dog kennels for 14 MDDs, training of dog handlers, support in the development of SESU MDD standard operating procedures (SOPs), and establishment of national MDD mine action standards. The MDD project was continuing in 2023.<sup>62</sup>

On 23 February 2022, the European Union (EU) pledged €25 million to support Ukraine's demining efforts in its regained territories. The funding aims to support State mine action operators to acquire more modern equipment, build the capacities of the Ukrainian authorities to effectively manage the national mine action sector, and address large-scale mine and explosive ordnance contamination.<sup>63</sup>

Tetra Tech is implementing a US\$47.6 million project to train Ukraine's demining and EOD teams to international standards and provide them with the tools necessary to do their jobs. The project also includes the deployment of clearance and risk education teams through the Ukrainian Deminers Association (UDA), a local Ukrainian NGO.<sup>64</sup>

## ENVIRONMENTAL POLICIES AND ACTION

The current Ukrainian NMAS include a chapter (11.2.9) on "Environmental regulations", and a section (12.6) on "Environment, occupational health and safety".<sup>65</sup>

DRC has an environmental management system in place, which is stipulated in its SOP (1.13) on health, safety and environmental management. The SOPs were approved by Ukraine's military unit acting in accordance with the regulations of the certification body.<sup>66</sup> In 2022, DRC focused on re-establishing operations following the escalation of the conflict. Consequently, there was no capacity to focus on environmental policies and action.<sup>67</sup> FSD has detailed SOPs on environmental management (SOP 17.0) and safe work practices (SOP 02). These SOPs are in accordance with IMAS and comply with Ukrainian legal requirements.<sup>68</sup>

57 Email from Roxana-Cristina Bobolicu, DRC, 1 April 2023.

58 Email from Tony Connell, Country Director, FSD, 26 June 2023.

59 Emails from GICHD, 19 April and 26 May 2023.

60 Email from GICHD, 19 April 2023, and: GICHD, "Ukraine faces massive explosive contamination one year into conflict", 24 February 2023, GICHD website accessed on 24 April 2023, at: <https://bit.ly/3KNEZVU>.

61 Email from Denys Holovetskyi, HALO, 29 May 2023.

62 Email from Alberto Rinaldo Serra, Programme Manager, NPA, 15 March 2023.

63 European Union, "Ukraine: EU supports de-mining of liberated areas with additional €25 million programme", Press release, 23 February 2023.

64 Statement of Michael Tirre, US State Department Office of Weapons Removal and Abatement Program Manager for Europe, 8 December 2022, at <http://bit.ly/3KrEU9W>.

65 Emails from Almedina Musić, DRC, 7 February 2022; and Imogen Churchill, HALO, 23 March 2022.

66 Emails from Almedina Musić, DRC, 7 February and 13 June 2022.

67 Email from Roxana-Cristina Bobolicu, DRC, 1 April 2023.

68 Email from Tony Connell, FSD, 10 June 2022.

HALO seeks to reduce the negative impact on the environment resulting from its activities and to minimise its environmental footprint to the extent possible.<sup>69</sup> HALO has an environmental policy and SOPs that outline the potential negative environmental impacts that could result from large-scale demining and explosive ordnance operations. The SOPs prescribe measures to eliminate the consequences of negative impacts, such as activities to ensure the regeneration of vegetation, re-planting trees, and returning cultivated soils to work sites (soil that was mechanically sieved), among others.<sup>70</sup> MAG has an environmental SOP in place in Ukraine.<sup>71</sup> NPA has a global environmental policy, which is adopted by NPA Ukraine. NPA Ukraine has environmental SOPs that cover its mine action operations. The SOPs have been revised, adopted, and translated into Ukrainian.<sup>72</sup>

## GENDER AND DIVERSITY

As at April 2023, no information had been provided on whether there is a gender policy and associated implementation plan for mine action in Ukraine.<sup>73</sup> No reference was made to gender or diversity in Ukraine's Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request submitted in 2020 or in Ukraine's APMBC Article 7 report covering 2020.<sup>74</sup>

DRC has a global gender and diversity policy, and a country-specific implementation plan. Following an assessment conducted by the GICHD of DRC's Ukraine's mission in 2021, the programme was evaluated as "very strong" in all age, gender, and diversity mainstreaming aspects. Some of the strengths assessed were integrated and inclusive community liaison and needs assessments, deployment of mixed gender humanitarian demining teams, gender-sensitive human resources practices, a positive and encouraging work culture, and an excellent awareness of the safeguarding system. All DRC's mine action data are disaggregated by age, gender, and disability. In 2022, 24% of all DRC staff members in Ukraine were women, with 25% of the operational positions and 15% of the managerial positions filled by women.<sup>75</sup>

FSD is committed to providing an equal opportunity working environment. NTS and EORE teams consist of at least one female. All BAC teams have female members. Senior national staff positions are filled by females. In 2022–23, FSD national staff comprised 31% female and 70% male. National staff in management positions were 19% female and 18% male, and international staff 5% female, 95% male.<sup>76</sup>

The HALO uses mixed gender NTS and community liaison teams.<sup>77</sup> HALO promotes equality of opportunity and celebrates diversity while working to eliminate discrimination, harassment, and victimisation. HALO Ukraine seeks to increase the numbers of women employed in operational roles and improve gender balance in these

roles without discriminating against any applicant during recruitment. HALO has an equality and diversity policy and globally is working on a gender and diversity implementation plan.<sup>78</sup>

In 2021, HALO introduced a childcare support stipend covering mothers and single fathers working at HALO and has expanded the eligibility criteria several times since then. In 2022, HALO announced another stipend programme for HALO employees with children. Under the new project, female and single-parent HALO employees were able to receive monthly assistance per each of their minor children up to 17 years of age inclusive. As at December 2022, 148 of the total 699 employees (21%) of HALO were women. Of the managerial positions, 25 of the 139 positions (18%) were occupied by women, and 113 of the total 615 operational positions (18%) were filled by women.<sup>79</sup>

MAG works according to its organisational gender, diversity and inclusion policy. MAG disaggregates its mine action data by gender and age and ensures an equal access for female and male candidates to all its positions. All MAG community liaison teams contain at least one female or one male member. In 2022, 52% of all MAG staff members in Ukraine were women, while 52% of operational positions and 33% of managerial positions were filled by women.<sup>80</sup>

NPA Ukraine has a gender and diversity plan. NPA is an equal opportunity employer and disaggregates its mine action data by gender and age. The NPA NTS and EORE teams are not gender balanced, but NPA is exploring new strategies to attract more women. In 2022, 30% of all NPA staff members in Ukraine were women. Of operational and managerial positions, 13% and 20% were filled by women, respectively.<sup>81</sup> NPA strived to increase the participation of women in its team, and by June 2023, women had filled 22% of NPA's operational positions.<sup>82</sup>

69 Emails from Imogen Churchill, HALO, 23 March 2022; and Denys Holovetskyi, HALO, 29 May 2023.

70 Ibid.

71 Email from Nick Guest, MAG, 23 March 2023.

72 Email from Alberto Rinaldo Serra, NPA, 15 March 2023.

73 Email from GICHD, 19 April 2023.

74 2020 Article 5 deadline extension request, Annex A.

75 Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; and Almedina Musić, DRC, 7 February and 13 June 2022.

76 Email from Tony Connel, FSD, 26 June 2023.

77 Emails from Yuri Shahramanyan, HALO Ukraine, 24 May 2017 and 16 May 2019.

78 Email from Denys Holovetskyi, HALO, 29 May 2023.

79 Ibid.

80 Email from Nick Guest, MAG, 23 March 2023.

81 Email from Alberto Rinaldo Serra, NPA, 15 March 2023.

82 Email from Amela Batić, Deputy Programme Manager, NPA, 29 June 2023.

## INFORMATION MANAGEMENT AND REPORTING

As noted above, Ukraine uses IMSMA Core. In 2022, the database was hosted on two separate servers, one owned by SESU and the other by the MoD, but in 2023, IMSMA became cloud-based, with access rights and permissions to different datasets granted according to the requirements of the national authorities partners.<sup>83</sup>

The IMSMA in Ukraine, which has been developed by the GICHD, is receiving new information daily on explosive ordnance identified, areas surveyed, and ongoing risk education activities. Data are collected from a variety of national and international sources and are then shared across key partners.<sup>84</sup> Survey and clearance data that has been entered is validated by MAC. Due to the ongoing conflict, however, the situation is changing on a daily basis, and data continue to be fed into the database.<sup>85</sup> Some datasets of IMSMA (i.e. the locations of CHAs and SHAs identified through NTS, density of ERW-related incidents, and EORE activities) are made publicly available.<sup>86</sup>

The GICHD deployed two full-time Ukrainian IM Advisors in 2022, whose work was overseen by an international expert in Geneva. The GICHD is planning to recruit further national experts in 2023 to meet the increased needs. The GICHD collaborated closely with MAC and HDC in 2022 to enhance the report validation and verification processes, notably defining conformities and non-conformities' lists. The GICHD was also working with the MAC and operators to address non-conformities and ensure data accuracy.<sup>87</sup>

According to DRC, all data collection forms both in hardcopy and online format cover the key qualitative and quantitative indicators of mine action activities and meet minimum data requirements in accordance to IMAS 05.10.<sup>88</sup> Following development by the IM working group and successful trials, as at April 2023, data collection forms were using the Survey123 platform, and were being used by all accredited operators.<sup>89</sup>

DRC strengthened the capacity of its information management staff through participation in several IT-related trainings in 2022. DRC's database architecture and paper

form templates were updated in accordance with the minimum data collection requirements of the MAC. The global digital environment was put into use in 2022. DRC has also enacted a new policy for data storing and transferring to the cross-platform data entry tools.<sup>90</sup>

As at April 2023, MAG was in the process of setting up its online management information system (OMIS), which it uses across the organisation.<sup>91</sup>

The GICHD continued to chair the IM working group, which met on a regular basis in 2022. In response to the outbreak of conflict in February 2022, the working group established an information management cell that aggregated mine action-related data from multiple sources and provided it to mine action stakeholders for planning and analysis. The group's meetings were attended by the NMAA, MAC, HDC, and mine action operators. The focus of the meetings was on coordinating activities, addressing existing IM issues, and introducing new IM data sources and newly developed IMSMA products to enhance operational efficiency.<sup>92</sup>

Since the IMSMA database was launched in Ukraine, HALO's Geographical Information System (GIS) department has created a module that automatically transfers data from the internal database to IMSMA. HALO employees manually fill out reports for each task in the Survey123 application, which is then automatically transferred to HALO's internal information system: GOIMS database.<sup>93</sup>

To further improve the quality of data in its internal database, HALO took the following measures in 2022: added internal checks of submitted data during the data collection stage in Survey123 forms; conducted training and refreshers for team leaders on data entry; and created a separate dashboard that constantly monitors the data entered into the database and checks it for compliance with the location of semantic information. The dashboard also verifies the data for compliance with certain conditions, such as duplicated data, direct evidence coordinates not being outside the minefield range, or munitions detected not being outside the cleared area.<sup>94</sup>

83 Emails from GICHD, 17 June 2022 and 26 May 2023.

84 GICHD, "Ukraine faces massive explosive contamination one year into conflict", 24 February 2023, at: <https://bit.ly/3KNEZVU>.

85 Email from GICHD, 19 April 2023.

86 Email from GICHD, 26 May 2023. Link to the IMSMA-based publicly available interactive maps: <https://bit.ly/43LnOff>.

87 Ibid.

88 Email from Almedina Musić, DRC, 7 February 2022.

89 Email from GICHD, 19 April 2023.

90 Email from Roxana-Cristina Bobolicu, DRC, 1 April 2023.

91 Email from Nick Guest, MAG, 23 March 2023.

92 Email from GICHD, 19 April 2023.

93 Email from Denys Holovetskyi, HALO, 29 May 2023.

94 Ibid.

## PLANNING AND TASKING

Ukraine does not have a national mine action strategy. In 2022, the development of any strategy was said to be contingent on a formal cessation of hostilities.<sup>95</sup> In 2023, however, this position appears to be shifting. The GICHD understands that the Cabinet of Ministers is looking closely at the strategic direction for the mine action programme.<sup>96</sup>

Ukraine said that it prioritises the clearance of critical infrastructure facilities and population centres, in order to ensure safe access of the population to their homes.<sup>97</sup> In March 2023, Ukraine approved an action plan to survey and demine more than 4,700km<sup>2</sup> of agricultural land in nine regions by the end of 2024. The regions are: Cherkasy, Chernihiv, Dnipropetrovsk, Kharkiv, Kherson, Kyiv, Mykolaiv, Sumy, and Zaporizhzhia. Of this agricultural land, 1,650km<sup>2</sup> were set to be released by the end of 2023, and 3,050km<sup>2</sup> by the end of 2024.<sup>98</sup>

There are currently no standardised criteria at national level for task prioritisation.<sup>99</sup> The MoD does not issue task dossiers but approves an annual plan with the list of all known locations planned by an operator for either clearance or survey.<sup>100</sup> Local governments have been helping the MoD to prioritise tasks based on humanitarian criteria.<sup>101</sup> Operators prioritise clearance according to humanitarian impact and in discussion with the local community.<sup>102</sup>

Since the renewed conflict in February 2022, and as mine action operators restarted working in newly accessible areas, the annual plan for 2022, which had been previously approved by the MoD, was no longer valid.<sup>103</sup> Allocation of territorial communities for operational activities was hence produced in 2022 without an annual plan. An annual plan for 2023 was approved in early January by the MoD considering the growing number of operators, the increasing need to coordinate and prioritise, and the constant change in access to newly contaminated areas. Under direct supervision of NMAA, MAC has developed an interactive map for NTS planning jointly with regional authorities. This interactive tool contains different layers, including agricultural polygons which should be considered as the first priority during NTS.<sup>104</sup>

DRC was unable to prioritise areas for survey and clearance according to its integrated mine action and development programming in 2022 as it had done pre-2022 conflict. DRC aims to resume its previous prioritisation approach in 2023.<sup>105</sup>

FSD prioritises areas based on the threat posed by the contamination, the number of potential beneficiaries, and the potential impact that will result. Infrastructure was prioritised for BAC in Izium.<sup>106</sup>

HALO uses its "internal prioritisation matrix", which takes into account different humanitarian factors such as number of people who use the area of the task, proximity to settlements, proximity of schools and hospitals, number of accidents recorded, as well as threat type, balancing these considerations with security and access considerations.<sup>107</sup> By the end of 2022, the matrix was adapted to the context of the HALO's programme, considering new priorities and criteria aimed at demining agricultural fields. The matrix also considered the number of beneficiaries, distances from residential areas, the type of threat identified, and the number of incidents.<sup>108</sup> The adapted matrix allowed HALO to prioritise and plan its operations more effectively, ensuring that resources were used efficiently and effectively to clear the most hazardous areas first. By prioritising agricultural fields, HALO was able to make a significant contribution to the safety and livelihoods of local communities, allowing them to cultivate their land without fear of accidents or injury.<sup>109</sup>

MAG was not yet operational in 2022, but it planned to work in 2023 with the region, district, and local administrations to identify priority tasks and liaise with NMAC for their allocation and approval.<sup>110</sup>

NPA prioritises areas for survey and clearance on a needs-basis according to victim and accident data, and on requests and tasking from local administrations and the MAC. According to NPA, clearance and survey task dossiers were issued in a timely and effective manner in 2022.<sup>111</sup>

95 Email from GICHD, 19 April 2023.

96 Ibid., 26 May 2023.

97 Ukraine 2023 APMB Article 5 deadline Extension Request, p. 3.

98 Ukraine's Ministry of Economy website, 30 May 2023, accessed on 22 June 2023, at: <https://bit.ly/3NH0SbN>; and Ukraine's Ministry of Agrarian Policy and Food website, 21 March 2023, accessed on 22 June 2023, at: <https://bit.ly/3r0lphu>.

99 Emails from Henry Leach, DDG Ukraine, 2 May 2019; Yuri Shahramanyan, HALO Ukraine, 16 May 2019; and Almedina Musić, DRC, 7 February 2022.

100 Email from Almedina Musić, DRC, 7 February 2022.

101 Interviews with Lt.-Col. Yevhenii Zubarevskiy, Ministry of Defence, in Geneva, 20 May 2016; and Maksym Komisarov, MoD, in Geneva, 8 June 2018.

102 Emails from Almedina Musić, DDG, 23 April 2020; and Toby Robinson, HALO, 27 April 2020.

103 Email from GICHD, 19 April 2023.

104 Email from Roxana-Cristina Bobolicu, DRC, 1 April 2023.

105 Ibid.

106 Email from Tony Connel, FSD, 26 June 2023.

107 Email from Imogen Churchill, HALO, 23 March 2022.

108 Email from Denys Holovetskyi, HALO, 29 May 2023.

109 Ibid.

110 Email from Nick Guest, MAG, 23 March 2023.

111 Email from Alberto Rinaldo Serra, NPA, 15 March 2023.

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

NMAS were finalised by the MoD in September 2018 after multi-year input and review from key stakeholders.<sup>112</sup> The GICHD considers that the existing NMAS are in line with IMAS. Concerns, however, have been raised by national authority partners that the existing NMAS do not contain sufficient detail in certain areas, and need to be further refined and detailed. For example, the criteria for direct and indirect evidence need to be tailored to the new operational context.<sup>113</sup>

In May 2020, the GICHD, the OSCE, DRC, and HALO formed a working group with the objective of revising NMAS to better align the standards with the IMAS. The working group submitted its recommendations to the MoD, the acting NMAA at that time.<sup>114</sup> According to DRC, the Ukrainian government had set a deadline to finalise the NMAS by August 2021,<sup>115</sup> a target that was then postponed to April 2023 due to delays

in establishing the NMAA,<sup>116</sup> then again to April 2024.<sup>117</sup> Led by the GICHD, an NMAS revision was initiated in March 2023 during a stakeholder workshop.<sup>118</sup> An NMAA-GICHD co-led process will focus on land release, mechanical demining, and terminology, while an NMAA-NPA co-led process will focus on MDDs. The NMAA and the MAC are also reportedly working on the QM standards.<sup>119</sup>

DRC, FSD, HALO, and MAG agree that the current NMAS are yet to be fully developed to meet the needs of the mine action sector in Ukraine.<sup>120</sup> For example, HALO believes that there are still some contentious issues within the current NMAS. These include marking demining sites, the definition of 'all reasonable efforts', and reduction and cancellation criteria, among other concerns.<sup>121</sup> FSD has concerns about the lack of workable NMAS on mechanical clearance.<sup>122</sup>

### OPERATORS AND OPERATIONAL TOOLS

The MoD and several other ministries continue to deploy units that undertake clearance and destruction of mines and ERW. This includes the military engineering school, which has a licence to accredit operators; the National Guard of Ukraine; the MoI, which conducts clearance through SESU and also has an engineering department that conducts EOD; the Security Service; the SSTS, which is responsible for demining national infrastructure; and the State Border Service, which conducts demining in areas under its control on land and in the sea.<sup>123</sup>

Multiple international demining organisations—DCA, DRC, FSD, HALO, MAG, and NPA—are operating in Ukraine.<sup>124</sup> As at April 2023, DCA and MAG were still undergoing their accreditation. In February 2023, NPA was accredited for NTS and EORE, and in June 2023, NPA received its accreditation for manual demining, TS, and BAC.<sup>125</sup> Two national operators at least were also operational in Ukraine in 2022, Demining Solutions and the UDA.

By December 2022, Ukraine was reported to have more than 200 demining teams of more than 1,000 personnel, and planned to expand to 400 teams of 2,000 personnel in 2023.<sup>126</sup> This is nearly four-times the capacity of that Ukraine had in 2020.<sup>127</sup> As at May 2023, the SESU stated that they had more than 30 demining teams, including three underwater teams, deployed in Chernihiv, Kharkiv, Kherson, Konopelniuk, Kyiv, and Mykolaiv regions.<sup>128</sup> Work is underway to increase the capacity of Ukraine's national operators under the MoD to an estimated number of 5,000 personnel.<sup>129</sup> The first Deputy Minister of Defence said in an interview that the MoD, together with the company Tetra Tech, plan on creating a joint training centre that will have the capacity to train 500 specialists per year.<sup>130</sup>

112 Emails from Gianluca Maspoli, GICHD, 25 September 2018; and Miljenko Vahtarić, OSCE PCU, 25 September 2018; and Interview with Miljenko Vahtarić, OSCE PCU, 7 February 2019.

113 Email from GICHD, 19 April 2023.

114 Emails from Almedina Musić, DRC, 20 April 2021; and Ronan Shenhav, HALO, 20 April 2021.

115 Email from Almedina Musić, DRC, 26 July 2021.

116 Ibid. DRC, 7 February 2022.

117 Email from Roxana-Cristina Bobolicu, DRC, 1 April 2023.

118 Email from GICHD, 19 April 2023.

119 Ibid., 26 May 2023.

120 Emails from Nick Guest, MAG, 23 March 2023; Roxana-Cristina Bobolicu, DRC, 1 April 2023; Almedina Musić, DRC, 7 February 2022; Imogen Churchill, HALO, 23 March 2022; and Tony Connell, FSD, 10 June 2022.

121 Email from Denys Holovetskyi, HALO, 29 May 2023.

122 Email from Tony Connell, FSD, 26 June 2023.

123 Interview with Col. Oleksandr Shchebetiuk, Ukrainian Armed Forces, in Geneva, 26 June 2015; email from Anton Shevchenko, OSCE, 23 June 2015; "Mine Action in Ukraine", Side-event presentation by Lt.-Col. Yevhenii Zubarevskyi, MoD, Geneva, 17 February 2016; Article 7 Report (covering 2018), Form F, and email from GICHD, 17 June 2022.

124 2020 Article 5 deadline Extension Request; and Article 7 Report (covering 2018), Form F.

125 Email from Amela Balic, NPA, 29 June 2023.

126 The US Department of State, "Demining Ukraine: A Pre-requisite for Recovery: Michael Tirre Remarks before the U.S. Helsinki Commission", 8 December 2022, at: <https://bit.ly/3KFdXzJ>.

127 2020 Article 5 deadline Extension Request.

128 "More than 30 demining groups are working on demining de-occupied territories", *Ukrinform*, 23 May 2023, at: <https://bit.ly/3NnTKzI>.

129 2023 APMB Article 5 deadline Extension Request, p. 3.

130 "Ukraine will train 500 demining specialists per year – Pavlyuk", *Ukrinform*, 5 May 2023, at: <https://bit.ly/3JrH0fo>.

**Table 2: Operational clearance capacities deployed in 2022<sup>131</sup>**

Operator	Manual teams	Total deminers*	Dogs and handlers	Machines**	Comments
DRC	8	54	0	0	The same capacity as at the end of 2021.
HALO	44	304	0	6	1 John Deere Tractor; 1 JCB Excavator. 2 Robocuts TRAXX; 1 mini Robocut S300. 1 Armtrac.
FSD	8	56	0	2	1 MV4 and 1 MV10 awaiting accreditation.
Demining Solutions	1	7	0	0	
<b>Totals</b>	<b>61</b>	<b>421</b>	<b>0</b>	<b>8</b>	

\* Excluding team leaders, medics, and drivers unless otherwise stated. \*\* Excluding vegetation cutters and sifters.

DRC deployed four NTS personnel of two teams in 2022. All of DRC's TS teams are trained and equipped to conduct manual mine clearance and BAC. The number of manual clearance and NTS remained the same as in 2021. Thanks to secured donor funding, DRC expected to deploy six additional clearance teams and four additional non-technical survey teams in 2023.<sup>132</sup>

FSD temporarily suspended its demining operations after February 2022. Operations restarted in July 2022 as FSD relocated its operations from Kramatorsk, Mariupol, and Sloviansk in the East to Chernihiv in the North. EORE (both online and in person) and NTS operations restarted first in July followed by EOD/BAC operations in August. FSD's NTS was concentrated around the outer villages of Chernihiv city. Recruiting and training of seven BAC teams started in July 2022 with the first two teams becoming operational by the middle of August. In early November 2022, FSD was the first international organisation to have NTS, BAC, and EORE teams deploy into the recently regained territories of Kharkiv oblast, conducting operations in and around Izium. The EOD/BAC teams mainly conducted spot tasks until December 2022, when the NMAA ordered FSD to halt its spot task clearance until a certification process had been completed. FSD received certification for both the MV4 and MV10 machines in April 2023 and deployed both machines in Kharkiv oblast in support of SESU infrastructure projects. In March 2023, FSD signed a contract with the World Food Programme (WFP) to start survey and clearance of agricultural land, and intended to redeploy its MV4 and MV10 machines in support of that project.<sup>133</sup> As at April 2023, FSD had around 100 staff

working in the oblasts of Chernihiv, Kharkiv, and Mykolaiv.<sup>134</sup> FSD's operational capacity consisted of eight specialised BAC teams, three mechanical clearance teams, three NTS teams, and four risk education teams. FSD intended to form two rubble removal teams in July 2023 and was in the process of introducing drones for NTS and mechanical teams.<sup>135</sup> FSD sadly lost a staff member during the conflict and lost contact with one other. Both incidents occurred while the staff were off-duty.<sup>136</sup>

ITF Enhancing Human Security has partnered with Safe Path Group, a Ukrainian NGO, to identify the location of explosive ordnance through NTS and TS activities, marking and recording it for future disposal or removal. The project began in October 2022 and an operational base was selected in Kharkiv in December 2022. Ten selected personnel were enrolled into the SESU IMAS level II course, with the aim of establishing two NTS and TS teams in Kharkiv and Poltava regions.<sup>137</sup>

NPA received its accreditation for NTS and EORE in February 2023, and in June 2023 was accredited for TS, BAC, and manual demining. NPA established an operational presence in Sumy oblast and recruited 20 NTS personnel across ten teams in 2022. The recruited teams were not, however, deployed in 2022 as they were only accredited in February 2023. NPA planned to increase the numbers of its NTS teams to 12 and to further recruit ten clearance teams. In addition, NPA planned to train and deploy a total of 4 MDD teams, each consisting of two MDDs, two dog-handlers, and one team leader. As at April 2023, NPA has recruited and trained two clearance teams. One team had completed training and

<sup>131</sup> Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; and Denys Holovetskyi, HALO, 29 May 2023.

<sup>132</sup> Email from Roxana-Cristina Bobolicu, DRC, 1 April 2023.

<sup>133</sup> Emails from Tony Connell, FSD, 24 March and 26 July 2023.

<sup>134</sup> FSD "Demining in Ukraine: the race against time", FSD website, accessed 24 April 2023 at: <https://bit.ly/41x5i9r>.

<sup>135</sup> Swissinfo, "Demining: how the Swiss are helping to make Ukraine safer", 4 April 2023, at: <https://bit.ly/41uQTuk>; and email from Tony Connell, FSD, 26 July 2023.

<sup>136</sup> Email from Tony Connell, FSD, 24 March 2023.

<sup>137</sup> ITF, "Annual Report 2022", at: <https://bit.ly/3o5uIM0>, p. 94.

deployed for manual clearance in June 2023. The second team was undergoing training and expected to be deployed by mid-July. As at July 2023, NPA was training five additional manual teams and eight MDD handlers to be operational by August of the same year.<sup>138</sup>

HALO, the largest international operator in the country, suspended its operation in the east of Ukraine following the Russian invasion in February 2022. It relocated to the central part of the country and resumed operations in May 2022. At the beginning of 2022, HALO had eight NTS teams, consisting of a total of 33 members. This has expanded to 16 NTS teams, each with four members (a total of 64 personnel) by the end of the year. Each team contained a supervisor and a senior supervisor in addition to the NTS personnel. With respect to clearance team, HALO operated with 10 manual teams consisting of 70 employees at the beginning of 2022. Throughout the year, large-scale demining trainings were conducted of over 100 trainees each. By the end of the 2022, HALO had 44 manual clearance teams each of nine members (a total of 304 personnel excluding drivers and team leaders), one mechanical clearance team of three personnel, and 18 personnel for mechanical clearance support across five teams.<sup>139</sup>

HALO has undergone a significant restructuring in the central part of Ukraine, involving the recruitment of new employees,

training, and the formation of new survey and clearance teams. At the start of the operational year, which began in the middle of summer 2022, the number of employees and teams was lower than in 2021. However, with the financial support of donors, HALO not only restored its performance to 2021 levels, but even significantly increased operational capacity. HALO intended to double its 2022 operational capacity in 2023. This includes 35 NTS teams, 92 manual demining teams, 21 mechanical support teams, and 12 mechanical teams, with a total of over 1200 operational staff members.<sup>140</sup>

HALO has made considerable progress using drones to identify UXO and mines during survey and clearance. HALO Ukraine has a drone team responsible for both flights and image processing. As a result, most surface items could be identified with a high probability. This provides credibility and speeds up the clearance process, allowing teams to focus on evidence points during the clearance process, making it more effective.<sup>141</sup>

MAG had operational community liaison teams in 2022, but it did not engage in any survey or clearance activities as its teams were not yet certified. MAG expected a significant increase in capacity in 2023 as recruitment was ongoing for community liaison, NTS, mine clearance, and mechanical teams.<sup>142</sup>

## DEMINER SAFETY

A SESU deminer told the press in January 2023 that 64 deminers had been injured and 13 killed in the line of duty.<sup>143</sup> Three SESU personnel were killed on 24 December 2022 as a mine exploded while they were demining in Kherson region.<sup>144</sup> Another SESU team came under attack while demining in the Kherson region. The attack led to the killing of 18 persons, including six SESU specialists, in addition to the injury of 46 civilians and two paramedics.<sup>145</sup>

138 Emails from Alberto Rinaldo Serra, NPA, 15 March 2023; and Amela Balic, NPA, 29 June 2023.

139 Email from Denys Holovetskyi, HALO, 29 May 2023.

140 Ibid.

141 Ibid.

142 Email from Nick Guest, MAG, 23 March 2023.

143 "Ukrainians wrap up landmine clearance exercises in Cambodia", *Associated Press*, 20 January 2023, at: <https://bit.ly/41FPJge>.

144 "Three emergency services workers killed while demining Ukraine's Kherson", *Reuters*, 25 December 2022, at: <https://bit.ly/3G04bdy>.

145 "The occupiers shelled the Kherson region: 6 employees of the State Emergency Service were killed", *Apostroph*, 6 May 2023, at: <https://bit.ly/3pgfu8G>.

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

### LAND RELEASE OUTPUTS IN 2022

None of the international operators released any cluster munition-contaminated area through survey in 2022, as in the previous three years.<sup>146</sup> HALO cleared 325,483m<sup>2</sup> of cluster munition-contaminated area in Kyiv oblast in 2022, destroying in the process 70 submunitions, 1 anti-vehicle mine, and 81 items of UXO in the process.<sup>147</sup> Of the 17 tasks cleared by HALO (see Table 3 below), NTS suggested that five contained only CMR, six had a mixed CMR and anti-personnel mine threat, and the other six tasks contained a mix of CMR, anti-vehicle mines, and UXO. All the items found by HALO were reported to SESU for removal or *in situ* destruction as operators do not yet have the permission to use or move explosives.<sup>148</sup>

A total of 2.2km<sup>2</sup> of previously unrecorded CMR contamination was discovered and added to the IMSMA database in Ukraine in 2022, of which, DRC has identified 0.14km<sup>2</sup> across three CHAs and one SHA, and HALO 2.06km<sup>2</sup> in Kyiv and Chernihiv oblasts.<sup>149</sup>

**Table 3: CMR clearance by HALO in 2022<sup>150</sup>**

Oblast	District	Sub-district	Locality	Area cleared (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed
Chernihivska	Baryshivska	Talalaivska	Velyka Doroha	2,740	0	10
Kyivska	Brovarskyi	Velykodymerska	Hrebelky	2,507	0	0
Kyivska	Buchanskyi	Makarivska	Andriivka	622	0	0
Kyivska	Brovarskyi	Baryshivska	Lukianivka	19,600	44	0
Kyivska	Brovarskyi	Baryshivska	Lukianivka	5,533	9	0
Kyivska	Brovarskyi	Baryshivska	Lukianivka	5,580	16	0
Kyivska	Brovarskyi	Baryshivska	Peremoha	7,069	1	0
Kyivska	Buchanskyi	Nemishaivska	Nemishaieve	178,557	0	53
Kyivska	Buchanskyi	Dmytrivska	Myla	70,067	0	0
Kyivska	Buchanskyi	Makarivska	Andriivka	731	0	9
Kyivska	Buchanskyi	Borodianska	Dmytrivka	2,844	0	9
Kyivska	Buchanskyi	Borodianska	Dmytrivka	4	0	0
Kyivska	Buchanskyi	Makarivska	Korolivka	2,734	0	0
Kyivska	Buchanskyi	Makarivska	Lypivka	394	0	0
Kyivska	Buchanskyi	Makarivska	Lypivka	11,359	0	0
Kyivska	Baryshivska	Velykodymerska	Zalissia	11,503	0	0
Kyivska	Buchanskyi	Makarivska	Makovyshche	3,639	0	0
<b>Totals</b>				<b>325,483</b>	<b>70</b>	<b>81</b>

<sup>146</sup> Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; Nick Guest, MAG, 23 March 2023; Alberto Rinaldo Serra, NPA, 15 March 2023; Tony Connell, FSD, 24 March 2023 and 24 March 2021; Almedina Musić, DRC, 7 February 2022 and 20 April 2021; Imogen Churchill, HALO, 23 March 2022; and Ronan Shenhav, HALO, 20 April 2021.

<sup>147</sup> Email from Denys Holovetskyi, HALO, 29 May 2023

<sup>148</sup> Ibid.

<sup>149</sup> Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; and Denys Holovetskyi, HALO, 29 May 2023.

<sup>150</sup> Email from Denys Holovetskyi, HALO, 29 May 2023.

DRC focused its operations from cancellation to defining new hazardous areas in 2022. DRC cleared 0.16km<sup>2</sup> of land in 2022 in Kyiv and Chernihiv Oblasts. This was new contamination resulting from the 2022 conflict. Items found during clearance included 64 UXO and 52 AXO. DRC also found 58 items of UXO during NTS. In total, 174 items of UXO were found by DRC in 2022, none of which was a submunition.<sup>151</sup>

FSD has located more than 1,200 explosive devices since February 2022 none of which was CMR.<sup>152</sup> According to SESU, a total of 773.6km<sup>2</sup> were reportedly released and 311,593 items of UXO, including submunitions and landmines were destroyed between 24 February 2022 and 2 January 2023.<sup>153</sup> As at February 2023, the Ukrainian authorities report that they have already located, recorded, and removed over 305,000 mines and explosive devices.<sup>154</sup> In Kharkiv region alone, SESU reported having removed 50,000 items of explosive ordnance.<sup>155</sup> The disaggregation by type of ordnance is not known.

The SESU has been clearing explosive ordnance contamination continuously or shortly after munition use. Between 2019 and 9 May 2023, Ukraine claimed to have cleared 1,020km<sup>2</sup> of land, disposing in the process of 45,791 explosive devices.<sup>156</sup> This claim is better understood as land release.

## PROGRESS TOWARDS COMPLETION

No target date has been set for the completion of CMR clearance in Ukraine, nor is it realistic to expect one for the foreseeable future given the ongoing hostilities. In addition to what is being cleared by international operators, substantial CMR clearance is being undertaken by the MoD and the SESU, some of which is conducted immediately after the contamination has occurred. The clearance conducted by Ukrainian national bodies was not reported. The 2022 conflict has certainly resulted in new and large-scale contamination. While initial estimates project a timeline of anything between five and twenty years to complete the CMR clearance, these remain pure speculation until Ukraine has conducted a national survey to assess the scale and nature of its new contamination.<sup>157</sup>

For its part, Russia has obligations under international human rights law to clear CMR as soon as possible, in particular by virtue of its duty to protect the right to life of every person under its jurisdiction, which pertains to any areas of Ukraine over which it exercises effective control.

<sup>151</sup> Ibid.

<sup>152</sup> Email from Tony Connell, FSD, 24 March 2023, and "Demining in Ukraine: the race against time", FSD website, accessed on 24 April 2023, at: <https://bit.ly/41x5i9r>.

<sup>153</sup> State Security Service of Ukraine (SESU) website, 2 January 2023, accessed on 22 June 2023, at: <https://bit.ly/3GcP3oK>.

<sup>154</sup> GICHD, "Ukraine faces massive explosive contamination one year into conflict", 24 February 2023, at: <https://bit.ly/3KNEZVU>.

<sup>155</sup> "Ukraine war: The deadly landmines killing hundreds", *BBC News*, 19 April 2023, at: <https://bit.ly/3AusQjE>.

<sup>156</sup> 2023 APMBC Article 5 deadline Extension Request, p. 1.

<sup>157</sup> Online presentation by Hannah Rose Holloway, DRC, CCM Intersessional Meeting, Geneva, 16 May 2022.

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION:

#### UNKNOWN BUT MASSIVE

SUBMUNITION  
CLEARANCE IN 2022

**51.20<sub>km<sup>2</sup></sub>**

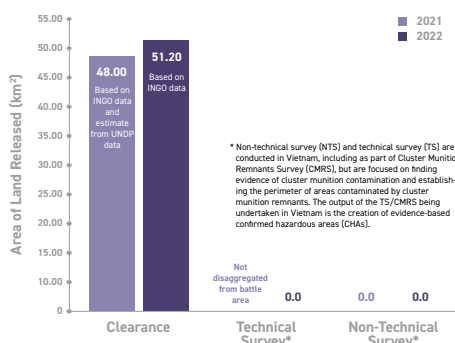
(BASED ON INGO DATA)

SUBMUNITIONS  
DESTROYED IN 2022

**15,482**

(INCLUDING 1,448 DURING  
SPOT TASKS)

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

In 2022, more than 51km<sup>2</sup> of cluster munition-contaminated area was cleared by international non-governmental organisations (INGOs), an increase on output the previous year. Furthermore, the 132.7km<sup>2</sup> confirmed as contaminated with CMR in 2022 was a 66% increase on the amount confirmed during the previous year. The Vietnam National Mine Action Centre (VNMAC) continued efforts to strengthen coordination of mine action in Vietnam, with several key achievements in 2022, most notably the approval of new regulations on information management and the revised National Technical Regulations (QCVNs).

The Cluster Munition Remnant Survey (CMRS), for all accessible areas, was completed in Quang Tri province. This is the first time that the level of cluster munition remnant (CMR) contamination within a whole province has been recorded and mapped.

All data sets have now been standardised and combined into one consolidated Information Management System for Mine Action (IMSMA) database. In another positive development, in April 2022, the Mine Action Working Group (MAWG) established sub-task forces focused on capacity development, gender, and the environment, among others.

## RECOMMENDATIONS FOR ACTION

- Vietnam should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- In collaboration with implementing partners, VNMAC should set a strategy to enhance understanding of the extent of CMR contamination, with a view to establishing a nationwide baseline of CMR contamination. As part of these efforts, VNMAC should expand non-technical survey (NTS) and technical survey (TS), including use of cluster munition remnant survey (CMRS).
- VNMAC should elaborate and publish annual work plans for CMR, with clear targets for survey and clearance.
- The revision of National Mine Action Standards (TCVNs), in line with IMAS, should be completed as soon as possible.

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

## MANAGEMENT

- Vietnam National Mine Action Centre (VNMAC)
- Provincial mine action centres and authorities (such as the Quang Tri Mine Action Centre (QTMAC), Quang Binh database and coordination unit (DBCUC), and Thua Thien Hue database unit (DBU), among others)

## NATIONAL OPERATORS

- Ministry of Defence

## INTERNATIONAL OPERATORS

- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)
- PeaceTrees Vietnam (PTVN)

## OTHER ACTORS

- Association of South East Asian Nations (ASEAN) Regional Mine Action Centre (ARMAC)
- Geneva International Centre for Humanitarian Demining (GICHD)
- Golden West Humanitarian Foundation (Golden West)
- International Committee of the Red Cross (ICRC)
- United Nations Development Programme (UNDP)

## UNDERSTANDING OF CMR CONTAMINATION

Vietnam is massively contaminated by CMR but no accurate estimate exists, even to the nearest hundred square kilometres. An explosive remnants of war (ERW) impact survey, started in 2004 and completed in 2014, was only published in 2018. It said that 61,308km<sup>2</sup> or 19% of Vietnam's land surface area was affected by ERW, but did not specify the area affected by CMR. It found, though, that CMR affected 32 of Vietnam's 63 provinces and cities.<sup>1</sup>

According to VNMAC, the total area still contaminated with bombs, mines, and explosive ordnance in Vietnam was 56,000km<sup>2</sup>, which accounts for approximately 17% of Vietnam's land surface. Contamination is mainly concentrated in central provinces including Quang Tri, Quang Binh, Ha Tinh, Nghe An, and Quang Ngai.<sup>2</sup>

VNMAC does not plan to conduct a separate survey for CMR, and instead is implementing its survey and clearance plan for all types of explosive ordnance.<sup>3</sup> Vietnam is, however, slowly starting to gain a clearer picture of CMR contamination thanks to the expansion of Cluster Munition Remnant Survey (CMRS) into new provinces.

In **Quang Tri province**, one of Vietnam's most contaminated provinces, Norwegian People's Aid (NPA) is conducting a province-wide survey.<sup>4</sup> Estimates of cluster munition-contaminated area are increasing sharply as survey progresses. In April 2023, NPA completed CMRS of all

accessible areas in Quang Tri province. In total, between 2015 and 2023, NPA defined a total of 1,270 confirmed hazardous areas (CHAs), covering 620km<sup>2</sup>, of which more than 177km<sup>2</sup> has already been cleared.<sup>5</sup> The remaining 111 villages in Quang Tri Province continue not to be accessible to international operators for survey,<sup>6</sup> due to national security. QTMAC is said to be interested in exploring the possibility for the military to be trained to conduct CMRS of these remaining villages.<sup>7</sup>

In **Quang Binh province**, a joint consortium between Mines Advisory Group (MAG), NPA, PeaceTrees Vietnam (PTVN), and the Provincial People's Committee (PPC) of Quang Binh, approved in May 2020 the adoption of a CMRS approach.<sup>8</sup> In Quang Binh province, MAG has historically used a NTS methodology – Evidence Point Polygon (EPP) mapping – to map initial CHAs. Since February 2022, MAG was no longer conducting TS in Quang Binh, as NPA has taken this over as part of the US Department of State's Bureau of Political-Military Affairs PM-WRA (PM/WRA) consortium.<sup>9</sup> As at June 2023, TS had been fully completed in 7 out of the 151 communes in the province, with more than 100km<sup>2</sup> of land confirmed as cluster munition-contaminated,<sup>10</sup> of which more than 31km<sup>2</sup> has already been cleared.<sup>11</sup> NPA estimates that, in total, there is some 1,000km<sup>2</sup> of CMR contamination in the province and that it could take 27 years to complete TS, based on current capacity.<sup>12</sup>

1 VNMAC, "Report on Explosive Remnants of War Contamination in Vietnam, Based on the Explosive Remnants of War Contamination Survey and Mapping – Phase 1", provided by VNMAC 19 April 2018, p. 38.

2 Email from VNMAC, 14 July 2023.

3 Ibid.

4 Email from Resad Junuzagic, Country Director, NPA, 6 May 2019.

5 QTMAC website, accessed 7 July 2023, at: <https://bit.ly/3rFPNGa>.

6 Email from NPA Vietnam, 16 June 2023.

7 Interview with Jan Erik Støa, NPA, Oslo, 8 June 2023.

8 Email from Jan Erik Støa, NPA, 24 June 2020.

9 Emails from Helene Kuperman, MAG, 31 March 2021; and Valentina Stivanello, MAG, 29 April 2022.

10 Email from NPA Vietnam, 16 June 2023.

11 Quang Binh DBCU website, accessed 7 July 2023, at: <https://bit.ly/3JLTgm2>.

12 Email from NPA Vietnam, 16 June 2023.

In **Thua Thien Hue province**, in collaboration with VNMAC and the provincial authorities, NPA has been implementing CMRS in four districts. Between 2011 and 2022, nearly 19km<sup>2</sup> of CHA had been identified, of which 15.8km<sup>2</sup> is in the western district of A Luoi. In addition to TS, NPA multi-task teams continued to clear CHAs and respond to any explosive ordnance reported to Hue Database Unit (DBU) or through the NPA hotline phone number.<sup>13</sup>

The United States dropped 413,130 tons of submunitions over Vietnam between 1965 and 1973, reportedly striking 55 provinces and cities. Vietnam's Military Engineering

Command has recorded finding 15 types of US-made submunitions. Most submunition types were air-dropped, but artillery-delivered submunitions were also used in central Quang Binh and provinces to the south.<sup>14</sup> Most of the CMR that international operators encounter in Quang Tri province are BLU-26, BLU-29, and BLU-61 submunitions, and occasionally Mk 20 Rockeyes,<sup>15</sup> as well as BLU-63 (in Quang Binh province).<sup>16</sup> In Quang Nam province, almost all the CMR cleared by Danish Demining Group (DDG) were M83 submunitions.<sup>17</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Vietnam has huge contamination from unexploded ordnance (UXO) and an unquantified mine problem (see Mine Action Review's *Clearing the Mines* report on Vietnam for further information). The ERW impact survey identified the most heavily contaminated regions as the central coastal provinces, the Central Highlands, the Mekong River delta, and the Red River delta.<sup>18</sup> The experience of international operators in central Vietnam points to wide variations in contamination types from district to district. International operators report encountering mainly projectiles, mortars, grenades, and some aircraft bombs.<sup>19</sup>

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

VNMAC was established in 2014 by Prime Ministerial decree to strengthen the direction of mine action and provide a focal point for mine action operations.<sup>20</sup> VNMAC is under the direct direction of the Prime Minister and the direct management of the Ministry of National Defence (MoD).<sup>21</sup>

Vietnam's mine action programme continues to undergo significant restructuring and strengthening, following the Decree on the Management and Implementation of Mine Action Activities (Decree No. 18), and entered into effect on 20 March 2019, and subsequent approval of a guiding Circular (Circular No. 195) which came into effect in February 2020.<sup>22</sup> Decree 18 is currently the highest-level legal document governing mine action activities in Vietnam and is applicable to all domestic and foreign organisations operating in mine action in Vietnam.<sup>23</sup> Circular 195 provides detailed guidance on the implementation of the provisions of the Decree. Under Decree 18, the MoD continues to be the lead authority for the national mine action programme, in coordination with other relevant ministries and sectors;<sup>24</sup> while VNMAC will, under the direction of the Prime Minister and management of the MoD, "monitor, coordinate and implement mine action tasks".<sup>25</sup>

The Decree and the guiding Circular has, since 2020, given VNMAC a clear mandate, roles, and responsibilities as the national coordinating entity for mine action operations, and this has further established the legal basis for revision and updating of the national regulations (QCVNs) and standards (TCVNs) (please see section on 'Land Release System' for more information on the current status of the QCVNs and TCVNs) and for the adoption of regulations on information management.

Vietnam is preparing to draft an Ordinance for mine action in Vietnam,<sup>26</sup> following the direction of the Prime Minister at the high-level meeting on mine action in February 2022. The planned Ordinance, which will sit above the Decree 18,<sup>27</sup> will be issued by the Standing Committee of the National Assembly of Vietnam. It is expected to be approved in 2024 and will be applicable to all domestic and foreign organisations and individuals involved in explosive ordnance clearance in Vietnam.<sup>28</sup>

13 Ibid.

14 "Vietnam mine/ERW (including cluster munitions) contamination, impacts and clearance requirements", Presentation by Sr. Col. Phan Duc Tuan, People's Army of Vietnam, in Geneva, 30 June 2011; Handicap International, *Fatal Footprint, the Global Human Impact of Cluster Munitions*, Brussels, November 2006, p. 15.

15 Interview with Magnus Johansson, NPA, Hanoi, 17 April 2018, and Michael Raine, MAG, Quang Tri, 18 April 2018.

16 Email from Helene Kuperman, MAG, 23 June 2020.

17 Email from Clinton Smith, Country Director, DDG, 23 March 2017.

18 VNMAC, "Report on Explosive Remnants of War Contamination in Vietnam", Hanoi, 2018, pp. 33–36.

19 Interviews with Resad Junuzagic, NPA, Jan Eric Stoa, NPA, and Magnus Johansson, NPA, Hanoi, 17 April 2018, and with Simon Rea, MAG, and Michael Raine, MAG, Quang Tri, 19 April 2018; and emails from Clinton Smith, DDG, 23 March 2017 and 19 April 2018.

20 Prime Ministerial Decree (No. 738 of 2013) on the management and implementation of mine action activities, Hanoi.

21 STA Capacity Development Project (NPA), 'Vietnamese legal framework in mine action', January 2023.

22 Emails from Jan Erik Støa, NPA, 6 April 2020; and Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

23 Email from Sarah Goring, MAG, 5 April 2023.

24 Decree on Implementation and Management of Mine Action, No.18/2019/ND-CP, 1 February 2019.

25 Draft Decree on the management and implementation of mine action activities, Hanoi, April 2018.

26 Interview with Mr Hop, VNMAC, Geneva, 22 June 2023.

27 Ibid.

28 STA Capacity Development Project (NPA), 'Vietnamese legal framework in mine action', January 2023.

VNMAC is entirely nationally funded, and implementation of the National Mine Action Programme (Program 504) is funded by both state and international funding.<sup>29</sup> According to VNMAC, the government has provided support for mine action, including i) establishment of coordinating agencies and associations to support all levels of mine action activities; ii) completion of a legal system, mechanism and policies, which create a legal basis for post-war demining activities (the MoD cooperates with other ministries to develop Circulars guiding QCVNs, TCVNs, and standard operating procedure (SOP) on quality management (QM), survey, and clearance and related issues); iii) facilitation of activities to develop the management and administration capacity, and the survey and clearance capacity, of demining organisations; iv) formation of a national QM system for survey and clearance in accordance international standards; and v) formation of an information management system.<sup>30</sup>

VNMAC's involvement in coordination meetings, such as the Mine Action Working Group (MAWG, previously named the Landmine Working Group (LWG)), has increased in recent years. The MAWG, which is co-chaired by MAG and the United Nations Development Programme (UNDP),<sup>31</sup> is a platform for all mine action stakeholders in Vietnam to meet quarterly to share and discuss on-going issues and plan for the next quarter.<sup>32</sup> In April 2022, MAWG members established sub-task forces, focused on different areas including capacity development, gender, the environment, victim assistance, and EORE.<sup>33</sup> VNMAC participates in all sub-task force and MAWG meetings.<sup>34</sup> The MAWG met three times in 2022: two full meetings in April and October, and an additional meeting of sub-task force chairs. In 2023, the MAWG was focusing on updating the terms of reference (TOR) for the MAWG; enhancing the functionality of the sub-task forces; and supporting development of the mine action ordinance and the TCVNs.<sup>35</sup>

INGOs reported good cooperation and coordination with VNMAC, with VNMAC continuing to demonstrate a willingness to discuss ideas and challenges with international operators.<sup>36</sup> However, VNMAC still operates within the confines of the MoD.<sup>37</sup> There is a well-established process for granting work permits and visas to international mine action staff and for procurement of demining equipment, although the importation of equipment can be lengthy, depending on the nature of the items.<sup>38</sup>

MAG, NPA, PTVN, the Geneva International Centre for Humanitarian Demining (GICHD), Golden West Humanitarian Foundation (Golden West), and UNDP all provide capacity development support in Vietnam. INGOs resumed hosting familiarisation visits by VNMAC to their offices and operations in 2022, after previous disruption to such visits in 2021, due to COVID-19 restrictions.<sup>39</sup>

In October 2021, MAG entered a three-year Memorandum of Understanding (MoU) with VNMAC to provide technical support and capacity building on explosive ordnance disposal (EOD), clearance, QM, and expanding digital EORE to new provinces. MAG is working with VNMAC to develop a work plan for QM training.<sup>40</sup> NPA is implementing a capacity-development project with VNMAC, with funding from PM/WRA. The project aims to increase VNMAC's capacity to serve as the national mine action centre, ensure a sustainable national information management system, improve planning, prioritisation, and coordination of mine action in Quang Tri and Quang Binh provinces.<sup>41</sup>

NPA also supported VNMAC to establish a fully-equipped mobile bomb cutting team. With support from the US Department of Defense (DoD), an NPA technical advisor conducted training in Hanoi followed by practical experience in Quang Tri province. Eight VNMAC personnel, including one woman, were certified in the use of the bomb cutting tools and methodology, and all equipment — including trailer, saw and X-ray — were handed over to VNMAC.<sup>42</sup>

In 2022, PTVN continued joint efforts to support and help enhance the management and coordination of Quang Tri Mine Action Centre (QTMAC) and VNMAC. In partnership with Golden West, PTVN provides opportunities for VNMAC's trainees to be mentored and gain field practice during their International Mine Action Standards (IMAS) EOD training.<sup>43</sup>

In April 2022, the GICHD visited VNMAC to follow up on the long-term risk management tool.<sup>44</sup>

In 2022, VNMAC took a seat on the global IMAS Review Board for the first time.<sup>45</sup>

29 Email from Tim Horner, Senior Technical Advisor, VNMAC, on behalf of Mr Phuc, VNMAC, 6 April 2021.

30 Email from Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

31 Email from Sarah Goring, MAG, 5 April 2023.

32 Email from VNMAC, 14 July 2023.

33 Email from Sarah Goring, MAG, 5 April 2023.

34 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

35 Email from NPA Vietnam, 16 June 2023.

36 Emails from NPA Vietnam, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

37 Emails from Kimberley McCosker, NPA, 21 April 2022.

38 Email from Jan Erik Støa, NPA, 6 April 2020.

39 Emails from Sarah Goring, MAG, 5 April 2023; NPA Vietnam, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

40 Email from Valentina Stivanello, MAG, 29 April 2022.

41 Email from Kimberley McCosker, NPA, 21 April 2022.

42 Email from NPA Vietnam, 16 June 2023.

43 Emails from Phạm Hoàng Hà, Country Director, PTVN, 9 May and 17 June 2022.

44 Email from Kimberley McCosker, NPA, 13 July 2022.

45 Email from NPA Vietnam, 16 June 2023.

Capacity development partners are also supporting VNMAC to establish regional mine action structures:

In **Quang Binh province** operations under a joint consortium between MAG, NPA, and PTVN commenced in June 2020. The project includes survey, clearance, EOD, risk education and a capacity development component regarding the establishment of a provincial coordination committee and mine action database in Quang Binh province, conducted with the provincial database and coordination unit (DBCUs).<sup>46</sup> The DBCU is now fully operational and is responsible for all provincial mine action data and reporting to VNMAC. The DBCU conducts regular coordination meetings for operators in Quang Binh and is responsible for tasking operators.<sup>47</sup> A province-wide prioritisation system has been implemented in Quang Binh since April 2022.<sup>48</sup>

A new tripartite project has been negotiated between VNMAC, KOICA, and UNDP, known as the Korea – Vietnam Peace Village Project (KVPVP). As at June 2023 it had been approved, and was expected to begin in September.<sup>49</sup> KVPVP will implement survey, clearance, EORE, VA and capacity development, focusing on three target provinces (**Binh Dinh, Quang Ngai, and Thua Thien Hue**). It aims to release a total of 150km<sup>2</sup> of explosive ordnance-contaminated land over the five year period (60km<sup>2</sup> in Binh Dinh; 60 km<sup>2</sup> in Quang Ngai; and 30km<sup>2</sup> in Thua Thien Hue).<sup>50</sup>

In November 2022, NPA formally began activities in **Kon Tum province**, and together with the provincial military command (PMC), conducted a field visit to select the locations for EORE activities in 2023. The survey results

indicated a high need for EORE to be conducted in Kon Tum, especially in rural communes and districts which were former battlefields. A high percentage of minority ethnic groups still have a particularly low awareness of the risks associated with explosive ordnance. NPA collaborated with Project RENEW, a national partner from Quang Tri province, to conduct a workshop in Kon Tum to share experience on EORE implementation with key personnel from both civil and military departments at provincial and district levels.<sup>51</sup>

In **Quang Tri province**, the QTMAC plays a lead role in piloting and improving coordination of mine action operations. MAG and NPA continued to support QTMAC through various capacity development initiatives for QTMAC staff. A five-year action plan (2021–25) to implement mine action in the province was released in 2021. QTMAC now conducts QM for mine action operators in Quang Tri province.<sup>52</sup> A QM SOP, developed by QTMAC with support from MAG, NPA, and PTVN, was approved by the Provincial Mine Action Steering Committee in July 2022, and applied from August.<sup>53</sup>

Under the NPA-VNMAC TS project in **Thua Thien Hue province**, the MoD circular for TS (and NTS) was revised and strengthened, and training, management, supervision and monitoring provided for four MoD TS teams. Training was also provided to MoD teams in battle area clearance (BAC), based on NPA's SOPs, enabling MoD teams to directly compare procedures to their own SOPs, learn from NPA best practice, and improve overall clearance efficiency.<sup>54</sup> Two weeks of training was followed by joint deployment on clearance of CHAs in A Luoi district.<sup>55</sup>

## ENVIRONMENTAL POLICIES AND ACTION

Currently VNMAC does not have a TCVN or policy on environmental management. However, in a positive development, in 2022, a sub-task force on the environment was created under the MAWG.<sup>56</sup> VNMAC is considering how and when to incorporate environmental management into the TCVNs.

MAG Vietnam reported having an environmental SOP in place from MAG's Global Technical Standards, which are based on IMAS 07.13 and are followed throughout the survey and clearance process, in the absence of national guidelines.<sup>57</sup> In late 2022, MAG Vietnam started the process to change to its vehicle fleet to use a new high-quality diesel which reduces greenhouse gas emissions.<sup>58</sup>

NPA has developed a green-field tool that assesses environmental impact of mine action operations and includes guidelines for field operators to minimise negative environmental impacts, as well as ways to enhance positive contributions to the ecosystem. The tool is currently being trailed by NPA Vietnam and is scheduled to be implemented across all NPA programmes in 2024.<sup>59</sup> Furthermore, in Thua Thien Hue province, NPA has integrated questions on climate change and the environment into its NTS methodology through the implementation of a new survey approach NPA calls "Total Mine Action Survey" (TMAS). This new approach enables NPA to collect data and assess the impact of explosive ordnance and planned land release operations on the environment. It also enables NPA to collate information on the potential impact of climate change on contaminated areas and the level of climate resilience and disaster

46 Emails from Helene Kuperman, MAG, 10 April, 23 June 2020, and 31 March 2021; Jan Erik Støa, NPA, 24 June 2020; and Phạm Hoàng Hà, PeaceTrees Vietnam (PTVN), 11 May 2021.

47 Email from NPA Vietnam, 16 June 2023.

48 Emails from NPA Vietnam, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

49 Interview with Jan Erik Støa, NPA, Oslo, 8 June 2023.

50 Email from Havard Bach, Consultant, UNDP, 27 May 2022.

51 Email from NPA Vietnam, 16 June 2023.

52 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

53 Email from NPA Vietnam, 16 June 2023.

54 Emails from Kimberley McCosker, NPA, 21 April and 13 July 2022; and Sean Moorhouse, Senior Technical Advisor to VNMAC, NPA, 5 July 2023.

55 Email from NPA Vietnam, 16 June 2023.

56 Email from Sarah Goring, MAG, 5 April 2023.

57 Emails from Valentina Stivanello, MAG, 29 April 2022; and Sarah Goring, MAG, 5 April 2023.

58 Email from Sarah Goring, MAG, 5 April 2023.

59 Email from NPA Vietnam, 16 June 2023.

response planning. Environmental and climate change data collected through the TMAS is also made available for sharing with relevant external stakeholders, such as national or provincial authorities, to help inform climate change resiliency and adaptation initiatives. As part of the "TMAS", NPA also collects data on current EORE knowledge and potential needs during NTS, as well as on accident and victim records and needs.<sup>60</sup> NPA has also been working to develop new methodologies for soil sampling with a view to better identifying the possible environmental effects from any leaking of dangerous substances from explosive ordnance into the ground. The Hue Technical University has been assisting NPA to test and develop this during survey and clearance. This will be further developed and tested in 2023 as the results are not yet conclusive.<sup>61</sup>

NPA provided environmental training to all operational personnel in May 2022. For bomb cutting and open burning, NPA Vietnam is working in partnership with a local waste treatment facility, to help ensure proper treatment and remediation of any liquid or soil contaminated with residual

substances resulting from these activities. NPA Vietnam is also conducting a small project to support a traditional village in enhancing its capacity for the mass production of sandbags made from a native grass. The project aims to test the feasibility of the sandbags as a replacement for the plastic sandbags commonly used in NPA's EOD operations.<sup>62</sup>

PTVN has an environmental policy which it applies to its all its operations. It supports best practices and methodology to minimise potential harm to the environment from demining operations, including: supporting the project testing, training, and operating the bomb-cutting machine; recycling to minimise one-time use of supplies in field operations (for example, by using rechargeable batteries in operations).<sup>63</sup> PTVN is conducting a project to better understand the current and future impacts of environmental and climate change-related hazards on mine action, by overlaying environmental and climate change data with mine action data to help inform resilience and adaptation planning and operating.<sup>64</sup>

## GENDER AND DIVERSITY

In 2013, Vietnam amended Article 26 of the Constitution so that "male and female citizens are equal in all aspects" and prohibit gender discrimination. State policy is to guarantee equal gender rights and opportunities. In terms of national implementation, women participate more in victim assistance and EORE, while national survey/clearance and information management are still male-dominated and managed by the Vietnam Army.<sup>65</sup> A MAWG sub-task force on gender was established in 2022 and in December of that year MAG co-hosted a workshop in Hanoi on gender mainstreaming with UNDP.<sup>66</sup>

MAG, NPA, and PTVN all have policies and strategies on gender, diversity and inclusion to ensure the equal participation, and their respective operations data are disaggregated by sex and age.<sup>67</sup>

**Table 1: Gender composition of INGO operators in 2022<sup>68</sup>**

Organisation*	Total staff	Women employed	Total staff in managerial or supervisory positions	Women in managerial or supervisory positions	Total staff in operational positions	Women in operational positions
MAG	735	211	42	14	686	190
NPA	370	111	52	10	303	80
PTVN	218	47	16	5	184	34

<sup>60</sup> Ibid.

<sup>61</sup> Email from Jan Erik Støa, NPA, 7 July 2023.

<sup>62</sup> Email from NPA Vietnam, NPA, 16 June 2023.

<sup>63</sup> Email from Phạm Hoàng Hà, PTVN, 9 May 2022.

<sup>64</sup> Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

<sup>65</sup> Email from GICHD, 5 May 2023.

<sup>66</sup> Emails from Sarah Goring, MAG, 5 April and 19 May 2023.

<sup>67</sup> Emails from Simon Rea, MAG, 24 April 2019; Resad Junuzagic, NPA, 6 May 2019; Phạm Hoàng Hà, PTVN, 11 May 2021; and GICHD, 5 May 2023.

<sup>68</sup> Emails from Sarah Goring, MAG, 5 April; NPA Vietnam, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

MAG has increased the overall percentage of female staff employed, particularly in recent years. Compared to the previous year, current data represents a small increase in the overall proportion of female staff and the proportion of women in operational positions, and a more notable increase in the proportion of women in managerial/supervisory level positions, which was 21% in April 2022.<sup>69</sup> MAG promotes equal opportunities in employment and encourages women and people with disabilities to apply for jobs, as well as offering practices such as flexible working for office-based staff where possible and a good policy on maternity leave. Safeguarding continues to be a priority for MAG to ensure that it provides a safe and trusted environment for anyone that comes into contact with its work. In 2022, MAG continued to strength in this area through improved training materials and communications on the topic, and has ensured safeguarding mechanisms are accessible for all staff, including those who do not have access to email.<sup>70</sup>

NPA continues to work towards gender equality in the recruitment process and in the workplace.<sup>71</sup> NPA has established a five-person internal gender working group. The members of the group will be responsible for implementing more comprehensive gender and diversity mainstreaming activities from 2023.<sup>72</sup> NPA continued to promote its all-female BAC team, the first of its kind in Vietnam, to

highlight the important role of women in mine action to national and provincial partners. Gender and diversity mainstreaming remains a priority for NPA when working with national authorities, and NPA Vietnam continues to take every opportunity available to influence VNMAC, QTMAC, the Thua Thien Hue DBU, and the Quang Binh DBCU towards positive gender and diversity mainstreaming.

In addition, NPA's provincial programme manager in Quang Tri province, Nguyen Thi Dieu Linh, met with Prime Minister Pham Minh Chinh during a national mine action event in 2022 hosted by the MoD. During a visit in September 2022 from Ms Bonnie Jenkins, Under Secretary for Arms Control and International Security at the US Department of State, participated in a round table discussion with representatives from MAG, NPA, and PTVN, on the role that women play in mine action.<sup>73</sup>

PTVN has gender and diversity policies in place and ensures equal opportunities for all staff within its recruitment, pay, training, and procedures for promotion. PTVN regularly measures and tracks personnel data, which helps it better mainstream gender and diversity. PTVN operational capacity includes an all-female demining team, led by a female IMAS EOD level 3 team leader.<sup>74</sup>

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## INFORMATION MANAGEMENT AND REPORTING

Information management is a top priority for VNMAC,<sup>75</sup> and in 2022 VNMAC put significant efforts into improving information management and data collection capacity nationwide. Decree 18 and Guiding Circular 195 make VNMAC responsible for the national information management system and give it a clear mandate and legal authority. All provinces and international organisations nationwide are now required to send operational reports to VNMAC.<sup>76</sup> With support from NPA capacity development personnel, VNMAC developed regulations for a national Information Management System. The regulations were subsequently issued by VNMAC on 25 July 2022, following a consultative review process. The regulations establish a national information management system for standardised reporting of all mine action data from across Vietnam's provinces into the national IMSMA database held by VNMAC. The regulations also include the

responsibilities of each stakeholder, including the collection, reporting, and provision of data on mines and ERW. VNMAC now has authority over mine action data, which it is beginning to exercise by requiring all Provincial Military Commands or provincial mine action authorities (if any) to collect and report data to the VNMAC IMU on a quarterly basis,<sup>77</sup> which is a legal requirement of the IM regulations.<sup>78</sup> The adoption of the legal framework also paves the way for provincial authorities to be recognised as having a key role in the reporting system between operators and VNMAC.<sup>79</sup>

Consolidation of data from five different IMSMA databases into one national IMSMA database was finished in December 2022. The consolidated IMSMA system is now operational and well managed in VNMAC. VNMAC said that it was working with all on-going project, as well as with provinces, to collect and consolidate previous data into the national database.<sup>80</sup>

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69 Email from Valentina Stivanello, MAG, 29 April 2022.

70 Emails from Sarah Goring, MAG, 5 April and 7 July 2023.

71 Email from Resad Junuzagic, NPA, 6 May 2019.

72 Email from NPA Vietnam, NPA, 16 June 2023.

73 Emails from NPA Vietnam, NPA, 16 June 2023; and Sarah Goring, MAG, 7 July 2023.

74 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

75 Interview with Mr Hop, VNMAC, Geneva, 22 June 2023.

76 Email from VNMAC, 14 July 2023.

77 Emails from Kimberley McCosker, Project Manager, NPA, 13 May 2021; and VNMAC, 14 July 2023.

78 Email from Tim Horner, NPA, 7 September 2022.

79 Email from Kimberley McCosker, NPA, 13 May 2021.

80 Email from VNMAC, 14 July 2023.

The national database process continues to be supported by NPA's capacity development project, funded by the PM/WRA. In recent years significant effort has been made to collect and migrate historic data (including paper records from provincial military commands and Landmine Impact Survey (LIS) data), and all known data is now part of the new consolidated national IMSMA database.<sup>81</sup> Representatives from each of Vietnam's 63 provinces and 7 regions, including provincial and regional military commands, have now been trained on how to use the new national information management system, have been given hardware containing IMSMA with all provincial data. This enables each of the provinces to fulfil their obligation to report mine action data into the national database.<sup>82</sup> VNMAC personnel are now capable of conducting IM training without the assistance of US-funded advisors – a significant indicator of VNMAC's desire to have ownership over the national information management system and related trainings, and of their continually increasing capacity for information management.<sup>83</sup> All INGOs/operators can access the provincial IMSMA database through the approval of the provincial authorities where they work, or they can make a request to VNMAC for the information.<sup>84</sup>

VNMAC has now standardised the IMSMA reporting forms and all operators use the same forms, having developed the templates through a series of workshops, including consultation with international and national experts. The templates were also piloted by experienced provincial authorities such as QTMAC and Hue DBU.<sup>85</sup> The standardised forms help enable VNMAC to routinely collect and input new mine action information into the centrally-owned standardised database.<sup>86</sup> Operators report to the database units in the province where they operate, and the provincial database units then report to VNMAC.<sup>87</sup> In addition, operators also send annual reports to VNMAC directly, as requested by VNMAC.<sup>88</sup> As at May 2023, 12 of the 63 provinces had reported mine action data to VNMAC – a number which VNMAC expects to rise, as it continues to provide direction for reporting to the remaining provinces.<sup>89</sup>

A Circular adopted in October 2021, relating to the QM procedure in survey and clearance, includes articles regulating the information QM process.<sup>90</sup> The provinces are responsible for quality assurance (QA) of data, typically by

the respective DBU or PMC. VNMAC quality checks data for consistency and completeness. VNMAC is also responsible for the QA of the data received by the commercial operators.<sup>91</sup>

In **Quang Binh** province, MAG initiated a partnership with NPA and PTVN in October 2019, which includes support to the provincial department of foreign affairs to establish a central database in the province, based on the Quang Tri database unit model.<sup>92</sup> NPA is responsible for the capacity development to the Quang Binh DBCU, which is also supported by VNMAC.<sup>93</sup> The reporting system and tasking from the Quang Binh DBCU became effective in 2021 and is said to have been conducted efficiently by the DBCU, with the DBCU reporting to the VNMAC.<sup>94</sup> The operators in Quang Binh (MAG, NPA, and PTVN) report their data to the DBCU, which in turn reports quarterly to VNMAC.<sup>95</sup>

In **Quang Tri** province, the QTMAC database unit is able autonomously to collect, collate, analyse, and task operators based on information shared by all mine action stakeholders in the province (domestic and international, civilian and military).<sup>96</sup> The database provides a basis for effective planning and tasking. Data hosted at QTMAC's DBU are believed to be accurate and up to date, and have been the catalyst for greater coordination across all stakeholders within the province.<sup>97</sup> Clearance operators in Quang Tri report to QTMAC, and QTMAC then reports to VNMAC on a quarterly basis.<sup>98</sup>

In October 2021, a project was established for NPA to support the creation of the **Thua Thien Hue** Department of Foreign Affairs (DoFA) database unit, and the DBU was operational from November. Norway supports the salaries of the five DBU officers, equipment, and running costs. Training in IMSMA was provided by NPA and VNMAC in March 2022 and all five DBU personnel were accredited. NPA, the only international operator in Thua Thien Hue, is reporting operational data to the DBU, and they are subsequently reporting to VNMAC.<sup>99</sup>

According to international INGOs, Binh Dinh is the next key province that VNMAC wants to focus on.<sup>100</sup>

81 Emails from NPA Vietnam, NPA, 16 June 2023; and VNMAC, 14 July 2023.

82 Emails from Kimberley McCosker, NPA, 21 April 2022; Tim Horner, NPA, 7 September 2022; and NPA Vietnam, NPA, 16 June 2023.

83 Email from NPA Vietnam, NPA, 16 June 2023.

84 Ibid.

85 Email from VNMAC, 14 July 2023.

86 Emails from Sarah Goring, MAG, 5 April 2023; NPA Vietnam, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

87 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

88 Email from NPA Vietnam, 16 June 2023.

89 Interview with Mr Hop, VNMAC, Geneva, 22 June 2023.

90 Email from VNMAC, 14 July 2023.

91 Email from NPA Vietnam, 16 June 2023.

92 Email from Helene Kuperman, MAG, 10 April 2020.

93 Email from Kimberley McCosker, NPA, 8 April 2021.

94 Ibid., 21 April 2022.

95 Email from Havard Bach, UNDP, 27 May 2022.

96 Email from Helene Kuperman, MAG, 10 April 2020.

97 Emails from Resad Junuzagic, NPA, 6 May 2019; and Jan Erik Støa, NPA, 24 June 2020.

98 Email from Sarah Goring, MAG, 5 April 2023.

99 Email from Kimberley McCosker, NPA, 21 April 2022.

100 Ibid.

## PLANNING AND TASKING

Decision on Programme 504, approved by the Prime Minister in April 2010, set out a National Mine Action Plan for 2010–25. The plan, which covers mines, CMR, and other ERW, aimed to “mobilize domestic and international resources in making efforts to minimize and finally create impact-free environment for social economic development.” The programme foresees completing an impact survey to map contamination nationwide, developing national standards, and establishing a database management centre.<sup>101</sup> It called for clearance of 8,000km<sup>2</sup> of ERW between 2016 and 2025.<sup>102</sup> Vietnam does not yet have a strategy specifically targeting CMR and plans to address all ERW comprehensively. VNMAC would benefit from elaborating a national mine action strategy and annual work plans for CMR, with clear targets for survey and clearance.

During the national conference to review the achievement of Programme 504 in February 2022 in Hanoi, VNMAC shared the 10-year report on the progress and achievements of Vietnam on mine action (i.e. survey, EOD, clearance, risk education and victim assistance).<sup>103</sup> VNMAC also shared the five-year National Mine Action Plan (2021–25), which has been developed to implement the final period of the current National Mine Action plan. The plan, which was elaborated by the government without input from INGOs or other members of the then LWG (now the MAWG), also seeks to develop and implement TS of “zoning areas” confirmed as contaminated by mines and ERW, as the basis for strategic planning.<sup>104</sup> In June 2022, VNMAC said the five-year plan was still undergoing Prime Ministerial review regarding two final issues concerning the budget and capacity for implementation of the plan.<sup>105</sup> In June 2023, the National Action Plan in Mine Action 2023–25 (now a three-year plan), submitted by the MoD, was approved by the Prime Minister.<sup>106</sup>

VNMAC had an annual work plan for 2022<sup>107</sup> and has one for 2023 too,<sup>108</sup> but neither report has been shared externally.<sup>109</sup>

VNMAC has said that its mission for the period 2021–25 includes objectives to complete the organisational structure and legal framework and policies; ensure effective mine action management; foster international cooperation to mobilise necessary resources; complete the information management system for mine action nationwide; and implement survey and clearance activities over 5,000km<sup>2</sup>, with priority in heavily contaminated areas.<sup>110</sup>

There is currently no national prioritisation system for CMR clearance<sup>111</sup> and at present there is insufficient data in the national IMSMA database to prioritise on a task-by-task basis. Prioritisation at the task or lower administrative levels is currently the responsibility of provinces.<sup>112</sup>

In **Quang Binh province**, the system for reporting and tasking by the provincial DBCU became effective in 2021 and is said to have been conducted efficiently by the DBCU, with the DBCU reporting to the VNMAC.<sup>113</sup> A province-wide prioritisation system is now being applied in Quang Binh province.<sup>114</sup>

In **Quang Tri province**, there is a prioritisation process in place and an effective system for task allocation, both managed by QTMAC.<sup>115</sup> The criteria for prioritisation were established based on consultation and agreement between QTMAC and operators. The QTMAC tasks all mine action operators in the province and annual work plans are approved by provincial authorities, in cooperation and dialogue with operators.<sup>116</sup>

In **Thua Thien Hue province**, tasking for INGO operators is decided by provincial authorities in accordance to the provincial socio-economic development plan.<sup>117</sup>

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Vietnam has both National Technical Regulations (QCVNs), which are mandatory and similar in content to SOPs, and National Mine Action Standards (TCVNs), which despite being standards are considered optional by VNMAC.<sup>118</sup>

101 STA Capacity Development Project (NPA), ‘Vietnamese legal framework in mine action’, January 2023.

102 Prime Minister, “Decision on Approval of the National Mine Action Plan Period 2010–2025”, Hanoi, 21 April 2010.

103 Emails from Valentina Stivanello, MAG, 29 April 2022; and Phạm Hoàng Hà, PTVN, 9 May 2022.

104 Emails from Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021; Valentina Stivanello, MAG, 29 April and 20 June 2022; and Kimberley McCosker, NPA, 22 June 2022.

105 Interview with Mr Phuc, VNMAC, Geneva, 23 June 2022.

106 Email from NPA Vietnam, 7 July 2023.

107 Email from Kimberley McCosker, NPA, 21 April 2022.

108 Email from VNMAC, 14 July 2023.

109 Email from NPA Vietnam, 16 June 2023.

110 Email from Doan Thi Hong Hai, Capacity Development Project Officer, NPA, on behalf of Mr Phuc, VNMAC, 3 June 2022.

111 Emails from Sarah Goring, MAG, 5 April 2023 and NPA Vietnam, 16 June 2023.

112 Email from Kimberley McCosker, NPA, 21 April 2022.

113 Ibid.

114 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

115 Emails from Simon Rea, MAG, 16 June 2019; Resad Junuzagic, NPA, 6 May 2019; Helene Kuperman, MAG, 31 March 2021; Phạm Hoàng Hà, PTVN, 11 May 2021; and Kimberley McCosker, NPA, 13 May 2021.

116 Emails from Jan Erik Støa, NPA, 6 April 2020; Simon Rea, MAG, 24 April 2019; Helene Kuperman, MAG, 31 March 2021; and Phạm Hoàng Hà, PTVN, 3 May 2023.

117 Email from Jan Erik Støa, NPA, 6 April 2020.

118 Email from Resad Junuzagic, NPA, 6 May 2019.

VNMAC made significant progress in recent years to review and update the QCVNs to help bring them into line with IMAS.<sup>119</sup> The former QCVNs and existing TCVNs were drafted more with the MoD in mind, used terminology inconsistently, and chapters contradicted themselves.<sup>120</sup> INGOs welcomed the inclusiveness of the revision process,<sup>121</sup> which involved the establishment of four working groups, co-chaired by VNMAC, and extensive consultation with operators and international organisations, including the GICHD.<sup>122</sup>

A guiding Circular (No. 59)<sup>123</sup> was issued by the MoD on 30 August 2022 to promulgate the QCVNs, which include general provisions, technical regulations, regulations on safety and on management, responsibilities of organisations and individuals, and organisation and implementation.<sup>124</sup> The revised QCVNs were approved in September 2022,<sup>125</sup> and rolled out across operators. VNMAC announced in a MAWG meeting that training would be given on the new QCVNs, but as at April 2023 this had yet to take place.<sup>126</sup> In Quang Tri, QTMAC coordinated amongst operators to provide a consolidated report to VNMAC on any discrepancies between the QCVNs and operator SOPs.<sup>127</sup>

Revision of the TCVNs is still underway. As at June 2023, fourteen TCVNs had been completed and were awaiting approval and one on risk management was in progress, which the GICHD was helping VNMAC to finalise.<sup>128</sup> VNMAC expected the review of the TCVNs to be completed in the last quarter of 2023.<sup>129</sup> A further TCVN on environmental protection in mine action is also expected to be developed.<sup>130</sup>

A corresponding Circular (Circular 121) related to the revised NTS, TS, and clearance procedures was issued in September 2021, in addition to Circular 122 on guidelines for determining the rate per shift of demining machines and equipment and Circular 122 on guidelines for determining estimated norm and managing costs in the explosive ordnance clearance estimates.<sup>131</sup>

Circular 195 covers the whole QM system. In addition, QTMAC developed a field-orientated QM SOP which was approved by the Provincial Authority in July 2022, for use in Quang Tri province.<sup>132</sup> A corresponding Circular relating to the QM procedure in survey and clearance, was adopted in October 2021.<sup>133</sup>

## OPERATORS AND OPERATIONAL TOOLS

Most clearance in Vietnam is conducted by the Army Engineering Corps and military-owned commercial companies. Outside the central provinces, the current strength and deployment of military-related demining is unknown.

Vietnamese officials have previously reported that it had 250 mine clearance and BAC teams nationally. Vietnam reportedly has more than 70 military-owned companies undertaking clearance related to infrastructure and commercial and development projects.<sup>134</sup>

International operators active in 2022 included: MAG, working in Quang Binh and Quang Tri provinces; NPA, working in Quang Binh, Quang Tri, and Thua Thien Hue provinces, and most recently also in Kon Tum province since late 2022; and PTVN, who have been working in Quang Tri province since 1995 and now also in Quang Binh.<sup>135</sup>

119 Emails from Kimberley McCosker, NPA, 8 April 2021; and Helene Kuperman, MAG, 31 March 2021.

120 Emails from Resad Junuzagic, NPA, 6 May 2019; Jan Erik Støa, NPA, 6 April 2020; and Helene Kuperman, MAG, 10 April 2020.

121 Email from Kimberley McCosker, NPA, 8 April 2021.

122 Emails from Kimberley McCosker, NPA, 8 April 2021 and 21 April 2022; Valentina Stivanello, MAG, 29 April 2022; GICHD, 24 April 2022; and Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

123 Circular No. 59/2022 on promulgation of the National Technical Regulations (QCVN) in mine action.

124 STA Capacity Development Project (NPA), "Vietnamese legal framework in mine action", January 2023.

125 Email from Tim Horner, NPA, 7 September 2022.

126 Email from Sarah Goring, MAG, 5 April 2023.

127 Ibid.

128 Interview with Mr Hop, VNMAC, Geneva, 22 June 2023.

129 Email from VNMAC, 14 July 2023.

130 Emails from Sarah Goring, MAG, 5 April 2023; NPA Vietnam, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

131 "Vietnamese legal framework in mine action", January 2023; and email from Sarah Goring, MAG, 5 April 2023.

132 Emails from Kimberley McCosker, NPA, 8 April 2021; and Tim Horner, NPA, 7 September 2022.

133 "Vietnamese legal framework in mine action", January 2023; and emails from Sarah Goring, MAG, 5 April 2023; and VNMAC, 14 July 2023.

134 Interview with Sr. Col. Nguyen Thanh Ban, Engineering Command, Hanoi, 18 June 2013; email from Executive Office of the National Steering Committee, 6 August 2012; and interviews with mine action stakeholders, Hanoi, 16–20 April 2018; and email from Lee Moroney, Golden West Humanitarian Foundation, 22 June 2019.

135 Emails from Sarah Goring, MAG, 5 April 2023; NPA Vietnam, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

In 2022, MAG deployed 41 clearance teams, totalling 410 deminers (excluding team leaders, deputy team leaders, and medics),<sup>136</sup> which was an increase on the capacity in 2021 (40 clearance teams, totalling 360 deminers).<sup>137</sup> Clearance personnel also conduct TS, but MAG stopped conducting TS in February 2022 and those TS teams transferred to clearance. MAG also deployed two NTS teams in 2022, totalling four community liaison officers.<sup>138</sup> This represents a significant drop in NTS capacity, compared to the seven NTS teams, totalling fourteen community liaison officers, deployed in 2021.<sup>139</sup>

Clearance teams are supported by manual vegetation-cutting teams to prepare the ground. MAG has found those teams greatly increase the efficiency of the clearance teams, as personnel can focus on clearance without diversion to the clearing away of vegetation. MAG has a total of 14 clearance support teams, totalling 70 employees. In addition MAG deploys two multi-task teams (MTTs) conducting emergency EOD spot tasks (one in each province, with each MTT comprising a team leader, a deputy team leader, four deminers and a medic).<sup>140</sup> As at April 2023, MAG continued to use a drone in Quang Tri province.<sup>141</sup>

In 2022, NPA continued operations in Quang Binh, Quang Tri, and Thua Thien Hue provinces, and conducted capacity development activities with VNMAC in Hanoi and provincial mine action units in Quang Tri, Quang Binh, and Thua Thien Hue provinces. In addition, NPA formally began activities in Kon Tum province in November 2022, starting with EORE. NPA personnel and the PMC jointly conducted a field visit to select the locations for EORE activities in 2023.<sup>142</sup> In 2022, NPA Vietnam had a total of 7 NTS teams (totalling 15 personnel); 14 TS teams (totalling 87 personnel); 10 clearance

teams (totalling 131 personnel), and five mechanical assets. Following the completion of TS in Quang Tri, in April 2023, 10 TS teams were retrained as clearance personnel.<sup>143</sup> The operational data feedback loop and sharing of knowledge between MAG and NPA as part of their partnership in Quang Tri continues and will also be replicated in Quang Binh province.<sup>144</sup>

NPA is implementing an upgraded CMRS methodology (CMRS Version 6) in Quang Tri province, following a field trial from December 2021 to March 2022. The trial sought to increase efficiency of NPA's TS methodology by trialling a revised eight-person team structure, searching only three sub-boxes and identifying only one green fadeout box on the boundary of each CHA. Based on the successful trial of this methodology, CMRS Version 6 has been successfully implemented by all TS teams in Quang Tri province, resulting in doubling of daily productivity and reducing the time required for completing TS tasks.<sup>145</sup>

PTVN operates in Quang Tri province and from June 2020, extended its programme into Quang Binh province. After a lengthy approval process, PTVN's field operations began in Quang Binh province in early 2021.<sup>146</sup> PTVN undertakes EOD, clearance, and integrated risk education, but does not conduct CMRS.<sup>147</sup> In 2022, PTVN deployed 11 BAC teams and 2 MTTs in Quang Binh (whose main responsibility was EOD spot tasks, but which if available, also conducted CHA clearance), with a total of 184 technicians. Capacity in 2022 was an increase on 2021, with one additional BAC team in Quang Tri and four MTTs in Quang Binh scaled up to 2 MTTs and 2 BAC teams, plus and 1 vegetation cutting team and 2 field operation assistants.<sup>148</sup>

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136 Email from Sarah Goring, MAG, 5 April 2023.

137 Email from Valentina Stivanello, MAG, 29 April 2022.

138 Email from Sarah Goring, MAG, 5 April 2023.

139 Email from Valentina Stivanello, MAG, 29 April 2022.

140 Emails from Valentina Stivanello, MAG, 20 June 2022; and Sarah Goring, MAG, 19 May 2023.

141 Email from Sarah Goring, MAG, 5 April 2023.

142 Email from NPA Vietnam, 16 June 2023.

143 Ibid.

144 Emails from Helene Kuperman, MAG, 10 April 2020; and Kimberley McCosker, NPA, 8 April 2021.

145 Email from NPA Vietnam, 16 June 2023.

146 Email from Phạm Hoàng Hà, PTVN, 11 May 2021.

147 Ibid.

148 Email from Phạm Hoàng Hà, PTVN, 9 May 2022.

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

### LAND RELEASE OUTPUTS IN 2022

In 2022, a total of approximately 51.2km<sup>2</sup> of cluster munition-contaminated area was cleared by INGOs in Vietnam (see Table 2). No clearance was conducted under the KV-MAP project, for which operations ended in 2021 and the next phase of the project had yet to begin. No data has been made available on CMR clearance by the Army Engineering Corps or military-owned commercial companies. A total of at least 15,482 submunitions were reported to have been destroyed in 2022: 8,684 during clearance, 5,350 during TS, and 1,448 during EOD spot tasks, based on INGO data.

### SURVEY IN 2022

As at July 2023, VNMAC was still consolidating 2022 survey data reported by the provinces, into the national database.<sup>149</sup> VNMAC reported that NTS by INGOs had been completed in 126 villages in 2022 (19 by MAG in Quang Binh and 107 by NPA (78 in Quang Binh, 25 in Quang Tri, and 4 in Thua Thien Hue)).<sup>150</sup>

Based on data from INGOs, nearly 132.74km<sup>2</sup> was confirmed as contaminated with CMR in 2022 in Quang Binh, Quang Tri, and Thua Thien Hue provinces (see Table 2), during which 5,350 submunitions were destroyed.<sup>151</sup> This was a significant increase on the 82km<sup>2</sup> of area confirmed in 2021.<sup>152</sup>

**Table 2: Technical survey of cluster munition-contaminated area in 2022 (based on INGO data)<sup>153</sup>**

Operator	Province	Area surveyed (m <sup>2</sup> )	Area confirmed (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed
MAG	Quang Binh	*725,000	342,176	15	0
NPA	Quang Binh	12,902,500	29,592,453	807	134
NPA	Quang Tri	56,537,500	101,178,259	4,480	3,386
NPA	Thua Thien Hue	690,000	1,623,073	48	26
<b>Totals</b>		<b>70,855,000</b>	<b>132,735,961</b>	<b>5,350</b>	<b>3,546</b>

\* The total area surveyed included box skipping, of which 457,500m<sup>2</sup> was physically surveyed.

MAG confirmed just over 0.34km<sup>2</sup> as containing CMR in 2022,<sup>154</sup> a huge decrease on the more than 10.75km<sup>2</sup> confirmed the previous year.<sup>155</sup> The decrease was because MAG stopped conducting TS in February 2022.<sup>156</sup> NPA increased the amount of land it surveyed in 2022, largely as a result of enhanced CMRS methodology implemented in Quang Tri province, following the previously mentioned field trial. NPA confirmed nearly 132.4km<sup>2</sup> as containing CMR in 2022, an 86% increase on the 71.1km<sup>2</sup> confirmed as CHA the previous year.<sup>157</sup> In Quang Tri, one of Vietnam's most heavily contaminated provinces, NPA completed NTS of all available villages in April 2023, just leaving 111 villages which are not accessible to international operators for survey.<sup>158</sup>

<sup>149</sup> Email from VNMAC, 14 July 2023.

<sup>150</sup> Ibid.

<sup>151</sup> Emails from Sarah Goring, MAG, 5 April 2023; and NPA Vietnam, 16 June 2023.

<sup>152</sup> Emails from Kimberley McCosker, NPA, 21 April 2022; and Valentina Stivanello, MAG, 29 April 2022.

<sup>153</sup> Emails from Sarah Goring, MAG, 5 April 2023; and NPA Vietnam, 16 June 2023. VNMAC also reported the same amount of area technically surveyed by INGOs in 2022 and almost the same amount of area confirmed as containing CMR (the difference in VNMAC data was that it did not include the 342,176m<sup>2</sup> of hazardous area confirmed by MAG in Quang Binh) (email from VNMAC, 14 July 2023).

<sup>154</sup> Ibid.

<sup>155</sup> Email from Valentina Stivanello, MAG, 29 April 2022.

<sup>156</sup> Email from Sarah Goring, MAG, 5 April 2023.

<sup>157</sup> Email from NPA Vietnam, 16 June 2023.

<sup>158</sup> Ibid.

## CLEARANCE IN 2022

A total of more than 51.2km<sup>2</sup> of cluster munition-contaminated area was cleared in 2022, with the destruction of 10,132 submunitions (8,684 during clearance and a further 1,448 submunitions during spot tasks), based on INGO data. As already mentioned above, a further 5,350 submunitions were destroyed during TS.<sup>159</sup> INGO CMR clearance in 2022 was an increase on the equivalent clearance in 2021 of 48km<sup>2</sup> of cluster munition-contaminated area.

VNMAC reported a slightly higher total of nearly 51.4km<sup>2</sup> for the total cleared by INGOs in 2022 (of which nearly 48.33km<sup>2</sup> was agricultural land, nearly 0.05km<sup>2</sup> was development land, and nearly 3.02km<sup>2</sup> was clearance of "other land"). It said that a total of 15,625 submunitions, 28 bombs, and 26,060 landmines and other explosive ordnance had been discovered and destroyed by INGOs during the year (during survey, clearance, and spot tasks). As at July 2023, VNMAC was still consolidating 2022 clearance data reported by the provinces, into the national database,<sup>160</sup> which is presumed to include clearance by commercial operators and the military. VNMAC said that there was not yet enough data to compare the amount of land cleared in 2022 with that of the previous year.<sup>161</sup>

**Table 3: CMR clearance in 2022 (based on INGO data)<sup>162</sup>**

Operator	Operator	Area cleared (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed
Quang Binh	MAG	10,244,008	3,505	2,375
Quang Binh	PTVN	1,478,140	246	145
Quang Tri	MAG	24,077,850	2,958	5,397
Quang Tri	NPA	7,295,832	1,209	2,464
Quang Tri	PTVN	6,608,875	208	3,594
Thua Thien Hue	NPA	1,500,115	558	587
<b>Totals</b>		<b>51,204,820</b>	<b>8,684</b>	<b>14,562</b>

N/K = not known

In addition, 1,448 submunitions were destroyed during EOD spot tasks in 2022 (MAG destroyed 360 submunitions (330 in Quang Binh and 30 in Quang Tri);<sup>163</sup> NPA destroyed 40 submunitions (27 in Thua Thien Hue and 13 in Quang Tri);<sup>164</sup> PTVN destroyed 1,048 submunitions (115 in Quang Tri province and 933 in Quang Binh province).<sup>165</sup>

MAG's clearance of more than 34.3km<sup>2</sup> in 2022, was an increase of some 2km<sup>2</sup> on output the previous year.<sup>166</sup> NPA's clearance of nearly 8.8km<sup>2</sup> in 2022, was an increase on the 7.3km<sup>2</sup> cleared the previous year.<sup>167</sup> PTVN's CMR clearance output of nearly 8.1km<sup>2</sup> in 2022, was an increase on the 6.6km<sup>2</sup> cleared in 2021, and was achieved through increased clearance capacity. In addition to clearance of CHAs containing CMRs, PTVN also cleared a further 160,774m<sup>2</sup> in Quang Tri and Quang Binh in 2022, for the purpose of community development (request-based clearance), during which it found and destroyed 74 submunitions and 314 other types of explosive ordnance. In addition to submunitions and other ERW, PTVN also found one anti-personnel mine during CMR clearance in 2022 and six anti-personnel mines during EOD spot tasks.<sup>168</sup>

<sup>159</sup> Emails from Kimberley McCosker, NPA, 21 April 2022; Valentina Stivanello, MAG, 29 April 2022; Phạm Hoàng Hà, PTVN, 9 May 2022; and Havard Bach, UNDP, 27 May 2022.

<sup>160</sup> Email from VNMAC, 14 July 2023.

<sup>161</sup> Ibid.

<sup>162</sup> Emails from Sarah Goring, MAG, 5 April 2023; NPA Vietnam 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

<sup>163</sup> Email from Sarah Goring, MAG, 5 April 2023.

<sup>164</sup> Email from NPA Vietnam, 16 June 2023.

<sup>165</sup> Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

<sup>166</sup> Emails from Valentina Stivanello, MAG, 29 April 2022 and Sarah Goring, MAG, 5 April 2023.

<sup>167</sup> Email from NPA Vietnam, 16 June 2023.

<sup>168</sup> Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

## PROGRESS TOWARDS COMPLETION

Vietnam has not set a target date for the completion of CMR clearance. In its national mine action plan for 2010 to 2025 it called for the clearance of 8,000km<sup>2</sup> of ERW from 2016 to 2025<sup>169</sup> but did not specify how much of this should be CMR. The lack of a baseline of CMR contamination and a lack of information at a national level about ongoing survey and clearance across the country makes it difficult to understand both Vietnam's annual progress in reducing CMR contamination and how this contributes to the completion of CMR clearance. However, it is a positive development that VNMAC is beginning to support the expansion of CMRS – from in Quang Tri and Thua Thien Hue provinces, into new provinces, such as the US-funded consortium project in Quang Binh.<sup>170</sup>

VNMAC said that COVID-19 had a considerable effect on survey and clearance operations in 2022.<sup>171</sup> MAG reported that the COVID-19 pandemic continued to disrupt its operations in 2022, especially in the first quarter, when significant numbers of MAG staff either tested positive for COVID-19 or were confirmed as close contacts. The COVID-19 situation improved in the second quarter of 2022 with the number of MAG staff infected significantly decreasing. In early April, the Government lifted most of the restrictions imposed to prevent the spread of COVID-19, including the isolation of close contacts. As a result, activities resumed without impact from COVID-19 and MAG was able to return to operating at full capacity and able to catch up to targets.<sup>172</sup>

PTVN also continued to feel some impact of the COVID-19 pandemic in 2022, with staff suffering from COVID-19 reducing human resources, but to a lesser extent than the previous year.<sup>173</sup>

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

The GICHD has been supporting VNMAC, NPA, and UNDP in the review of the current legislative and normative framework, with a focus on residual risk management. As a preparatory step, the GICHD and the VNMAC, with the support of UNDP and NPA, have worked on an assessment of the current residual risk management capacity and the required or desired capacities that VNMAC needs to manage residual contamination.<sup>174</sup> The GICHD and VNMAC co-organised a regional workshop on risk management and liability in land release and the management of residual contamination for Southeast Asia, in Hanoi from 22 to 26 May 2023.<sup>175</sup>

169 Prime Minister, "Decision on Approval of the National Mine Action Plan Period 2010–2025", Hanoi, 21 April 2010.

170 Email from Kimberley McCosker, NPA, 8 April 2021.

171 Email from VNMAC, 14 July 2023.

172 Email from Sarah Goring, MAG, 5 April 2023.

173 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

174 Email from GICHD, 24 April 2022.

175 Email from Sean Moorhouse, NPA, 5 July 2023.

### KEY DATA

**CLUSTER MUNITION  
CONTAMINATION:  
UNKNOWN**

SUBMUNITION  
CLEARANCE IN 2022

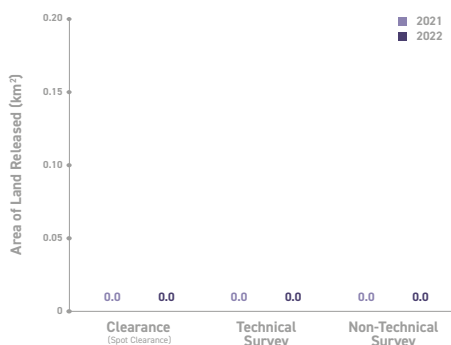
**0**km<sup>2</sup>

SPOT CLEARANCE

SUBMUNITIONS  
DESTROYED IN 2022

**271**

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

Yemen's internationally recognised government (IRG) laid out the general principles of a strategy for the mine action sector in the areas under its control in its Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request submitted in March 2022 seeking an additional five years to its mine clearance deadline. YEMEN is not yet a State Party to the Convention on Cluster Munitions (CCM). In the south, the Yemen Executive Mine Action Centre (YEMAC) and the Yemen Mine Action Coordination Centre (YMACC), along with their respective implementing partners gave priority to rolling out the Yemen Baseline Survey intended to capture the extent of all explosive ordnance contamination. Three international demining organisations visited Sanaa in February 2023 to negotiate a memorandum of understanding (MoU) with YEMAC North that would provide a basis when signed for operating in areas of Yemen controlled by Ansar Allah De Facto Authorities. At the time of writing, the MoU had yet to be signed by YEMAN North.<sup>1</sup> The United Nations Development Programme (UNDP) decided to end its emergency mine action support to Yemen at the end of June 2023 due to lack of funding, opening the way for major restructuring of mine action in Yemen.

## RECOMMENDATIONS FOR ACTION

- Yemen should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Yemen should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- The Internationally Recognised Government of Yemen (IRG) should introduce streamlined, consistent and transparent procedures for the import of demining equipment.
- De Facto Authorities (DFA) in Sanaa should expedite access for international demining organisations in order to facilitate capacity development for the mine action programme.
- The DFA and YEMAC should establish a coordination centre similar to YMACC in the north to increase efficiency and avoid the conflict of interest in its current role as regulator and operator.
- YEMAC should draw up work plans for operations in the north and the south.

<sup>1</sup> Email from UNMAS Headquarters, 24 July 2023.

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

## MANAGEMENT

- Yemen Executive Mine Action Centre (YEMAC)
- Yemen Mine Action Coordination Centre (YMACC)

## NATIONAL OPERATORS

- YEMAC

## INTERNATIONAL OPERATORS

- Danish Refugee Council Humanitarian Disarmament and Peacebuilding Sector (DRC)
- The HALO Trust (HALO)
- Norwegian People's Aid (NPA)
- Project MASAM/SafeLane Global

## OTHER ACTORS

- United Nations Development Programme (UNDP)
- UN Resident Coordinator
- United Nations Mission to Support the Hodeidah Agreement (UNMHA)

## UNDERSTANDING OF CMR CONTAMINATION

The extent of cluster munition contamination in Yemen is not known. YEMAC has reported the presence of CMR in seven governorates with the heaviest contamination in the northernmost Saada and al-Jawf governorates bordering Saudi Arabia. The other affected governorates included Amran, Hajjah, Hodeida, Mawit, and Sanaa, including in Sanaa City.<sup>2</sup> Recent estimates of contamination provided by mine action authorities in northern areas controlled by the Sanaa-based De Facto Authorities (DFA) (the Houthis) and the rest of the country, which is largely controlled by the Aden-based internationally-recognised government (IRG), reflect the constraints on systematic survey imposed by nearly a decade of conflict and refer to explosive ordnance without specifying the type of hazard.

Yemen had CMR contamination before 2015 and Human Rights Watch has said it recorded Saudi air strikes using cluster munitions dating back to 2009.<sup>3</sup> But the escalation of conflict since 26 March 2015 significantly increased both the extent of CMR and their threat to the civilian population.

This was the result of airstrikes by the Saudi Arabia-led coalition on territory controlled by the Houthis (Ansar Allah).<sup>4</sup> In December 2016, the organisation reported that 18 coalition attacks using cluster munitions since the previous year had killed at least 18 civilians and injured 74 more.<sup>5</sup> Non-governmental organisations (NGOs) recorded coalition use of cluster munitions until February 2017 and suspected continued use in 2018 but have not reported use since then.<sup>6</sup>

YEMAC North reports contamination from 15 types of cluster munition, of which 10 are produced in the United States (US), along with two British- and three Brazilian-made types.<sup>7</sup> Human rights groups have documented the use of US BLU-63 (in Sana'a City); BLU-97 combined effect submunitions (in Saada governorate); CBU-58 and CBU-105 sensor-fuzed munitions (in Amran and Sanaa governorates); Brazilian Astros II munitions (in Saada governorate and city), and British-made BL755 submunitions (in Hajjah governorate). They have also reported use of ZP-39 artillery-delivered submunitions of indeterminate origin.<sup>8</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Yemen is also contaminated by unexploded ordnance (UXO) other than unexploded submunitions and by anti-personnel and anti-vehicle mines (see Mine Action Review's Clearing the Mines report on Yemen for further information).

2 Interviews with Ahmed Alawi, YEMAC, 17 February 2016; and Stephen Bryant, Chief Technical Adviser, United Nations Development Programme (UNDP), in Geneva, 6 February 2017.

3 Human Rights Watch, "Yemen: Cluster munitions harm civilians", 31 May 2015, at: <http://bit.ly/32sdP0x>.

4 UNDP, Grant Progress Report for 1 October–31 December 2015, 25 January 2016.

5 Human Rights Watch, "Brazil-made cluster munitions wound children", 23 December 2016, at: <http://bit.ly/32ub4vE>.

6 Cluster Munition Coalition, "Use of cluster munitions," undated, accessible at: <https://bit.ly/3CcPdv2>.

7 Email from Ahmed Yahya Alawi, Executive Officer, YEMAC North, 18 April 2023.

8 Human Rights Watch, "Brazil-made cluster munitions wound children", 23 December 2016; Human Rights Watch, "Yemen: Cluster munitions harm civilians", 31 May 2015; Amnesty International, "Yemen: children among civilians killed and maimed in cluster bomb 'minefields'", 23 May 2016; and Legal Centre for Rights and Development, Sanaa, "The bombing of civilians and residential neighbourhoods with international forbidden weapons (cluster munitions)", undated but 2018.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Management of mine action in Yemen is geographically divided along the lines of the conflict that erupted in March 2015 between the Houthi movement (the DFA) controlling the capital Sanaa as well as much of the north and west of the country, and the IRG, operationally based in Aden and the south.

YEMAC was established in Sanaa in January 1999 as a national mine action agency and nominally maintains a national role but in practice has split into two operations, centred round Sanaa and Aden, respectively. YEMAC South informed Mine Action Review there was no coordination between the two because YEMAC North was under the control of Houthi militia.<sup>9</sup> YEMAC South is believed to employ around 750 staff and YEMAC North around 500, but the number of active personnel in either entity is uncertain.<sup>10</sup> UNDP earlier reported that, in total, YEMAC conducted clearance in 19 of Yemen's 21 governorates.<sup>11</sup> The Sanaa-based inter-ministerial National Mine Action Committee (NMAC), which previously formulated national mine action policy, is no longer recognised by the IRG, which reported it had disbanded in 2019.<sup>12</sup>

YEMAC South, headquartered in Aden, operated with some 500 staff reports operating through three branches serving Hadramaut, Marib, and Taiz. It identified Aden, Abyan, Dhale, Hodeida, Lahej, and Taiz as high-priority districts for mine action interventions.<sup>13</sup> Yemen's APMBC Article 5 deadline extension request, submitted in March 2022, said that YEMAC was planning to open an office in Marib to support operations in Al Bayda and Al Jawf governorates, as well as the western Shabwah governorate. Operations included explosive ordnance disposal (EOD) spot tasks, non-technical survey (NTS), and risk education.<sup>14</sup>

In April 2020, YEMAC South opened YMACC in Aden with a view to strengthening programme management in areas controlled by the IRG. The centre, which is intended to facilitate cooperation with international organisations, has responsibility for accrediting organisations and issuing task orders. It has departments for planning, information

management, and quality assurance (QA)/quality control (QC).<sup>15</sup> The centre convened its first coordination meeting on 9 April 2020 and by early 2021 employed 44 people.<sup>16</sup> It had set up technical working groups focused on NTS and risk education.<sup>17</sup> Mine action stakeholders say the creation of YMACC has improved coordination with operators but decision-making boundaries between YEMAC and YMACC are opaque.

YEMAC North functions as both the coordinator of mine action in northern governorates controlled by Houthi forces and as operator involved in all aspects of mine action including survey and clearance, risk education, victim assistance, information management, and quality management (QM), a situation seen as creating a problematic conflict of interest.<sup>18</sup> To address that issue, YEMAC North and the DFA's Supreme Council for the Management and Coordination of Humanitarian Affairs (SCMCHA) have agreed in principle to set up a coordination centre similar to YMACC in the IRG-controlled areas but no action was taken in 2022 to implement the proposal.<sup>19</sup>

The DFA revoked the visa of UNDP's Senior Technical Adviser in 2021 limiting the programme's ability to support mine action in the north. Other UNDP staff were able to visit Sanaa in early 2022<sup>20</sup> but sporadic DFA denial of visas to UN and other international mine action operators has hampered development of capacity and operations to address explosive ordnance hazards.<sup>21</sup> UNDP purchased 300 detectors and personal protective equipment (PPE) in 2022 to support YEMAC North operations around Hodeida.<sup>22</sup> As of February 2023, however, the detectors were still being held in storage in Djibouti pending receipt of the necessary clearance for their importation from the IRG.<sup>23</sup> Three demining INGOs—Danish Refugee Council (DRC), The HALO Trust (HALO), and Norwegian People's Aid (NPA)—visited Sanaa in February 2023 and negotiated an MoU with YEMAC North that would provide a basis for operating in the DFA-controlled areas when signed. The MoU was under review as at the start of June 2023 but was planned for signing before the end of the year.<sup>24</sup>

9 Email from Ameen Saleh Alaqili, Director, YEMAC, 26 December 2021.

10 Interview with Stephen Bryant, UNDP, in Geneva, 23 November 2022.

11 UNDP *Annual Report on Mine Action in Yemen 2020*, February 2021, p. 9.

12 APMBC Article 7 Report (covering 2018), Form A.

13 Email from Ameen Saleh Alaqili, Director, YEMAC, 21 May 2023.

14 Yemen APMBC Article 5 deadline Extension Request, March 2022, pp. 26–27.

15 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 12; and email from Ameen Saleh Alaqili, YEMAC, 26 December 2021.

16 Emails from Ameen Saleh Alaqili, YEMAC, 5 May 2021; and Stephen Robinson, UNDP, 27 May 2020.

17 UNDP *Annual Report on Mine Action in Yemen 2020*, p. 14.

18 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 21.

19 Ibid.

20 Email from Stephen Bryant, UNDP, 7 February 2022.

21 UNDP, "Emergency Mine Action Project, Yemen Phase Five Terminal Evaluation Report", September 2021, p. 11.

22 The order included 200 Ceia detectors, 100 Ebinger detectors, 200 demining aprons, 300 visors and 300 sets of knee and elbow pads (email from UNMAS Headquarters, 24 July 2023).

23 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 12.

24 Emails from Christina Hendryx, Programme Manager, Humanitarian, Disarmament and Peace Building (HDP), DRC, 15 May 2023; and Faiz Mohammad Paktian, Country Director, NPA, 7 May 2023.

Cumbersome and opaque bureaucracy particularly with regard to equipment imports and the issuance of visas have continued to pose a major impediment to the progress of mine action. YEMAC has previously informed Mine Action Review that: "Yemen does not have any obstacles or delays in matters of importing equipment." It said delays experienced by some operators were due to their own administrative procedures, errors in their applications, or a lack of understanding of the required legal procedures.<sup>25</sup> The UN and international operators, however, document delays of a year or more in being able to bring in essential items such as detectors, PPE, and thermite which they say constitute the main challenge to expanding Yemen's capacity to address its explosive ordnance contamination. Procedures for obtaining import authorisations are not consistent. Requests to import demining equipment also require multiple signatures from high-level officials and the absence of one official can result in long delays.<sup>26</sup>

UNDP has provided technical and administrative support to YEMAC for two decades but in 2022 faced reduced funding and was planning to end its current project in Yemen by the end of 2023.<sup>27</sup> The UN supported mine action in Yemen from 1999 to 2003 through a programme implemented by the UN Office for Project Services (UNOPS). From 2003, the programme came under full national management. At the end of 2014, UNDP launched an Emergency Mine Action Project to support development of national capacity for mine action planning and programme management deploying an international adviser and from 2017 provided payment for approximately 1,000 national personnel to conduct survey clearance and EOD.<sup>28</sup> The first phase of the Emergency

Project ended in September 2021 and a second phase started in October 2021. The project's budget for 2022 was US\$11.7 million.<sup>29</sup>

In 2021, UNDP's project was conducted by six international and nine national staff working from a number of different offices. These included four project area coordinators based in Aden, Hodeida, Mokha, and Mukalla; two administrative staff in Sana'a; and three in Aden.<sup>30</sup> UNDP's chief technical adviser on Counter-improvised explosive devices (C-IED) left Yemen in June 2022 and was not replaced due to reduced funding. An adviser provided as an in-kind contribution by the Swedish Civil Contingencies Agency (MSB) joined in June 2022, supporting YEMAC and YMACC on C-IED and IED-disposal (IEDD).<sup>31</sup> UNDP's Chief Technical Adviser (CTA) left the programme at the end of 2022. UNDP reported that after extensive consultations among partners and within the UN, UNDP had decided to phase out the project activities by the end of 2023.<sup>32</sup> The UN informed YEMAC in June 2023 that payment for national staff would end at the end of June 2023. The UN was considering a proposal to support payment of salaries to 15 critical posts in both YEMAC Aden and YEMAC Sanaa but recommending donors channel funding to international NGOs.<sup>33</sup>

Other institutions involved in decision-making or administrative procedures significantly affecting mine action include the Ministry of Planning and International Cooperation (MOPIC), the National Security Agency, and the Ministry of Defence, while mine action stakeholders also point to interventions by the Saudi Ministry of Defence Evacuation & Humanitarian Operations Centre (EHOC).

## ENVIRONMENTAL POLICIES AND ACTION

YEMAC's implementing partners said they have had no indication that environmental management and protection feature in its planning and tasking. Revised national mine action standards include a chapter on Environment, Health and Safety Management but they exist only in draft form awaiting approval. DRC and HALO both reported applying their organisations' global policy and standing operating procedures (SOPs), but DRC said its SOP was largely generic and not adapted to local environmental conditions.<sup>34</sup>

25 Email from Ameen Saleh Alaqili, YEMAC, 26 December 2021.

26 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 6; emails from Nicholas Torbet, HALO, 19 April 2022; and Christina Hendryx, DRC, 15 May 2023.

27 UNDP, Emergency Mine Action Project – Phase II, Annual Report for 2022, 15 February 2023, p. 24.

28 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 9; interview with Stephen Robinson, UNDP, in Geneva, 20 July 2020; interview with Patrick Fruchet, Senior Mine Action Adviser to UN Resident Coordinator's Office for Yemen, in Geneva, 21 June 2023.

29 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 7.

30 UNDP *Annual Report on Mine Action in Yemen 2020*, p. 8.

31 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 11.

32 Ibid., p. 24.

33 Interviews with Patrick Fruchet, UN Adviser, in Geneva, 21 June 2023; and Aleksandar Mihajlov, Planning and Monitoring Specialist, UNDP, in Geneva, 22 June 2023.

34 Emails from Marie-Josée Hamel, Regional Programme Advisor – Middle East, DRC, 30 March 2022; and Nicholas Torbet, HALO, 19 April 2022.

## GENDER AND DIVERSITY

Yemen's APMBC Article 5 deadline extension request submitted by the IRG in 2022 identified inclusion of women in mine action as a priority for YEMAC and YMACC. It stated that female staff already engaged in a number of activities, including information management (IM), NTS, risk education, and victim assistance. It stated, "there is no objection to including more women".<sup>35</sup>

In the IRG-controlled south YEMAC started training female staff for EOD, NTS, and risk education in 2020.<sup>36</sup> In 2022, it reported it employed 36 women: 10 in NTS teams; 13 for risk education; 8 for victim assistance; and the remaining 5 in management/administrative posts. YMACC employed six women in a range of administrative and office roles. However, YMACC was reportedly resistant to employing women in multi-task teams.<sup>37</sup> YEMAC said it was working on increasing female employment and developing the capacity of women employees in cooperation with UNDP and the Geneva International Centre for Humanitarian Demining (GICHD).<sup>38</sup>

UNDP has encouraged both YEMACs to expand the number of women teams for survey and clearance and in cooperation with the GICHD sought to ensure the data disaggregated by sex and age were collected in IMSMA reports.<sup>39</sup> However, it has previously noted that integrating women into the mine action programme remained "challenging". In 2021, it reported that among 17 women who underwent training, three took a Level 2 EOD course, three others attended an IEDD good practice course and engaged in IED disposal

operations with the Directorate of Family Protection, and ten were trained in NTS.<sup>40</sup> But international operators noted that YEMAC had not included any women in lists of personnel available for secondment.<sup>41</sup>

Social and cultural conventions present a significant impediment to efforts to promote inclusion in the sector. Women's traditional role as responsible for family care is seen as discouraging women from applying for jobs. Operators have reported cases where husbands have forbidden women applicants from attending interviews. Risk education is conducted separately for women, often by female staff, to encourage the participation of women, who are considered valuable informants on account of their knowledge of local conditions acquired carrying out family chores such as collecting wood and herding livestock.<sup>42</sup> But female NTS/risk education staff still find it harder than their male counterparts gaining acceptance when going into communities to ask for information on explosive hazards.<sup>43</sup>

Employment of women among international operators remained at a low level. The DRC Humanitarian Disarmament and Peacebuilding Sector said women made up seven of its thirty-six staff (19%), including two of the eleven in managerial positions and three of the twenty-seven in field operations.<sup>44</sup> At least one woman was employed in each of its three-strong NTS teams.<sup>45</sup> HALO reported women made up 14% of overall staff but it included eight women in two NTS teams.<sup>46</sup>

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## INFORMATION MANAGEMENT AND REPORTING

Data management in the YEMAC South area of operations has improved since 2020 with the installation of the Information Management System for Mine Action (IMSMA) Core database and the introduction of approved reporting templates.<sup>47</sup> A main server was installed in YMACC in 2021 with support from UNDP and the GICHD to serve as a centralised data centre. YEMAC reported that all electronic reporting forms were designed with participation of operators in technical working groups (TWGs) and that a series of workshops and training sessions were organised for operators with support from UNDP and the GICHD.<sup>48</sup>

YEMAC said the IM system operations continue to be reviewed and strengthened.<sup>49</sup> Implementing partners previously submitted operating results by email but in 2022 moved over to reporting via IMSMA. International operators noted the volume of data submitted to the database has increased sharply as survey and clearance operations expand and the database will need continuing support to maintain the quality of data. UNDP support has included IM specialists contracted through MSB and the GICHD.<sup>50</sup> Operators only have direct access to data relating to their own operations but are able to request maps and other data to support operations.<sup>51</sup>

YEMAC North works with an older IMSMA system.<sup>52</sup> Its IM capacity in 2022 was not known.

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35 Email from Ameen Saleh Alaqli, YEMAC, 26 December 2021; and APMBC Article 5 deadline Extension Request, March 2022, p. 21.

36 Email from Ameen Saleh Alaqli, YEMAC, 5 May 2021; and UNDP Annual Report 2020, p. 15.

37 Email from Marie-Josée Hamel, Regional Programme Advisor – Middle East, DRC, 30 March 2022.

38 Email from Ameen Saleh Alaqli, YEMAC, 21 May 2023.

39 UNDP, Emergency Mine Action Project - Phase II, Annual Report for 2022, 15 February 2023, p. 19.

40 UNDP, *Annual Report on Mine Action in Yemen 2021*, p. 15.

41 Email from Christina Hendryx, DRC, 15 May 2023.

42 Email from Esteban Bernal, HDP Programme Manager, DRC, 23 March 2021.

43 Email from Christina Hendryx, DRC, 15 May 2023.

44 Ibid.

45 Email from Marie-Josée Hamel, DRC, 30 March 2022.

46 Email from Nicholas Torbet, Head of Region – Middle East (Yemen, Libya), HALO, 19 April 2022.

47 UNDP, Emergency Mine Action Project - Phase II, Annual Report for 2022, 15 February 2023, p. 9.

48 Email from Ameen Saleh Alaqli, YEMAC, 21 May 2023; interview with Stephen Robinson, UNDP, Geneva, 23 March 2021; and *UNDP Annual Report 2021*, p. 10.

49 Email from Ameen Saleh Alaqli, YEMAC, 21 May 2023.

50 UNDP, Emergency Mine Action Project - Phase II, Annual Report for 2022, 15 February 2023, p. 10.

51 Email from Christina Hendryx, DRC, 15 May 2023.

52 Email from GICHD, 30 April 2020.

## PLANNING AND TASKING

Mine action in Yemen is conducted on an emergency basis in a context of continuing armed conflict, responding to immediate threats from all forms of explosive ordnance.<sup>53</sup> UNDP has observed that YEMAC needed to organise field operations to also address longer term impacts of contamination from explosive remnants of war.<sup>54</sup> A work plan in Yemen's APMBC Article 5 deadline extension request identified general areas of activity such as emergency response, survey, and risk education, but gave no details. It said it would update its plans every year or two.<sup>55</sup>

YEMAC's Article 5 deadline extension request submitted in March 2022 identified Yemen's Baseline Survey (YBLS), which is key to understanding the extent, location, and type of all explosive ordnance hazards, as its priority, along with building the capacity and resources of the mine action sector for survey and clearance. The request emphasised flexibility, stating that the plans it set out were a "living document" that would be subject to continuous review to adapt to changing circumstances.<sup>56</sup> Operators report YMACC has regular meetings that are well attended by YEMAC and implementing partners and frankly discuss operational issues.<sup>57</sup>

International operators received the first task orders from YMACC in July 2020, marking a significant step forward for planning and coordination.<sup>58</sup> UNDP has said YEMAC needed to finalise a review of its internal structure in order to increase efficiency and clarify the division of responsibilities between YEMAC and YMACC.<sup>59</sup>

International operators said the process of issuing task orders had improved and in 2022 reported that it was functioning smoothly.<sup>60</sup> YMACC issues task orders in consultation with operators assigning tasks in districts where their NTS teams have previously worked. DRC said it then prioritises high-risk areas within the district. However, operators also report that receipt of task orders does not ensure access to designated sites and local military or political groups require separate approvals or permissions. Access to the West Coast requires a specific movement permission which has to be renewed frequently. Renewals are subject to frequent delays and operators are sometimes denied access at checkpoints even when they possess the required authorisation.<sup>61</sup>

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Yemen is in the process of revising and updating its NMAS. The existing NMAS were based on the International Mine Action Standards (IMAS) when they were drawn up in 2007, pre-dating most of Yemen's CMR contamination. In 2019, YEMAC acknowledged that the standards were obsolete and said SOPs based on the standards were not consistently applied by its clearance personnel.<sup>62</sup>

YEMAC reported it has revised 31 chapters of NMAS which are undergoing a final review and were expected to be approved and adopted before the end of 2023.<sup>63</sup> They include standards relating to land release, and are compliant with IMAS and the 2019 APMBC Oslo Action Plan.<sup>64</sup>

DRC said its local SOPs, which are based on its global SOPs but adapted for Yemen, were updated and approved in 2021. SOPs for non-technical survey were revised by the NTS manager and approved by the organisation's head office, while new clearance SOPs were introduced in January 2023.<sup>65</sup> HALO said it had developed new SOPs for NTS and drafted SOPs for clearance that would be finalised after it had taken delivery of the new detectors.<sup>66</sup>

53 APMBC Article 5 deadline Extension Request, March 2022, p. 26.

54 UNDP Annual Report on Mine Action in Yemen 2021, p. 20.

55 APMBC Article 5 deadline Extension Request, March 2022, p. 27.

56 APMBC Article 5 deadline Extension Request, March 2022, p. 29.

57 Email from Christina Hendryx, DRC, 15 May 2023.

58 Emails from DRC, 25 March 2021; and Matthew Smith, Programme Manager, HALO, 17 May 2021.

59 UNDP Annual Report on Mine Action in Yemen 2021, p. 20.

60 Emails from Marie-Josée Hamel, DRC, 30 March 2022; and Nicholas Torbet, HALO, 19 April 2022.

61 Email from Christina Hendryx, DRC, 15 May 2023.

62 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 17; and 2019 APMBC Article 5 deadline Extension Request, p. 16.

63 Email from Ameen Saleh Alaqili, YEMAC, 21 May 2023.

64 Email from Ameen Saleh Alaqili, YEMAC, 26 December 2021.

65 Emails from Marie-Josée Hamel, DRC, 30 March 2022; and Christina Hendryx, DRC, 15 May 2023.

66 Email from Nicholas Torbet, HALO, 19 April 2022.

## OPERATORS AND OPERATIONAL TOOLS

YEMAC South and YEMAC North are nominally the biggest operators but both lack financing and the number of personnel active in both organisations is uncertain. YEMAC South reported it operated with 30 manual clearance teams with 256 deminers and 3 EOD/battle area clearance (BAC) teams with 29 operators in addition to between 15 and 18 NTS teams with up to 72 staff; 7 technical survey (TS) teams with a total of 45 personnel; and six mine detection dog (MDD) teams with an unspecified number of dogs and handlers. YEMAC South also reported employing 5 risk education teams with a total of 15 staff and 3 QM teams with 14 staff. It indicated the number of staff could fall in 2023 due to a downturn in international donor funding.<sup>67</sup>

YEMAC North said it had some 170 deminers divided between a clearance unit with 58 deminers and 4 clearance platoons with 28 deminers each. It said it also deployed two NTS teams, five TS teams with a total of thirty-five surveyors, one mechanical team, three risk education teams, and two QA teams. YEMAC North also reported operated three MDD platoons with a total of 36 dogs in the field and 29 others undergoing training.<sup>68</sup>

DRC had a total staff of 36 people in 2022, with five teams conducting NTS and nine people working in three BAC/EOD teams. Facing delays in the import of equipment, DRC was able to start EOD tasks in 2022 with support from YEMAC which loaned it PPE. In 2023, it added a six-strong manual demining team and embarked on its first clearance task.<sup>69</sup>

HALO started 2022 with 38 staff, operating two four-strong NTS/risk education teams and three five-strong clearance teams trained to EOD Level 1 that were conducting

mainly BAC and bulk demolitions. HALO also operated a twelve-person mechanical team working with a Bobcat Backhoe and a front loader. In April 2022, HALO added another 24 operations personnel to its EOD and survey capacity. NTS teams use Survey123 for data collection and migrate it directly to HALO's Global Operation Information Management System (GO-IMS), which it brought into operation in Yemen in early 2022.<sup>70</sup>

NPA supported development of an MDD programme for YEMAC with an Aden-based team of six international and seven national staff training team leaders and dog handlers. In August 2022, it embarked on delivering Risk Education-Conflict Preparedness and Protection with 20 staff seconded from YEMAC and deployed in four mixed-gender teams of five people, working in Al Dhale, Hodeida, Marib, and Taiz governorates.<sup>71</sup>

Project MASAM, funded by Saudi Arabia's King Salman Humanitarian Aid and Relief Center, reported that it deployed 32 teams employing some 450 national deminers but gave no further details of their composition.<sup>72</sup> It said that it "trains, equips and supervises over 450 Yemeni nationals", including deminers, administration, logistics, and security support staff, supported by technical mentors. It operated with headquarters in Aden and Marib and deployed teams in Aden, Al-Jawf, Aldala'a, Al-Hudaydah, Maa'rib, Shabwa, and Taiz.<sup>73</sup> The project's record of items destroyed does not specify any CMR. Saudi Arabia was reported in July 2021 to have extended its \$33.6 million contract with Project MASAM and its implementing partner, SafeLane Global, by another year.<sup>74</sup>

## DEMINER SAFETY

Yemen's mine action programme has experienced heavy casualties among deminers in the past five years, particularly in Project MASAM.<sup>75</sup> YEMAC and Project MASAM suffered 10 casualties in 2022, including five fatalities, in incidents involving anti-personnel mines and IEDs in Hodeida governorate.<sup>76</sup> DRC and HALO reported they did not sustain any casualties in 2022.<sup>77</sup>

## LAND RELEASE OUTPUTS IN 2022

Mine action in Yemen is conducted on an emergency basis focused on survey to identify the extent of contamination by all forms of explosive ordnance conducting urgent clearance to remove explosive hazards that pose an immediate threat to communities. CMR are not identified as a major part of Yemen's explosive hazard threats<sup>78</sup> and are not a target of specific survey or clearance.

<sup>67</sup> Email from Ameen Saleh Alaqili, YEMAC, 21 May 2023.

<sup>68</sup> Email from Ahmed Yahya Alawi, YEMAC North, 18 April 2023.

<sup>69</sup> Email Christina Hendryx, DRC, 15 May 2023.

<sup>70</sup> Email from Nicholas Torbet, HALO, 19 April 2022.

<sup>71</sup> Email from Faiz Mohammad Paktian, NPA, 7 May 2023.

<sup>72</sup> Project MASAM website, "HE Ambassador Al-Jaber: Our support for our Yemeni brothers of Project Masam continues", 11 May 2023.

<sup>73</sup> Project MASAM website, "Where we work", at: <https://bit.ly/3L0UoQy>, accessed 27 April 2022.

<sup>74</sup> "Saudi Arabia extends mine clearing contract in Yemen", Arab News, 21 July 2021.

<sup>75</sup> Project MASAM reported 37 casualties between May 2018 and April 2020: 21 killed and 16 injured.

<sup>76</sup> Email from Ameen Saleh Alaqili, YEMAC, 21 May 2023.

<sup>77</sup> Emails from Marie-Josée Hamel, DRC, 30 March 2022; and Nicholas Torbet, HALO, 19 April 2022.

<sup>78</sup> Email from Ameen Saleh Alaqili, YEMAC, 21 May 2023.

## SURVEY IN 2022

In the IRG-controlled south, operators did not conduct any cancellation but YEMAC reported reduction of 0.8km<sup>2</sup> in six governorates (see Table 1).<sup>79</sup>

**Table 1: IRG-controlled area reduced by technical survey 2022<sup>80</sup>**

Governorate	Area released	Area reduced (m <sup>2</sup> )
Abyan	5	170,410
Aden	7	9,617
Al Dhale	8	16,460
Lahej	5	326,713
Shabwah	2	24,102
Taiz	10	234,643
<b>Totals</b>	<b>37</b>	<b>781,945</b>

In DFA-controlled areas, YEMAC North reported conducting NTS in five governorates; Sanaa, Al Jawf, Marib, Al Bayda and Hodeida in a period of 12 months to the end of March 2022.<sup>81</sup>

## CLEARANCE IN 2022

In IRG-controlled areas YEMAC recorded clearance of a total of 17.84km<sup>2</sup> in 2022 but it did not report clearance of any CMR and the basis for this figure, far exceeding the clearance recorded in previous years, was unclear.<sup>82</sup>

Data provided by UNDP identified destruction of 271 submunitions in 2022, far fewer than the previous year (see Table 2).

**Table 2: YEMAC operating results in IRG-controlled areas (2020–22)<sup>83</sup>**

Year	Area cleared (m <sup>2</sup> )	Submunitions destroyed	AP mines destroyed	IEDs destroyed	AV mines destroyed	Other UXO destroyed
2022	5,900,000	271	875	3,180	9,023	57,011
2021	4,489,389	1,777	1,204	1,032	5,034	61,439
2020	3,132,896	403	923	512	5,317	54,108

In DFA-controlled areas YEMAC North reported clearance of 1,506 submunitions in the 12 months to the end of March 2022.<sup>84</sup>

**Table 3: Reported Five-Year Summary of YEMAC Explosive Ordnance Clearance in IRG-controlled Areas**

Year	Area cleared (m <sup>2</sup> )
2022*	5.9
2021*	4.5
2020*	3.1
2019**	1.0
2018**	1.0
<b>Total</b>	<b>15.5</b>

\* UNDP data \*\* Mine Action Review estimates

<sup>79</sup> Ibid.

<sup>80</sup> Ibid.

<sup>81</sup> Email from Ahmed Yahya Alawi, YEMAC North, 18 April 2023.

<sup>82</sup> Email from Ameen Saleh Alaqili, YEMAC, 21 May 2023.

<sup>83</sup> UNDP Mine Action Dashboard, February 2021; *UNDP Annual Report on Mine Action in Yemen 2021*, p. 11; and UNDP, Emergency Mine Action Project – Phase II, Annual Report for 2022, 15 February 2023, pp. 8, 12.

<sup>84</sup> Email from Ahmed Yahya Alawi, YEMAC North, 18 April 2023.



# OTHER AREAS

The background of the slide is composed of several overlapping, semi-transparent geometric shapes in various shades of purple and blue. These shapes create a layered, abstract effect. A prominent light purple shape runs diagonally from the bottom left towards the top right. Other darker and medium-toned shapes fill the remaining space, creating a sense of depth and movement.

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION:

NATIONAL ESTIMATE

**10.02<sub>km²</sub>**

SUBMUNITION  
CLEARANCE IN 2022

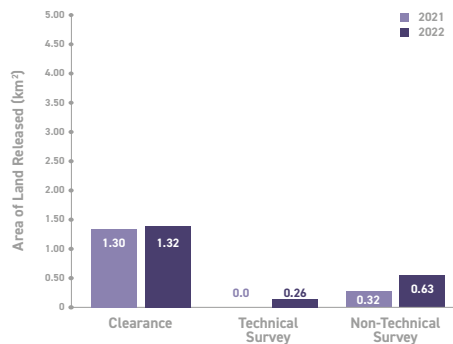
**1.32<sub>km²</sub>**

SUBMUNITIONS  
DESTROYED IN 2022

**161**

(INCLUDING 1 SUBMUNITION  
DESTROYED DURING A  
SPOT TASK)

### LAND RELEASE OUTPUT



## RECOMMENDATIONS FOR ACTION

- While formal accession to the Convention on Cluster Munitions (CCM) is not currently possible for Kosovo, as it is not recognised as a State by the depositary, Kosovo should submit a letter to the UN Secretary-General pledging to comply fully, on a voluntary basis, with the CCM and submit voluntary Article 7 reports on an annual basis.
- The Kosovo Mine Action Centre (KMAC) should seek to complete clearance of cluster munition remnants (CMR) as soon as possible and should elaborate a new mine action strategy with realistic annual targets and a timeline for completion.
- The Information Management System for Mine Action (IMSMA) should be updated to the latest version, to have accurate and up-to-date information for the new mine action strategy.
- In addition to survey of suspected hazardous areas (SHAs), Kosovo should also review the basis on which confirmed hazardous areas (CHAs) are established. In particular, it should conduct survey to confirm evidence of CMR contamination before embarking on full clearance.

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Kosovo Mine Action Centre (KMAC)

### NATIONAL OPERATORS

- Kosovo Security Force (KSF)

### INTERNATIONAL OPERATORS

- The HALO Trust (HALO)
- Norwegian People's Aid (NPA)
- The Kosovo Force (KFOR), a NATO-led international peacekeeping force

### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)

## UNDERSTANDING OF CMR CONTAMINATION

At the end of 2022, Kosovo reported 10.02km<sup>2</sup> of CMR contamination across 42 hazardous areas, comprised of 25 CHAs covering a total of 4.95km<sup>2</sup> and 17 SHAs covering 5.06km<sup>2</sup> (see Table 1).<sup>1</sup> In a positive development, Kosovo has provided an estimate of CMR contamination that has been classified into CHAs and SHAs. The overall estimate has decreased by 1.34km<sup>2</sup> from 11.36km<sup>2</sup> at the end of 2021. In 2022, The HALO Trust (HALO)'s non-technical survey (NTS) project resulted in eight areas of previously unrecorded CMR contamination totalling 339,217m<sup>2</sup> being added to the mine action database.<sup>2</sup>

**Table 1: Cluster munition-contaminated area reported by KMAC (at end 2022)<sup>3</sup>**

District	CHAs	Area (m <sup>2</sup> )	SHAs	Area (m <sup>2</sup> )	Total area	Total area (m <sup>2</sup> )
South	3	375,000	4	610,000	7	985,000
North	6	2,182,951	3	3,395,089	9	5,578,040
Centre	4	800,000	1	250,000	5	1,050,000
East	3	790,000	1	50,000	4	840,000
West	9	806,614	8	757,375	17	1,563,989
<b>Totals</b>	<b>25</b>	<b>4,954,565</b>	<b>17</b>	<b>5,062,464</b>	<b>42</b>	<b>10,017,029</b>

Kosovo has a reasonable if imperfect understanding of CMR contamination remaining on its territory as a result of two decades of mine action, including surveys in 2013 and 2015. In September 2022, HALO completed an NTS project that was designed to create CHAs and SHAs, as this was not done during the 2013 survey; prior to the NTS project there was no classification of CHAs and SHAs in Kosovo.<sup>4</sup> In 2023, Norwegian People's Aid (NPA) was planning to conduct NTS of seven tasks in the municipalities of Leposavic, Mitrovica, and Zubin Potok, where no activities have been done since the initial NTS in 2015.<sup>5</sup> KMAC believes that once these surveys are completed the baseline of contamination in the northern municipalities will be finalised.<sup>6</sup>

In 2013, HALO and KMAC conducted joint NTS of cluster munition strikes and mined areas across Kosovo, with the exception of four municipalities in the north. The survey identified 130 CHAs: 51 cluster munition strikes, covering 7.63km<sup>2</sup>, and 79 mined areas over 2.76km<sup>2</sup>.<sup>7</sup> In 2015, NPA, in

coordination with KMAC and local municipality authorities, conducted NTS of the four northern municipalities.<sup>8</sup> The NPA survey confirmed 8.9km<sup>2</sup> of CMR contamination in three of the four municipalities surveyed (Leposavic, Zubin Potok, and Zvecan). No CMR were found in the fourth (Mitrovica North). NPA believes that 83 cluster bombs were dropped in this region, dispersing a total of 17,041 submunitions.<sup>9</sup>

Contamination is primarily a result of conflict between the Federal Republic of Yugoslavia (FRY) and the Kosovo Liberation Army (KLA) in the late 1990s; and between the FRY and North Atlantic Treaty Organization (NATO) in 1999. During Operation Allied Force, NATO aircraft bombed 333 locations between 24 March and 10 June 1999, dropping 1,392 bombs that released more than 295,700 submunitions.<sup>10</sup> FRY forces also used cluster munitions during the 1998–99 conflict in Kosovo. A large clearance programme followed in 1999 under a UN mandate, but this ended prematurely in 2001, leaving many CMR-contaminated areas still needing to be cleared.<sup>11</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Kosovo is also contaminated with anti-personnel mines (see Mine Action Review's *Clearing the Mines* report on Kosovo for further information). It remains affected by explosive remnants of war (ERW) other than CMR. Most ERW consists of unexploded aircraft bombs and items of abandoned explosive ordnance (AXO) from the conflicts in the 1990s. However, explosive ordnance disposal (EOD) teams continue to encounter items of unexploded ordnance (UXO) dating back to the Second World War.<sup>12</sup> The Kosovo Force (KFOR) and Kosovo Security Force (KSF) EOD teams regularly dispose of ERW in response to information provided by the public and demining organisations.<sup>13</sup>

1 Email from Ahmet Sallova, Head, KMAC, 24 April 2023.

2 Ibid.

3 Ibid.

4 Email from Michael Montafi, Programme Manager, HALO, 18 April 2023.

5 Email from Vanja Sikirica, Country Director, NPA, 19 June 2023.

6 Email from Ahmet Sallova, KMAC, 24 May 2022.

7 A. Moore, HALO, "Action on cluster munitions in Kosovo", Side event, First CCM Review Conference, Dubrovnik, 10 September 2015.

8 NPA, "Cluster Munition Remnants in Northern Kosovo: non-technical survey of contamination and impact", September 2015; and email from Goran Peršić, NPA Bosnia and Herzegovina, 13 May 2016.

9 NPA, "Cluster Munition Remnants in Northern Kosovo: non-technical survey of contamination and impact."

10 ICRC, "Explosive Remnants of War, Cluster Bombs and Landmines in Kosovo", rev. June 2001, pp. 4 and 6; and HALO, "Action on cluster munitions in Kosovo", 10 September 2015, at: <https://bit.ly/30P1X70>.

11 A. Moore, HALO, "Action on cluster munitions in Kosovo", Side event, First CCM Review Conference, Dubrovnik, 10 September 2015.

12 UNMIK, "OKPCC EOD Management Section Annual Report 2008", Pristina, 12 January 2009, p. 4.

13 Email from Ahmet Sallova, KMAC, 1 August 2012.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

KMAC is responsible for managing survey and clearance of mines and ERW throughout Kosovo. The Centre prepares an annual work plan in cooperation with the international demining non-governmental organisations (NGOs) and coordinates their operations along with the national demining teams of the KSF. It also coordinates survey, quality assurance (QA), risk education, public information, and victim assistance.<sup>14</sup> KMAC's role and responsibilities as head of the national mine action programme under the auspices of the Ministry of Defence were established and institutionalised by Kosovo's 2012 Law on Humanitarian Demining.<sup>15</sup>

NGO operators in Kosovo report a constructive working relationship with KMAC and say there is an enabling environment for mine action in Kosovo with clear administrative processes in place for obtaining visas and annual accreditation.<sup>16</sup>

In 2022, the Kosovo Government provided €1.1 million in financial support to KMAC and to the KSF for mine and CMR clearance.<sup>17</sup> Kosovo's current Mine Action Strategy, for 2019–24 sets an objective of ensuring greater financial stability through intensified fundraising efforts.<sup>18</sup> In 2021, the United States (US) Department of State's Office of Weapon Removal and Abatement (PM/WRA) approved a grant to NPA for land release of cluster munition-contaminated areas in northern Kosovo and for the Merdare Tunnel Project.<sup>19</sup> HALO was also able to secure further funding, in May 2021, for three years from the US Government with support from KMAC.<sup>20</sup> In December 2022, the European Union (EU) committed to funding a joint project from NPA and HALO, which will run for 34 months, with €2 million assigned to NPA for CMR clearance and €1.9 million assigned to HALO for mine clearance.<sup>21</sup>

## ENVIRONMENTAL POLICIES AND ACTION

Kosovo has a national mine action standard on the environment which was updated in line with International Mine Action Standard (IMAS) 07.13 on environmental management in mine action during 2022.<sup>22</sup>

NPA Kosovo has conducted an initial desk assessment of the environmental impact of its operations with the highest impact coming from the use of very old diesel vehicles. NPA plans to partly mitigate this impact through the procurement of nine new vehicles and by minimising the number of vehicles used to transport equipment and staff during operations. NPA also has a single-use plastic policy in place and during 2023 planned to draft a separate standing operating procedure (SOP) on the environment.<sup>23</sup>

In HALO's Kosovo programme there is no specific environmental SOP in place. An organisational environmental policy and global SOP are currently under review.<sup>24</sup>

## GENDER AND DIVERSITY

Kosovo's mine action strategy 2019–24 stipulates that all mine action activities and assistance must reflect the needs of different ages and gender in a targeted and non-discriminatory manner, and that mine action and community liaison data are to be collected and systematically disaggregated according to sex and age.<sup>25</sup> Both KMAC and KSF have gender policies in place. KMAC reported that the KSF's gender policy aims to facilitate the consultation of all groups affected by mines and ERW, expressly women and children.

14 Ibid.

15 Emails from Ahmet Sallova, KMAC, 16 June and 3 July 2017; and Ministry of Defence, "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 3.

16 Emails from Vanja Sikirica, NPA, 30 March 2023; and Michael Montafi, HALO, 18 April 2023.

17 Email from Ahmet Sallova, KMAC, 24 April 2023.

18 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 14.

19 Email from Ahmet Sallova, Head, KMAC, 24 May 2022.

20 Email from Megan Dwyer, HALO, 11 May 2022.

21 Email from Michael Montafi, HALO, 18 April 2023.

22 Email from Ahmet Sallova, KMAC, 24 April 2023.

23 Email from Vanja Sikirica, NPA, 30 March 2023.

24 Email from Michael Montafi, HALO, 18 April 2023.

25 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 8; and email from Megan Dwyer, HALO, 11 May 2022.

Table 2: Gender composition of operators in 2022

Organisation	Total staff	Women employed	Total staff in managerial or supervisory positions	Women in managerial or supervisory positions	Total staff in operational positions	Women in operational positions
KMAC	4	1	3	0	1	1
KSF	115	6	8	1	95	4
NPA	82	22	5	3	74	16
HALO	102	28	15	5	71	20

Kosovo's mine action strategy recognises the barriers that exist against equal employment in Kosovo society, including significant differences in employment levels between men and women, despite the number of men and women of working age being broadly similar. The Strategy notes that, as at 2019, more than four-fifths of women of working age were not employed in Kosovo's labour market, and less than one in eight has been employed annually over the past five years. The primary reasons given for female unemployment are child- and family-care obligations, which traditionally in Kosovo society fall on women.

The Strategy notes the efforts of mine action operators to overcome these challenges and barriers to employment, such as through the provision of childcare and parental leave, and gender-sensitive recruitment practices that encourage women to apply for positions traditionally seen as jobs for men. It further recalls the importance of employment of not only multi-gender, but also multi-ethnic survey and clearance teams and the particular benefits of recruitment in areas affected by high unemployment and poverty.<sup>26</sup>

KMAC recognises that explosive ordnance contamination affects women, girls, men and boys differently and that gender specific mobility patterns, roles and responsibilities, mean that females and males of various ages and ethnic backgrounds will have different information on areas that are contaminated in their communities, and also different priorities for clearance and post-release land use.<sup>27</sup>

HALO has a gender policy in place which was developed in consultation with the Kosovo Women's Network. The policy aims at both increasing the recruitment of women and at retaining existing female employees and includes provision for increased family leave and child-care allowances for those taking care of children, in order to remove barriers to women's employment.<sup>28</sup> HALO continues to explore options for attracting more female applicants to clearance operators vacancies such as creating a video showcasing female HALO employees and liaising with women's networks in Kosovo.<sup>29</sup>

HALO continues to ensure that as many household members as possible are consulted during pre- and post-clearance surveys. It stated that it continues to ensure inclusion of women, children, and ethnic minorities in community liaison (CL) activities; there is always a CL Officer woman supporting the NTS teams, and senior management staff who are fluent in relevant languages are deployed for CL activities.<sup>30</sup>

NPA has a target of 25% female staff which it achieved in 2022 with women making up 27% of the staff total. At the beginning of 2023, NPA recruited 32 new operational staff of whom half were women.<sup>31</sup>

NPA confirmed its survey and CL teams were gender balanced and ensured that the participation of all relevant social groups is always taken into account when conducting activities in local communities. The NPA Impact assessment team comprises two women: one Serbian and one Albanian speaker.<sup>32</sup> NPA's efforts to recruit and train multi-ethnic survey and clearance teams have also been a critical factor in allowing the deployment of teams in areas of particular ethnic and political sensitivities, extending the reach of mine action operations in northern Kosovo, while also building bridges and friendships between the individual staff members and through their community liaison activities.<sup>33</sup> NPA has reported that in its areas of operations both Albanian and Serbian communities have been previously surveyed and NPA teams conducted clearance in all communities based on the approved annual operational plan.<sup>34</sup> At the end of 2022, approximately 60% of NPA staff were Albanian and 40% Serbian.<sup>35</sup>

26 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, pp. 8–9.

27 Email from Ahmet Sallova, KMAC, 24 April 2023.

28 Email from Olivia Meader, HALO, 22 May 2020.

29 Email from Michael Montafi, HALO, 18 April 2023.

30 Email from Megan Dwyer, HALO, 11 May 2022.

31 Email from Vanja Sikirica, NPA, 30 March 2023.

32 Email from Terje Eldøen, NPA, 25 April 2019.

33 Emails from Terje Eldøen, NPA, 25 April 2019 and 1 September 2020.

34 Email from Vanja Sikirica, NPA, 1 June 2022.

35 Email from Vanja Sikirica, NPA, 30 March 2023.

## INFORMATION MANAGEMENT AND REPORTING

KMAC uses the Information Management System for Mine Action (IMSMA) New Generation version for its national mine action database. Data are disaggregated between mines, CMR, and other ERW.<sup>36</sup> Operators were positive in their assessments of the quality and accessibility of data contained in the database and of KMAC's information management systems in general.

Operators report to KMAC on a weekly basis; NPA reported all data collection forms are consistent and enable collection of the necessary data.<sup>37</sup> HALO reported similarly, and added that the database is checked in comparison to HALO's quarterly reports; once every task is completed or when KMAC agrees and signs off on a re-survey or survey conducted by an NTS team, the data is fed into IMSMA.<sup>38</sup>

The land release data reported to Mine Action Review by clearance operators and the KMAC were more or less aligned. This is an improvement compared to previous years' reports, which typically contained greater discrepancies.

KMAC reported to Mine Action Review that at the time of writing the voluntary submission of Article 7 reports was under consideration.<sup>39</sup>

## PLANNING AND TASKING

Kosovo's Mine Action Strategy for 2019–24 declares that all known mined and CMR-contaminated areas will be addressed by the end of 2024, leaving only residual contamination to be managed. It contains annual projections for CMR clearance, including:

- All high-priority CMR tasks (four as at October 2018) to be cleared by 2020;
- All medium-priority CMR tasks (30 as at October 2018) to be cleared by 2022; and
- All low-priority CMR tasks (16 as at October 2018) to be completed by 2024.<sup>40</sup>

In 2022, KMAC, with support from the Geneva International Centre for Humanitarian Demining (GICHD), conducted a mid-term review of the strategy through a stakeholder workshop with active participation from KMAC, the KSF, HALO, and NPA. The greatest impediments to implementation of the strategy, identified during the mid-term review include:

- COVID-19 related lockdowns and restrictions.
- The discovery of previously unrecorded contaminated areas, which significantly increased the contamination baseline.
- Substantial delays in the multi-year EU grant that fund HALO and NPA activities until 2025.
- Operational assets, including survey and clearance equipment and vehicles, are old and need to be repaired or replaced.
- Seasonal factors mean that some areas can be accessed for only up to six months a year. Also, the geographic locations of some hazardous areas make them difficult to access throughout the year.<sup>41</sup>

In light of these challenges and that Kosovo is not on track to meet the objectives in its current strategy KMAC, in consultation with operators, will elaborate a new strategy in partnership with the GICHD that will include an updated contamination baseline, clearance objectives, and completion timeline.<sup>42</sup> As at June 2023, the four high-priority CMR tasks identified in 2018 had been cleared but since then eight additional high-priority tasks have been identified by HALO that have not yet been cleared. The medium- and low-priority tasks have also not yet all been cleared and the remaining tasks will be addressed in the new strategy.<sup>43</sup>

In 2019, HALO developed a new prioritisation system that considers the "community profile" for a task. This system draws on several factors, such as socio-economic status, planned land use, government development plans, and demographics. All information is collected from government and public data as well as from extensive community survey. New prioritisation information was added during 2021 and early 2022 through the NTS project by providing an individual rank for prioritisation based on set parameters.<sup>44</sup>

36 Email from Ahmet Sallova, KMAC, 30 April 2019.

37 Emails from Olivia Meader, HALO, 1 May 2019; Terje Eldøen, NPA, 25 April 2019; and Vanja Sikirica, NPA, 1 June 2022.

38 Email from Megan Dwyer, HALO, 11 May 2022.

39 Email from Ahmet Sallova, KMAC, 8 June 2023.

40 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 12.

41 Email from Ahmet Sallova, KMAC, 24 April 2023.

42 Ibid.

43 Email from Ahmet Sallova, KMAC, 8 June 2023.

44 Emails from Olivia Meader, HALO, 22 May 2020; and Megan Dwyer, HALO, 11 May 2022.

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

In 2022, the national mine action standard for land release in Kosovo was updated in accordance with IMAS and made available to operators in March 2023.<sup>45</sup> The terms “mine/ERW” were replaced by “explosive ordnance” throughout. The definition of “clearance” was updated, along with the addition of a section on IEDs and booby-traps.<sup>46</sup>

In the beginning of 2023, HALO Kosovo reviewed and updated its SOPs on manual mine clearance, battle area clearance (BAC), and task management to reflect HALO’s global best practice.<sup>47</sup> In the SOP for BAC the primary search detector drill was amended to include both large-loop detectors and Schonstedt “one operator, one box” searches. The detector type will be chosen in discussion with KMAC, which will depend on the task terrain. In 2022, NPA made updates to its SOP for BAC and quality management system.<sup>48</sup> Both HALO and NPA use large-loop detectors on certain CMR tasks, which increases clearance productivity.<sup>49</sup>

Since 2018, NPA has been implementing the Cluster Munition Remnants Survey (CMRS) methodology to carry out technical survey (TS) on CMR-contaminated areas in Kosovo. According to this methodology, which NPA has modified to reflect the specific conditions in Kosovo (and in line with the IMAS), operators are permitted to enter a cluster munition strike area and to walk on ground with subsurface contamination, increasing the efficiency of the survey process and offering the ability to accurately define confirmed hazardous areas.<sup>50</sup>

The HALO Kosovo Programme continues to conduct its research and development activities to increase safety and operational efficiency and share innovative technological means. The Scorpion detection system from US Humanitarian Demining Research and Development Program (HDRD) was successfully trialled in 2019 and is now deployed to support BAC tasks. The Scorpion detector integrates a large-loop electromagnetic induction (EMI) sensor and caesium vapour total-field magnetometer and applies differential global positioning system (DGPS) for centimetre accuracy in targeting. It is essentially two integrated detectors mounted on a trolley, which can be deployed over an open task to identify desired magnetic anomalies in the ground.

The Scorpion system has the potential to significantly improve BAC productivity in certain areas.<sup>51</sup> In 2022, HALO trained a new team of Scorpion operators, but the BAC tasks worked on during the year only had small, isolated areas suitable for the Scorpion. This reduced the overall productivity gain compared to the large, open areas available when the Scorpion was first deployed in 2020. In 2022, the average area cleared per day was 444m<sup>2</sup>, which is higher than the average area cleared by other handheld detectors on BAC tasks during the year, but the Scorpion cannot be used in densely vegetated areas or on steep terrain.<sup>52</sup>

### OPERATORS AND OPERATIONAL TOOLS

In 2022, Kosovo’s national mine action programme’s capacity consisted of two international operators, HALO and NPA, and a national operator, the KSF. The KSF, also provided a round-the-clock EOD emergency response. KFOR also supports the KSF and Kosovo Police with EOD response tasks and organising mine and ERW demolitions in Mitrovica and the north of Kosovo, including in NPA’s areas of operations.<sup>53</sup>

**Table 3: Operational NTS, TS, and clearance capacities deployed in 2022<sup>54</sup>**

Operator	NTS teams	Total NTS personnel	Manual CMR clearance teams	Total CMR clearance personnel
KSF	0	0	3	45
KFOR	0	0	0	0
HALO	2	8	9	63
NPA	N/A	N/A	8	*54
<b>Totals</b>	<b>2</b>	<b>8</b>	<b>20</b>	<b>162</b>

\* Average for 2022

45 Email from Ahmet Sallova, KMAC, 24 May 2022.

46 Email from Ahmet Sallova, KMAC, 24 April 2023.

47 Email from Michael Montafi, HALO, 18 April 2023.

48 Email from Vanja Sikirica, NPA, 30 March 2023.

49 Emails from Olivia Meader, HALO, 1 May 2019; and Terje Eldøen, NPA, 25 April 2019.

50 Interview with Terje Eldøen, NPA, Pristina, 5 April 2019; and email, 25 April 2019.

51 Email from Megan Dwyer, HALO, 23 April 2021.

52 Email from Michael Montafi, HALO, 18 April 2023.

53 “Mine Action Strategy 2019–2024 in Republic of Kosovo”, 4 April 2019, p. 4; and interview with Ahmet Sallova, KMAC, Pristina, 5 April 2019.

54 Emails from Ahmet Sallova, KMAC, 8 June 2023; Vanja Sikirica, NPA, 30 March 2023; and Michael Montafi, HALO, 18 April 2023.

HALO's operational personnel are cross-trained for mine clearance and BAC and can move readily between activities.<sup>55</sup> There was an increase in the number of clearance personnel deployed in 2022 due to the cessation of mine clearance funding in 2021 which led to a redeployment personnel to CMR clearance. HALO expected a decrease in the number of NTS personnel in 2023 as the NTS project was completed in 2022. Personnel will be redeployed as clearance teams.<sup>56</sup>

NPA's area of operations in Kosovo cover the five northern municipalities of Leposavic, Mitrovica, Podujevo, Zubin Potok, and Zvecan.<sup>57</sup> There was a decrease in staff numbers in 2022 as six staff left but NPA expected an increase in 2023 of more than 30 operational staff due to new EU funding.<sup>58</sup>

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

### LAND RELEASE OUTPUTS IN 2022

A total of 2.2km<sup>2</sup> of cluster munition-contaminated area was released in 2022, of which 1.32km<sup>2</sup> was cleared, 0.26km<sup>2</sup> was reduced through TS, and 0.63km<sup>2</sup> was cancelled through NTS.

### SURVEY IN 2022

In 2022, 0.63km<sup>2</sup> was cancelled through NTS (see Table 4) and 0.26km<sup>2</sup> of CMR-contaminated area was reduced through TS (see Table 5).<sup>59</sup> This is an increase from the 0.32km<sup>2</sup> of CMR-contaminated area cancelled through NTS in 2021 while no land was released through TS.<sup>60</sup> The increase in area cancelled through NTS in 2022 was due to an increase in the number of tasks assessed compared to 2021.<sup>61</sup> The increased reduction through TS by NPA in 2022 followed fade-out during BAC.<sup>62</sup>

Table 4: Cancellation through NTS in 2022<sup>63</sup>

District	Operator	Area cancelled (m <sup>2</sup> )
Gjakovë	HALO	103,484
Pejë	HALO	161,745
Prishtinë	HALO	96,836
Prizren	NPA	266,356
Totals		628,421

Table 5: Reduction through TS in 2022<sup>64</sup>

District	Operator	Area reduced (m <sup>2</sup> )
Prishtinë	NPA	132,881
Mitrovica	NPA	122,874
Totals		255,755

### CLEARANCE IN 2022

In 2022, over 1.32km<sup>2</sup> of CMR-contaminated area was cleared, with the destruction of 160 submunitions (see Table 6).<sup>65</sup> This is a small increase from the nearly 1.30km<sup>2</sup> of CMR-contaminated area cleared in 2021, with the destruction of 43 submunitions.<sup>66</sup> In addition, KMAC reported that one submunition had been destroyed during spot tasks in 2022.<sup>67</sup>

55 Email from Megan Dwyer, HALO, 11 May 2022.

56 Email from Michael Montafi, HALO, 18 April 2023.

57 Email from Terje Eldøen, NPA, 26 August 2020.

58 Email from Vanja Sikirica, NPA, 30 March 2023.

59 Emails from Ahmet Sallova, KMAC, 24 April 2023; Vanja Sikirica, NPA, 30 March 2023; and Michael Montafi, HALO, 18 April 2023.

60 Email from Ahmet Sallova, KMAC, 24 May 2022; and Megan Dwyer, HALO, 11 May 2022.

61 Email from Michael Montafi, HALO, 18 April 2023.

62 Email from Vanja Sikirica, NPA, 30 March 2023.

63 Emails from Ahmet Sallova, KMAC, 24 April 2023; and Michael Montafi, HALO, 18 April 2023.

64 Emails from Ahmet Sallova, KMAC, 24 April 2023; and Vanja Sikirica, NPA, 30 March 2023.

65 Emails from Ahmet Sallova, KMAC, 24 April 2023; Vanja Sikirica, NPA, 30 March 2023; and Michael Montafi, HALO, 18 April 2023.

66 Emails from Vanja Sikirica, NPA, 14 June 2022; Megan Dwyer, HALO, 8 June 2022; and Ahmet Sallova, KMAC, 24 May 2022.

67 Email from Ahmet Sallova, KMAC, 24 April 2023.

Table 6: CMR clearance in 2022<sup>68</sup>

District	Operator	Area cleared (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed
Mitrovica	NPA	496,120	64	9
Prishtinë	NPA	387,175	11	42
Ferizaj	HALO	198,794	3	0
Gjakovë	HALO	58,205	29	0
Pejë	HALO	154,445	51	0
Prishtinë	HALO	28,555	2	0
Prizren	HALO	300	0	0
Spot tasks	KSF	N/A	1	0
<b>Totals</b>		<b>1,323,594</b>	<b>161</b>	<b>51</b>

In addition, KSF was reported to have cleared a total of 1.16km<sup>2</sup> of BAC, with 91,000m<sup>2</sup> cleared in the east with 81 items of UXO destroyed, and 1,070,000m<sup>2</sup> cleared in the west with only 15 items of UXO destroyed. KMAC reported that the clearance undertaken by KSF in the west was mandatory according to the regulations in Kosovo as part of the process of ensuring the area was free of contamination before being used for military training.<sup>69</sup> However, the extremely low number of items of UXO found indicates that pre-clearance survey would have been beneficial. In 2022, there was one submunition found and destroyed during spot tasks.<sup>70</sup>

In 2022, KSF was reported to have cleared a total of 1.16km<sup>2</sup> with no submunitions destroyed and to have destroyed a single submunition during a separate spot task. A total of 96 other items of UXO were found and destroyed meaning that this was in effect a BAC task.

In Prishtinë, NPA cleared 287,405m<sup>2</sup> across two tasks with CMR expected and not found, although CMR fragments were found and, on one of the tasks, other items of UXO.<sup>71</sup> Two task areas were cleared by HALO with no CMR found totalling 65,444m<sup>2</sup>. The first was an area of 12,340m<sup>2</sup> in Belince, Ferizaj, which was re-cleared at the request of KMAC due to an item found in the cleared area, which was suspected to have been placed in the area after the task had been completed. The second was an area of 53,104m<sup>2</sup> in Devetak, Ferizaj, suspended for winter stand-down in 2022 and which was due to re-open for further clearance in 2023. As no submunitions have been found to date, reduction of the task area was being actively considered.<sup>72</sup>

HALO reported an increase in CMR clearance output in 2022 compared to the previous year, the result of more staff working in BAC following the closure of HALO's mine clearance operations.<sup>73</sup> There was no significant change in NPA's clearance output from 2021 to 2022.<sup>74</sup>

## PROGRESS TOWARDS COMPLETION

Kosovo cannot formally adhere to the CCM and therefore does not have a specific clearance deadline under Article 4. Nonetheless, it has obligations under international human rights law to clear CMR as soon as possible.

Kosovo's Mine Action Strategy 2019–24 aims to complete mine and cluster munition clearance by the end of 2024.<sup>75</sup> It is now understood by KMAC and operators that meeting this clearance deadline will not be possible, and a new mine action strategy is in development which will include an updated deadline for completion.<sup>76</sup> NPA reported that the delayed EU funding, which was initially supposed to start in 2019 but did not begin until the end of 2022, has been a significant impediment as operators were not able to increase clearance capacity as planned. In addition, the restrictions imposed by the COVID-19 pandemic in 2020 led to a significant reduction in clearance output for that year, and there has been previously unrecorded CMR contamination that has been found and added to the database every year. For NPA working in northern Kosovo, the remaining contaminated areas are located at high altitudes where due to local weather conditions it is only possible to conduct clearance from May to September thus restricting annual clearance output.<sup>77</sup>

68 Emails from Ahmet Sallova, KMAC, 24 April 2023; Vanja Sikirica, NPA, 30 March 2023; and Michael Montafi, HALO, 18 April 2023.

69 Email from Ahmet Sallova, KMAC, 4 July 2023.

70 Email from Ahmet Sallova, KMAC, 19 June 2023.

71 Email from Vanja Sikirica, NPA, 30 March 2023.

72 Emails from Michael Montafi, HALO, 18 April and 16 June 2023.

73 Ibid.

74 Email from Vanja Sikirica, NPA, 30 March 2023.

75 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 6.

76 Emails from Ahmet Sallova, KMAC, 24 April 2023; Vanja Sikirica, NPA, 30 March 2023; and Michael Montafi, HALO, 18 April 2023.

77 Email from Vanja Sikirica, NPA, 30 March 2023.

That said, it is now nearly 25 years after the end of the conflict between the FRY forces and NATO and it has taken Kosovo until 2022 to provide an estimate of contamination that has been classified into CHAs and SHAs and large areas are still being cleared with no CMR contamination found.

Table 7: Five-year summary of CMR clearance

Year	Area cleared (m <sup>2</sup> )
2022	1.32
2021	1.30
2020	0.34
2019	1.26
2018	1.24
Total	5.46

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

KMAC has reported that a strategy for the management of residual contamination will be developed in conjunction with the new mine action strategy.<sup>78</sup>

78 Email from Ahmet Sallova, KMAC, 24 April 2023.

# NAGORNO-KARABAKH

MINE  
ACTION  
REVIEW

CLEARING CLUSTER  
MUNITION REMNANTS  
2023

## KEY DATA

### CLUSTER MUNITION CONTAMINATION:

MINE ACTION REVIEW ESTIMATE

**2**km<sup>2</sup>

SUBMUNITION  
CLEARANCE IN 2022

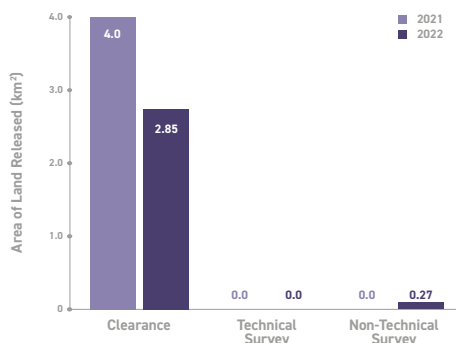
**2.85**km<sup>2</sup>

SUBMUNITIONS  
DESTROYED IN 2022

**388**

(INCLUDING 339  
SUBMUNITIONS DESTROYED  
DURING SPOT TASKS)

## LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

In 2022, there were periodic violations of the 10 November 2020 ceasefire that ended the six-week conflict between Armenia and Azerbaijan. On 12 December 2022, the Lachin Corridor, which links Nagorno-Karabakh to Armenia and the outside world, was blocked by Azeri nationals claiming to be “eco-activists”. On 23 April 2023, Azerbaijani forces set up a checkpoint on the Lachin corridor near the border with Armenia, reinforcing the blockade. The blockade has severely limited the supply of essential goods to Nagorno-Karabakh, including those needed for CMR survey and clearance.

A new baseline survey of CMR and other unexploded ordnance (UXO) was completed in 2022 in Nagorno-Karabakh in villages in three CMR-contaminated districts of Askeran, Martakert, and Martuni. Efforts have since turned to surveying uninhabited areas in these districts. An additional 3.7km<sup>2</sup> of cluster munition-contaminated area was confirmed through survey and resurvey in 2022 in the same three districts, including 0.4km<sup>2</sup> from the 2020 conflict that was discovered during resurvey and partially cleared in Martuni district.

## RECOMMENDATIONS FOR ACTION

- The Nagorno-Karabakh authorities should formally commit to respect and implement the Convention on Cluster Munitions (CCM) and never to use cluster munitions.
- Nagorno-Karabakh should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- The Nagorno-Karabakh authorities should set up a mine action centre to coordinate survey and clearance, introduce mine action standards, and work on mobilising resources.
- The Nagorno-Karabakh authorities should provide funding for CMR survey and clearance.

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

## MANAGEMENT

- The Nagorno-Karabakh de facto Authorities

## NATIONAL OPERATORS

- The Nagorno-Karabakh Emergency Service
- The Nagorno-Karabakh Armed Forces
- Centre for Humanitarian Demining (CHD) FUND (previously The Humanitarian Demining Centre (HAK))

## INTERNATIONAL OPERATORS

- The HALO Trust (HALO)

## OTHER ACTORS

- Russian peacekeeping forces

## UNDERSTANDING OF CMR CONTAMINATION

Under the ceasefire agreement that took effect on 10 November 2020 Azerbaijan regained control over most of its internationally recognised territories,<sup>1</sup> including the seven districts around Nagorno-Karabakh that it had lost in the first war between 1991 and 1993, and about one third of Nagorno-Karabakh itself.<sup>2</sup> In the course of the fighting, both Armenia and Azerbaijan are reported to have used cluster munitions, killing and injuring civilians<sup>3</sup> and adding to existing contamination from CMR. The de facto Nagorno-Karabakh authorities retained control over the remainder of Nagorno-Karabakh, which is patrolled by a Russian peacekeeping force, including along a new Line of Contact (LOC).<sup>4</sup>

LAR-160 rockets containing M095 submunitions and 9M55K Smerch rockets containing 9N235 submunitions were both used in Nagorno-Karabakh in the 2020 conflict.<sup>5</sup> The HALO Trust (HALO) also identified Russian-made ShOAB and PTAB submunitions.<sup>6</sup> In March 2023, HALO was planning to continue work on priority areas in Askeran, Martakert, and Martuni regions but, in response to the blockade of the Lachin Corridor, had decreased its areas of operation with survey,

clearance, and explosive ordnance disposal (EOD) teams deployed close to the capital, Stepanakert, in order to reduce fuel usage.<sup>7</sup>

Nagorno-Karabakh already had extensive CMR contamination prior to the 2020 conflict, with pre-existing CMR-contaminated area estimated to total 71.3km<sup>2</sup>.<sup>8</sup> Extensive use of cluster munitions in the 2020 conflict added considerable CMR contamination to territory that continues to be controlled by the Nagorno-Karabakh authorities.<sup>9</sup> A rapid assessment by HALO had found that contamination affected nearly three-quarters of all Nagorno-Karabakh settlements, including 20% of Stepanakert, 21% of Martuni, and 34% of Martakert.<sup>10</sup> However, overall cluster munition-contaminated area in Nagorno-Karabakh has decreased significantly since the 2020 conflict, as Azerbaijan regained control of much of the territory of Nagorno-Karabakh which had pre-existing CMR contamination. By the end of 2022, recorded cluster munition-contaminated area in Nagorno-Karabakh was just under 2.4km<sup>2</sup> (see Table 1).<sup>11</sup>

1 T. De Waal, "Unfinished Business in the Armenia-Azerbaijan Conflict", Carnegie Europe, 11 February 2021, at: <https://bit.ly/3PFvArz>.

2 Ibid.

3 Amnesty International, "In the Line of Fire", 14 January 2021; Human Rights Watch, "Technical Briefing Note: Cluster Munition Use in the Karabakh Conflict", July 2021.

4 International Crisis Group (ICG), "The Nagorno-Karabakh Conflict: A Visual Explainer", Last updated 28 June 2023, at: <https://bit.ly/44oubp5>.

5 Human Rights Watch, "Technical Briefing: Note Cluster Munition Use in the Karabakh Conflict", 21 July 2021.

6 Email from Miles Hawthorn, HALO, Programme Manager, 18 April 2021.

7 Email from Fiona Kilpatrick-Cooper, Head of Region – Europe (South Caucasus), HALO, 16 March 2023.

8 Email from Miles Hawthorn, HALO, 18 April 2021.

9 Amnesty International, "In the Line of Fire", 14 January 2021; Human Rights Watch, "Technical Briefing Note: Cluster Munition Use in the Karabakh Conflict", July 2021.

10 Email from Miles Hawthorn, HALO, 18 April 2021.

11 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

**Table 1: Cluster munition-contaminated area  
(in areas of Nagorno-Karabakh not under Azeri control)  
(at December 2022)<sup>12</sup>**

District	CHAs*	Area (m <sup>2</sup> )
Askeran	11	1,525,988
Martakert	4	635,375
Martuni	11	192,989
<b>Totals</b>	<b>26</b>	<b>2,354,352</b>

CHAs = Confirmed hazardous areas \* Contamination data based on CHAs, in contrast to the previous year when reported data was based on "evidence points".<sup>13</sup>

In 2022, HALO confirmed a total of 3,732,848m<sup>2</sup> of CHA containing CMR through survey and resurvey.<sup>14</sup> This included 403,065m<sup>2</sup> of CMR contamination (including both legacy contamination and contamination from the 2020 conflict),<sup>15</sup> which was discovered during resurvey of two tasks in Martuni District,<sup>16</sup> of which 317,735m<sup>2</sup> was cleared during the year.<sup>17</sup> HALO is the main organisation conducting land release in Nagorno-Karabakh; it does not have access to baseline data for survey conducted by other actors. Following the 2020 war, HALO initially prioritised survey of areas within populated villages and towns. Non-technical survey (NTS) teams have now started surveying uninhabited areas and HALO acknowledges that re-survey may be needed where the area to be cleared or cancelled is extended due to new evidence provided by other actors.<sup>18</sup>

CMR contamination as at April 2022, had previously been reported by HALO as 11.27km<sup>2</sup>, but this was based on evidence points, and not on CHAs.<sup>19</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Nagorno-Karabakh is also contaminated by other explosive remnants of war (ERW) and by anti-personnel and anti-vehicle mines (see Mine Action Review's *Clearing the Mines* report on Nagorno-Karabakh for further information).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Nagorno-Karabakh does not have a national mine action centre. Nagorno-Karabakh's security chief, Major-General Vitaly Balasanyan, set up a working group in early 2021 to coordinate clearance of ERW. In 2021 the working group met weekly with participation from the Rescue Service and humanitarian mine clearance organisations, the military, and Russian peacekeepers.<sup>20</sup>

In August 2021, by presidential decree, the group became the "Mine Action Coordination Council" (commonly known as the Mine Action Council), with high-level representation from the authorities, the Centre for Humanitarian Demining (CHD FUND), and HALO.<sup>21</sup> This is the only coordination body for mine action in Nagorno-Karabakh. Council meetings continued throughout 2022, with the participation of the International Committee of the Red Cross (ICRC), but only met once a month. By mid-March 2023, the first meeting of 2023 had yet to take place.<sup>22</sup>

The Nagorno-Karabakh authorities do not provide HALO with funding to clear affected areas.<sup>23</sup>

## ENVIRONMENTAL POLICIES AND ACTION

HALO does not have a programme-level environmental management standard operating procedures (SOPs) for Nagorno-Karabakh but does adhere to its organisational SOP and guidelines set at its headquarters and adheres to local legislation.

There was a new "Global Environment and Nature Conservation" lead in post at HALO and a local SOP was anticipated in 2022, but this did not materialise.<sup>24</sup> In line with its commitment to protecting the environment, when conducting EOD, survey, and clearance, HALO installs latrines, ensures that safe land is not contaminated by explosive kick-outs, removes only vegetation necessary to conduct clearance, and clears all scrap metal and other clearance residues and disposes of them appropriately.<sup>25</sup>

12 Ibid.

13 Email from David Crawford, Programme Manager, Nagorno Karabakh and Armenia, HALO, 20 April 2023.

14 Email from David Crawford, HALO, 3 May 2023.

15 Email from David Crawford, HALO, 7 June 2023.

16 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

17 Email from David Crawford, HALO, 20 April 2023.

18 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

19 Email from David Crawford, HALO, 20 April 2023.

20 Emails from Miles Hawthorn, 20 May 2021; and Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

21 Email from Fiona Kilpatrick-Cooper, HALO, 6 May 2022.

22 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

23 Email from Miles Hawthorn, HALO, 5 May 2022.

24 Ibid.; and email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

25 Ibid.

## GENDER AND DIVERSITY

HALO's Nagorno-Karabakh programme reports that it complies strictly with HALO's global gender and diversity policy, providing equal access to employment for women and engaging them in management and operational roles.<sup>26</sup> Elements of the policy are integrated into HALO's Nagorno-Karabakh programme SOPs and policies, including battle area clearance (BAC), NTS, explosive ordnance risk education (EORE), task management SOPs, and safeguarding and whistleblowing policies. Through private funding, the programme is providing monthly childcare stipends to female employees who have children to support and encourage their engagement in mine action work.<sup>27</sup>

Overall, 12% (14 women) of HALO staff in Nagorno-Karabakh in 2022 were women. This comprised 10% of supervisory positions (1 women) and 7% (10 women) working in field operations.<sup>28</sup> HALO's most senior national staff member, the Deputy Programme Manager, is a woman.<sup>29</sup> HALO's staff include internally displaced persons (IDPs), displaced by the conflict with Azerbaijan in 2020; 19% of programme of staff (16 individuals including 4 women) were IDPs at mid-March 2023.<sup>30</sup>

All groups affected by CMR and anti-personnel mines, including women and children, are said to be consulted during survey and community liaison activities, and HALO prioritises survey and clearance activities in areas where children play and women go to forage.<sup>31</sup> Relevant mine action data are disaggregated by age, gender, disability, and by whether individuals are internally displaced, and HALO takes steps to ensure that everyone benefits from clearance.<sup>32</sup>

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## INFORMATION MANAGEMENT AND REPORTING

Nagorno-Karabakh does not have a mine action information management system. HALO operates its own database.<sup>33</sup> In 2020, HALO switched to an online server termed the "Global Operations Information Management System" (GO-IMS). By using GO-IMS and Survey123 (a data collection tool by ArcGIS that applies location-based analytics), HALO continues to strengthen its information management system. In 2022, PowerBI (a platform that infuses visuals into applications) was introduced and rolled out across HALO programmes to improve data visualisation and presentation processes in the organisation.<sup>34</sup>

There is still no central mechanism or database for systematic sharing of data on mine clearance, underscoring the value of a mine action authority. The Mine Action Council (described above) facilitates some sharing of information and data, coordination of activities, and discussion of security and other safety issues. But more detail is required to conform to recognised international standards.<sup>35</sup>

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## PLANNING AND TASKING

Prior to the outbreak of the conflict in September 2020, HALO focused on survey and clearance of mined areas in line with donor wishes, giving priority to areas where confirmed accidents indicated the greatest humanitarian threat and where cleared areas were most likely to be put to use.

Starting in 2019, HALO embarked on a survey of mine contamination throughout Nagorno-Karabakh. After the 2020 conflict, HALO's focus switched from mines to CMR,<sup>36</sup> mine survey was put on hold until 2022, and priority was given to a baseline survey of CMR and other UXO resulting from the war and to conducting surface BAC and EOD. HALO had aimed to complete the survey of all villages in Askeran, Martakert and Martuni regions by the end of September 2021,<sup>37</sup> but by the end of 2021 it had completed survey of 105 out of 128 inhabited settlements.

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26 Emails from Asqanaz Hambardzumyan, HALO, 10 April 2019; and Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

27 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

28 Ibid.

29 Emails from Miles Hawthorn, HALO, 5 May 2022; and David Crawford, HALO, 20 April 2023.

30 Email from David Crawford, HALO, 20 April 2023.

31 Email from Miles Hawthorn, HALO, 5 May 2022.

32 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

33 Email from Rob Syfret, Programme Manager, HALO, 7 May 2020.

34 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

35 Email from Miles Hawthorn, HALO, 5 May 2022.

36 Ibid.

37 Ibid.

HALO selects clearance tasks according to its internal prioritisation matrix based on data collected during survey, including direct and indirect beneficiaries, current and future land use, and accidents data.<sup>38</sup> In 2022, HALO's clearance efforts focused on villages across the three regions of Askeran, Martakert, and Martuni, according to its prioritisation matrix. A remote base was established in Martakert to increase clearance efficiency. HALO completed survey of all villages and started survey of uninhabited areas in the three regions, completing about 40% by mid-March 2023.<sup>39</sup>

In 2023, HALO had planned to continue its work on prioritised areas, but due to the blockade in the Lachin corridor (starting in December 2022 with protests by "eco-activists" and reinforced by the installation of an Azerbaijani checkpoint on the Lachin corridor in April 2023<sup>40</sup>), HALO has reduced its area of operation to reduce fuel usage. This has resulted in survey, clearance, and EOD teams being deployed only in tasks close to Stepanakert.

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Nagorno-Karabakh has no local mine action standards. HALO follows its internal SOPs developed for the programme in line with HALO's global SOPs and guidelines. This includes SOPs for task management, NTS, BAC, manual clearance, mechanical clearance, EOD, medical support, and risk education. SOPs are reviewed periodically and updated where new methods or procedures need to be included.<sup>41</sup>

### OPERATORS AND OPERATIONAL TOOLS

Since it started working in Nagorno-Karabakh in 2000, HALO has been and remains the main organisation conducting land release. Clearance is conducted mostly in the summer months between May and October.

**Table 2: HALO operational NTS, mine, and CMR clearance capacities (at January 2022)<sup>42</sup>**

	NTS teams	NTS personnel*	Manual teams	Total deminers
	6	18	8	56
<b>Totals</b>	<b>6</b>	<b>18</b>	<b>8</b>	<b>56</b>

\* Excluding team leaders, medics, and drivers.

HALO's overall staff numbers have fluctuated in recent years though there was a steady decrease in personnel in 2021 and 2022. At the beginning of 2022, HALO had a total of 96 field staff (88 survey and clearance personnel, including team leaders,<sup>43</sup> plus 8 EOD staff members) but by the end of the year the number had fallen to 64 (across six BAC teams and three survey teams). In contrast in 2021, HALO had 120 field staff including clearance, survey, EOD, and mechanical teams.<sup>44</sup> The decrease was due to a considerable drop in the value of the US dollar, with staff leaving for better paid positions. Whether there is a further decrease in the number of survey and clearance staff in 2023 will depend on whether the blockade of the Lachin Corridor continues, inflation, and the US Dollar exchange rate.<sup>45</sup>

The Nagorno-Karabakh Emergency Service (formerly known as the Rescue Service) conducts EOD spot tasks and has reportedly conducted some BAC. HALO works very closely with the Emergency Service and has provided many of its staff with EOD and area clearance training.<sup>46</sup> One Nagorno-Karabakh army unit conducts limited demining.<sup>47</sup> Russian peacekeepers have conducted area clearance and spot EOD since the conflict. The units have not shared details of clearance operations with HALO but do share details with the Emergency Service, and have coordinated with HALO on demolitions.<sup>48</sup>

CHD FUND (previously known as HAK), a local mine clearance organisation, was established in 2020, initially with one clearance team. In 2022, CHD FUND was mostly focused on BAC operations. HALO did not provide any information, equipment, or training to CHD FUND in 2022.<sup>49</sup>

38 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

39 Ibid.

40 "Azerbaijan sets up checkpoints on the Lachin corridor", *Economic Intelligence*, 27 April 2023, at <https://bit.ly/3WRhSiE>.

41 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

42 Ibid.

43 Email from Sergio Mahecha, Operations Manager, HALO, Nagorno-Karabakh, 3 May 2023.

44 Email from David Crawford, HALO, 20 April 2023.

45 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

46 Emails from Asqanaz Hambardzumyan, HALO, 26 April 2019; and Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

47 Ibid.

48 Emails from Miles Hawthorn, HALO, 18 April 2021; and Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

49 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

Unlike in 2021, when COVID-19 had a significant impact on survey and clearance operations (vaccine hesitancy in Nagorno-Karabakh, including among HALO staff was widespread), and a considerable number of team days were lost in both survey and clearance,<sup>50</sup> COVID-19 did not affect clearance operations in 2022.<sup>51</sup> A training event in 2022 was cancelled as one participant tested positive for COVID-19.<sup>52</sup>

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

### LAND RELEASE OUTPUTS IN 2022

In 2022, HALO continued to focus on CMR clearance as it has done since the end of the armed conflict between Armenia and Azerbaijan in November 2020. HALO released a total of 3,123,634m<sup>2</sup> of cluster munition-contaminated area in 2022, of which 2,850,855m<sup>2</sup> was cleared and 272,779m<sup>2</sup> was cancelled through NTS. In the process, HALO destroyed 388 submunitions: 49 during clearance and 339 in spot tasks. No land was reduced through technical survey (TS).<sup>53</sup>

### SURVEY IN 2022

In 2022, HALO cancelled a total of 272,779m<sup>2</sup> of hazardous area: 99,978m<sup>2</sup> through NTS in Askeran district and another 172,801m<sup>2</sup> in Martuni district. This contrasts with 2021 when HALO did not cancel any hazardous area through NTS.<sup>54</sup> As in 2021, no land was reduced through TS.

In addition, HALO added 3,732,848m<sup>2</sup> of new CHA containing CMR to the database in 2022, which it discovered during survey and resurvey.<sup>55</sup> This included 403,065m<sup>2</sup> of CMR contamination resulting from the 2020 conflict,<sup>56</sup> which was partially cleared.<sup>57</sup>

### CLEARANCE IN 2022

In 2022, HALO cleared a total of 2,850,855m<sup>2</sup> of hazardous area,<sup>58</sup> a decrease of more than 33% from the 4,001,259m<sup>2</sup> of CHA it cleared in 2021.<sup>59</sup> This is reported to be largely due to a reduction in the number of available clearance personnel.<sup>60</sup>

HALO indicated that in the vast majority of its operations, it conducts additional clearance to achieve a 50m fadeout from each evidence point, so that most tasks cleared are significantly larger than the original CHA, often twice as large.<sup>61</sup>

HALO has to date continued to conduct surface CMR clearance only.<sup>62</sup> As was the case following the 2016 war, minimal items have been found subsurface since the 2020 war ended, despite numerous areas being ploughed. HALO will conduct subsurface clearance when the number of items found on the surface starts to decrease. In 2021, it purchased two new large-loop detectors with funding from Norway and conducted further tests on soft ground in highly contaminated areas in 2022, the result of which were positive.<sup>63</sup>

Table 3: CMR clearance by HALO in 2022<sup>64</sup>

District	Area cleared (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed during CMR clearance
Askeran	1,241,340	35	2,061
Martakert	405,750	2	94
Martuni	1,203,765	12	29
Spot tasks	N/A	339	0
Totals	2,850,855	388	2,184

50 Email from Miles Hawthorn, HALO, 5 May 2022.

51 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

52 Ibid.

53 Ibid.

54 Emails from Miles Hawthorn, HALO, 5 May 2022; and Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

55 Email from David Crawford, HALO, 3 May 2023.

56 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

57 Email from David Crawford, HALO, 20 April 2023.

58 Ibid.

59 Emails from Miles Hawthorn, HALO, 5 May 2022; and Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

60 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

61 Email from David Crawford, HALO, 3 May 2023.

62 Emails from Miles Hawthorn, HALO, 5 May 2022; and Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

63 Email from David Crawford, HALO, 20 April 2023.

64 Emails from Fiona Kilpatrick-Cooper, HALO, 16 March 2023; and David Crawford, HALO, 7 June 2023. HALO has indicated that clearance figures include a 50-metre fade-out.

In 2022, HALO destroyed a total of 388 submunitions, most through spot tasks.<sup>65</sup> This compares with 1,715 submunitions destroyed by HALO during spot tasks and in 2021.<sup>66</sup>

**Table 4: Five-year summary of CMR clearance**

Year	Area cleared (m <sup>2</sup> )
2022	2.85
2021	4.00
2020 <sup>67</sup>	0.15
2019	0.05
2018	0
<b>Total</b>	<b>7.05</b>

## PROGRESS TOWARDS COMPLETION

Until 2021, productivity had dropped sharply in recent years, which HALO ascribed to donor hesitancy. HALO highlighted that in 2021 and 2022 the average area cleared by each team each month remained pretty steady (38,567m<sup>2</sup> per month in 2021 compared with 33,389m<sup>2</sup> in 2022) and the overall decrease in the area cleared in 2022, 160,957m<sup>2</sup>, is mainly due to the gradual reduction in BAC teams in the second half of 2022 (from 10 July).<sup>68</sup> However, the overall outlook for CMR clearance in Nagorno-Karabakh has not significantly changed.

Despite the sharply increased humanitarian threat posed by cluster munitions and other ERW since the 2020 war, prospects for scaling up clearance continue to be limited by funding constraints.<sup>69</sup> This also prevents HALO from offering competitive salaries with the consequent loss of staff to organisations offering better rates of pay.<sup>70</sup> The blockade of the Lachin Corridor since mid-December 2022 is another obstacle to CMR clearance.

<sup>65</sup> Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

<sup>66</sup> Email from Miles Hawthorn, HALO, 5 May 2022.

<sup>67</sup> Email from David Crawford, HALO, 7 June 2023. HALO previously reported no CMR clearance for 2020.

<sup>68</sup> Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

<sup>69</sup> Emails from Miles Hawthorn, HALO, 18 April 2021 and 5 May 2022.

<sup>70</sup> Email from David Crawford, HALO, 20 April 2023.

# WESTERN SAHARA

MINE  
ACTION  
REVIEW

## CLEARING CLUSTER MUNITION REMNANTS 2023

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION: LIGHT

NATIONAL ESTIMATE

**2** km<sup>2</sup>

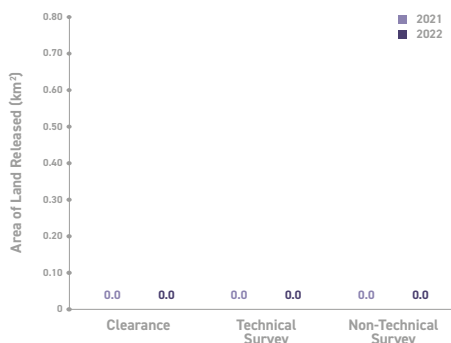
SUBMUNITION  
CLEARANCE IN 2022

**0** km<sup>2</sup>

SUBMUNITIONS  
DESTROYED IN 2022

**0**

### LAND RELEASE OUTPUT



## RECOMMENDATIONS FOR ACTION

- The Sahrawi Arab Democratic Republic (SADR) should reaffirm its written commitment to respect and implement the Convention on Cluster Munitions (CCM), including clearance of all cluster munition remnants (CMR), consonant with its international human rights obligations. This commitment should include annual submission of voluntary Article 7 transparency reports.
- The Saharawi Mine Action Coordination Office (SMACO) should draft a new strategy, including a new deadline for completion of clearance of CMR with annual survey and clearance targets, along with a detailed budget.
- Greater support should be provided to the SMACO to enable it to continue to coordinate mine action in Western Sahara, east of the Berm, and to ensure that capacity development efforts are not wasted.
- Mine action in Western Sahara must not become forgotten or overlooked by the international community. Support must be given to address remaining mine, CMR, and other explosive ordnance contamination.

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Saharawi Mine Action Coordination Office (SMACO) [Western Sahara, east of the Berm]
- Royal Moroccan Army [Western Sahara, west of the Berm]

### NATIONAL OPERATORS

- Royal Moroccan Army

### INTERNATIONAL OPERATORS

- SafeLane Global
- Danish Refugee Council (DRC)'s Humanitarian Disarmament and Peacebuilding department

### OTHER ACTORS

- United Nations Mine Action Service (UNMAS) Western Sahara

## UNDERSTANDING OF CMR CONTAMINATION

According to the United Nations Mine Action Service (UNMAS), at the end of 2022, Western Sahara east of the Berm<sup>1</sup> had a total of 45 confirmed hazardous areas (CHAs) containing CMR, covering a total of 2.09km<sup>2</sup>.<sup>2</sup> There is no change in the contamination estimate from 2021 as no survey or clearance took place in 2022. Both the north and south of Western Sahara east of the Berm are still affected, as summarised in Table 1.<sup>3</sup>

**Table 1: Cluster munition-contaminated area east of the Berm (at end 2022)<sup>4</sup>**

Region	CHAs	Area (km <sup>2</sup> )
North	26	0.81
South	19	1.28
<b>Totals</b>	<b>45</b>	<b>2.09</b>

The Royal Moroccan Armed Forces used both artillery-fired and air-dropped cluster munitions against Polisario Front military forces during their conflict in Western Sahara from 1975 to 1991. According to the SADR, the Royal Moroccan Armed Forces employed BLU-63, M42, and Mk118 submunitions at multiple locations in Bir Lahlou, Dougaj, Mehaires, Mijek, and North Wadis.<sup>5</sup>

On 13 November 2020, Morocco sent troops into the UN-monitored buffer zone to end Polisario Front supporters' three-week blockade of the strategic Guerguerat road. In

response, Polisario withdrew from the almost 30-year-long ceasefire and renewed attacks on Moroccan military units.<sup>6</sup> According to UNMAS, this has severely impacted its clearance operations and there is believed to be new contamination from explosive remnants of war (ERW) along the Berm. To date, the renewed conflict between the Polisario Front and Morocco has been of low intensity, without any recorded use of cluster munitions.<sup>7</sup> In 2022, however, the UN Mission for the Referendum in Western Sahara (MINURSO) identified a renewed threat of landmines and ERW in the area to the east of the Berm, including in areas previously deemed safe since 2020. MINURSO advocated that the parties to the conflict share detailed information on where renewed fighting had taken place and the types of munitions used to update the mine action database.<sup>8</sup>

While CMR clearance had been projected to be completed by the end of 2012,<sup>9</sup> discovery of previously unrecorded contaminated areas meant this target date was not met. According to UNMAS, new strike areas continued to be identified in 2013–20 as mine action activities continued and additional information was received from local populations.<sup>10</sup> In 2022, no new areas of previously unrecorded contamination were identified and added to the database.<sup>11</sup>

Of the 45 recorded CHAs, eight cluster munition strike areas covering a total estimated size of 0.5km<sup>2</sup> are located inside the buffer strip and are inaccessible for clearance.<sup>12</sup> Clearance of mines and ERW in the buffer strip, restricted areas, and along the Berm itself is not foreseen in the MINURSO mission agreements.<sup>13</sup>

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Western Sahara also remains significantly affected by other ERW and mines due to the conflict (see Mine Action Review's *Clearing the Mines* report on Western Sahara for further information).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

UNMAS Western Sahara, formerly the MINURSO Mine Action Coordination Centre (MACC), facilitates MINURSO monitoring of the ceasefire and ensures the safe passage of UN personnel. On 27 October 2022, under UN Security Council Resolution 2654, MINURSO's mandate was extended for an additional 12 months until 31 October 2023.

UNMAS Western Sahara serves as the UN focal point for mine action activities within the MINURSO area of operations. Its contracted teams work only in areas east of the Berm. The Royal Moroccan Army conducts its own demining in areas west of the Berm. In 2013–14, the Polisario Front, with UN support, established the Saharawi Mine Action Coordination Office (SMACO), which is responsible for coordinating mine action activities in Western Sahara east of the Berm, excluding the buffer strip.<sup>14</sup>

1 A defensive wall (the Berm) was built during the conflict between the Royal Moroccan Armed Forces and the Popular Front for the Liberation of Saguia el Hamra and Rio de Oro (Polisario Front) forces, dividing control of the territory between Morocco on the west, and the Polisario Front on the east.

2 Email from Elhadji Kebe, Chief Mine Action Programme, UNMAS, 25 April 2023.

3 Ibid.

4 Ibid.

5 SADR Voluntary CCM Article 7 Report, dated 20 June 2014, Form F.

6 International Crisis Group, *Time for International Re-engagement in Western Sahara*, Middle East and North Africa Briefing No. 82, 11 March 2021, at: <https://bit.ly/3mPtYgl>.

7 Email from Edwin Faigmane, UNMAS, 24 May 2022.

8 Report of the Secretary-General, Situation concerning Western Sahara: S/2022/733, 3 October 2022.

9 Email from Karl Greenwood, Chief of Operations, Action on Armed Violence/Mechem Western Sahara Programme, 18 June 2012.

10 Emails from Robert Thompson, UNMAS, 29 April 2019; Dandan Xu, UNMAS, 28 June 2019; and Graeme Abernethy, UNMAS, 1 March 2018.

11 Email from Elhadji Kebe, UNMAS, 25 April 2023.

12 Email from Edwin Faigmane, UNMAS, 21 March 2022; The buffer strip is an area 5km wide, east of the Berm.

13 "Report of the Secretary-General on the situation concerning Western Sahara", UN doc. S/2017/307, 10 April 2017, p. 8.

14 Response to questionnaire by Sarah Holland, UNMAS, 24 February 2014, and email, 25 February 2014; and email from Edwin Faigmane, UNMAS, 6 August 2020.

In 2022, no financial support was provided to SMACO. There was some funding available from Spain but this was dependent on the resumption of demining operations. Spain approved a request from UNMAS to extend the timeframe of the grant should demining operations resume.<sup>15</sup>

In 2022, UNMAS Western Sahara was solely funded by MINURSO to support its mandate in Western Sahara by ensuring the safe passage of military observers.<sup>16</sup>

## ENVIRONMENTAL POLICIES AND ACTION

UNMAS Western Sahara reported that environmental impact is considered as part of the tasking process and implementation plan in order to minimise potential harm from demining activities.<sup>17</sup> This includes waste disposal procedures for rubbish and grey and black water disposal; how and where to set up camps; and how to dismantle camps without leaving an operational footprint.<sup>18</sup>

As part of their national standards, SMACO have a policy on environmental management with a requirement that all implementation plans consider environmental impacts.<sup>19</sup>

## GENDER AND DIVERSITY

UNMAS has reported that gender policies are implemented in accordance with UNMAS, the UN Office for Project Services (UNOPS), and MINURSO guidelines, as well as with direction from the Polisario Front.<sup>20</sup> UNMAS has a gender strategy as part of its overall country strategy.<sup>21</sup> UNMAS also reported that gender has been mainstreamed into Western Sahara's national mine action work plans and the SMACO 2019–23 mine action strategy.<sup>22</sup> During survey, efforts are made to consider the needs of men, women, girls, and boys to ensure more effective and efficient operations, despite challenges presented by conducting survey activities targeting Bedouin populations.<sup>23</sup>

UNMAS reported there is equal access to employment for qualified women and men in survey and clearance teams in Western Sahara, east of the Berm, including for managerial level/supervisory positions. In 2022, there was only one woman employed by SMACO and two by SafeLane Global (UNMAS's contractor), as illustrated in Table 2.<sup>24</sup> Since becoming operational in 2023, however, the number of women employed by SafeLane Global has increased to eight.<sup>25</sup>

Table 2: Gender composition of SMACO and SafeLane Global<sup>26</sup>

Entity	Total staff	Women employed	Total staff in managerial or supervisory positions	Women in managerial or supervisory positions	Total staff in operational positions	Women in operational positions
SMACO	4	1	1	0	2	1
SafeLane Global	47	2	11	0	18	2

Through SMACO, UNMAS also supports the Sahrawi Mine Action Women's Team (SMAWT), an all-female organisation working on risk education in Rabouni and the five Sahrawi refugee camps. All national deminers, both male and female, are Sahrawi, considered an ethnic minority group.<sup>27</sup>

15 Email from Elhadji Kebe, UNMAS, 25 April 2023.  
16 Ibid.  
17 Emails from Leon Louw, UNMAS, 4 February 2022; and Edwin Faigmane, UNMAS, 21 March 2022.  
18 Email from Edwin Faigmane, UNMAS, 24 May 2022.  
19 Ibid., 18 June 2020.  
20 Emails from Graeme Abernethy, UNMAS, 1 March and 5 May 2018.  
21 Email from Leon Louw, UNMAS, 30 March 2021.  
22 Email from Edwin Faigmane, UNMAS, 18 June 2020.  
23 Emails from El Hadji Mamadou Kebe, NPA, 4 May 2019 and 14 March 2018.  
24 Email from Elhadji Kebe, UNMAS, 25 April 2023.  
25 Ibid., 30 May 2023.  
26 Emails from Elhadji Kebe, UNMAS, 25 April 2023 and from Hadi Kodeih, SafeLane Global Limited, 30 May 2023.  
27 Email from Leon Louw, UNMAS, 30 March 2021; and SMAWT newsletter, March 2022, at: <https://bit.ly/3yN542U>.

## INFORMATION MANAGEMENT AND REPORTING

According to UNMAS, the Information Management System for Mine Action (IMSMA) database for Western Sahara, east of the Berm, improved as a result of an ongoing data audit initiated at the end of 2015.<sup>28</sup> The Geneva International Centre for Humanitarian Demining (GICHD) has also provided ongoing support to correct database errors, and an upgrade to the latest database software version, IMSMA Core, was scheduled to take place in August 2019.<sup>29</sup> This was further delayed due to the COVID-19 lockdown, and IMSMA Core finally became fully operational in March 2022, with all data successfully migrated.<sup>30</sup>

## PLANNING AND TASKING

In 2019, SMACO developed its strategy for mine action in Western Sahara, east of the Berm, covering 2019–23 in line with the newly published global UN Mine Action Strategy 2019–2023.<sup>31</sup>

No specific objectives relate to CMR in the strategy for mine action in Western Sahara, east of the Berm, but SMACO has established the following general objectives in order to achieve a Western Sahara free of the impact of mines and ERW:

- To implement efficient and effective communication with national and international organisations by 2019.
- To establish an effective mechanism for data collection of accidents and victims which will be shared with partners according to the SMACO Data Protection Policy by 2019.
- To establish sustainable and constant funding of SMACO by 2020.
- To ensure availability of human resources to comprehensively manage mine action by 2020.
- To fully implement a professional management structure within SMACO by 2021.

- To create a discussion platform (think tank) for a national victim rights protection policy by 2022.
- To establish a national employment policy for mine action activities by 2023.<sup>32</sup>

In 2022, SMACO had developed a form for accident and victim data collection in Western Sahara, east of the Berm and victims, following a series of workshops with stakeholders, which had been approved by the Sahrawi Ministry of Defence. The resultant form is available in both Arabic and English. The other objectives have still to be realised and UNMAS has reported that the UN Mine Action Strategy for 2023–2026 is currently being developed.<sup>33</sup> A mine action work plan was in place for UNMAS in 2022, developed by UNMAS Western Sahara, in support of MINURSO's mandate.<sup>34</sup>

UNMAS Western Sahara mine action activities continue to be in support of MINURSO's mandate.<sup>35</sup> UNMAS and SMACO identify priorities for clearance of both minefields and cluster munition strikes east of the Berm in conjunction with MINURSO. Priorities are identified based on humanitarian needs for the safety and freedom of movement of local populations, while UNMAS Western Sahara facilitates the ceasefire and ensuring the safe passage of UN personnel.<sup>36</sup>

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Local mine action standards were developed and finalised in 2016 by UNMAS, together with SMACO, and in coordination with mine action partners. UNMAS reported in June 2019 that translation of the standards into Arabic had been completed and shared with SMACO.<sup>37</sup> UNMAS reported that the standards are reviewed annually but that no updates were made in 2022.<sup>38</sup>

An external quality management system was in place from 2018 and implemented by UNMAS and SMACO to the east of the Berm.<sup>39</sup>

28 Emails from Graeme Abernethy, UNMAS, 1 March and 5 May 2018.

29 Email from Robert Thompson, UNMAS, 31 May 2019.

30 Emails from Leon Louw, UNMAS, 4 February 2022; and Nadine Hussein, UNMAS, 30 May 2023.

31 Emails from Leon Louw, UNMAS, 30 March 2021; and Edwin Faigmane, UNMAS, 21 March 2022.

32 SMACO, "Strategic Plan 2019–2023", at: <http://bit.ly/38jaGm2>; and email from Robert Thompson, UNMAS, 31 July 2019.

33 Emails from Elhadji Kebe, UNMAS, 25 April 2023 and 30 May 2023.

34 Ibid.

35 Email from Edwin Faigmane, UNMAS, 18 June 2020.

36 Emails from Graeme Abernethy, UNMAS, 1 March and 5 May 2018; and Edwin Faigmane, UNMAS, 6 August 2020.

37 Emails from Robert Thompson, UNMAS, 29 April 2019; and Dandan Xu, UNMAS, 28 June 2019.

38 Email from Elhadji Kebe, UNMAS, 25 April 2023.

39 Emails from Robert Thompson, UNMAS, 29 April 2019; and Edwin Faigmane, UNMAS, 28 July 2020.

Table 3: Operational clearance capacities deployed in 2022<sup>40</sup>

Operator	Manual teams	Total deminers*	Dog teams	Mechanical assets	Comments
SafeLane Global (for UNMAS Western Sahara)	1	10	0	0	No change from 2021
Totals	1	10	0	0	

\* Excluding team leaders, medics, and drivers.

SafeLane Global (formerly Dynasafe MineTech Limited, DML) was the implementing operator for UNMAS Western Sahara in 2021. UNMAS expected to restart demining operations in 2023, which they believe could lead to an increase in capacity.<sup>41</sup>

Danish Refugee Council (DRC) had hoped to restart non-technical survey in 2022.<sup>42</sup>

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2022

No cluster munition-contaminated area was released through survey or clearance or submunitions destroyed during spot tasks in 2022 or 2021.<sup>43</sup> According to UNMAS, the absence of survey and clearance during the two years was due to the partial suspension of clearance operations in accordance with COVID-19 protocols as well as the ending of the three-decade-long ceasefire between Morocco and Polisario in November 2020. This led to the suspension of survey and clearance operations due to Polisario's refusal to approve them. This meant that only the explosive ordnance disposal (EOD) response team were on standby for emergency EOD and route verification tasks.<sup>44</sup>

PROGRESS TOWARDS COMPLETION

Western Sahara is neither a State Party nor a signatory to the CCM—it is not recognised as a State by the UN Secretary-General and therefore cannot formally adhere to the treaty—and hence does not have a specific clearance deadline under Article 4. However, the SADR submitted a voluntary CCM Article 7 transparency report to the UN in 2014, stating that “the SADR would like to reaffirm its commitment to a total ban on cluster munitions as well as its willingness to accede to the Convention on Cluster Munitions and be bound by its provisions”.<sup>45</sup> The SADR has obligations under international human rights law to clear CMR as soon as possible.

Under Western Sahara's draft mine action strategic plan, all recorded cluster munition strike areas to the east of the Berm, outside of the buffer strip, were to be released by 2019.<sup>46</sup> UNMAS expected to complete clearance of all CMR contamination in the Northern Sector (Bir Lahlou, Mehaires, and Tifariti districts) east of the Berm by the end of 2018.<sup>47</sup> This did not happen, however, and in SMACO's mine action strategy 2019–23, the vision is for Western Sahara to be free of the impact of mines and ERW by 2023.<sup>48</sup> Western Sahara did not meet this date, which should now be revised along with the elaboration of a new strategic plan.

UNMAS Western Sahara has been advocating for the resumption of demining operations east of the Berm. The Royal Moroccan Army gave its approval in August 2022 with the Polisario Front following suit in January 2023. In April 2023, demining teams were remobilised and retrained with the first teams deployed for battle area clearance in May.<sup>49</sup> To support continued land release, there is an urgent need for increased resources and capacity at SMACO.

40 Email from Elhadji Kebe, UNMAS, 25 April 2023.  
41 Ibid.  
42 Email from Catherine Smith, Regional Coordinator, DDG, 1 February 2022.  
43 Emails from Leon Louw, UNMAS, 4 February 2022; and Elhadji Kebe, UNMAS, 25 April 2023.  
44 Emails from Leon Louw, UNMAS, 30 March 2021; and Elhadji Kebe, UNMAS, 25 April 2023; and UN Country Level Survey for the Monitoring & Evaluation Mechanism of the UN Mine Action Strategy 2019–2023.  
45 SADR Voluntary CCM Article 7 Report, Form F, 20 June 2014.  
46 Emails from Virginie Auger, UNMAS, 29 March 2017; and Graeme Abernethy, UNMAS, 31 March 2018.  
47 Email from Graeme Abernethy, UNMAS, 1 March 2018.  
48 SMACO, “Strategic Plan 2019–2023”, at: <http://bit.ly/38jaGm²>.  
49 Email from Elhadji Kebe, UNMAS, 30 May 2023.

**ANNEX**

The background of the page is composed of several large, overlapping geometric shapes in various shades of purple and blue. A prominent light purple shape runs diagonally from the bottom left towards the top right. Other darker purple and blue shapes fill the remaining space, creating a layered, abstract effect.

## ARTICLE 4: CLEARANCE AND DESTRUCTION OF CLUSTER MUNITION REMNANTS AND RISK REDUCTION EDUCATION

1. Each State Party undertakes to clear and destroy, or ensure the clearance and destruction of, cluster munition remnants located in cluster munition contaminated areas under its jurisdiction or control, as follows:
  - (a) Where cluster munition remnants are located in areas under its jurisdiction or control at the date of entry into force of this Convention for that State Party, such clearance and destruction shall be completed as soon as possible but not later than ten years from that date;
  - (b) Where, after entry into force of this Convention for that State Party, cluster munitions have become cluster munition remnants located in areas under its jurisdiction or control, such clearance and destruction must be completed as soon as possible but not later than ten years after the end of the active hostilities during which such cluster munitions became cluster munition remnants; and
  - (c) Upon fulfilling either of its obligations set out in sub-paragraphs (a) and (b) of this paragraph, that State Party shall make a declaration of compliance to the next Meeting of States Parties.
2. In fulfilling its obligations under paragraph 1 of this Article, each State Party shall take the following measures as soon as possible, taking into consideration the provisions of Article 6 of this Convention regarding international cooperation and assistance:
  - (a) Survey, assess and record the threat posed by cluster munition remnants, making every effort to identify all cluster munition contaminated areas under its jurisdiction or control;
  - (b) Assess and prioritise needs in terms of marking, protection of civilians, clearance and destruction, and take steps to mobilise resources and develop a national plan to carry out these activities, building, where appropriate, upon existing structures, experiences and methodologies;
  - (c) Take all feasible steps to ensure that all cluster munition contaminated areas under its jurisdiction or control are perimeter-marked, monitored and protected by fencing or other means to ensure the effective exclusion of civilians. Warning signs based on methods of marking readily recognisable by the affected community should be utilised in the marking of suspected hazardous areas. Signs and other hazardous area boundary markers should, as far as possible, be visible, legible, durable and resistant to environmental effects and should clearly identify which side of the marked boundary is considered to be within the cluster munition contaminated areas and which side is considered to be safe;
  - (d) Clear and destroy all cluster munition remnants located in areas under its jurisdiction or control; and
  - (e) Conduct risk reduction education to ensure awareness among civilians living in or around cluster munition contaminated areas of the risks posed by such remnants.
3. In conducting the activities referred to in paragraph 2 of this Article, each State Party shall take into account international standards, including the International Mine Action Standards (IMAS).
4. This paragraph shall apply in cases in which cluster munitions have been used or abandoned by one State Party prior to entry into force of this Convention for that State Party and have become cluster munition remnants that are located in areas under the jurisdiction or control of another State Party at the time of entry into force of this Convention for the latter.
  - (a) In such cases, upon entry into force of this Convention for both States Parties, the former State Party is strongly encouraged to provide, inter alia, technical, financial, material or human resources assistance to the latter State Party, either bilaterally or through a mutually agreed third party, including through the United Nations system or other relevant organisations, to facilitate the marking, clearance and destruction of such cluster munition remnants.
  - (b) Such assistance shall include, where available, information on types and quantities of the cluster munitions used, precise locations of cluster munition strikes and areas in which cluster munition remnants are known to be located.
5. If a State Party believes that it will be unable to clear and destroy or ensure the clearance and destruction of all cluster munition remnants referred to in paragraph 1 of this Article within ten years of the entry into force of this Convention for that State Party, it may submit a request to a Meeting of States Parties or a Review Conference for an extension of the deadline for completing the clearance and destruction of such cluster munition remnants by a period of up to five years. The requested extension shall not exceed the number of years strictly necessary for that State Party to complete its obligations under paragraph 1 of this Article.

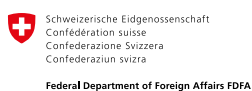
6. A request for an extension shall be submitted to a Meeting of States Parties or a Review Conference prior to the expiry of the time period referred to in paragraph 1 of this Article for that State Party. Each request shall be submitted a minimum of nine months prior to the Meeting of States Parties or Review Conference at which it is to be considered. Each request shall set out:
    - (a) The duration of the proposed extension;
    - (b) A detailed explanation of the reasons for the proposed extension, including the financial and technical means available to and required by the State Party for the clearance and destruction of all cluster munition remnants during the proposed extension;
    - (c) The preparation of future work and the status of work already conducted under national clearance and demining programmes during the initial ten year period referred to in paragraph 1 of this Article and any subsequent extensions;
    - (d) The total area containing cluster munition remnants at the time of entry into force of this Convention for that State Party and any additional areas containing cluster munition remnants discovered after such entry into force;
    - (e) The total area containing cluster munition remnants cleared since entry into force of this Convention;
    - (f) The total area containing cluster munition remnants remaining to be cleared during the proposed extension;
    - (g) The circumstances that have impeded the ability of the State Party to destroy all cluster munition remnants located in areas under its jurisdiction or control during the initial ten year period referred to in paragraph 1 of this Article, and those that may impede this ability during the proposed extension;
    - (h) The humanitarian, social, economic and environmental implications of the proposed extension; and
    - (i) Any other information relevant to the request for the proposed extension.
  7. The Meeting of States Parties or the Review Conference shall, taking into consideration the factors referred to in paragraph 6 of this Article, including, inter alia, the quantities of cluster munition remnants reported, assess the request and decide by a majority of votes of States Parties present and voting whether to grant the request for an extension. The States Parties may decide to grant a shorter extension than that requested and may propose benchmarks for the extension, as appropriate.
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8. Such an extension may be renewed by a period of up to five years upon the submission of a new request, in accordance with paragraphs 5, 6 and 7 of this Article. In requesting a further extension a State Party shall submit relevant additional information on what has been undertaken during the previous extension granted pursuant to this Article.
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# GLOSSARY OF ACRONYMS AND ABBREVIATIONS

<b>AIM</b>	Abandoned Improvised Mines (Afghanistan)	<b>MDD</b>	Mine detection dog (team)
<b>AP mine</b>	Anti-personnel mine	<b>MoU</b>	Memorandum of Understanding
<b>APMBC</b>	1997 Anti-Personnel Mine Ban Convention	<b>MRE</b>	Mine risk education
<b>AV mine</b>	Anti-vehicle mine	<b>MTT</b>	Multi-task team
<b>AXO</b>	Abandoned explosive ordnance	<b>NATO</b>	North Atlantic Treaty Organization
<b>BAC</b>	Battle area clearance	<b>NGO</b>	Non-governmental organisation
<b>BiH</b>	Bosnia and Herzegovina	<b>NMAS</b>	National Mines Action Standards
<b>CCM</b>	2008 Convention on Cluster Munitions	<b>NPA</b>	Norwegian People's Aid
<b>CCW</b>	Convention on Certain Conventional Weapons	<b>NSAG</b>	Non-state armed group
<b>CHA</b>	Confirmed hazardous area	<b>NTS</b>	Non-technical survey
<b>CMR</b>	Cluster munition remnants	<b>OAP</b>	Oslo Action Plan
<b>CMRS</b>	Cluster Munition Remnants Survey	<b>OAS</b>	Organization of American States
<b>DCA</b>	DanChurchAid	<b>OSCE</b>	Organization for Security and Co-operation in Europe
<b>DDG</b>	Danish Demining Group	<b>PPE</b>	Personal protective equipment
<b>EDD</b>	Explosive detection dog (team)	<b>QA</b>	Quality assurance
<b>EO</b>	Explosive ordnance	<b>QC</b>	Quality control
<b>EOD</b>	Explosive ordnance disposal	<b>QM</b>	Quality management
<b>EORE</b>	Explosive ordnance risk education	<b>SHA</b>	Suspected hazardous area
<b>ERW</b>	Explosive remnants of war	<b>SOP</b>	Standing (or standard) operating procedure
<b>EU</b>	European Union	<b>TS</b>	Technical survey
<b>FSD</b>	Swiss Foundation for Mine Action	<b>TWG</b>	Technical working group
<b>GICHD</b>	Geneva International Centre for Humanitarian Demining	<b>UN</b>	United Nations
<b>GIS</b>	Geographic information system	<b>UNDP</b>	United Nations Development Programme
<b>HI</b>	Humanity and Inclusion	<b>UNICEF</b>	United Nations Children's Fund
<b>ICRC</b>	International Committee of the Red Cross	<b>UNMAS</b>	United Nations Mine Action Service
<b>IED</b>	Improvised explosive device	<b>UXO</b>	Unexploded ordnance
<b>IMAS</b>	International Mine Action Standards	<b>VA</b>	Victim assistance
<b>IMSMA</b>	Information Management System for Mine Action	<b>VTF</b>	Voluntary Trust Fund (United Nations)
<b>IP</b>	Implementing partner		
<b>ITF</b>	International Trust Fund (ITF) Enhancing Human Security		
<b>LIS</b>	Landmine Impact Survey		
<b>MAG</b>	Mines Advisory Group		



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