

MINE
ACTION
REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2022

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

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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

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- *Global contamination from cluster munition remnants*

CLEARING CLUSTER MUNITION REMNANTS

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KEY FINDINGS

- A global total of **more than 151.7 square kilometres** was cleared of cluster munition remnants (CMR) in 2021, a new annual record and an increase of over twelve per cent on the previous record set in 2020. This achievement was despite the ongoing COVID-19 pandemic, which continued to negatively impact operations in several countries. The number of unexploded submunitions destroyed during clearance, survey, and spot tasks in 2021—**more than 106,300**—was a small drop on the 110,000 destroyed in 2020.
- No State Party to the Convention on Cluster Munitions (CCM) fulfilled its Article 4 clearance obligations in 2021. But Mine Action Review no longer considers State not party Georgia to have cluster munition-contaminated area on its territory. It is also likely that signatory State Angola has only residual CMR contamination, but Mine Action Review is not yet in a position to conclude area clearance is complete.
- Globally, a total of **25 States and three other areas** were believed to have cluster munition-contaminated area on their territory as at 1 July 2022, a drop of one State (Georgia) compared to 2021. As a result of progress achieved under the CCM, of its 110 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.

Signatory State the Democratic Republic of Congo is believed to have cluster munition-contaminated areas remaining on its territory. This may also be the case in Angola, although it is likely that Angola has only residual CMR contamination. A further 13 States not party—Armenia, Azerbaijan, Cambodia, Iran, Libya, Serbia, South Sudan, Sudan, Syria, Tajikistan, Ukraine, Vietnam, and Yemen—are affected by CMR, along with three other areas (Kosovo, Nagorno-Karabakh, and Western Sahara).
- **New use of cluster munitions was recorded in Ukraine** in 2022 following the Russian invasion that began in late February. The exact number of attacks involving cluster munitions is unknown, but organisations and media outlets have documented several hundred. As of writing, Russia continued to use cluster munitions in its military operation against Ukraine. Many attacks seem to have targeted civilian objects protected under international humanitarian law, including hospitals, or have been indiscriminate in nature, sparking widespread international condemnation and allegations of possible war crimes.
- Of the 10 affected States Parties to the CCM, only Lao PDR is **massively contaminated** (where cluster munition-contaminated areas cover more than 1,000km² of land), while **heavy contamination** exists in Iraq (defined as extending over more than 100km²). In the eight other affected States Parties, the extent of contamination is medium or light.
- Clearance in the ten affected States Parties covered a total of almost 67.5km² of cluster munition-contaminated area. In Chile and Somalia, no area clearance took place in 2021. Bosnia and Herzegovina, Chad, and Chile were all seeking extensions to their Article 4 deadlines at the CCM's Tenth Meeting of States Parties. Bosnia and Herzegovina was requesting a new one-year extension of its deadline to 1 September 2023. Chad was asking for a new, potentially interim, one-year extension to its deadline of 1 September 2024, during which it would seek to complete non-technical survey to determine whether CMR remain in Tibesti province. Chile was seeking a three-year extension to 1 June 2026.

Furthermore, of the 10 affected States Parties, only Afghanistan was on track to meet its Article 4 deadline without the need for a (further) extension, and major challenges following the change in regime could still derail its progress.
- Four of the world's most heavily contaminated States—Lao PDR, Vietnam, Cambodia, and Iraq—again saw the greatest amount of area clearance during the year, together accounting for over 85% of recorded global output in 2021. Almost one third of global clearance was recorded in Lao PDR alone, the world's most heavily contaminated State. A big drop in CMR clearance (unexplained as of writing) was recorded in Cambodia for 2021, down by a third on area clearance compared to the previous year.
- 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.¹ Mine Action Review added Georgia to this list this year, as all known and suspected cluster munition-contaminated areas have been released and only a residual risk remains.

1 States Parties: Croatia, Colombia, Republic of Congo, Grenada, Guinea-Bissau, Montenegro, Mozambique, Norway, United Kingdom (the United Kingdom did not consider itself to have an unfulfilled obligation under Article 4 of the CCM on the basis of its claim to have already made every effort to identify all cluster munition-contaminated areas under its jurisdiction or control before becoming a State Party), and Zambia (Zambia completed CMR clearance in June 2010 prior to entry into force of the CCM on 1 August 2010). In addition, States not Party Georgia and Thailand have also completed CMR clearance.

- In Mine Action Review's assessment of national mine action performance in 2021, no State Party was ranked as Very Good. Germany, Lao PDR, and Lebanon were again ranked Good. Afghanistan dropped down to Average, joining Bosnia and Herzegovina, Iraq, and Mauritania. Chile went up from Poor to Average, reflecting its conduct of technical survey and the elaboration of a national plan to complete clearance. Chad remained Poor, while Somalia remained Very Poor, a reflection of the unacceptably low performance of the national programme in implementing its Article 4 obligations of survey and clearance.
 - The importance of environmental considerations is also becoming increasingly prominent in mine action as it is across all sectors. This year, for the first time, Mine Action Review has included a section on **Environmental Policies and Action** in each of our country reports. The section contains information on whether States have a national mine action standard (NMAS) on the environment; whether national authorities and their implementing partners have an environmental management system in place; and how, if at all, is the environment taken into consideration during the planning and tasking process for survey and clearance of CMR, in order to minimise potential harm from demining activities. A policy brief on **Mitigating the Environmental Impacts of Explosive Ordnance and Land Release**, published in 2021, is also available on the Mine Action Review website.
 - 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. Our provisional 2022 baseline results of the survey and clearance related indicators monitored can be found on the Mine Action Review website, together with a supporting guide to the LAP.
- The results of Mine Action Review's 2022 baseline assessment will be finalised following the Tenth Meeting of States Parties on 30 August–2 September 2022. Mine Action Review welcomes feedback from States Parties and other stakeholders on the results of the provisional assessment. Please email MineActionReview@npaid.org with any feedback or additional information for Mine Action Review's consideration.

OVERVIEW

SUMMARY OF PROGRESS

Global clearance of cluster munition-contaminated area totalled more than 151.7km² in 2021, an increase of over 12% on the 135.1km² cleared in 2020 and a new annual record, despite the ongoing impact of the COVID-19 pandemic in several affected countries. A total of more than 106,300 unexploded submunitions were destroyed during clearance and explosive ordnance disposal (EOD) operations in 2021 (a small drop on the level recorded in 2020 of some 110,000). Clearance operations occurred in 21 States and 2 other areas.¹ The total recorded figure of area clearance for 2021 also understates the true level of clearance given that detailed results in Iran and Syria have not been made public.

As at 1 July 2021, 110 States were party to the Convention on Cluster Munitions (CCM)—unchanged from a year earlier—leaving a total of 87 States not party. Of these States not party, 13 States were treaty signatories, meaning that they are also prevented by general international law from ever using cluster munitions. 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.

No State Party to the CCM completed clearance of cluster munition remnants (CMR) in 2021 or the first half of 2022.

As a consequence, as at July 2022, 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. In 2022, three of these States Parties submitted requests to extend their respective deadlines. Bosnia and Herzegovina sought a one-year extension through to 1 September 2023; Chad sought a one-year extension to 1 September 2024 during which to conduct non-technical survey in Tibesti province; and Chile was asking for a three-year extension to 1 June 2026. The three requests, all of which could have been avoided with greater political engagement by their respective national authorities, were due to be considered at the Tenth Meeting of States Parties to the CCM on 30 August–2 September 2022.

Globally, 25 States and 3 other areas were believed to be contaminated with CMR as at 1 July 2022, a drop of one compared to the previous year. Georgia has been removed from the list of affected States as Mine Action Review believes that no cluster munition-contaminated areas remain on its territory.

GLOBAL CMR CONTAMINATION

Globally, 25 States and three "other areas" (territories not recognised as States by the United Nations Secretary-General) were cluster munition-contaminated as at 1 July 2022, a reduction of one on the situation a year earlier. State not party Georgia is no longer included on the list as clearance is believed to be complete. 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.

By far the world's most contaminated State is State Party Lao PDR. While a national baseline survey continues to be conducted, the figure it eventually produces will certainly be a huge reduction from the 87,000km² of total explosive ordnance contamination that Lao PDR continues to report in its annual Article 7 transparency reports. As at the end of 2021, a total of 1,523km² of confirmed hazardous area (CHA) had been identified through partial survey. State not party Vietnam also has massive contamination on its territory, which Mine Action Review believes is likely to amount to around 1,500km².

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 each of these States clearance will 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. New and significant use by Russian forces in Ukraine is also greatly increasing the extent of CMR contamination across the country.

The other 20 affected States and three other areas could be freed of cluster munition remnants by 2030 at the latest, meeting the date for the fulfilment of the UN Sustainable Development Goals (SDGs). 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.

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 undertaking to rid their territory of CMR within a time-bound deadline.

¹ States Parties Afghanistan, Bosnia and Herzegovina, Chad, Germany, Iraq, Lao PDR, Lebanon, and Mauritania; signatory State Angola; States not party Armenia, Azerbaijan, Cambodia, Libya, Serbia, South Sudan, Sudan, Syria, Tajikistan, Ukraine, Vietnam, and Yemen. Clearance also occurred in Kosovo and Nagorno-Karabakh.

Table 1: CMR-affected States and other areas (at 1 July 2022)

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	
10 States Parties	2 Signatory States	13 States not party	3 other areas

Table 2: Extent of CMR-contaminated areas in affected CCM States Parties (at 1 July 2022)

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

CMR CLEARANCE IN 2021

A total of more than 151.7km² of cluster munition-contaminated area was cleared globally in 2021 (see Tables 3 and 4), an increase of over 12% on the 135.1km² cleared in 2020 and a new annual record, despite the ongoing impact of the COVID-19 pandemic on operations in several affected countries. In the course of 2021, a total of 106,331 unexploded submunitions were destroyed worldwide during clearance, survey, and spot tasks, a small reduction on the total destroyed the previous year (110,091).²

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 85% of recorded global clearance. This proportion was down from 95% a year earlier, reflecting a sharp (and as yet unexplained) drop in CMR clearance in Cambodia, down over 10km² from the almost 31km² achieved in 2020).

Of the 10 affected States Parties, all but Chile and Somalia conducted clearance of cluster munition-contaminated area in 2021. The aggregate clearance in States Parties for the year was almost 67.5km² (see Table 3) and represented nearly 45% of the global total. The total 80,000 of submunitions destroyed by States Parties in 2021 was just below the 80,615 destroyed in 2020. Significant increases in clearance output were recorded in Afghanistan (3.6km²), Iraq (over 8.1km²), and Lao PDR (almost 3.8km²).

² The global total of CMR clearance in 2021 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: CMR clearance in 2021 by States Parties

State Party	Area cleared (km ²)	Submunitions destroyed	Comparison to 2020 clearance (+/- km ²)
Afghanistan	3.60	1,059	+ 3.60
Bosnia and Herzegovina	0.62	*704	+ 0.27
Chad	0.74	11	+ 0.33
Chile	0.00	0	No change
Germany	0.85	466	- 0.24
Iraq	13.80	8,533	+ 8.13
Lao PDR	**46.68	66,800	+ 3.78
Lebanon	1.00	2,418	- 0.28
Mauritania	0.18	7	+ 0.18
Somalia	0.00	2	No change
Totals	67.47	80,000	

* Excludes 2,291 exploded pieces of MK1 submunitions discovered by the BiH Armed Forces in Central Bosnia, as these are not covered under Article 4 of the CCM.

**Based on National Regulatory Authority (NRA) data and excluding reported commercial clearance.

Clearance in 14 States not party and three other areas in 2021 amounted to nearly 84.3km², equating to the remaining 55% of the global total for the year. Output was a small drop on that recorded in 2020. Their destruction of a total of 26,331 submunitions in 2021 was, though, a significant drop on the 29,476 recorded in 2020. The reduction is primarily attributable to a 60% reduction in the recorded number of submunitions destroyed in Cambodia in 2021, in addition to 1,800 fewer submunitions destroyed in Vietnam. No submunitions were reported to have been destroyed in 2021 in either CCM signatory DR Congo or in Western Sahara.

Table 4: CMR clearance in 2021 by States not party and other areas

States not party	Area cleared (km ²)	Submunitions destroyed	Comparison to 2020 clearance (+/- km ²)	Comments
Angola	0.55	29	+ 0.55	CCM signatory State.
Armenia	0.05	25	+ 0.05	
Azerbaijan	3.00	387	+ 0.90	Mine Action Review estimation of clearance.
Cambodia	20.58	4,268	- 10.41	
DR Congo	0.00	0	No change	CCM signatory State.
Georgia	0.00	2	No change	
Iran	Not reported	Not reported	Not reported	
Libya	0.00	22	No change	
Serbia	0.88	28	+ 0.58	
South Sudan	3.41	2,922	+ 1.17	
Sudan	0.07	38	+ 0.07	
Syria	0.00	305	+ 0.00	
Tajikistan	1.87	1,165	+ 1.79	Includes 604 abandoned submunitions destroyed during a spot task.
Ukraine	0.57	4	+ 0.55	
Vietnam	48.00	13,456	- 0.50	
Yemen	*0.00	1,777	+ 0.00	Destruction of a significant number of submunitions did not occur during systematic area clearance.
Subtotals	78.98	24,428		

States not party	Area cleared (km ²)	Submunitions destroyed	Comparison to 2020 clearance (+/- km ²)	Comments
Other areas				
Kosovo	1.30	43	+ 0.96	
Nagorno-Karabakh	4.00	1,860	+ 4.00	
Western Sahara	0.00	0	- 0.76	
Subtotals	5.30	1,903		
Totals	84.28	26,331		

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. 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 5). 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 5: States that have completed CMR clearance since 2010 (at 1 July 2022)

State	Year of Completion of Clearance	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 on the basis of its claim to have already made every effort to identify all cluster munition-contaminated areas under its jurisdiction or control before becoming a State Party.
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.
Total	12 States	

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

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, three further extension requests were granted: for four years to Afghanistan; for a further one year to Chile (another "interim" extension); and for two years for Mauritania.

In 2022, three States Parties submitted requests to extend their respective deadlines for consideration at the Tenth Meeting of States Parties on 30 August–2 September 2022. Bosnia and Herzegovina sought a second extension, this time for one year through to 1 September 2023 during which to complete clearance; Chad sought a one-year extension to 1 September 2024, during which to complete non-technical survey to determine whether cluster munition-contaminated areas remain in Tibesti province; and Chile was asking for a three-year extension to 1 June 2026 to complete clearance. All of the requests could have been avoided with greater political engagement by their respective national authorities.

Table 6 sets out the details of progress towards fulfilment of the survey and clearance obligations under the Convention. Among States Parties, only Afghanistan was on track to meet its Article 4 deadline without the need for a (further) extension, and major challenges following the change in regime could still derail its progress.

Table 6: Progress in Implementing CCM Article 4 Obligations

State	Article 4 deadline	Status of Progress	Observations
Afghanistan	1 March 2026	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, however, committed to complying with the CCM, including its Article 4 clearance obligations, and clearance has continued since the change in government.
Bosnia and Herzegovina	1 September 2022	One-year extension requested to 1 September 2023	Despite pledging to meet its extended deadline of September 2022, Bosnia and Herzegovina was not on track to do so and has requested a further year to fulfil its CCM clearance obligations. The fact that its 2022 extension request refers to two previously unreported cluster munition-contaminated areas suggests that Bosnia and Herzegovina is likely to face residual CMR contamination even after it declares fulfilment of Article 4.
Chad	1 September 2023	One-year extension requested to 1 September 2024	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 that it would request an 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.
Chile	1 June 2023	Three-year extension requested to 1 June 2026	In 2021, Chile conducted technical survey of its cluster munition-contaminated area, all of which is in military training ranges. This reduced the estimate of contamination by more than half, paving the way for the submission of a third Article 4 deadline extension request in 2022 that details plans to clear the remaining area. Chile has not cleared a single submunition since becoming a State Party in 2011.
Germany	1 August 2025	Unclear whether on track to meet extended deadline	Clearance of the former military testing ground at Wittstock dropped in 2021 compared to the previous year. Total clearance capacity has, however, increased, which should result in greater output. In order to complete clearance by its extended deadline Germany needs to clear some 6km ² in three years, considerably more than it has managed in the last five.
Iraq	1 November 2023	Not on track to meet deadline	Iraq will not meet its original Article 4 deadline and will need multiple extensions in order to do so. Clearance more than doubled in 2021 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 2022–28, 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).

State	Article 4 deadline	Status of Progress	Observations
Lao PDR	1 August 2025	Will require multiple extensions	The national programme in Lao PDR made solid progress in both survey and clearance of CMR in 2021. Clearance output was higher than the previous year and the amount of CMR-contaminated area confirmed through technical survey was also an increase on 2020. Nevertheless, Lao PDR is still many years away from establishing a robust baseline of CMR contamination.
Lebanon	1 May 2026	Not on track to meet deadline	CMR clearance output in 2021 was lower than the previous year, although release through technical survey increased slightly, the result of belated improvements to national mine action standards. Decreased international funding and the deep economic crisis in the country make it unlikely that Lebanon will meet its extended Article 4 deadline of May 2026.
Mauritania	1 August 2024	Not on track to meet deadline	Assessment in 2021 identified a total of more than 14km ² of cluster munition-contaminated area, although further survey is likely to reduce this figure. Mauritania is struggling to rebuild a national mine action programme. The authorities repeated their call for more international support in the CCM Intersessional Meetings in May 2022.
Somalia	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 weakness, 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), including its Gender and Mine Action Programme (GMAP).

For their survey and clearance work in 2021, each of the ten affected States Parties was scored on the basis of seven set 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 2020 are summarised in Table 7. 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.

In 2021, no State Party was ranked as Very Good. Germany, Lao PDR, and Lebanon were again ranked Good. Afghanistan dropped down to Average, joining Bosnia and Herzegovina, Iraq, and Mauritania. Chile went up from Poor to Average, reflecting its conduct of technical survey and the elaboration of a national plan to complete clearance. Chad remained Poor, while Somalia 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, five States Parties increased their scoring for their CMR survey and clearance programmes in 2021 compared to the previous year (Chad, Chile, Germany, Iraq, and Mauritania) while three (Bosnia and Herzegovina, Lao PDR, and Lebanon) were unchanged. Performance in two States Parties (Afghanistan and Somalia) declined in 2021. The largest drop in scores was in Afghanistan while Chile registered the largest increase.

Table 7: Mine Action Programme Performance in Affected States Parties

State Party	Ranking in 2021	Score in 2021	Score in 2020	Change in score
Lebanon	Good	7.5	7.5	No change
Germany	Good	7.3	7.2	+ 0.1
Lao PDR	Good	7.1	7.1	No change
Iraq	Average	6.5	5.9	+ 0.6
Chile	Average	6.2	4.6	+ 1.6
Afghanistan	Average	5.9	7.1	- 1.2
Bosnia and Herzegovina	Average	5.3	5.3	No change
Mauritania	Average	5.3	5.1	+ 0.2
Chad	Poor	4.6	4.5	+ 0.1
Somalia	Very Poor	3.8	3.9	- 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
<p>UNDERSTANDING OF CLUSTER MUNITION CONTAMINATION (20% of overall score)</p>	<p>Has a national baseline of CMR contamination been established and is it up to date and accurate? If no national baseline, or only a partial or inaccurate baseline, exists, is survey and/or re-survey being conducted or is it planned?</p> <p>Are CMR-contaminated areas disaggregated from areas with other types of explosive ordnance (e.g. other explosive remnants of war (ERW) or mines)?</p> <p>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?</p> <p>Is there a high ratio of CHAs to SHAs?</p>
<p>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)</p>	<p>Is there a national entity, such as a national mine action authority, overseeing mine action?</p> <p>Is there a national mine action centre coordinating operations?</p> <p>Are the roles and responsibilities in mine action clear and coherent within the national programme?</p> <p>Is the mine action centre adequately staffed and skilled?</p> <p>Are clearance operators involved in key decision-making processes?</p> <p>Does national legislation, or other suitable administrative measures, effectively underpin the mine action programme?</p> <p>Have the authorities created an enabling environment for mine action?</p> <p>Has the government facilitated the receipt and efficient use of international assistance?</p> <p>Is there political will for timely and efficient implementation of Article 4 of the CCM?</p> <p>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?</p> <p>Does the affected State have a resource mobilisation strategy in place for Article 4 implementation?</p>
<p>GENDER AND DIVERSITY (10% of overall score)</p>	<p>Does the national mine action programme have a gender policy and implementation plan? Do the main mine action operators have one?</p> <p>Is gender mainstreamed in the national mine action strategy and national mine action standards?</p> <p>Are women and children in communities affected by CMR-contaminated areas consulted during survey and community liaison activities?</p> <p>Are survey and community liaison teams inclusive and gender balanced, to facilitate access and participation by all groups, including women and children?</p> <p>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?</p> <p>Are ethnic or minority groups in communities affected by CMR-contaminated areas consulted during survey and community liaison activities?</p> <p>Do survey, clearance, and community liaison teams include representatives from different ethnic or minority groups, to facilitate access and participation by all groups?</p> <p>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?</p> <p>Is relevant mine action data disaggregated by gender and age?</p> <p>Is there equal access to employment for qualified women and men in survey and clearance teams, including for managerial level/supervisory positions?</p>

Criterion	Key Factors Affecting Scoring
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	<p>Is there a national information management system in place (e.g. IMSMA), and is the data accurate and reliable?</p> <p>Are data collection forms consistent and do they enable collection of the necessary data?</p> <p>Is data in the information management system disaggregated by type of contamination and method of land release?</p> <p>Is the data in the information management system accessible to all operators?</p> <p>Are ongoing efforts being made to ensure or improve the quality of data in the mine action database?</p> <p>Does the affected State Party to the CCM submit accurate and timely annual Article 7 reports on Article 4 progress?</p> <p>Are Article 4 extension requests of a high-quality and submitted in a timely manner?</p> <p>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?</p> <p>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?</p>
PLANNING AND TASKING (10% of overall score)	<p>Is there a national mine action strategy in place and does it include realistic goals for land release?</p> <p>Is there a realistic annual work plan in place for land release?</p> <p>Are there agreed and specified criteria for prioritisation of tasks?</p> <p>Are key stakeholders meaningfully consulted in planning and prioritisation?</p> <p>Is clearance of CMR tasked in accordance with agreed prioritisation?</p> <p>Are task dossiers issued in a timely and effective manner?</p> <p>Where relevant, is there a plan for dealing with residual risk and liability?</p> <p>Is it realistic and sustainable?</p>
LAND RELEASE SYSTEM (20% of overall score)	<p>Does the affected State have national mine action standards in place for land release?</p> <p>Do the standards enable or impede efficient evidence-based survey and clearance?</p> <p>Are national standards reflected in SOPs?</p> <p>Are standards and SOPs periodically reviewed against IMAS and international best practice, in consultation with clearance operators?</p> <p>Is there an effective and efficient: i) non-technical survey capacity, ii) technical survey capacity, iii) clearance capacity in the programme? Does this include national capacity?</p> <p>Are areas being cleared that prove to have no CMR contamination?</p> <p>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?</p> <p>Is there an appropriate range of demining assets (manual, mechanical, and animal detection systems) integrated into land release operations?</p> <p>Is there an effective quality management system in place for survey and clearance operations?</p> <p>Where an accident has occurred within a mine action programme, was there an effective investigation? Were lessons learned shared between operators?</p>
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	<p>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.?</p> <p>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?</p> <p>Is the target date for completion realistic based on existing capacity?</p> <p>Is the target date sufficiently ambitious?</p> <p>What were the outputs of survey and clearance of CMR-contaminated area in 2021, and were they greater or lesser than the previous year and why?</p> <p>Are survey and clearance outputs in line with plans and Article 4 obligations?</p> <p>Is the affected State on track to meet the target completion date and/or Article 4 deadline?</p>

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 represented an opportunity to take stock of the significant progress in Article 4 implementation since the Convention's entry into force in 2010, but also of lessons learned and challenges in implementation. Of particular concern is the slow pace of survey and clearance in too many States Parties, including requests for Article 4 deadline extensions by those with relatively limited contamination. In many cases, States Parties could have fulfilled their Article 4 obligations within the initial 10-year clearance deadline, had there been sufficient commitment to do so, supported by evidence-based work plans for the release of cluster munition-contaminated areas, application of efficient survey and clearance methodology, and sufficient and sustained funding. Under Switzerland's presidency of the Review Conference and in collaboration with States Parties, mine action NGOs, and other expert organisations, the five-year Lausanne Action Plan (LAP) was elaborated, building on experience from the Anti-Personnel Mine Ban Convention (APMBC)'s Oslo Action Plan (OAP) which was adopted in 2019.

The LAP is a blueprint for implementation of the Convention, supporting States Parties and their implementing partners get to completion in the best way possible – efficiently, effectively, safely, and inclusively. The Action Plan has actions with measurable indicators. A baseline of the current status of implementation will be established, against which progress will be 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 LAP. This means ensuring that the obligations in Article 4 and the guidance provided by the LAP 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 critical to successful Article 4 implementation.³

MONITORING THE LAUSANNE ACTION PLAN

Members of the Coordinating Committee, under the auspices of the CCM Presidency, will be responsible for establishing a baseline value for the LAP and measuring progress in implementing the LAP within their mandates, with the support of the Implementation Support Unit (ISU). The information submitted in the States Parties' annual Article 7 reports and exchanged during Convention meetings will serve as the main source of data to assess progress.

In addition to the official CCM monitoring of the LAP, Mine Action Review is also providing civil society monitoring and analysis of the implementation of the LAP actions relating 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, UN Mine Action Service (UNMAS), the UN Development Programme (UNDP), the Organization for Security and Co-operation in Europe (OSCE), and the GICHD.

This year's baseline results of Mine Action Review's 2022 monitoring of survey- and clearance-related indicators can be found on the Mine Action Review website. They include 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.

The results of Mine Action Review's 2022 baseline assessment will be finalised following the Tenth Meeting of States Parties taking place on 30 August–2 September 2022. Mine Action Review welcomes feedback from States Parties and other stakeholders on the results of the provisional assessment. Please send an email with any feedback or additional information for Mine Action Review's consideration to MineActionReview@npaid.org.

As the provisional 2022 baseline of current progress illustrates, States Parties have not yet fully implemented the actions and indicators 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.

GENDER AND DIVERSITY

Progress towards the elimination of gender discrimination in mine action was recorded in several CMR-affected States Parties in 2021, and policies and strategies are typically supportive of gender equality in recruitment, but overall the picture remains disappointing. 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 2022–2028 explicitly acknowledges the importance of gender and diversity to the sector. Conservative social attitudes to women's employment hamper recruitment in what has been a male-dominated sector but an increasing number of women work for survey and clearance operators, including in supervisory positions. The DMA, which first created a gender unit in 2017, adopted its first Gender Unit Action Plan in early 2021 and the DMA's director, who has advocated for employment of more women in mine action, approved the concept of a Gender Task Force in early 2021.

3 The States Parties have defined national ownership as entailing 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'.

There was also progress in the Kurdistan Region of Iraq. IKMAA reported that women already accounted for about 30% of its more than 800 employees and that it encouraged women to seek advancement in their careers. IKMAA appointed a woman as director of one of its four provincial mine action centres for the first time in 2021 and in 2022 appointed a woman as IKMAA's legal affairs director. In 2022, IKMAA was seeking to create women EOD teams in all four provinces and appealed for international support to help achieve it.

In Lao PDR, in addition to support for action on gender within the National Regulatory Authority (NRA), individual operators have been very 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 2021, HALO Laos employed 524 female staff (51%) out of a total of 1,027. Women also made up half of staff in managerial or supervisory positions and just over half of HALO's operations staff.

Chile stated in its 2020 Article 4 deadline extension request that the Ministry of National Defence will promote women to the teams that will conduct CMR clearance. While there is no mention of this in its 2022 request, the request does state that two women occupy leadership roles within the demining units and that women worked in the EOD units of the Army and Air Force during technical survey operations conducted in 2021. In March 2022, the Ministry of National Defence appointed gender focal points to guide the development of the clearance programme. In Lebanon, gender and diversity considerations are included in the National Mine Action Strategy for 2020–25 and the national mine action centre (LMAC) has a gender focal point.

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, within the Bosnia and Herzegovina Mine Action Centre (BHMIC)'s own staff as well as those of clearance operators, women make up only a small proportion of the total number of staff, and an even smaller proportion of operations staff in the field. BHMIC reports having a gender and diversity policy in place but it appears to pay only lip service to the policy in practice. As at April 2022, only one in five of BHMIC's employees was a woman, with women employed in only 4 of 25 managerial/supervisory positions and 25 of 139 of operational positions.

Despite equal access to employment, women only make up a small proportion of the EOD sector in Germany. Among the clearance contractors at Wittstock, only 7% of their employees are women, while in the on-site project management and clearance supervision company, the figure is 25%.

Mauritania does not appear to have a gender and diversity policy for mine action, and neither issue was referenced in Mauritania's Article 4 deadline extension request submitted in June 2021. Mauritania did, however, state in response to the questions of the CCM Article 4 Analysis Group that it intends to deploy diverse and gender-balanced teams to the extent possible.

Chad's national mine action 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 national mine action authority, the HCND, employed only 9 women in its staff of 207 in 2019, the last year for which official data were available.

In May 2019, the Somali Explosive Management Authority (SEMA) informed Mine Action Review that it did not have an internal gender or diversity policy or implementation plan. It acknowledged that this was "unfortunate", and pledged that it would strive for gender balance in the future, by ensuring equal employment opportunities for qualified men and women. In Somalia's revised APMBC Article 5 deadline extension request it was planned that a gender policy for mine action would be developed by October 2022.

Significant regression occurred in Afghanistan in the latter half of 2021 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. After the Taliban takeover, stringent regulations sharply reduced public space for women although implementing partners were able to continue to employ women in office and certain field roles, at least for risk education. Afghanistan's first female clearance team, set up by Danish Refugee Council (DRC) in Bamyan province in 2018 and taken on by a local operator for battle area clearance (BAC) tasks in the same province in 2020, no longer exists and some of its members have reportedly left the country.

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 and language groups, and persons with disabilities. HALO Trust's programme ensured that individuals from minority ethnic groups were adequately represented by providing BAC training in a number of different ethnic dialects and languages. HALO also has a relationship with a local NGO in Savannakhet to provide employment opportunities to people with disabilities. Currently HALO employs seven staff with disabilities, two of whom are UXO victims. In 2021, NPA held a series of workshops, trainings, and focus interviews with staff with support from "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.

Iraq's 2022–2028 strategic plan recognizes 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.

In Somalia, all operators confirmed that clan affiliation was also an important consideration when recruiting and deploying operational staff. In Somaliland, 35% of the population are nomadic pastoralists, with many transiting between Somaliland and Ethiopia. HALO in Somaliland ensures that it employs survey staff from both a rural and urban background, and from various regions in Somaliland, to ensure that there is a strong understanding of all sections of Somaliland society.

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 on **Mitigating the Environmental Impacts of Explosive Ordnance and Land Release**, published in late 2021, is available on the Mine Action Review website.

International Mine Action Standard (IMAS) 07.13 concerns environmental management in mine action. As the IMAS notes, the protection of the environment receives growing attention from national governments and international institutions, and is reflected in the increasingly rigorous demands of national legislation in many countries and the terms of international treaties. Poor environmental management during mine action operations can generate short- and long-term adverse impacts on land, water, soil, and air and the communities living in the vicinity of mine action work sites and result in harm to people as well as damage to the environment.

The consequences for the environment should be taken into consideration at the earliest possible stages before land release takes place during the planning and tasking process, during survey and clearance as part of the land release system, 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 ensuring that assets are only used on contaminated land.

It is required of every State Party that seeks an extension to its Article 4 deadline that it describe the environmental implications of that extension.⁴ While not every concerned State Party has complied with that duty, there has been considerable progress recorded either in national programmes as a whole or at the least among individual clearance operators. Afghanistan, for instance, has a national standard on environmental management in mine action while The HALO Trust and DRC have institutional policies in place at headquarters level that are applied to their Afghan programmes.

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 the soil 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 addition, NPA in Bosnia and Herzegovina has a dedicated environment and climate country policy in place. NPA safely disposes all of non-degradable waste found in its area of operations while all human waste and rubbish are regularly cleared and deposited in pre-designed areas. As land release operations are often conducted in forested areas, NPA also maintains close cooperation with relevant forest administrations, helping prevent unintended environmental consequences and reducing deforestation.

Lao PDR has a national mine action standard (NMAS) on Environmental Management, although it is in need of revision. The NMAS refers to outdated national laws on environmental protection, rather than the current national environmental legal framework with which sectoral activities should comply. NPA Laos has been working in partnership with the national youth volunteer organisation, Zero Waste Laos. Since environmental trainings were conducted and recycling and composting facilities put in place in May 2020, NPA's Vientiane Office has reduced its waste generation by more than 50%. This has saved the cost of waste collection, while avoiding sending organic and mixed recyclable waste to landfill sites. MAG is including a specific environmental standard operating procedure (SOP) as part of the SOP revision currently ongoing in the organisation to incorporate the requirements and recommendations of IMAS 7.13. MAG is also starting to implement changes to reduce the environmental impact of its work in Lao PDR, such as installing solar power and it is investigating the possibility of introducing hessian sandbags to reduce plastic use.

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 integration of non-technical and technical survey in the land release approach 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 in unnecessary clearance. This will have a significant positive impact on the environment.

In Germany, environmental considerations are taken into account in the federal 'Guidelines for the Clearance of Explosive Ordnance'. A section on environmental management is contained within Somalia's NMAS, however, as at July 2022, they were still awaiting approval.

OUTLOOK

By 2030, all States apart from States Parties Iraq and Lao PDR and States not party Cambodia, Syria, Ukraine (where use of cluster munitions was ongoing as of writing), Vietnam, and Yemen should have completed clearance of all cluster munition-contaminated area on their territories. Kosovo may also meet this milestone before the end of the decade, along with other areas Nagorno-Karabakh and Western Sahara. And while progress is uneven across affected States, overall the pace of global clearance is increasing, despite the continuing impact of COVID-19 in many countries. Lives are being saved and livelihoods preserved. The remainder of the decade needs to see a sustained push from all concerned governments and continued support from donor States. States Parties should seek to use the LAP as tool to implement the Convention. The CCM and broader social, economic, and environmental duties demand no less.

⁴ Art. 4(6)(h), CCM.

STATES PARTIES

The background consists of several overlapping, semi-transparent geometric shapes in various shades of blue, ranging from a deep navy blue to a bright sky blue. These shapes are primarily triangles and quadrilaterals, creating a dynamic, layered effect. The text 'STATES PARTIES' is positioned in the upper left quadrant, rendered in a clean, white, sans-serif font.

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

KEY DATA

CLUSTER MUNITION CONTAMINATION: LIGHT

NATIONAL ESTIMATE

10 km²

SUBMUNITION
CLEARANCE IN 2021

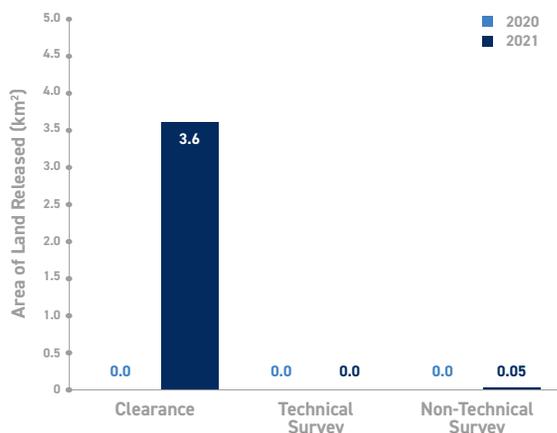
3.6 km²

SUBMUNITIONS
DESTROYED IN 2021

1,059

(INCLUDING 759 IN SPOT TASKS)

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

The Islamic Emirate of Afghanistan (IEA) took power in August 2021 but did not receive international recognition and came under international sanctions that crippled the economy and cut off funding to national mine action authorities. International donors continued to provide funds to implementing partners bilaterally or through the United Nations Mine Action Service (UNMAS) and the UN Voluntary Trust Fund for Mine Action (VTF). The IEA retained the existing mine action institutional structure with the Afghanistan National Disaster Management Authority (ANDMA) overseeing the sector and the Directorate of Mine Action Coordination (DMAC) in charge of operational management and coordination, but lack of funding caused an exodus of staff from DMAC, limiting its capacity to discharge its responsibilities. UNMAS set up the UN Emergency Mine Action Coordination Centre for Afghanistan (UN-EMACCA), later renamed the UN Humanitarian Mine Action Coordination for

Afghanistan (UNHMACCA), to provide coordination and support but encountered resistance from DMAC and the arrangement was terminated in March 2022. DMAC and UNMAS agreed to establish a temporary liaison office, the Afghan Emergency Mine Action Coordination Committee (AEMACC), to coordinate the sector, which was due to open by the end of June 2022.

Days before the Taliban takeover, Afghanistan requested a four-year extension to its Article 4 CMR clearance deadline. The IEA committed itself to fulfilling Afghanistan's obligations under both the Convention on Cluster Munitions (CCM) and the Anti-Personnel Mine Ban Convention (APMBC). Afghanistan resumed clearance of cluster munitions remnants (CMR) in 2021 after a pause in operations the previous year and continued to record progress in 2022.

RECOMMENDATIONS FOR ACTION

- Afghanistan should accelerate survey of areas that were previously inaccessible due to insecurity to establish a definitive baseline estimate of the remaining CMR contamination.
- DMAC and UNMAS should collaborate to develop a revised programme of work for fulfilling its CCM Article 4 obligations and completing clearance of remaining CMR contamination.

- DMAC should resume submission of annual Article 7 reports comprehensively detailing the progress of survey and clearance.
- DMAC should formally instruct all mine action implementing partners (IPs) to cooperate fully with the liaison office established as a temporary coordination mechanism, including explicit instruction to submit all operating results to the Information Management System for Mine Action (IMSMA) database.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2021)	Score (2020)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	8	8	Afghanistan has a small amount of known CMR contamination but continues to identify previously unrecorded cluster munition-contaminated areas. The change of government in 2021 has opened up areas previously inaccessible due to insecurity but also raises the possibility operators will identify more previously unrecorded hazardous areas. Operators also encounter scattered "legacy" submunitions in the course of other tasks.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	4	8	The Mine Action Programme of Afghanistan (MAPA) is nationally managed but heavily dependent on international funding. After the change of government in August 2021, the de facto authorities' lack of international recognition and financial resources severely constrained DMAC's capacity to discharge its management and coordination functions. Under the previous government most DMAC salaries and operations were funded by international donors and the removal of international funds left only a skeleton management team in place. CMR clearance funded by the United States and the United Nations Mine Action Service (UNMAS) continued after August 2021 but with limited coordination.
GENDER AND DIVERSITY (10% of overall score)	5	7	Until August 2021, DMAC was committed to mainstreaming gender which featured in the 2016–20 strategic plan. Progress implementing it was slow although most IPs had gender focal points, hired some women in community liaison and risk education and in rare cases for clearance. After August 2021, stringent IEA regulations sharply reduced public space for women but IPs were able to continue to employ women in office and field (risk education) roles.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	4	8	Information management suffered major disruption after the change of government. DMAC has an Information Management System for Mine Action (IMSMA) database but DMAC lost most staff, including IM personnel, after the end to international funding and while IPs continued to report operating results database operations largely halted after August. The UN Humanitarian Mine Action Coordination Centre for Afghanistan (UN-HMACCA) resumed data processing early in 2022 but this was terminated at the end of March 2022. DMAC subsequently agree that a liaison office set up with UNMAS would manage the IMSMA database but, initially, funding only supported a much reduced IM capacity.
PLANNING AND TASKING (10% of overall score)	4	8	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 laid out timelines for clearance of all remaining CMR hazardous areas by 2026. The additional time requested appeared more than sufficient for the tackling the contamination identified but implementation was dependent on international donor support.
LAND RELEASE SYSTEM (20% of overall score)	6	7	The MAPA has national mine action standards in Dari and English that are subject to regular review and in 2019 it introduced new standards for clearance of mines of an improvised nature. International experts believe the AMAS need comprehensive updating. Upheavals in DMAC after August 2021 disrupted its QM which has continued but only sporadically.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	7	5	Conflict and political turmoil in Afghanistan in 2021 did not halt MAPA clearance operations. DAFA, with funding from the United States worked on five tasks clearing 3.6km ² , the highest amount of clearance in three years. DAFA continued clearance in 2022, but as of June said it had funding only until November, leaving uncertain its future engagement in CMR clearance.
Average Score	5.9	7.1	Overall Programme Performance: AVERAGE

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 (DDG))
- HALO Trust
- Swiss Foundation for Mine Action (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 it has experienced difficulty pinpointing the precise extent, partly due to limitations on access to affected areas as a result of insecurity. Discoveries of previously unrecorded hazardous areas have steadily increased the estimate of the extent of CMR in the past four years and this was particularly so in 2021.

At the end of 2021, the estimate rose to 10.03km² in 19 confirmed hazardous areas (CHAs) (see Table 1),¹ one-third more than the 7.54km² reported in 10 CHAs at the end of 2020², and more than double the end-2018 estimate of 4.12km².³ Afghanistan informed the CCM intersessional meetings in May 2022 that remaining contamination amounted to 16 hazardous areas affecting 9.9km².⁴

Table 1: Cluster munition-contaminated area (at end 2021)⁵

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

Escalating conflict in recent years prevented operators from conducting systematic survey in some parts of the most CMR-affected provinces. In 2020, operators identified three more CHAs located in Bamyan, Paktya, and northern Faryab province, which added a combined total of 1.7km² of CMR contamination to the database.⁶ In 2021, Quick Response Teams identified another 11 previously unrecorded CHAs totalling 5.66km² (see Table 2), mainly in a district of Paktya province that had not previously been surveyed because of insecurity.⁷

Table 2: Cluster munition-contaminated area identified in 2021⁸

Province	CHAs	Area (m ²)
Bamyan	2	392,756
Paktya	7	5,255,995
Samangan	2	11,715
Totals	11	5,660,466

In March 2021, Afghanistan had still expected to complete clearance of its CMR hazardous areas within its initial Article 4 deadline of 1 March 2022,⁹ but the new CHA finds, combined with delays in donor funding, prompted Afghanistan to request a four-year extension until 1 March 2026.¹⁰ The

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

2 Email from Mohammad Akbar Oriakhil, Head of Planning and Programme, DMAC, 17 March 2021.

3 Email from Abdul Qudos Ziaee, Head of Operations Department, DMAC, 3 April 2019.

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

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

6 Email from Mohammad Akbar Oriakhil, DMAC, 11 April 2021.

7 CHAs identified in 2021 included seven in Paktya covering 5.26km², two in Bamyan affecting 0.39km², and two in Samangan affecting 0.01km². 2021 Article 4 deadline Extension Request, p. 10.

8 Email from Rezwandullah Hijran, Operations Senior Officer – AIM, UNMAS, 5 May 2022.

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

10 Article 4 deadline Extension Request, 3 August 2021, p. 2.

request identified 16 CHAs totalling 9.9km² but said available information pointed to the possibility of an additional 3km² of CMR contamination in Paktya province.¹¹ Since August 2021 IPs have gained access to previously insecure areas and operators consider it likely that further survey may find additional contamination.¹²

Most of the submunitions cleared in Afghanistan in recent years are Soviet-era AO-2.5RT bomblets from the decade-long war of the 1980s¹³ but the outstanding CMR contaminated areas consist mainly of US BLU-97 munitions

dropped in 2001 and previously assessed by DMAC to be located in just a few provinces of central and eastern Afghanistan.¹⁴ Afghanistan has stated that no cluster munitions were dropped after 2001.¹⁵ However, the CMR contamination found in Bamyán province in 2021 reportedly consisted of Soviet-era submunitions and scattered items continue to be found in many areas. Afghanistan's last Article 7 report, covering 2020, said Soviet-era cluster munitions made up most of the 276 submunitions destroyed in explosive ordnance disposal (EOD) operations.¹⁶

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

CMR make up only a small part of Afghanistan's extensive explosive ordnance contamination. This includes almost 500km² of mine contamination¹⁷ and a wide range of ERW. Most explosive ordnance casualties in Afghanistan were caused by anti-personnel mines of an improvised nature affecting an area still to be determined. In addition, Afghanistan had 441km² of conventional mine contamination and 39 former NATO firing ranges covering 681km² to be cleared of unexploded ordnance (UXO), of which one covering 51km² was being worked on.¹⁸

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 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 IEA-appointed director of DMAC said that the only change resulting from the change of government was in the personnel running it.¹⁹

The lack of international recognition of the IEA and financial sanctions imposed by the United States and Western governments has severely limited DMAC's ability to function. DMAC completed the transition from being a project of the UN Mine Action Service (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.²⁰

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.²¹ After August 2021, international sanctions imposed on the IEA halted cooperation between UNMAS and DMAC, and DMAC staff on internationally funded salaries transferred to UNMAS. As of 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.²²

DMAC's director has maintained close contact with IPs and engaged proactively to support 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 visits to IP operating sites to accredit teams and mechanical assets but only sporadically. IPs continued to submit progress reports to DMAC but the Directorate lacked capacity to upload them into the database.²³

11 Ibid., p. 10.

12 Interview with Bismillah Haqmal, Operations Manager, DAFA, in Kabul, 8 June 2022.

13 Article 4 deadline Extension Request, 3 August 2021, pp. 8–9.

14 Human Rights Watch and Landmine Action, *Banning Cluster Munitions: Government Policy and Practice*, Mines Action Canada, Ottawa, May 2009, p. 27.

15 Article 4 deadline Extension Request, 3 August 2021, p. 5.

16 CM Article 7 Report (covering 2020), Form 3.

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

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

19 Interview with Qari Nooruddin Rustamkhail, Director, DMAC, 4 June 2022.

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

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

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

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

In September 2021, UNMAS set up the UN Emergency Mine Action Coordination Centre for Afghanistan (UN-EMACCA) to serve as a temporary coordination body on an emergency basis and acting independently of the government, tasking IPs that were bilaterally funded, as well as providing quality management and information management for these projects.²⁴ In early November, the operation was re-branded as the UN Humanitarian Mine Action Coordination Centre for Afghanistan (UN-HMACCA). By the end of the year, it was operating with 114 national staff.²⁵ Under its proposed division of responsibilities, DMAC would continue to set the national mine action strategy, act as custodian of national mine action standards, sign and issue the final certification of land release, oversee adherence to international treaties and regulate the mine action sector's commercial and development-focused actors. The UN would take the lead in humanitarian mine action, setting the strategy, planning, and priorities. It would also oversee the process of accreditation and land release, data collection and information management, research, training, and public relations, including resource mobilisation.²⁶ The formula proved unacceptable to DMAC, leading to the termination of UN-HMACCA at the end of March and ending the employment of 118 national staff.²⁷

Further negotiations between DMAC and UNMAS led in June 2022 to agreement on the creation of a liaison office located in a separate building from DMAC and UNMAS. DMAC expected the office to open by the end of June 2022.²⁸ DMAC described the office as a temporary facility to support coordination of the MAPA until the removal of international sanctions. DMAC emphasised that it remained the primary point of contact for IPs for data sharing, disseminating information, planning, operational activities, and quality management. It agreed that the Liaison Office would manage the MAPA's IMSMA database, processing survey and clearance results, completion reports, new hazard reports, risk education results, and accident reports. DMAC also looked to the Liaison Office for support for regional offices and QA/QM.²⁹ The liaison office was due to have a staff of 25, employing national staff on a salary linked to NGO pay scales, higher than government rates but below UN salaries.³⁰ In addition to information management, it would undertake tasking and prioritisation in consultation with DMAC.³¹ UNMAS, however, was only resourced to coordinate IPs funded through the VTF and it was not immediately clear how it would coordinate the work of operators funded bilaterally.³²

ENVIRONMENTAL POLICIES AND ACTION

Afghanistan has a national standard on environmental management in mine action. In addition, individual operators, such as The HALO Trust and 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. The HALO Trust 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.³³

GENDER AND DIVERSITY

Prior to August 2021, Afghanistan had taken initial steps to develop more inclusive mine action within limits imposed by a deeply conservative society. 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."³⁴ After August 2021, Taliban rules imposed stricter regulation on women and girls condemned by the UN as the "institutionalised systematic oppression of women"³⁵ but DMAC has said it remained possible for women to work in the MAPA.³⁶ UNMAS convened the first post-regime-change meeting of a Gender and Diversity Technical Working Group in February 2022³⁷ and IPs have continued to employ female staff in office and field jobs.³⁸

24 Email from Sohaila Hashemi, Communications and Advocacy Officer, UNMAS, 23 February 2022; UNMAS, Humanitarian Mine Action in Afghanistan, MASG, 9 April 2022.

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

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

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

28 Email from Qari Nooruddin Rustamkhail, Director, DMAC, 15 June 2022.

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

30 Interview with Paul Heslop, UNMAS, Kabul, 7 June 2022.

31 Ibid.

32 Interview with Paul Heslop, UNMAS, in Geneva 21 June 2022.

33 Interviews with Farid Homayoun, HALO Trust, 4 June 2022; and Soeren Adser Soerensen, DRC, 6 June 2022.

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

35 Statement of Michelle Bachelet, UN High Commissioner for Human Rights, to the UN Human Rights Council, 15 June 2022.

36 Interviews with Qari Nooruddin Rustamkhail, Director, DMAC, 4 June 2022; Soeren Adser Soerensen, Head of Humanitarian Disarmament, DRC, 6 June 2022; Farid Homayoun, HALO Trust, 4 June 2022; and with Awal Khan, QA Manager, OMAR, and Zarina Omar, EORE Manager & Gender Focal Point, OMAR, 8 June 2022.

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

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

Despite the commitment to promoting gender and inclusion in mine action, employment of women remained low. The MAPA, with a total workforce of close to 6,000, had increased the number of women employees from 170 near the end of 2019 to 212 in the last quarter of 2020.³⁹ DMAC acknowledged in 2021 that women made up only 4% of MAPA personnel and people with disabilities 1%.⁴⁰ In early 2021, DMAC's 155 staff still included only four female employees, consisting of a female human resources assistant and three interns for the gender and diversity, information management, and risk education departments.⁴¹ DMAC had taken a number of measures to raise awareness of gender issues and promote compliance by implementing partners. In October 2020, after a gap of six months, it appointed a new gender focal point and provided training for the gender focal points of implementing partners as well as some training on non-technical survey for male and female staff of DMAC and IPs.⁴² DMAC reported that all vacancy announcements were gender sensitive and that a woman is present in all recruitment panels, and that women candidates' scores are automatically accorded extra points.⁴³

After August 2021, conditions for female employees varied in different locations, but women NGO staff still worked across the country.⁴⁴ Afghanistan's first female clearance team, set up by DRC in Bamyan province in 2018 and taken on by OMAR for BAC tasks in the same province in 2020, no longer exists and some of its members have

reportedly left the country. However, some IPs reported employing more women in 2022 than before the Taliban takeover. Females employed in operations largely worked in mixed teams with a male family member and almost exclusively in risk education and community liaison. IPs noted this added to operating costs requiring separate vehicles, office space, and accommodation.⁴⁵

DRC, the first IP to deploy an all-female manual clearance team in 2018, had 21 women employees including one international in its staff in 2021, four of them working in managerial positions, and the remainder working in risk education teams. In 2022, DRC hired more women and as of April 2022 had 23 female staff working in the field on risk education and expected to deploy more mixed gender risk education/non-technical survey teams in each of the five main regions by the end of the year.⁴⁶ FSD's total staff of 99 in 2021 included five women, two of whom worked in financial management positions in the head office in Tajikistan and three worked in Afghanistan in FSD's programme of support to mine victims. Since the change of government these staff have been working from home.⁴⁷ The HALO Trust reported it employed 15 women before August 2021 and by June 2022 had increased the number to 46 working in mixed gender teams with family members. In most teams, HALO Trust said it gave women the position of team leader.⁴⁸

INFORMATION MANAGEMENT AND REPORTING

The MAPA's information management suffered severe disruption in 2021 after the change of government and the loss of staff experienced by DMAC as a result of international sanctions against the IEA.⁴⁹ DMAC had started planning to upgrade its database from IMSMA New Generation to IMSMA Core in 2020, but lost some key information management staff and focused instead on cleaning up data in the existing database.⁵⁰ After August 2021, many IP reports submitted to DMAC's regional offices were never sent on to the national database when the offices shut down following the change of government.⁵¹

Between August 2021 and the end of the year, IPs continued to submit operating results to DMAC and UNMAS but not all

reports went to both organisations and reports were not uploaded systematically into the database.⁵² UNMAS set up a small IMSMA cell early in 2022 which first uploaded the operating data for UNMAS-funded projects and then moved onto the other IPs results.⁵³ The termination of UN-HMACCA at the end of March 2022 led to another interruption in data processing. DMAC and UNMAS subsequently agreed that UNMAS would run the IMSMA database in the joint liaison office providing a duplicate data set to DMAC.⁵⁴ As of June 2022, the liaison office had a five-person information management team consisting of two international supervisors and three national staff, but was planning to recruit three more national staff.⁵⁵

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

40 Afghanistan Article 4 deadline Extension Request, 3 August 2021, p. 4.

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

42 Ibid.

43 Ibid.

44 Email from Soeren Adser Soerensen, DRC, 27 March 2022.

45 Interviews with Farid Homayoun, HALO Trust, 4 June 2022; and with Awal Khan, QA Manager, OMAR, and Zarina Omar, EORE Manager & Gender Focal Point, OMAR, 8 June 2022.

46 Email from Soeren Adser Soerensen, DRC, 27 March 2022.

47 Email from Din Mohammad Nickwah, Country Director, FSD, 23 March 2022.

48 Interview with Farid Homayoun, HALO Trust, 4 June 2022, and email, 20 June 2022.

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

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

51 Email from Olivier Demars, UNMAS, 20 June 2022.

52 Ibid.; and interview with Farid Homayoun, HALO Trust, 4 June 2022.

53 Email from Mohammad Wakil Jamshidi, Acting Head of Project/CoOPS Unit, UNMAS, 16 February 2022.

54 Interview with Qari Nooruddin Rustamkhail, DMAC, 4 June 2022.

55 Interview with Paul Heslop, UNMAS, in Geneva, 21 June 2022.

UNMAS pursued a number of other initiatives to enhance access to data and strengthen IP reporting. These include working towards launching the Global Information Management System, digitally capturing data imported from IPs and humanitarian agencies and presenting it on a dashboard. This will provide operators, donors, and other stakeholders with easy access to an updated snapshot that includes explosive ordnance contamination estimates, the

status of current operations, and donor funding.⁵⁶ UNMAS is also promoting use of electronic tablets by IP survey and clearance teams to facilitate and improve the quality of reporting from the field. UNMAS started distributing the tablets in May 2022 and by early June had delivered 120. It planned to roll out the programme to all IPs it funded in the course of the year.⁵⁷

PLANNING AND TASKING

Before August 2021 Afghanistan did not have a CMR-specific strategic plan. Afghanistan set out a programme for the clearance of all remaining known CMR hazards in the Article 4 deadline extension request submitted in August 2021 days before the collapse of the government. The request sought an extension of four years until March 2026.⁵⁸ The IEA has repeatedly committed to fulfilling Afghanistan's obligations under the CCM and the APMBC.⁵⁹

The extension request included annual and monthly targets for non-technical and technical survey and clearance of 9.89km² of CMR contamination between November 2022 and October 2025. This included 0.65km² in 2022, 5.35km² in 2023, 2.14km² in 2024, and 1.75km² in 2025.⁶⁰ Those targets will be revised to take account of new hazardous area discoveries and the availability of international funding.

Since August 2021, IPs have continued to report to, and coordinate operations with, DMAC as the national authority but also with the UNMAS coordination mechanisms operational between September 2021 and the end of March 2022. Tasking and coordination was due to be shared between the two bodies through the Liaison Office that was expected to come into operation in June 2022 although the scope of its responsibilities remained to be clearly defined.⁶¹

As the MAPA navigated political change and international sanctions, UNMAS sought to mobilise international funding to support six priorities:⁶²

- **Coordination:** compared with more than 100 staff coordinating mine action in DMAC before August 2021 and in interim UN bodies up to March 2022, the liaison office has 25 staff and funding through UNMAS only until the end of August 2022.
- **National survey:** in April 2022 IPs started conducting survey in four provinces that experienced the most casualties in the last five years: Helmand, Kandahar, Uruzgan, and Kunduz. UNMAS advocated for a full national survey taking advantage of improved security and access to previously inaccessible districts in order to establish a baseline estimate of contamination that could inform an Afghanistan's APMBC Article 5 deadline extension request.
- **Large-scale clearance:** at the start of the year UNMAS had hoped to raise some \$75 million for the MAPA in 2022, aiming among other priorities to train and deploy up to 10,000 Afghans providing livelihoods in mine action.
- **Increasing the number of Quick Response Teams** matching post-conflict needs for emergency EOD call-outs, survey and clearance.
- **Increased risk education:** this would include training for humanitarian organisations and NGOs to address risks from widespread improvised mine contamination. Aid organisations had shown strong interest and a first course was due to take place July 2022. UNMAS also aimed to broaden nationwide messaging, learning from the success of a BBC Media Action series,⁶³ as well as expanding regional communications and community-level engagement.

56 Interview with Paul Heslop and Malcom MacDonald, Senior Technical Advisor, UNMAS, Kabul, 7 June 2022.

57 Ibid.

58 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.

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

60 Article 4 deadline Extension Request, 3 August 2021, Annex D.

61 Interviews with Qari Nooruddin Rustamkhail, DMAC, 4 June 2022, and Paul Heslop, UNMAS, 7 June 2022.

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

63 BBC Media Action prepared a 16-episode radio drama incorporating explosive hazard messaging broadcast three times daily in Dari and Pushto. The first broadcast reportedly attracted an audience of 600,000 people; the second, an audience of 6 million.

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Afghanistan has comprehensive national mine action standards that are International Mine Action Standard (IMAS)-compatible and subject to regular review. CMR survey and clearance are addressed in AMAS 06.02 (Battle Area Clearance).⁶⁴

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.⁶⁵ In practice, only one IP, DAFA, has conducted significant recent CMR clearance, while two others, HALO Trust and MCPA, have conducted survey of CMR-affected areas.

DAFA had close to 200 personnel in operations out of total staff of around 400 working in 2021, depending on the number of contracts active at any given time. This included 12 manual demining teams with 120 personnel active until their contract concluded at the end of September 2021, as well as seven community-based demining teams working on CMR tasks in Paktya province. In 2022, in addition to the teams working on CMR clearance, DAFA had 16 teams assigned to clearance of improvised mines in Kandahar, three risk education teams, and one mechanical demining unit operating an excavator. However, DAFA said it had funding for CMR tasks only until November 2022. It also deployed four demining teams, two risk education teams, and one survey team assigned to tackle legacy AP mine contamination in Baghlan province.⁶⁶

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.⁶⁷ International sanctions complicated financial transfers to Afghanistan and caused uncertainty about US financing for national IPs that lacked overseas bank accounts,⁶⁸ but DAFA reported that it continued to receive PMWRA funding directly in 2022.⁶⁹

The HALO Trust is much the biggest operator in the MAPA with a total staff of just over 3,000 people in 2021 representing about 65% of the MAPA manpower. It expected to maintain staffing at this level in 2022. This included 64 demining teams employing 1,716 deminers, 37 teams assigned to improvised mine survey and clearance with 241 deminers and 19 mechanical demining units employing more than 100 staff and 75 mechanical assets.⁷⁰ HALO Trust has not been involved in releasing cluster munition hazards but HALO Trust/DAFA joint Quick Response Teams in 2021 identified 11 previously unrecorded CHAs.⁷¹

Norwegian People's Aid (NPA), with a team of 18 people (including an international country director, five international, and six national technical advisers), provides third-party monitoring of all US PMWRA grants to IPs in Afghanistan. In 2021, these included 18 grants with an estimated value of \$12.5 million that spanned mine and CMR clearance as well as weapons and ammunition disposal, conventional weapons destruction, stockpile security and management, and community survey, as well as post-clearance impact assessments. Apart from a short hiatus in MAPA operations in August 2021, NPA's activities continued throughout the year involving more than 400 visits to projects. Most sites visited had achieved the necessary standards and none of the sites declared to have been cleared had subsequently recorded items founds or accidents.⁷²

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2021

In a year overshadowed by escalating conflict leading to dramatic regime change, Afghanistan still managed to release more cluster munition-contaminated area in 2021 than in several years. In 2021, the MAPA reported release of 3.6km², almost entirely through clearance.⁷³ IPs destroyed 1,059 submunitions in 2021, mostly through spot EOD tasks, a result that improved significantly on the 276 destroyed the previous year.⁷⁴ In 2020, as a result of delays in donor funding, Afghanistan did not conduct any systematic CMR clearance.⁷⁵

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

65 Article 4 deadline extension request, 3 August 2021, Executive Summary.

66 Interview with Bismillah Haqmal, DAFA, Kabul, 8 June 2022, and email, 23 June 2022.

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

68 Interview with Paul Heslop and Malcom MacDonald, UNMAS, 6 June 2022.

69 Emails from Bismillah Haqmal, DAFA, 23 and 26 June 2022.

70 Email from Farid Homayoun, HALO Trust, 12 May 2022 and interview 4 June 2022.

71 Article 4 deadline Extension Request, 3 August 2021, p. 10.

72 Interview with Russell Bedford, Country Director; Mats Hektor, Senior Technical Advisor; and Nermin Mujcinovic, Senior Technical Advisor, NPA, 5 June 2022; and emails from Sayed Wali, Information Manager, NPA, 9 June 2022; and Mats Hektor, NPA, 1 July 2022.

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

74 Emails from Mohammad Akbar Oriakhil, DMAC, 8 August 2021; and Olivier Demars, UNMAS, 24 April 2022.

75 Emails from Mohammad Akbar Oriakhil, DMAC, 17 March and 11 April 2021.

SURVEY IN 2021

Insecurity or conflict have largely restricted survey operations in Nangahar and Paktya, the provinces most heavily affected by cluster munition remnants. Quick response teams located the 11 previously unrecorded CMR-contaminated areas added to the database in 2021. Survey results for 2021 also underscore the poor record of Afghan IPs in cancelling or reducing hazardous areas through survey, opting instead for full clearance. DAFA, the only operator releasing CMR-affected areas, only cancelled 0.05km² in 2021 (see Table 3).⁷⁶

In April 2022, two IPs, HALO Trust and OMAR, started conducting survey of explosive ordnance hazards in four provinces (Helmand, Kandahar, Kunduz, and Uruzgan), selected as those that had experienced intense conflict and registered the highest number of casualties. By late June 2022, the survey had surveyed 1,281 villages, cancelled 96 hazard areas covering approximately 2.5km² and identified 94 previously unrecorded hazards as well as conducting 335 EOD tasks.⁷⁷

Table 3: Non-technical survey of cluster munition-contaminated area in 2021

Province	Operator	Area cancelled through NTS (m ²)
Faryab	DAFA	46,467
Total		46,467

CLEARANCE IN 2021

CMR clearance in Afghanistan has fluctuated sharply in recent years as a result of changing security conditions and uneven donor funding. International sanctions applied after August 2021 to isolate the IEA did not halt bilateral funding for mine action.

In 2021, however, the MAPA released 3.6km², concentrated in Paktya province's Zurmat district. MAPA data attributed one task to HALO Trust in Bamyan province but may have misrecorded the operation. DAFA worked on five CMR tasks in 2021 and by June had reportedly completed around 40%.⁷⁸ HALO Trust said it had not conducted any CMR clearance in 2021 but destroyed 65 submunitions in the course of EOD spot tasks, 70% of them in Logar and Parwan provinces.⁷⁹

Table 4: Reported CMR clearance in 2021⁸⁰

Province	Operator	Areas released	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
Bamyan	HALO Trust ⁸¹	1	133,869	20	0
Paktya	DAFA	4	3,461,804	280	27
Totals		5	3,595,673	300	27

In total in 2021, 759 submunitions were reported to have been destroyed through EOD spot tasks, in addition to the 300 destroyed through area clearance.⁸²

ARTICLE 4 DEADLINE AND COMPLIANCE



⁷⁶ Email from Olivier Demars, UNMAS, 24 April 2022.

⁷⁷ Interviews with Paul Hestop, UNMAS, Kabul, 6 and 21 June 2022; and UNMAS Fact Sheet, distributed 22 June 2022.

⁷⁸ Article 4 deadline Extension Request, 3 August 2021, p. 14.

⁷⁹ Email from Farid Homayoun, HALO Trust, 12 May 2022.

⁸⁰ Email from Olivier Demars, UNMAS, 24 April 2022.

⁸¹ HALO Trust did not record any area CMR clearance in 2021. Email from Farid Homayoun, HALO Trust, 12 May 2022.

⁸² Emails from Mohammad Akbar Oriakhil, DMAC, 8 August 2021; and Olivier Demars, UNMAS, 24 April 2022.

At the start of 2021, Afghanistan still expected to complete clearance of outstanding CMR contamination within its original Article 4 deadline of March 2022.⁸³ The discovery of seven CHAs, adding 5.2km² of CMR contamination to the database, put that objective out of reach. In August 2021, Afghanistan submitted a request to extend its Article 4 deadline by four years to 1 March 2026. Twelve days later the government collapsed and Taliban forces took control. Afghanistan's Extension Request was granted by States Parties at Part Two of the Second CCM Review Conference in September 2021.

In a statement to the CCM intersessional meetings in May 2022, the IEA 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."⁸⁴

Afghanistan's Article 4 deadline extension request set a work plan that aimed to complete clearance of Nangahar province by the end of 2023. Clearance in Paktya province was not possible in winter and is limited to the May–October period in each year of the extension period while clearance of the small hazardous area in Bamyan province was scheduled for May–August 2024. It provided for clearance of 0.6km² in 2022; 5.1km² in 2023; 2.28km² in 2024; and 1.92km² in 2025.⁸⁵

Those targets will need to be adjusted to take account of any new discoveries if previously unrecorded hazardous areas are found, but are well within the MAPA's capacity.

Moreover, Afghanistan no longer faces, as at June 2022, the threat of insecurity which it previously identified as the main risk to completion within the requested extension period. That said, Afghanistan's future progress in fulfilling its CCM obligations will depend largely on the outcome of diplomatic engagement between the IEA and the international community and continued support from the United States, which had previously pledged to finance clearance of remaining CMR hazardous areas, or from other international donors. The UN Security Council approved a humanitarian exemption to international sanctions allowing the provision of humanitarian assistance⁸⁶ and international donors have continued to provide funding through the VTF and bilaterally to some IPs, but not to DMAC.

Table 5: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2021	3.60
2020	0
2019	2.72 ⁸⁷
2018	4.24
2017	2.89
Total	13.45

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

84 Statement of Afghanistan, CCM Intersessional meetings, Geneva, 16–17 May 2022.

85 Article 4 deadline Extension Request, August 2021, Annex.

86 UN Security Council Resolution 2615, 22 December 2021. Exemptions allow payment of salaries of civil servants engaged in delivery of essential services, sharing of office space for humanitarian activities and payment for rent, utilities and security services.

87 Afghanistan's Article 7 report for 2019 recorded CMR clearance in 2018 of 3.62km². DMAC explained that this might include tasks started in 2018 and that 2.72km² represents clearance conducted in 2019. This total included clearance of 1.07km² which resulted in clearance of 2 submunitions and 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 1.65km². DMAC has confirmed (by email, 23 June 2021) that due to the suspected presence of CMR the task was cleared applying cluster munition clearance protocols, not BAC. The Review accordingly has reinstated 2019 CMR clearance of 2.72km². (Email from Mohammad Akbar Oriakhil, DMAC, 23 June 2021).

BOSNIA AND HERZEGOVINA

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2022

ARTICLE 4 DEADLINE: 1 SEPTEMBER 2022
EXTENSION REQUESTED TO 1 SEPTEMBER 2023

KEY DATA

CLUSTER MUNITION CONTAMINATION: LIGHT

NATIONAL ESTIMATE

<0.5 km²

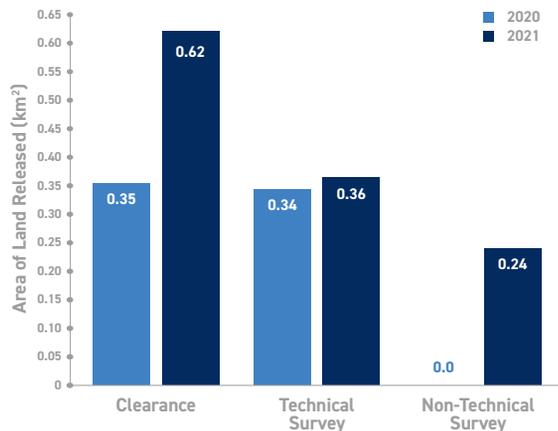
SUBMUNITION CLEARANCE IN 2021

0.62 km²

SUBMUNITIONS DESTROYED IN 2021

704

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Bosnia and Herzegovina (BiH) was not able to complete clearance of cluster munition remnants (CMR) by 1 March 2021, and was granted an 18-month extension to its Convention on Cluster Munitions (CCM) Article 4 deadline, to 1 September 2022. In May 2022, BiH submitted a second, and hopefully final, request to extend its deadline by a further 12 months to 1 September 2023. In July 2022, BiH submitted a revised and improved extension request following feedback from the CCM Article 4 Analysis Group. This extension request was due to be considered at the Tenth Meeting of States Parties to the CCM.

Cluster munition-contaminated areas continued to be released in 2021, at increased levels compared to previous years. Concrete coordination efforts for Article 4 completion

took place in February and March 2022 at the European Union Force Bosnia and Herzegovina (EUFOR) Headquarters in Sarajevo, bringing together all relevant stakeholders to elaborate a plan for allocating and releasing remaining CMR tasks by September. The plan, however, allowed for no margin for delay or unforeseen circumstances, and in May 2022, the Bosnia and Herzegovina Mine Action Centre (BHMAC) announced during the CCM Intersessional meetings that it had identified six previously unrecorded cluster munition-contaminated areas. Two of the six areas were subsequently confirmed to confirm CMR through non-technical survey and targeted investigation in cooperation with Norwegian People's Aid (NPA).

RECOMMENDATIONS FOR ACTION

- BHMAC should strive to ensure it completes clearance of the remaining confirmed 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 previously unknown cluster munition contamination following completion (i.e. residual contamination).

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2021)	Score (2020)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	7	6	BiH's baseline of CMR contamination totalled less than 0.5km ² , according to its July 2022 Article 4 deadline extension request. This includes two previously unreported cluster munition-contaminated areas, discovered by a BHM MAC regional office during survey operations to collect information for land release operations, and then confirmed following non-technical survey and targeted investigation by BHM MAC in cooperation with NPA. The fact that previously unknown CMR continue to be discovered so close to BiH's fulfilment of Article 4 suggests that BiH will likely be faced with residual CMR contamination even after it declares fulfilment of its Article 4 obligations.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	5	6	National ownership of mine action in BiH falls under the responsibility of the Demining Commission and BHM MAC. The mandate of the most recent Commission ended on 30 April 2022 and as at July 2022 new Commission representatives had still to be appointed. BiH's National Mine Action Strategy 2018–2025 was adopted in January 2019, but as at July 2021, the amended demining law (2017) was still awaiting parliamentary adoption. Governance of the national mine action programme needs to be strengthened and Article 4 implementation better coordinated to ensure completion in time. Regrettably, the Country Coalition established between BiH and Germany in 2020 to strengthen coordination of Anti-Personnel Mine Ban Convention (APMBC) Article 5 and CCM Article 4 implementation, and to monitor progress against the 2018–25 strategy, did not meet in 2021.
GENDER AND DIVERSITY (10% of overall score)	4	5	The National Mine Action Strategy 2018–2025 supports the 2003 Law on Gender Equality. BHM MAC has stated that, under its leadership, relevant actors will include gender in all phases of all mine action activities. Within BHM MAC'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.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	5	5	BHM MAC is in the process of migrating from its own information management system to the new web-based system, IMSMA (Information Management System for Mine Action) Core. The first stage of the migration has been completed, having incorporated data from the EU-funded "country assessment" project (which ended in May 2020) to IMSMA, with the support of UNDP and the Geneva International Centre for Humanitarian Demining (GICHD). BHM MAC does not report accurately and consistently on the extent of CMR contamination and on land release output, although it did disaggregate CMR-contaminated area released through non-technical survey, technical survey, and clearance in its 2021 CCM reporting – an improvement on previous years.
PLANNING AND TASKING (10% of overall score)	5	5	BiH's National Mine Action Strategy 2018–2025 planned for fulfilment of Article 4 by 1 March 2021. However, BHM MAC failed to plan early enough for completion of CMR clearance. A "completion initiative" to address CMR contamination was finally elaborated in 2019, with BiH Armed Forces, entity Civil Protections, and NPA tasked to release CMR-contaminated area. However, coordination and outputs were insufficient and BiH was granted an 18-month extension to 1 September 2022. Further concrete coordination and planning efforts for CMR completion finally took place in early 2022, but previously unknown contamination was subsequently discovered in spring 2022. BiH was not on track to meet its current deadline and requested a further one-year extension for consideration at the Tenth Meeting of States Parties. BiH provided a detailed work plan in its revised Article 4 extension request. Although BiH has requested a one-year extension, it expected to complete CMR clearance by the end of 2022 and use the remainder of the extension period to issue final documentation on clearance tasks and complete reporting to the CCM.
LAND RELEASE SYSTEM (20% of overall score)	6	6	BHM MAC has in place national standards and standing operating procedures (SOPs) for survey and clearance of CMR. Capacity for survey and clearance of CMR 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.

Criterion	Score (2021)	Score (2020)	Performance Commentary
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	4	4	In comparison to landmine contamination, CMR contamination in BiH was far less extensive and could have easily been addressed within the initial 10-year treaty deadline, given sufficient political will and commitment. However, planning for CMR completion came too late to meet its original Article 4 deadline. CMR land release output increased in 2021 and more concrete plans were being put in place in early 2022 as part of efforts to coordinate clearance to ensure completion by the extended deadline. However, there was zero margin for delay and in spring 2022, BHMAC unexpectedly announced the discovery of six previously unreported suspected CMR-contaminated areas, two of which were subsequently confirmed as containing CMR. BHMAC has submitted a one-year Article 4 deadline extension request in order to clear all CMR contamination and complete reporting under the CCM.
Average Score	5.3	5.3	Overall Programme Performance: AVERAGE

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 (BHMAC)

NATIONAL OPERATORS

- Armed Forces of BiH
- BHMAC
- 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 2021, BHMAC reported that the total cluster munition-contaminated area was 1.45km², which included remaining CMR tasks and ongoing tasks, as well as completed tasks for which final documentation had yet to be issued.¹ The actual amount of remaining CMR contamination was therefore inflated. The estimate compared to 2.05km² of CMR-contaminated area reported as at the end of 2020.²

In the spring of 2022, BHMAC identified six previously unreported suspected CMR-contaminated areas,³ two of which were subsequently confirmed to contain CMR following non-technical survey and targeted investigation by BHMAC and NPA. The areas of new CMR contamination were discovered by the BHMAC regional office at Tuzla during survey operations to collect information for land release operations.⁴

In its revised Article 4 deadline extension request submitted in July 2022, BiH reported that remaining cluster munition-contaminated area stood at 530,855m² (see Table 1), including the two previously unknown cluster munition-contaminated areas added to the database in 2022. The extension request also indicated that clearance was already underway in three of the remaining eight CMR tasks, suggesting the actual amount of remaining CMR contamination has reduced. BiH reported a further 390,351m² in which field work (clearance) had been finished, saying that the tasks were awaiting final control and certification.⁵

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

2 Email from Ljiljana Ilić, BHMAC, 31 March 2021.

3 Statement of BiH, CCM Intersessional meetings, Geneva, 16 May 2022; and 2022 CCM Article 4 deadline Extension Request, p. 5.

4 2022 CCM Article 4 deadline Extension Request, pp. 5 and 6.

5 Ibid, p. 10.

Table 1: Cluster munition-contaminated area by canton (at July 2022)⁶

Canton	Municipality	Local community	Hazardous areas	Area of SHA/CHA (m ²)	Comments
Tuzlanski	Kladanj	Kladanj	1	55,090	50% realised
Canton 10	Glamoč	Prijani	1	33,740	50% realised
Republika Srpska	Han Pijesak	Japaga	1	151,485	20% realised
Zanicko-Dobojski	Zenica	Vranovići	1	43,990	
Tuzlanski	Banovići	Cubrići	1	39,670	
Canton 10	Glamoč	Koričina	1	86,890	
Tuzlanski	Sapna	Sapna	1	*51,140	
Tuzlanski	Sapna	Sapna	1	*68,850	
Totals			8	530,855	

* CMR tasks added in 2022, following discovery of contamination during preparation for land release.
SHA = suspected hazardous area CHA = confirmed hazardous area

While not included in Table 1 above, BHMIC did, however, report to Mine Action Review in March 2022, a further two locations, totalling 238,581m² which contain both anti-personnel mines and CMR.⁷ However, it was subsequently confirmed through joint BHMIC and NPA non-technical survey that one of the two tasks did not contain CMR and the other task contained submunitions projected in an improvised manner and therefore not covered under BiH's CCM Article 4 obligations.⁸ BHMIC had also said that while mines were not expected to be found at the CMR task at Han Pijesak task in Republika Srpska, there was still a potential chance they might be discovered during clearance.⁹ NPA, however, subsequently reported that the BHMIC regional office in Pale had conducted re-survey and separated out the CMR task from the anti-personnel mine task.¹⁰

CMR contamination dates back to the conflicts of 1992-95 related to the break-up of the Socialist Federal Republic of Yugoslavia.¹¹ 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 12km², scattered across 140 areas. This estimate was subsequently revised upwards to 14.6km² following the start of land release operations in 2012.¹² Of this, around 5km² was deemed actually contaminated and marked for clearance.¹³

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).

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.¹⁴ 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, and it proposes the appointment of BHMIC senior staff, for approval by the Council of Ministers.¹⁵ The mandate of the most recent Commission ended on 30 April 2022, and as at July 2022 new Commission representatives had still to be

⁶ Ibid.

⁷ Email from Ljiljana Ilić, BHMIC, 22 March 2022.

⁸ Email from Braco Pandurevic, Operations Manager, NPA, 29 June 2022.

⁹ Email from Ljiljana Ilić, BHMIC, 22 March 2022. In May 2022, BiH stated that remaining CMR remaining cluster munition-contaminated area stood at 0.6km². Statement of BiH, CCM Intersessional meetings, Geneva, 16 May 2022.

¹⁰ Email from Charles Frisby, Country Director, NPA, 1 June 2022.

¹¹ BHMIC website, "Mine Action Report in BiH for 2015 approved by the BH Ministry Council", 16 May 2016.

¹² 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.

¹³ Statement of BiH, High-level Segment, First CCM Review Conference, Dubrovnik, 7 September 2015.

¹⁴ BHMIC Organisational chart, accessed 6 May 2022 at: <http://bit.ly/2Ycj4xl>.

¹⁵ UNDP, Draft Mine Action Governance and Management Assessment for BiH, 13 May 2015, p. 22.

appointed. BHM MAC is responsible for regulating mine action and implementing BiH's survey and clearance plans.¹⁶ BHM MAC 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).¹⁷

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. As at June 2020, however, an amended text from 2017 was still awaiting parliamentary adoption, and in July 2021, BHM MAC reported that the process had been suspended.¹⁸ 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.¹⁹ Clearer legislation on liabilities related to mine action activities would be beneficial to all mine action stakeholders in BiH.

The governance of BiH's mine action programme needs to be strengthened and would benefit from improved communication and coordination with clearance operators, including through the re-establishment of technical working groups (TWGs), which provide a platform for operators to discuss, learn from each other, and work in synergies on matters related to operations.

ENVIRONMENTAL POLICIES AND ACTION

BiH does not have a national mine action standard (NMAS) on environmental management. However, BHM MAC said that, in general, existing humanitarian demining procedures (methods for vegetation removal, removal of metals and waste, use of machinery, etc.) contribute to the management and protection of the environment. BHM MAC 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 where necessary. The use of threshing machines has been banned on agricultural areas, because the machines disturb soil deeper than 20cm and compact the soil, leaving it impermeable to water and preventing sowing for up to three years. BHM MAC 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, BHM MAC consults

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 APMBC Article 5 and 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 on 13 October 2020. The online forum was attended by over 40 participants including representatives from a wide range of mine action stakeholders, including non-governmental organisations (NGO) clearance operators and donors.²⁰ Unfortunately, however, as at June 2022, no further Country Coalition meetings had been convened.

In 2021, BHM MAC was funded by BiH to the sum of nearly 5.57 million BAM (just over US\$3 million): 3.34 million BAM for planning and nearly 2.23 million BAM for quality assurance. National funding also supports survey and clearance of CMR. Operations of the BiH Armed Forces are supported by the Council of Ministers from the State budget of BiH, while the Government of the Federation of BiH finances the operations of Federal Administration of Civil Protection (FACP).²¹ The Civil Protection Administration of Republika Srpska (CPARS) is financed by the Government of Republika Srpska.²² In July 2022, BiH stated that addressing the remaining CMR contamination from 1 September 2022 to 1 September 2023 would cost 0.7 million BAM (approximately €0.4 million), which had already been secured from national and international funding.²³

landowners regarding which vegetation can be removed, and what density and type of trees should be left untouched.²⁴

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.²⁵ NPA BiH follows its "do no harm" principle and said that it takes seriously environmental considerations in the deployment of operational assets and strives to minimise its environmental footprint. NPA safely disposes all of non-degradable waste found in its area of operations, including all materials and tools used. All human waste and rubbish are regularly cleared and deposited in pre-designed areas. As land release operations are often conducted in forested areas, NPA also maintains close cooperation with relevant forest administrations, helping prevent unintended environmental consequences and reducing deforestation.²⁶

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

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

18 Email from Ljiljana Ilić, BHM MAC, 2 July 2021.

19 Email from GICHD, 14 May 2021.

20 BHM MAC 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.

21 Email from Ljiljana Ilić, BHM MAC, 22 March 2022.

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

23 2022 CCM Article 4 deadline Extension Request, pp. 5 and 12.

24 Email from Ljiljana Ilić, BHM MAC, 22 March 2022.

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

26 Ibid.

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”.²⁷ 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 grounds 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.²⁸ However, as at April 2022, only 21% of BHMAL’s employees were female (37 of 171 employees), with women employed in 16% of managerial/supervisory positions (4 of 25) and 18% of operational positions (25 of 139).²⁹ BHMAL reported having a gender and diversity policy in place and stated that BHMAL upholds the Law on Gender Equality and routinely includes it in the development of strategies and standards.³⁰

BHMAL has reported that it consults all groups affected by CMR, including women and children, during survey and community liaison activities, and BHMAL’s survey and community liaison teams are inclusive with a view to facilitating this. Relevant mine action data are disaggregated by gender and age.³¹ In a welcome development, two of the three new members of BiH’s Demining Commission, adopted on 30 April 2020, are women.³² However, the mandate of this Commission ended on 30 April 2022 and as at July 2022 new Commission representatives had still to be appointed so the gender balance of it was as yet unknown. However, except for one reference to the provision of adequate gender- and age-sensitive mine risk education,³³ there was no other mention of either gender or diversity in BiH’s Article 4 deadline extension request submitted in September 2020.

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.³⁴

FACP reported that of its 204 employees deployed in demining and destruction of UXO, 41 (20%) are women, including five (42%) of the twelve managerial/supervisory positions, and 17 (11%) of the 153 operational positions.³⁵

NPA reported that the overall gender split of its staff as at March 2022 was 13% female, with women only accounting for 10% of operational staff deployed in the field, a minor increase on the previous year. However, some 40% of managerial positions in NPA’s BiH programme are held by women. NPA said it would continue its work to ensure that a gender balanced workplace policy is in place as well as to ensure that the needs of all staff are accommodated with access to equal opportunities regardless gender, age, ethnic and religious backgrounds.³⁶

Mixed gender representation is an obligation for NPA teams conducting community liaison and risk education.³⁷ NPA said its explosive risk ordnance education (EORE)/community liaison team continuously implement activities in a gender and diversity sensitive and responsive way to respond to the diverse needs within affected communities and target minority ethnic groups, women, persons with disabilities, and people of different age groups. Through its focal points, NPA planned to liaise with local associations/organisations working in the field of Gender, Equality, Diversity and Inclusion in 2022, to share experience and knowledge for stronger gender mainstreaming. It also planned two all-staff Gender and Diversity training sessions for the year.³⁸

INFORMATION MANAGEMENT AND REPORTING

BHMAL currently uses its own paradox-based information management system, the Bosnia and Herzegovina Mine Action Information System (BHMAIS),³⁹ but implementation of Information Management System for Mine Action (IMSMA) Core has been ongoing since 2019. The first phase of IMSMA Core implementation was completed with support from UNDP and the GICHD, and financing from the EU, and created a

system capable of managing data from the EU-funded “country assessment” project, which was completed in May 2020.⁴⁰ A new project to migrate the remaining data and workflows from BHMAIS to IMSMA Core was planned to start in 2022.⁴¹ As at April 2022, BHMAL reported that a concept note for the new IMSMA Core project had been submitted and that, once commenced, the project would take 18 months to implement.⁴²

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

28 Ibid.

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

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

31 Emails from Ljiljana Ilić, BHMAL, 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.

32 2020 APMBBC Article 5 deadline Extension Request, p. 18.

33 2020 Article 4 deadline Extension Request, September 2020, p. 7.

34 Email from Brig. Dzevad Zenunovic, Demining Battalion of the Armed Forces of BiH, 13 July 2022.

35 Email from Muamer Husilović, Federal Administration of Civil Protection (FACP), 7 July 2022.

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

37 Email from Goran Šehić, NPA, 25 February 2019.

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

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

40 2020 APMBBC Article 5 deadline Extension Request, p. 5; and email from GICHD, 27 April 2022.

41 Emails from Charles Frisby, NPA, 19 March 2022; and GICHD, 27 April 2022.

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

BiH's national information management system needs to be improved in terms of accuracy and sustainability. During the implementation and migration from BHMAIS to IMSMA-Core, the data quality will be checked and improved wherever feasible. Data-collection forms will be also reviewed and improved as part of the process.⁴³ NPA believes that IMSMA Core will help ensure BiH has accurate, transparent, and reliable mine action data stored and managed by BHMAC. It will also contribute to better operational planning, including with respect to BiH's APMBBC and CCM treaty commitments.⁴⁴

In addition, UNDP has developed a Geographic Information System (GIS) mobile application, which was released in November 2020. This allows the general public to access information on the location of hazardous areas, as well as other features, through Android and Apple iOS devices.⁴⁵

In its CCM Article 7 report covering 2021, BHMAC did not report CMR contamination by SHAs and CHAs, in a manner consistent with IMAS. However, it did disaggregate into SHAs and CHAs in some of the contamination data reported to Mine Action Review. In its revised 2022 Article 4 extension request BHMAC did, however, provide detailed information on the location and size of the remaining CMR-contaminated area and a clear work plan for their release.⁴⁶ In addition, in this year's Article 7 reporting, BHMAC disaggregated land release output from non-technical survey, technical survey, and clearance – something that it has failed to do in previous years' treaty reporting. There continue, however, to be inaccuracies in BHMAC reporting on land release, with unexplained differences in data reported by BHMAC compared to the same data reported by clearance operators.

PLANNING AND TASKING

BiH's national mine action strategy for 2018–25 addresses all mine and cluster munition remnant contamination. The previous BiH Mine Action Strategy for 2009–19 guided mine action in BiH, but did not mention CMR clearance specifically.

The new strategy contains 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.⁴⁷ However, the strategy did not contain an action plan or concrete milestones towards completion of CMR clearance.⁴⁸ BHMAC also elaborates annual work plans.⁴⁹

A "completion initiative" plan, agreed with BHMAC, the BiH Armed Forces, the FACP, and NPA, aimed to complete clearance of all remaining CMR-contaminated areas by 1 March 2020.⁵⁰ But the national survey and clearance capacities planned under the completion initiative were not fully realised.⁵¹ Progress in implementing the initiative was also slowed as a result of the failure of the Council of Ministers to appoint a Demining Commission to renew demining accreditations, including those of the BiH Armed Forces, the FACP, and NPA.⁵² It was further negatively impacted by the COVID-19 pandemic,⁵³ which caused survey and clearance operations to be paused from mid-March until June 2020, and operations were then impacted again in October. COVID-19 also impacted BHMAC, which worked at reduced capacity.⁵⁴

BiH requested and was granted an extension to its deadline by 18 months to 1 September 2022. The 2020 extension request included a work plan for release of remaining CMR-contaminated areas,⁵⁵ but lacked concrete milestones.

BHMAC is working in collaboration with donors and implementing agencies, including EUFOR, BiH Armed Forces, NPA, and FACP, to implement Article 4. In support of joint completion efforts, EUFOR convened a conference on cluster munitions in February 2022 in Sarajevo. The conference included an assessment of the necessary operational capacities needed for completion within the deadline. A second follow-up conference was expected to take place in March and provide further clarity and exchange of information on plans for the release of all remaining CMR tasks.⁵⁶ Allocation of the remaining CMR tasks has been split between the BiH Armed Forces, FACP, and NPA,⁵⁷ and BHMAC said that it was holding monthly meetings with NPA and government institutions to report on progress and plan CMR operations.⁵⁸

In May 2022, BiH submitted a request to extend its deadline by a further 12 months to 1 September 2023. In July 2022, BiH submitted a revised and improved extension request, following feedback from the CCM Article 4 Analysis Group. The extension request was due to be considered at the Tenth Meeting of States Parties. According to BiH's second extension request, which included a detailed work plan

43 Email from GICHD, 27 April 2022.

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

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

46 2022 APMBBC Article 4 deadline Extension Request, May 2022, p. 10 and Annex 2.

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

48 *Ibid.*, pp. 21–26.

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

50 Email from Jonas Zachrisson, NPA, 26 March 2020; and Statement of BiH, CCM Ninth Meeting of States Parties, Geneva, 2–4 September 2019.

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

52 Email from Jonas Zachrisson, NPA, 26 March 2020; 2020 Article 4 deadline Extension Request, September 2020, p. 5; and Statement of BiH, Second CCM Review Conference (Part 1), virtual format, 25–27 November 2020.

53 *Ibid.*

54 2020 Article 4 deadline Extension Request, September 2020, pp. 4, 5, and 11; Statement of BiH, Second CCM Review Conference (Part 1), virtual format, 25–27 November 2020; and email from Jonas Zachrisson, NPA, 14 March 2021.

55 2020 Article 4 deadline Extension Request, September 2020, Annex 3.

56 Emails from Ljiljana Ilić, BHMAC, 22 March 2022; and Charles Frisby, NPA, 19 March 2022.

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

58 Statement of BiH, CCM Intersessional meetings, Geneva, 16 May 2022.

for completion of all remaining tasks, field operations were planned to be finished by the end of 2022 (and by 1 September 2022 for all but the two previously unknown CMR tasks discovered in 2022). However, BiH also noted that "based on past experience and depending on weather conditions, delays are possible and deadlines can be postponed" and that "it is very often that confirmed risk areas can be increased because of a lack of information about the number of fired missiles". BiH then plans to use the remainder of the extension period through to 1 September 2023, for finalisation of reporting under the CCM.⁵⁹

Until recently, BHMAC had also faced the additional obstacle of a cluster munition clearance task in the municipality of Han Pijesak, in Republika Srpska, which was believed to also contain depleted uranium munitions remaining from NATO air strikes.⁶⁰ In 2021, BHMAC conducted two re-surveys of this task and clearly delineated the area containing CMR and mine contamination. The Public Health Institute of the Republika Srpska subsequently conducted tests and confirmed that

depleted uranium contamination is not present in the actual CMR task. Analyses of soil and water samples from the adjacent area were still in progress, but will not impact NPA's clearance task. NPA started clearing the CMR task in June 2022.⁶¹ According to BiH's extension request, this task was expected to be finished by September 2022.⁶²

BHMAC's annual 2021 work plan included planned CMR clearance of 0.5km² and planned reduction through technical survey of 1.5km².⁶³ Actual results in 2021, according to BHMAC's data, saw release 0.62km² through clearance; nearly 0.36km² through technical survey, and 0.24km² through non-technical survey.⁶⁴

According to BHMAC, cluster munition-contaminated areas are prioritised for clearance based on agreement with local communities and municipalities.⁶⁵

As at April 2022, BHMAC had secured funds for the implementation of all remaining CMR projects.⁶⁶

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

In 2016, the Demining Commission formally adopted three revised chapters of the NMAS on land release, non-technical survey, and technical survey, drafted in cooperation with EU technical assistance through the Land Release pilot project, UNDP, and the GICHD.⁶⁷ The Demining Commission adopted new standards for CMR at the beginning of 2017.⁶⁸ Plans for revising the NMAS and further development of relevant chapters was planned by BHMAC for 2020, but no significant progress has yet been made. In April 2022, BHMAC said that an update of the national standards was underway.⁶⁹

BHMAC reported that survey or resurvey of hazardous areas suspected to contain CMR is conducted systematically in all land release operations.⁷⁰

OPERATORS AND OPERATIONAL TOOLS

Technical survey and clearance of CMR-contaminated area in 2021 was conducted by NPA and the BiH Armed Forces, and non-technical survey by BHMAC and NPA.⁷¹ The FACP did not conduct any planned CMR operations in 2021.⁷²

The Demining Commission is responsible for considering the periodic re-accreditation of field operators, following the recommendation from BHMAC. Delay in appointing the new Demining Commission negatively impacted CMR operations in the past, in some instances preventing the initiation of CMR clearance at the start of the demining season.⁷³ As previously mentioned, the mandate of the current Demining Commission expired on 30 April 2022, although BHMAC expected election of the new members to be "timely".⁷⁴ As at July 2022, a new Demining Commission had yet to be established.

59 2022 CCM Article 4 deadline Extension Request, p. 11 and Annex 2.

60 2020 Article 4 deadline Extension Request, September 2020, p. 9.

61 Email from Ljiljana Ilić, BHMAC, 22 March 2022; Statement of BiH, CCM Intersessional meetings, Geneva, 16 May 2022; and telephone interview with Charles Frisby, NPA, 23 June 2022.

62 2022 CCM Article 4 deadline Extension Request, p. 11 and Annex 2.

63 Email from Ljiljana Ilić, BHMAC, 31 March 2021.

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

65 Email from Ljiljana Ilić, BHMAC, 24 April 2019.

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

67 BHMAC, "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; BHMAC, "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.

68 Interview with Saša Obradović, Director, BHMAC, Sarajevo, 10 May 2017.

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

70 Email from Ljiljana Ilić, BHMAC, 24 April 2019.

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

72 Email from Muamer Husitović, FACP, 18 March 2022.

73 2020 Article 4 deadline Extension Request, September 2020, p. 5.

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

BHMAC's non-technical survey capacity was seven non-technical survey teams, totalling 12 personnel. In 2021, BHMAC conducted non-technical survey on nine projects, using a total of five BHMAC non-technical survey teams, totalling eight people. A further two teams, with four surveyors, conducted non-technical survey jointly with NPA.⁷⁵

The BiH Armed Forces deployed one team of between four and six deminers to each of its four CMR tasks in 2021.⁷⁶ In its revised 2022 Article 4 deadline extension request, BiH said that the BiH Armed Forces had two units conducting CMR clearance, each with eight searchers/deminers.⁷⁷ BHMAC believes that the BiH Armed Forces and the FACP are equipped with necessary demining equipment and capable, trained personnel for CMR clearance.⁷⁸ However, both have suffered from logistical challenges and equipment deficits in the past, which prevent them from working at full capacity.⁷⁹ Since 2010, NPA has increasingly focused on building the capacity of the Army's Demining Battalion. This involves transfer of knowledge through operational planning of clearance and technical survey operations; direct operational support; and provision of mine detection dogs (MDDs) and equipment, among other things.⁸⁰ The BiH Armed Forces require ongoing support to secure personal protective equipment (PPE), batteries for detectors, and fuel for demining machinery, since the Army's own complex procurement system often cannot ensure delivery in time.⁸¹ The BiH demining battalion would like to upgrade PPE and demining equipment, and cautioned that it could face a 25% reduction in capacity without this equipment.⁸²

The FACP's CMR clearance capacity in 2022 was two teams, each with six searchers/deminers.⁸³

NPA had two manual clearance teams totalling 12 deminers for technical survey and clearance of CMR-contaminated area in BiH.⁸⁴ Since 2010, NPA has been helping to build the capacity of the Armed Forces Demining Battalion.⁸⁵ 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 will continue to provide direct operational support for the Demining Battalion's clearance tasks, and in 2022 was also supporting the establishment of the Demining Battalion's information management system, including development of related SOPs, software solutions, and transfer of knowledge through training on the use and maintenance of the system.⁸⁶

Mines Advisory Group (MAG) received operational accreditation in April 2017, and began demining in May 2017, but is engaged in landmine survey and clearance only.

Quality control (QC) and quality assurance (QA) are conducted by BHMAC.⁸⁷

No animal detection systems or mechanical assets were used in CMR survey or clearance operations in BiH in 2021 (or 2020). This is despite the fact that in 2017, BiH announced that technical survey and CMR clearance would also be conducted with the use of special detection dogs (SDDs), through NPA.⁸⁸ In 2014, NPA successfully piloted using SDDs for technical survey and clearance of CMR-contaminated areas.⁸⁹ It recommended the use of detection dogs in technical survey (both targeted and systematic investigation), which it believes can be extremely beneficial.⁹⁰ However, as at March 2022, BHMAC 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, BHMAC has begun to integrate procedures for the use of drones in non-technical survey for all its non-technical survey teams. BHMAC's use of drones during survey is proving to be useful as it reduces time to revisit some of the remotely located hazardous areas.⁹¹ BHMAC also said that another initiative to increase efficiency has been the application and improvement of targeted investigation during the non-technical survey process, by using technical methods.⁹²

75 Ibid.

76 Ibid.

77 2022 CCM Article 4 deadline Extension Request, Annex 2.

78 Email from Ljiljana Ilić, BHMAC, 24 April 2019.

79 UNDP, Draft Mine Action Governance and Management Assessment for BiH, 13 May 2015, p. 29; and interviews with Darvin Lisica, NPA, Sarajevo, 8 May 2017; Haris Lokvancic, Swiss Embassy, Sarajevo, 9 May 2017; and Tarik Serak, BHMAC, Sarajevo, 10 May 2017.

80 Email from Jonas Zachrisson, NPA, 26 March 2020.

81 Interview with Lt.-Col. Dzevad Zenunovic, Demining Battalion of the Armed Forces of BiH, Sarajevo, 10 May 2017; and email from Goran Šehić, NPA, 18 October 2017.

82 Presentation online by Brig. General Kenan Dautovic, Head of BiH Demining Battalion, 13 October 2020.

83 2022 CCM Article 4 deadline Extension Request, Annex 2.

84 Email from Charles Frisby, NPA, 19 March 2022; and 2022 CCM Article 4 deadline Extension Request, Annex 2.

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

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

87 2020 APMBC Article 5 deadline Extension Request, p. 8.

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

89 Email from Amela Balic, NPA Bosnia, 15 April 2015.

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

91 Email from GICHD, 27 April 2022.

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

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2021

Based on data reported by BHMAC to Mine Action Review, a total of more than 1.22km² of CMR-contaminated area was released in 2021: more than 0.24km² through non-technical survey, more than 0.36km² through technical survey, and almost 0.62km² through clearance, during which a total of 704 submunitions were destroyed. This total excludes 2,291 pieces of exploded MK1 submunitions discovered by the BiH Armed Forces in Central Bosnia, as these do not fall within Article 4 of the CCM. The total also excludes 183 submunitions destroyed during mine clearance tasks conducted by the FACP and the BiH Armed Forces, as these submunitions had been projected in an improvised manner and are therefore not covered under BiH's Article 4 obligations.⁹³

SURVEY IN 2021

In 2021, 0.24km² was cancelled through non-technical survey (see Table 2) and 0.36km² of CMR-contaminated area was reduced through technical survey (see Table 3), as reported by BHMAC to Mine Action Review.⁹⁴ This compared to no CMR-contaminated area cancelled through non-technical survey in 2020 and 0.34km² of CMR-contaminated area reduced through technical survey.⁹⁵

Table 2: Cancellation through non-technical survey in 2021⁹⁶

Canton	Operator	Area reduced (m ²)
Canton 10	BHMAC/NPA	243,784
Total		243,784

Table 3: Reduction through technical survey in 2021⁹⁷

Canton	Operator	Area reduced (m ²)
Hercegovacko Neretvanski	NPA	94,921
	BiH Armed Forces	42,752
Zanicko-Dobojski	NPA	102,269
	BiH Armed Forces	42,752
Tuzlanski	NPA	18,815
Central Bosnia	BiH Armed Forces	45,747
Sarajevo	BiH Armed Forces	60,246
Total		364,750

CLEARANCE IN 2021

In 2021, nearly 0.62km² of CMR-contaminated area was cleared, with the destruction of 704 submunitions (see Table 4).

A further 183 submunitions were destroyed on two technical survey and mine clearance tasks conducted by the FACP and one technical survey and mine clearance task conducted by the BiH Armed Forces. The 183 submunitions destroyed had been projected in an improvised manner and are therefore not covered under BiH's CCM Article 4 obligations.⁹⁸

Clearance output in 2021 was higher than the previous year, when 0.35km² of CMR-contaminated area was reportedly cleared, with the destruction of 162 submunitions, while a further 4 submunitions were destroyed during EOD spot tasks.⁹⁹ BHMAC believes the increased clearance output in 2021 was due to COVID-19 pandemic having less of an impact on clearance operations in 2021, compared to the previous year.¹⁰⁰

According to BHMAC, there was one CMR task cleared 2021 in which no submunitions were found. The task, which was cleared by the BiH Armed Forces, totalled 21,388m².¹⁰¹

93 Emails from Ljiljana Ilić, BHMAC, 22 March 2022; and Milijana Drinjak, Senior Planning Officer, BHMAC, 12 July 2022.

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

95 Email from Ljiljana Ilić, BHMAC, 31 March 2021.

96 Email from Ljiljana Ilić, BHMAC, 22 March 2022; and CCM Article 7 Report (covering 2021), Form F. NPA, however, did not report canceling any CMR-contaminated area in 2021 (email from Charles Frisby, NPA, 19 March 2022). According to NPA, the cancelled area reported by BHMAC related to two tasks in which NPA conducted targeted technical investigation, but no evidence points were found. Under national standards and SOPs, only BHMAC can officially cancel area.

97 Email from Ljiljana Ilić, BHMAC, 22 March 2022; and CCM Article 7 Report (covering 2021), Form F. There were, however, some discrepancies in BHMAC data on cluster munition-contaminated area reduced in 2021 compared to that reported to Mine Action Review by the implementing partners directly. NPA reported reducing a total of 262,570m² in 2021 (Hercegovacko Neretvanski (94,950m²); Tuzlanski (73,500m²); Hercegovosanski Canton (25,640m²); Zanicko-Dobojski (41,960m²); and Republika Srpska (26,520m²)) (email from Charles Frisby, NPA, 19 March 2022).

98 Emails from Ljiljana Ilić, BHMAC, 22 March 2022; and Milijana Drinjak, BHMAC, 12 July 2022.

99 Email from Ljiljana Ilić, BHMAC, 31 March 2021.

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

101 Ibid.

Table 4: CMR clearance in 2021¹⁰²

Canton	Operator	Area cleared (m ²)	Submunitions destroyed
Hercegovacko Neretvanski	NPA	174,796	588
Zanicko-Dobojski	NPA	108,866	71
	BiH Armed Forces	39,831	1
Tuzlanski	NPA	14,860	4
Central Bosnia	BiH Armed Forces	95,703	*26
Sarajevo	BiH Armed Forces	182,214	14
Totals		616,270	704

* In addition, BiH reported that a further 2,291 pieces of exploded MK1 submunitions were discovered during clearance. These, however, are not covered under Article 4 of the CCM and therefore are not included by Mine Action Review in the total number of submunitions destroyed in 2021.

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 2022, having been granted an 18-month extension. BiH is not on track to achieve completion by the extended deadline and has requested a further twelve-month deadline extension to 1 September 2023, for consideration at the Tenth Meeting of States Parties.

As a consequence of COVID-19 restrictions, BiH's first request to extend its Article 4 deadline was granted by States Parties through a new "silence procedure" in February 2021.¹⁰³ Prior to the unexpected discovery of the six new CMR-contaminated areas (two of which were subsequently confirmed to contain CMR), BHMACH had been aiming to complete CMR clearance by its extended deadline.¹⁰⁴ However, this would have still been extremely tight, leaving no margin for unforeseen delays or for BHMACH to prepare final documentation and issue land release certificates.

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 BHMACH, the Demining Commission, and their superiors in the government. Only a little over 2km² of CMR-contamination has been cleared in the last five years (see Table 5).

Table 5: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2021	0.62
2020	0.35
2019	0.45
2018	*0.44
2017	0.27
Total	2.13

* Includes area released through both clearance and technical survey

102 Ibid., and CCM Article 7 Report (covering 2021), Form F. There were, however, some discrepancies in BHMACH data on cluster munition-contaminated area cleared in 2021 compared to that reported to Mine Action Review by the implementing partners directly. NPA reported clearing a total of 416,560m² in 2021, with the destruction of 368 submunitions (Hercegovacko Neretvanski (174,800m² cleared, 31 submunitions destroyed); Tuzlanski (97,690m² cleared, 130 submunitions destroyed); Zanicko-Dobojski (64,790m² cleared, 113 submunitions destroyed; Hercegovosanski (41,840m² cleared, 88 submunitions destroyed); and Republika Srpska (37,440m² cleared, 6 submunitions destroyed). Email from Charles Frisby, NPA, 19 March 2022. Furthermore, BiH's Article 7 report includes 2,291 pieces of exploded MK1 submunitions discovered during clearance in 2021, which Mine Action Review has excluded from its total of submunitions destroyed during the year as they do not fall within the CCM.

103 Email from the CCM Secretariat to CCM States Parties, 1 March 2021.

104 Email from Ljiljana Ilić, BHMACH, 22 March 2022.

A “completion initiative” plan was developed in 2019, between BHMAC, BiH Armed Forces, FACP, and NPA, aimed at fulfilling BiH’s obligations by the 1 March 2021 Article 4 deadline. However, as it was only elaborated in 2019, it left very little margin for delay. Delays to operations caused by the failure to appoint the Demining Commission (which renews accreditations) in a timely fashion, along with the impact of COVID-19, meant that the completion initiative was not realised by the clearance deadline and an Article 4 deadline extension was sought and granted to 1 September 2022. BHMAC and NPA both reported that there were no COVID-19 related delays to CMR survey or clearance operations in 2021.¹⁰⁵

In early 2022, greater attention was given to CCM Article 4 implementation and planning. In support of completion efforts, a conference focused on cluster munition contamination was convened at the EUFOR Headquarters

in Sarajevo in February.¹⁰⁶ BHMAC then organised two coordination meetings in March and May, with participation of NPA, the BiH Armed Forces, and FACP.¹⁰⁷ However, the unexpected discovery of two previously unrecorded confirmed CMR-contaminated areas has further added to the existing baseline of CMR contamination, and BiH has sought a further one-year extension to its clearance deadline. 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.

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

The National Mine Action Strategy for 2018–2025 requires the development of a strategy for the management of residual contamination by 2022. As at April 2022, the strategy had still to be developed.¹⁰⁸

¹⁰⁵ Emails from Ljiljana Ilić, BHMAC, 22 March 2022; and Charles Frisby, NPA, 19 March 2022.

¹⁰⁶ Ibid.

¹⁰⁷ Email from Charles Frisby, NPA, 1 June 2022.

¹⁰⁸ Email from Ljiljana Ilić, BHMAC, 22 March 2022.

ARTICLE 4 DEADLINE: 1 SEPTEMBER 2023
EXTENSION REQUESTED TO 1 SEPTEMBER 2024

KEY DATA

CLUSTER MUNITION CONTAMINATION:

BELIEVED TO BE LIGHT,
BUT NO NATIONAL BASELINE ESTIMATE

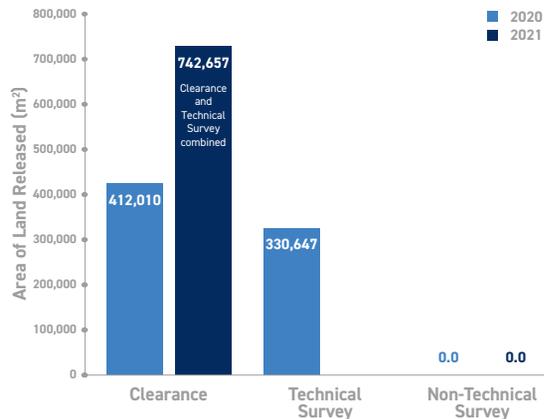
SUBMUNITION
CLEARANCE IN 2021

0.74KM²

SUBMUNITIONS
DESTROYED IN 2021

11

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Chad 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 would request an extension to its Convention on Cluster Munitions (CCM) Article 4 deadline in order to do so, with “a high probability” of finding cluster munition remnants (CMR). It submitted the formal request in May 2022. The four-year European Union PRODECO project, which has funded all mine action operations in Chad since 2017, was due to conclude in 2021, but operators received a no-cost extension until 2022.

RECOMMENDATIONS FOR ACTION

- Chad should draw up a work plan detailing timelines for its CMR survey of Tibesti.
- 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, the capacity available for tackling CMR hazardous areas identified after declaring completion.
- Chad should recognise the importance of maintaining and strengthening its information management capabilities and take steps to build capacity in its information management operations.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2021)	Score (2020)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	5	5	Chad has never produced a baseline estimate of CMR contamination but asserted in 2021 it had completed clearance of all cluster munition-contaminated areas under its jurisdiction. It subsequently accepted it needed to survey Tibesti province where decades of conflict mean there was a likelihood of finding CMR.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	3	3	Chad's mine action authority coordinates the sector but the 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 while operations depend wholly on international donor funding. The COVID-19 pandemic and the change of regime in 2021 presented challenges likely to further eclipse support for mine action.
GENDER AND DIVERSITY (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.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	5	5	The HCND's national mine action database has benefitted from an extensive data clean-up by the Swiss Foundation for Mine Action (FSD) and improvements in reporting procedures, but the national authority has very limited information management capacity, posing a challenge for sustaining the benefits of those improvements after the end of the PRODECO project which funded FSD's support. Chad has submitted Article 7 reports for each of the past five years, but as at 1 July 2022 still had to submit an Article 7 report for 2021.
PLANNING AND TASKING (10% of overall score)	4	3	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 that for the first time set out a plan of action.
LAND RELEASE SYSTEM (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.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	5	5	Chad reported that it released more than 0.7km ² through technical survey and clearance in 2020–21 but provided no further details.
Average Score	4.6	4.5	Overall Programme Performance: POOR

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

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

NATIONAL OPERATORS

- HCND

INTERNATIONAL OPERATORS

- Humanity and Inclusion (HI)
- Mines Advisory Group (MAG)
- Swiss Foundation for Mine Action (FSD)

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,¹ it provided no details and the extent to which it is affected is uncertain. The 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 61km² but it did not provide any data on parts of Tibesti province and it did not produce a disaggregated estimate of CMR contamination.²

In 2021, Chad said it had completed clearance of CMR hazards and would announce compliance with its Article 4 obligations³ 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.⁴

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Chad's mine action programme is coordinated by the HCND, which was set up by government decree (No. 133) in May 1998 with a mandate to implement a humanitarian programme tackling mines and explosive ordnance.⁵ 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.⁶

A June 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.⁷ 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.⁸ Operators say constant changes in coordination staff have hampered efficiency.⁹ 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 million¹⁰ but the salary issue has proved troubling in recent years.¹¹ 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.¹²

ENVIRONMENTAL POLICIES AND ACTION

Chad does not have a policy on environmental management in mine action. Individual operators, such as Mines Advisory Group, have institutional policies in place at headquarters level.

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.¹³

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, HI, 3 June 2020.

10 Emails from Souttani Moussa, HCND, 14 May 2019 and 27 April 2020.

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

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

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

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 the Swiss Foundation for Mine Action (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.¹⁴ The clean-up cancelled a total of 35 areas from the database, including eight in 2021 alone.¹⁵

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 results as well as a series of quality assurance and quality control 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”.¹⁶

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.¹⁷

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,¹⁸ but it appears those plans were never implemented.

Chad’s initial intention was to ask for a two-year extension in order to carry out non-technical survey in northern Tibesti region.¹⁹ 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 19km². 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.²⁰

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.²¹ Humanity and Inclusion (HI) said it prioritised tasks according to local community development priorities.²²

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.²³ FSD said it completed a three-year revision of Chad’s national standards in November 2021.²⁴

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 Chad statement to the CCM Intersessionals, 16 May 2022.

²⁰ Article 4 deadline Extension Request, 30 May 2022, p. 6.

²¹ Email from Daniel Davies, MAG, 27 April 2020.

²² Email from Seydou Gaye, HI, 3 June 2020.

²³ Article 4 deadline Extension Request, 30 May 2022, p. 4.

²⁴ Email from Eugenio, Balsini, FSD, 28 April 2022.

OPERATORS AND OPERATIONAL TOOLS

The EU's four-year PRODECO project, estimated to have cost €23 million,²⁵ started in 2017, funding operations by a consortium of four organisations in which FSD provided technical support, HI and 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 2022.²⁶

FSD started 2021 with a total of 12 people, with four international staff, four national programme staff, and four support personnel, but by the end of the year as the PRODECO programme wound down it had reduced to one expatriate manager supported by two staff. In addition to developing Chad's IMSMA database and training HCND staff, activities in 2021 and early 2022 included providing technical support to a range of missions around the country. These included providing coordination, data verification and assisting non-technical and technical survey operations, mainly in Ennedi West but also in Borkou, Ennedi East, and the Lake Chad region.²⁷

HI has acted as lead agency of the PRODECO consortium but did not respond to requests for details of its activities in 2021–22 and its operating capacity is unknown. In 2020, it had worked with three multi-task teams (MTTs) employing a total of 35 personnel (two 15-strong MTTs and one 5-person MTT) among a total staff of 76, along with a five-strong non-technical survey team. It also had a mechanical team operating a GCS 200 multi-purpose vehicle for ground preparation.²⁸

MAG also cut back its staffing in the course of 2021, starting the year with 13 international staff but reducing to five by the end of the year. At the end of 2020 it had deployed three 12-strong explosive ordnance disposal (EOD) teams comprising a total of 36 deminers as well as one community liaison team and a mechanical team operating an ARMTRAC 100-350 to assist technical survey.²⁹ By the end of 2021, its deminers had been stood down and total team capacity was down to 11 staff.³⁰

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2021

The only recent land release reported in Chad was technical survey and clearance of 742,657m² conducted between September 2020 and April 2021 in the area of Delbo village in Ennedi West province. These operations reportedly resulted in destruction of 11 Russian-made AO1 SCH fragmentation cluster munitions. Chad reported the land was "made available" in October 2021 and claimed it represented the last area contaminated by cluster munitions in its national jurisdiction. It said three submunition containers were found in the Kaourchi district of Borkou province but did not report finding any submunitions in them.³¹

ARTICLE 4 DEADLINE AND COMPLIANCE



25 EU Emergency Trust Fund for Africa, "PRODECO: déminage humanitaire, une approche", 31 January 2022, accessed at: <https://bit.ly/3tHBOY5>.

26 Emails from Gérard Kerrien, Country Director, MAG, 4 April 2022; and Eugenio Balsini, FSD, 28 April 2022.

27 Emails from Olivier Shu, FSD, 18 May 2021; and Eugenio Balsini, FSD, 28 April 2022.

28 Email from Marie-Cécile Tournier, HI, 2 June 2021.

29 Email from Gérard Kerrien, MAG, 20 May 2021.

30 Email from Gérard Kerrien, MAG, 4 April 2022.

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

Chad declared in December 2021 that it had cleared all known areas of CMR contamination³² and prepared to announce formally the completion of its Article 4 obligations. It subsequently revised 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.³³ Chad initially planned to ask for a two-year extension³⁴ but the request submitted at the end of May only sought an extension of one year.³⁵

Chad proposed to deploy five teams for non-technical survey of 19km² in five areas of Tibesti where decades of armed conflict meant there was “a high probability” of finding CMR.³⁶ Chad said it has sufficient trained capacity to conduct the survey³⁷ 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.

Table 1: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2021	0.74
2020	0.41
2019	1.35
2018	0
2017	0
Total	2.50

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.

36 *Ibid.*, p. 4.

37 Presentation by Djibrine Brahim, Coordinator, HCND, APMBC Intersessional meetings, Geneva, 20 June 2022.

ARTICLE 4 DEADLINE: 1 JUNE 2023
EXTENSION REQUESTED TO 1 JUNE 2026

KEY DATA

CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

30.77 km²

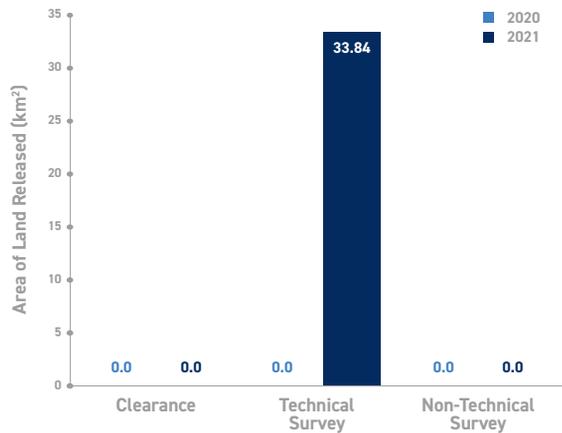
SUBMUNITION
CLEARANCE IN 2021

0 km²

SUBMUNITIONS
DESTROYED IN 2021

0

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

In 2021, Chile conducted technical survey of its cluster munition-contaminated area, all of which is in military training ranges. This reduced the estimate of contaminated area by more than half, paving the way for the submission of an Article 4 deadline extension request in April 2022 (and a revised request in May), detailing plans for clearance of the remaining area. Chile's land release output had stalled during 2020 following the reallocation of resources due to the COVID-19 pandemic. But operations were restarted in 2021 and the management structure is now in place for the implementation of Chile's clearance obligations under the Convention on Cluster Munitions (CCM).

RECOMMENDATIONS FOR ACTION

- Chile should ensure sufficient resources are in place to complete clearance by the requested Article 4 deadline of 1 June 2026.
- Chile should elaborate a gender and diversity policy and implementation plan for its mine action programme.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2021)	Score (2020)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	7	5	Chile has an accurate baseline of cluster munition remnants (CMR) contamination following the technical survey 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.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	7	4	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 was able to allocate funds to technical survey during 2021 despite ongoing budgetary challenges due to the COVID-19 pandemic. Chile plans to fund all of its clearance although budgets in Chile are only agreed annually by the Ministry of Finance.
GENDER AND DIVERSITY (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, the number of women employed in demining in 2019 was just 4%. Chile stated in its 2020 CCM Article 4 deadline extension request that the Ministry of National Defence will promote women to the teams that will conduct CMR clearance although there was no mention of this 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. Chile should also formulate a mine action-specific gender and diversity policy.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	6	5	Chile uses the Information Management System for Mine Action (IMSMA) database. Chile has submitted Article 7 reports annually since 2012. In April 2022, Chile submitted a request for an additional three-year extension to its Article 4 deadline for clearance through to June 2026. In May 2022, Chile submitted further information on its extension request as requested by the CCM Article 4 Analysis Group.
PLANNING AND TASKING (10% of overall score)	7	5	Chile included in its latest extension request plans to clear all CMR-contaminated area, beginning in June 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.
LAND RELEASE SYSTEM (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.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	6	3	Chile managed to conduct technical survey during 2021 and was able to allocate sufficient resources. In 2022, Chile submitted an Article 4 deadline extension request from June 2023 to June 2026 during which period it plans to complete clearance of all remaining CMR-contaminated area. Provided that Chile can secure the necessary resources, this new target date for completion seems achievable.
Average Score	6.2	4.6	Overall Programme Performance: AVERAGE

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

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

NATIONAL OPERATORS

- Demining Units of the Army Corps of Engineers
- Demining Unit of the Navy
- Demining Unit of the Air Force

INTERNATIONAL OPERATORS

- None

OTHER ACTORS

- None

UNDERSTANDING OF CMR CONTAMINATION

Chile reported that at the end of 2021 it had 30.77km² of cluster munition-contaminated area in three of its fifteen provinces (see Table 1).¹ This is a 52% reduction from the estimate as at the end of 2020 following technical survey of the contaminated areas during 2021. All contamination is now in confirmed hazardous area (CHA).²

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 Antártica Chilena CB-250K cluster bombs were dropped. The contaminated areas remain within military enclosures and so are inaccessible to the public.³ Clearance was carried out after the cluster munitions were detonated and the military exercises were completed so Chile estimates that the remaining cluster munition remnants (CMR) contamination will be minimal.⁴

Table 1: Cluster munition-contaminated area by province (at end 2021)⁵

Province	Military range	CHAs	Area (m ²)
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 other unexploded ordnance (UXO). On 13 November 2020, Chile made an official declaration of completion that it had addressed all known minefields and had met its Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline (see Mine Action Review's *Clearing the Mines 2021* report on Chile for further information).⁶

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The national mine action programme was managed by the National Demining Commission (Comisión Nacional de Desminado, CNAD), which is chaired by the Minister of Defence. Chile's obligations under the CCM have, so far, been the responsibility of the Division of International Relations of the Undersecretary of Defence.⁷ It was initially planned that CNAD would assume responsibility for coordinating the demining units from the Armed Forces that would conduct survey and clearance of cluster munition remnants (CMR). Under national law, however, CNAD may only manage the survey and clearance of anti-personnel mines and it was determined that a new body should be created to coordinate clearance of CMR and explosive remnants of war (ERW).⁸

In March 2021, Ministerial Order 02, issued by the Minister of Defence, instructed the Undersecretariat of Defence, the Undersecretariat of the Armed Forces, and the Joint Chiefs of Staff on their roles and responsibilities in relation to the CCM. The Joint Chiefs of Staff were responsible for planning and coordinating the technical survey, which was then conducted by the armed forces.⁹ In February 2022, Ministerial Order 284, also issued by the Minister of Defence, created the Department for the Implementation of Conventions on Explosive Remnants of War (DICOR), which is responsible for planning and coordinating CMR clearance. The Department's duties also include submitting the relevant budgets to the Ministry of Finance and the Annual Disarmament Plan to the Ministry of Defence.¹⁰

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

2 Ibid.; and Article 7 Report (covering 2020), Form J.

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

4 Responses to the additional observations and comments of the CCM Article 4 analysis group on the updated extension request submitted by Chile on 9 May 2022, p. 1.

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

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

7 Email from Pamela Moraga, Disarmament Affairs, Non-Proliferation and International Security Coordinator, Permanent Mission of Chile to the United Nations (UN) Office in Geneva, 19 September 2018.

8 Revised Article 4 deadline Extension Request, July 2020, p. 18.

9 Article 7 Report (covering 2020), Annex pp. 11–22 and 15.

10 Article 7 Report (covering 2021), Form J.

Chile allocated CLP\$22.6 million (approx. US\$27,000) to conduct technical survey during 2021¹¹ 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.¹² It expects to be able to fund all its operations from national funding sources although this will not be confirmed until December 2022 when the State budget for 2023 is finalised.¹³ In the case where national funds are diverted from mine action towards addressing the COVID-19 pandemic, for example, Chile will request funding from the international community.¹⁴ 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.¹⁵

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".¹⁶

GENDER AND DIVERSITY

While there is no specific gender and diversity policy within CNAD, Chile's policy of integrating women into the armed forces has been in place since 2000. As at May 2019, 14% of the total personnel of the armed forces were women. In 2016, restrictions on the type of military positions a woman could hold were lifted and legislation was adopted to modify the military grading system, allowing women to be promoted in the same way as men. Women have been working in demining in Chile since 2004 across all types of roles, including as deminers and in managerial/supervisory roles.

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.¹⁷ Chile reported that in 2019 of the 246 personnel carrying out roles within the demining units, only ten (4%) were women. This included two demining section commanders and four women in support roles (one medic, two nurses, and one paramedic).¹⁸

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.¹⁹ 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.²⁰

The Ministry of National Defence is working to mainstream gender perspective in all areas of its ministerial work, including the planning of military operations. To that end, in March 2022, gender focal points were appointed who will guide the development of the demining programme through a gender and diversity lens.²¹

INFORMATION MANAGEMENT AND REPORTING

Since 2003, Chile has been using the Information Management System for Mine Action (IMSMA). During 2017, Chile upgraded to IMSMA New Generation (NG) after starting the MARS (Mine Action Reporting System) application that replaced IMSMA Mobile. This application has, CNAD says, equipped Chile with high-quality geographic information to support decision-making on clearance.²² This system was deployed in 2019 alongside non-technical survey with a view to calculating the area of possible CMR contamination.²³

11 Ibid., Form I.

12 Article 4 deadline Extension Request, April 2022, pp. 7-8; and Article 4 deadline Extension Request, June 2021, p. 3.

13 Article 4 deadline Extension Request, April 2022, pp. 7-8.

14 Ibid., p. 13.

15 Ibid., pp. 9-10; and Revised Article 4 deadline Extension Request, May 2022, p. 14.

16 Revised Article 4 deadline Extension Request, May 2022, p. 6.

17 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.

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

19 2020 Article 4 deadline Extension Request, p. 6; and Revised Article 4 deadline Extension Request, July 2020, p. 5.

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

21 Email from Valentín Segura Flores, Head, Department of International Cooperation (DCI), 1 June 2022.

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

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

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

In January 2020, Chile submitted a draft Article 4 deadline extension request, requesting a five-year extension until 1 June 2026. However, based on feedback from the Article 4 Analysis Group, Chile resubmitted the extension request in June 2020, asking instead for a one-year interim extension through to 1 June 2022. During the extension period Chile pledged to conduct technical survey to clarify the extent of remaining CMR contamination, and said that it would then formulate a plan for CMR clearance based on the results of the technical survey.²⁴ This it has now done.

Chile's interim extension request to 1 June 2022 was subsequently granted by the so-called "silence" procedure (meaning it is granted unless any State Party objects), because Part 2 of the Review Conference, which had been scheduled to be held in a hybrid format in early 2021, was postponed owing to the COVID-19 pandemic. However, due to the impact of the pandemic, Chile did not conduct technical survey. It submitted a second interim extension request

in June 2021 for one further year through to 1 June 2023. Chile's first extension request referenced that, in accordance with Ministerial Order 02, the Joint Chiefs of Staff were instructed to present a plan for clearance of the four cluster munition-contaminated areas, in coordination with the Undersecretariat for Defence and the Undersecretariat for the Armed Forces, at the latest by 15 May 2021.²⁵

The second interim extension request was granted by States Parties in September 2021, at Part 2 of the Second CCM Review Conference. Chile conducted technical survey of the contaminated area in during 2021 and submitted a third extension request in April 2022.²⁶ Clearance is scheduled to begin in June 2023 and will take up to 31 months in total with more than 13.5km² cleared in year 1 of the extension; over 11.1km² cleared in year 2; and almost 6.1km² in year 3 (see Table 2). This will leave a five-month contingency period in case of any impediments during execution.²⁷

Table 2: Planned CMR clearance (for 2023–26)²⁸

Military range	Year 1 (m ²)	Year 2 (m ²)	Year 3 (m ²)	Total no. of months	Total area (m ²)
Pampa Chaca Este	4,414,646	6,621,969	6,070,138	31	17,106,753
Delta	6,794,591	4,529,728	0	20	11,324,319
Barrancas	906,064	0	0	3	906,064
Punta Zenteno	1,435,872	0	0	4	1,435,872
Totals	13,551,173	11,151,697	6,070,138		30,773,008

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Chile is guided by the International Mine Action Standards (IMAS).²⁹ 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".³⁰

²⁴ Ibid.; and Annex, p. 15.

²⁵ 2020 Article 4 deadline Extension Request, p. 6; and Revised Article 4 deadline Extension Request, July 2020, Annex, p. 15.

²⁶ Article 7 Report (covering 2021), Form F.

²⁷ Ibid., p. 10.

²⁸ Revised Article 4 deadline Extension Request, May 2022, p. 18.

²⁹ Article 7 Report (covering 2018), Form F; and Article 4 deadline Extension Request, April 2022, p. 11.

³⁰ Article 7 Report (covering 2018), Form F; and Revised Article 4 deadline Extension Request, July 2020, p. 6.

OPERATORS AND OPERATIONAL TOOLS

Survey and clearance of explosive ordnance is conducted by the EOD Units of the Army Corps of Engineers, the Navy, and the Air Force.³¹ For the Pampa Chaca Este and the Delta military ranges, two explosive ordnance disposal (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.³²

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2021

In 2021, Chile reduced almost 33.84km² of CMR-contaminated area through technical survey (see Table 3). No area was cancelled through non-technical survey or was cleared.³³ This is an increase from 2020 when no survey or clearance of CMR-contaminated area was conducted.³⁴

Table 3: Reduction through technical survey in 2021³⁵

Province	Military range	Area reduced (m ²)
Arica and Parinacota	Pampa Chaca Este	13,453,247
Tarapacá	Delta	16,967,244
Tarapacá	Barrancas	1,763,478
Magallanes and Antártica Chilena	Punta Zenteno	1,654,147
Total		33,838,116

ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM Chile is required to destroy all anti-personnel mines in mined areas under its jurisdiction or control as soon as possible, but not later than 1 June 2023.

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 CMR-contaminated area remaining, all of which is located in military training ranges, and was able to cancel one third of the total estimated area of contamination. Following non-technical survey in 2019, Chile conducted technical survey in late 2021, reducing the contamination estimate by just over a 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 clearance of these sites, it is expected that the actual amount of remaining CMR contamination will be low.

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

32 Article 4 deadline Extension Request, April 2022, p. 12.

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

34 Article 7 Report (covering 2020), Form J.

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

Chile did not release any cluster munition-contaminated area between its CCM entry into force in June 2011 and the start of non-technical survey 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.

Chile was able to fund technical survey operations in 2021 despite the cuts to national departmental budgets since the COVID-19 pandemic began. Chile intends to fund CMR clearance activities but has stated that it may not have sufficient resources if it continues to have to address the effects of the COVID-19 pandemic. In such an eventuality, Chile will request international financial assistance.

Table 4: Five-year summary of CMR clearance

Year	Area cleared (m ²)
2021	0
2020	0
2019	0
2018	0
2017	0
Total	0

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Chile says it has a plan in place for dealing with residual risk from landmines and will maintain a demining capacity within the Chilean military to address any residual contamination that may be discovered in the future.³⁶

Regarding CMR contamination as it is solely located in military training ranges, once clearance has been completed they will continue to be used as for military training with different types of ordnance detonated and clearance will be carried out by the EOD units with the Armed Forces once each training exercise has been completed.³⁷

³⁶ Presentation by National Demining Commission Executive Secretary Col. Juan José López Demuth for the Regional Dialogue on Humanitarian Demining, 10 February 2021.

³⁷ Email from Valentín Segura Flores, DCI, 1 June 2022.

ARTICLE 4 DEADLINE: 1 AUGUST 2025
UNCLEAR WHETHER ON TRACK TO MEET DEADLINE

KEY DATA

CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

6.62 KM²

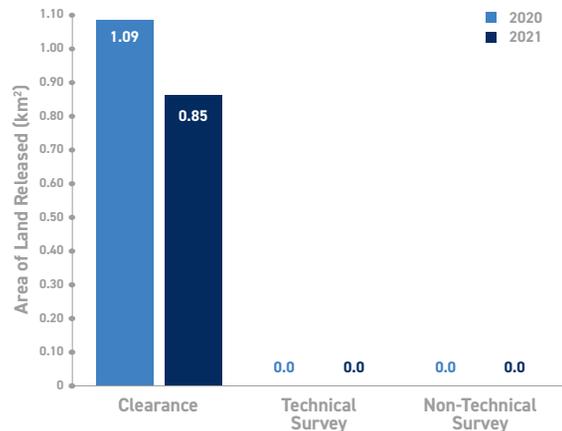
SUBMUNITION
CLEARANCE IN 2021

0.85 KM²

SUBMUNITIONS
DESTROYED IN 2021

466

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

In 2021, Germany cleared just over 0.85km² of cluster munition-contaminated area at the former military training facility at Wittstock. This was a 20% decrease in clearance output on the previous year, in part due to the required tender process for explosive ordnance disposal (EOD) operations which was conducted in 2021. The tender process did, however, result in a third clearance contractor joining the existing two contractors at Wittstock, with total clearance capacity having increased to between 180 and 200 personnel by the end of 2021. This should result in increased clearance output.

RECOMMENDATION FOR ACTION

- Germany should improve its reporting by ensuring that its annual CCM Article 7 transparency report complies with the CCM requirements, by reporting the annual cluster munition remnants (CMR) clearance output for the reporting period rather than the cumulative total.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2021)	Score (2020)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (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 former use in training of weapons at the site, and the significant amount of other explosive remnants of war (ERW), Germany has not been able to determine the extent and density of CMR more accurately.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (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.
GENDER AND DIVERSITY (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, though women only make up a small proportion of the sector in Germany, particularly in EOD positions. With respect to the clearance contractors at Wittstock, only 7% of employees are women, and in the on-site project management and clearance supervision company, 25% of employees are women.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	8	7	In its Article 7 reporting covering 2021, Germany reported the baseline of CMR as at the end of 2021 – a positive development on previous years in which its Article 7 reporting had continued to report the initial baseline (11km ²), without reducing it according to progress in land release to date. Germany continues, however, to report solely cumulative clearance output to date, rather than annual clearance output in its Article 7 reporting, as the CCM requires.
PLANNING AND TASKING (10% of overall score)	8	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.
LAND RELEASE SYSTEM (20% of overall score)	8	7	Germany increased its CMR clearance capacity from 140 as at the end of 2020 to between 180 and 200 demining personnel by the end of 2021, following a tender process and bringing on-board a third EOD contractor. Demining at Wittstock is primarily conducted manually. Technical survey and the full use of mechanical assets are not possible due to the elevated level of explosive ordnance at the site, which includes different types of UXO with varying spatial distribution of contamination, resulting from overlapping contamination from multiple weapon types.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	5	6	In 2021, Germany cleared 0.85km ² of cluster munition-contaminated area, a 20% decrease on the previous year. While clearance output in 2021 was below the annual target in its Article 4 deadline extension request, Germany further increased clearance capacity in the second half of 2021 to levels above those planned in the extension request, which should increase clearance output through to completion.
Average Score	7.3	7.2	Overall Programme Performance: GOOD

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
- 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 2021, Germany reported 6.62km² of remaining cluster munition-contaminated area at a former Soviet military training area at Wittstock, Brandenburg, in former East Germany.¹ This is a reduction from 7.47km² as at the end of 2020,² and is due to the CMR clearance in 2021.

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 2.5 M, ZAB 2.5 S, and ZAB 2.5.³

CMR were discovered "by chance" at Wittstock and declared in June 2011, first at the Anti-Personnel Mine Ban Convention (APMBC) intersessional meetings and then a week later at the CCM intersessional meetings.⁴ From 2011 to early 2014, suspected CMR contamination was reported to total 4km².⁵ In August 2014, however, Germany reported that the total suspected hazardous area (SHA) was actually 11km².⁶ The increased estimate was ascribed to discovery of submunitions during non-technical survey across a wider area than previously reported.⁷ According to Germany, the dense vegetation cover and the special hazards posed by CMR and other explosive ordnance did not allow for technical survey.⁸

The entire Wittstock site, which extends over 120km², 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 1952–93.⁹ The 11km² 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.¹⁰

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 (BlmA). BlmA implemented a risk education programme that included marking the perimeter and preventing civilian access to the area, based on a "danger prevention plan".¹¹ Once safely released, the site is due to remain part of a "nature protection area" in the Kyritz-Ruppiner-Heide, managed by BlmA as part of the Europa NATURA 2000 site, under the European Union (EU) Habitats Directive.¹²

Persistent delay in initiating clearance of CMR at Wittstock until March 2017¹³ 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.¹⁴ 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.¹⁵

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.¹⁶ Owing to contamination from large items of UXO, the fire-breaks were created using an unmanned, remote-controlled caterpillar by an EOD contractor in 2016.¹⁷ This was completed in 2016, with the exception of a small forested area on the eastern edge of the SHA.¹⁸

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.¹⁹

- 1 Article 7 Report (covering 2021), Form F. The remaining contamination reported in Germany's Article 7 report is slightly different to the 6,619,400m² of remaining contamination calculated based on the difference between size of the initial CMR contamination reported and the cumulative clearance output as at the end of 2021 and as reported by the Federal Foreign Office (email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021).
- 2 Article 7 Report (covering 2020), Form F: calculated based on the difference between size of the initial CMR contamination reported and the cumulative clearance output as at the end of 2020; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021.
- 3 Article 7 Report (covering 2021), Form F.
- 4 Statement of Germany, 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 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 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 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 APMBC Article 5 deadline Extension Request, 15 April 2013, p. 7; and CCM Article 7 Report (covering 2015), Form F.
- 13 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 5, at: <http://bit.ly/2DnYvGw>.
- 14 Article 7 Reports (covering 2015, 2018, and 2021), Form F.
- 15 CCM Extension Request 2019, pp. 16 and 36–37.
- 16 *Ibid.*, pp. 14, 16–17, and 36–37.
- 17 *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.
- 18 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 19 April 2017; and Article 7 Report (covering 2016), Form F.
- 19 CCM 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.²⁰ 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.²¹ Commercial UXO clearance contractors are contracted and managed by the local branch of the Federal Forestry Agency, Bundesforstbetrieb West Brandenburg.²² The Regulatory Agency of the County of Ostprignitz-Ruppin is responsible for public security under the police law of the federal state of Brandenburg.²³

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 KMDB (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.²⁴ Contracting foreign companies for CMR clearance in Wittstock is also not possible under German law.²⁵ 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.²⁶

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 from more than €1.6 million in 2017, to over €9.5 million in 2018, to over €11.5 million in 2019,²⁷ and over €12.9 million in 2020,²⁸ reflecting the upscaling of clearance operations. CMR clearance costs in 2021 increased significantly up to nearly €21.4 million.²⁹ The increase had been expected due to price inflation as part of the new tender.³⁰

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. Germany has said that ideally, clearance operations result in positive developments for the environment, such as by burning of the heath. According to Germany, this helps fulfil the requirements of IMAS 07.13, according to which the original condition of the landscape is to be restored and, if possible, should be improved.³¹ However, there are also environmental implications of vegetation burning, including the resulting carbon emissions.

GENDER AND DIVERSITY

There is equal access to employment for qualified women and men for EOD clearance in Germany, but 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.³² With respect to the clearance contractors at Wittstock, 7% of employees are women, including 16% of managerial/supervisory positions and 7% of operations personnel. In the on-site project management and clearance supervision company, 25% of employees are women, including 25% of the managerial/supervisory positions and 14% of operations positions.³³

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

21 Ibid.

22 Ibid.

23 Ibid., p. 6.

24 CCM Extension Request 2019, p. 12.

25 Ibid., p. 34.

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

27 Article 7 Report (covering 2019), Form I.

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

29 Article 7 Report (covering 2021), Form I; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

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

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

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

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

INFORMATION MANAGEMENT AND REPORTING

Germany uses its own information management system to record the special distribution of CMR, including use of a geographical information system (GIS).³⁴

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 2021,³⁵ Germany again reported cumulative clearance output for 2017–21, 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.³⁶ Germany did, however, submit a detailed, comprehensive, and timely Article 4 deadline extension request, which was considered and granted by States Parties at the Ninth Meeting of States Parties in September 2019. Based on clearance projections of 1.5–2km² per year, CMR clearance was expected to be completed by the end of 2024, with associated documentation to be finalised in 2025.³⁷ 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).³⁸

In 2022, Germany planned to clear 1.5km² of cluster munition-contaminated area, taking into account the increased capacity resulting from the tender process.³⁹ In its presentation at the CCM Intersessional Meetings in 2022, Germany said it planned to clear 2.2km² in both 2023 and 2024, and 0.72km² in 2025, based on the planned 200 clearance personnel.⁴⁰

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.⁴¹

Nature conservation requirements limit the controlled burning to a maximum of 200–300 hectares (2–3km²) annually, which, for safety reasons, is limited to a few days per year. Germany plans to burn approximately 250 hectares (2.5km²) per year, to build up a reserve of burnt areas for clearance.⁴² In 2019, an adequate amount of heathland was burned, to guarantee sufficient area for CMR clearance operations in 2020 and 2021.⁴³ Due to dry weather conditions it was not possible to burn any areas in 2020. However, in February 2021, 1.6km² was burned in the western part of the clearance site,⁴⁴ and a further 0.54km² was burned outside the contaminated area, to enhance security at the UXO-explosion site.⁴⁵ The positive effects of burning only last for up to two years before the heath grows back more densely than before.⁴⁶

Germany planned to clear 1.2km² of CMR-contaminated area in 2021,⁴⁷ but fell short of the target, with only 0.85km² cleared in 2021. 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.⁴⁸

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

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.⁴⁹

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

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

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

37 CCM Extension Request 2019, p. 3.

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

39 Ibid.

40 Presentation of Germany, CCM Intersessional meetings, Geneva, 16 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.

42 CCM Extension Request 2019, p. 35.

43 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.

44 Emails from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021 and 10 May 2022.

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

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

47 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021.

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

49 Ibid., p. 2.

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.⁵⁰ These guidelines are updated on an ongoing basis, for instance to include new technical and safety aspects.⁵¹

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.⁵² 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.⁵³ The smallest target for detector sensitivity for clearance has been defined as a half sphere of a ShOAB-0.5 submunition.⁵⁴

Under state regulation on war material ("Kampfmittelverordnung"), the transport and disposal of explosive ordnance in Brandenburg state is the sole responsibility of the KMBD.⁵⁵

OPERATORS AND OPERATIONAL TOOLS

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.

There are reportedly only around 1,500 people working in commercial ordnance clearance in Germany; mostly small enterprises, which are active regionally.⁵⁶ 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),⁵⁷ and a third contractor, SafeLane Global (Ludwigsfelde) also came onboard from late 2021, following a new tender (see below for more information).⁵⁸ On-site project management and supervision are provided by a separate company, which includes a consulting engineer.⁵⁹ As previously mentioned, disposal, whether through destruction or other means, is conducted by the KMBD.⁶⁰

CMR clearance began at Wittstock in March 2017 with nine personnel. This increased to 40 in the summer of 2017, and then steadily over the following three years to 140 by the end of 2020.⁶¹ Due to European public procurement law, a

new tender for the EOD was required to be issued in 2021, for the period 2021–25. Three companies were contracted as a result of the tender – two of which commenced from August/September and were the same existing contractors from the original tender, and the third was a new contractor (SafeLane Global GmbH) which began in October 2021. As a result, clearance capacity had increased to 180–200 full-time personnel by the end of 2021.⁶² Germany said that the reason for the increase in EOD capacity was in order to ensure the timely completion of cluster munition clearance at Wittstock. Germany believes that the maximum clearance capacity at Wittstock has now been reached, due to necessary safety and security precautions.⁶³

There are staff shortages for deminers in Germany, in particular for the specially licenced team leaders required by German law.⁶⁴ In its Article 4 deadline extension request, Germany assumed an annual effective clearance capacity of 140 demining personnel, who will each work no more than 225 days a year.⁶⁵ While the new tender resulted in increased capacity from August 2021, basic works in the interim had to be postponed due to the tendering process, the adjustment of clearance efforts, and COVID-19 measures.⁶⁶

50 CCM Extension Request 2019, p. 12.

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

52 CCM Extension Request 2019, p. 25.

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

54 Ibid.

55 2019 CCM Extension Request, p. 12.

56 Ibid.

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

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

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

60 CCM Extension Request 2019, p. 12.

61 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020; and Statement of Germany on Article 4, Second CCM Review Conference (Part 1, virtual meeting), 25–27 November 2020.

62 Article 7 Report (covering 2021), Form F; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

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

64 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 12 July 2018.

65 CCM Extension Request 2019, p. 33.

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

Table 1: Operational clearance capacities deployed in 2021⁶⁷

Operator	No. of manual CMR clearance teams	Total deminers (average)*	No. of dog teams (dogs and handlers)	No. of mechanical assets/machines**	Comments
Röhl Munitionsbergung GmbH (Brandenburg (Havel))	6 to 8	70 deminers and supervisors + 6 support personnel	0	3	Previously 60+6 under old contract. New contract commenced from August/September 2021.
Schollenberger Kampfmittelbergung GmbH (Celle)	6 to 8	70 deminers and supervisors + 6 support personnel	0	3	Previously 75+6 under old contract. New contract commenced from August/September 2021.
SafeLane Global GmbH (Ludwigsfelde)	4 to 5	20 deminers and supervisors, increasing to 40 deminers and supervisors + 5 support personnel	0	2	New contractor, no previous contract. Commenced in October 2021, after a delay due to additional training necessities.
Totals	16 to 21	180–200 deminers	0	8	

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

Testing of detectors to determine whether different detectors could achieve better results and tests on whether ShOAB-0.5 submunitions could, in fact, be transported,⁶⁸ was postponed until 2022, due to the tender process, training of new personnel, and protection measures due to COVID-19.⁶⁹

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 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.⁷⁰

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2021

A total of almost 0.85km² of CMR-contaminated area was cleared in 2021, with the destruction of 466 submunitions. No area was released through survey.⁷¹

SURVEY IN 2021

No CMR-contaminated area was cancelled through non-technical survey or reduced through technical survey in 2021, or in the previous year.⁷²

67 Ibid.

68 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 16 June 2021.

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

70 CCM Extension Request 2019, p. 15; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 22 June 2022.

71 Article 7 Reports (covering 2020 and 2021), Form F; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

72 Ibid.

CLEARANCE IN 2021

According to clearance data Germany reported to Mine Action Review, a total of 853,000m² of cluster munition contaminated area was cleared in 2021 (429,000m² cleared by Röhll Munitionsbergung (Brandenburg (Havel)) and 424,000m² cleared by Schollenberger Kampfmittelbergung GmbH (Celle)), with the destruction of 466 submunitions. A further 24,502 items of other explosive ordnance (grenades, rockets, fuses, etc.) and 30,380kg of fragments (each of which was generally lighter than 100g) were also found and destroyed during CMR clearance operations in 2021. In addition, 265,030kg of scrap metal was removed in 2021, mainly consisting of smaller parts of ammunition (e.g. fragments without explosives, such as tails of rockets) and parts of vehicles. In addition, a further 299,000m² was cleared by operators in 2021 outside the CMR-contaminated area, for reasons of fire protection and in order to allow for clearance at the contaminated sites.⁷³

As in previous years, Germany did not report the 2021 annual clearance output in its Article 7 report, but instead reported the cumulative output as at the end of 2021, from which it is possible to calculate the annual output by calculating the difference between the output (and number of submunitions destroyed) as at end of 2021 and the output (and number of submunitions destroyed) as at the end of 2020. Based on this

calculation, Germany cleared 850,600m² of CMR-contaminated area in 2021, destroying in the process 466 submunitions either in situ or in a nearby demolition site.⁷⁴

There is a slight difference between the total of cleared contaminated area in 2021, reported by the Germany to Mine Action Review (853,000m²) and the annual 2021 clearance total calculated by comparing the difference between Germany's Article 7 reports from 2020 and 2021 (850,600m²). Germany explained that this difference is due to rounding of figures, as well as corrections to final clearance data.⁷⁵

Clearance output in 2021 was a 20% decrease on the previous year, when 1.09km² of CMR-contaminated area was cleared and 971 submunitions destroyed.⁷⁶ Germany said that the decrease was because the cluster munition-contaminated areas cleared in 2020 were more heavily contaminated by other forms of ERW than those addressed previously; the tender process undertaken in 2021; and the impacts of the COVID-19 pandemic (illness or quarantining of operators).⁷⁷

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.⁷⁸

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 believes it can complete clearance by its deadlines, though it is currently behind its planned clearance targets. The EU-required tender of the clearance companies in 2021 reduced clearance output during the tender process, but led to increased overall clearance capacity by the end of 2021.

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 4.38km² of CMR contamination has been cleared since clearance at Wittstock commenced (see Table 2).

Table 2: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2021	0.85
2020	1.09
2019	1.21
2018	0.76
2017	0.47
Total	4.38

⁷³ Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

⁷⁴ Article 7 Reports (covering 2020 and 2021), Form F; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 16 June 2021. The figure is calculated from the difference between cumulative clearance output as at the end of 2021 and cumulative clearance output as at the end of 2020.

⁷⁵ Emails from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May and 24 June 2022.

⁷⁶ Statement of Germany on Article 4, Second CCM Review Conference (Part 1, virtual meeting), 25–27 November 2020; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021.

⁷⁷ Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

⁷⁸ CCM 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 (9.8km²) 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 50–60m² per person per day. This corresponds to clearance of 1.5–2km² per annum. Reporting and documentation relating to clearance efforts are predicted to be finalised in 2025.⁷⁹

Clearance output of 1.09km² in 2020 and 1.21km² in 2019 was a significant increase on the previous years, but still fell short of Germany's planned clearance output of 1.2–1.4km² in 2020⁸⁰ and the annual clearance target of 1.5–2km² per year in its extension request, indicating that Germany had started falling behind target on its planned Article 4 implementation. Clearance output in 2021 dropped to 0.85km², as a result of a planned tender process, which disrupted clearance. However, clearance resumed in August and September 2021, and an additional third EOD operator commenced in October 2021, bringing the total number of clearance personnel from 140 as at the end of 2020, to 180–200 by the end of 2021. This should enable Germany to reach its targets.⁸¹

Germany acknowledges that the desired increase in clearance output could not be achieved as quickly as planned in 2021, due to delays associated with the tendering process; necessary training of new personnel; the effects of the COVID-19 pandemic; and an additional 299,000m² of land outside the cluster munition-contaminated area having to be cleared as part of fire protection measure in order to allow for clearance at the contaminated sites. But it still considers itself to be on track to meet its deadline, because of the significantly higher number of personnel now employed; substantially increased budgets in 2021 and 2022 (approx. €13 Million in 2020, €21.4 million in 2021, and €27 million in 2022); increased use of mechanical assets; and an assumed decline in the impact of the COVID-19 pandemic.⁸² Based on the planned 200 EOD personnel, Germany planned to clear 2.2km² in 2023; 2.2km² in 2024; and 0.72km² in 2025.⁸³

Potential obstacles that could impact Germany's ability to meet its new deadline of August 2025 include the very high levels of CMR and other UXO contamination that may be encountered.⁸⁴ Germany's clearance plan also assumes that a sufficient amount of controlled burning is able to take place to meet the planned clearance output, which has so far been the case. There is also the potential for the planned clearance schedule to be negatively impacted due to meteorological conditions, in particular, extended periods of frost, resulting in frozen ground that cannot be cleared.⁸⁵

Due to extensive hygiene measures and controls, the COVID-19 pandemic did not result in any significant impairment of Germany's CMR clearance operations in 2020 or 2021.⁸⁶ Germany did report, however, that COVID-19 led to increased staff absences or staff in quarantine in 2021, the effects of which were only partly compensated by the reserve personnel kept on hand.⁸⁷ Germany took measures to adapt its clearance programme since early February/March 2020, including by ensuring that:

- Employees of the two demining companies are only allowed to meet in justified exceptional cases.
- Permanent clearance teams have been formed within the two companies. Personnel exchanges are only possible in exceptional cases.
- The clearance teams use separate and permanently assigned rest and sanitary facilities. These are disinfected after use.
- Most project meetings take place via video conference.

In addition, the usual measures (such as social distancing rules and public health rules) are observed and their compliance is monitored. If COVID-19 were to be brought onto the site, it is assumed that due to the separation of clearance teams, operations would only be partially affected. However, Germany also noted that the further course of the pandemic in Germany cannot be predicted.⁸⁸

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 Federal Center for Explosive Ordnance Disposal, which is responsible for clearance at Wittstock, would be the responsible authority to deal with such new contamination.⁸⁹

⁷⁹ CCM Extension Request 2019, pp. 33 and 37.

⁸⁰ Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.

⁸¹ Article 7 Reports (covering 2020 and 2021), Form F.

⁸² Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

⁸³ Presentation of Germany, CCM Intersessional meetings, Geneva, 16 May 2022.

⁸⁴ Email from official from the Desk for Conventional Arms Control, Federal Foreign Office, 7 May 2018; and CCM Extension Request 2019, pp. 35 and 36.

⁸⁵ CCM Extension Request 2019, pp. 3, 34, and 36.

⁸⁶ Emails from official on the Desk for Conventional Arms Control, Federal Foreign Office, 21 September 2020, 10 May 2021, and 10 May 2022; Statement of Germany on Article 4, Second CCM Review Conference (Part 1, virtual meeting), 25–27 November 2020; and Article 7 Reports (covering 2020 and 2021), Form F.

⁸⁷ Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

⁸⁸ Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 21 September 2020.

⁸⁹ Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.

ARTICLE 4 DEADLINE: 1 NOVEMBER 2023
NOT ON TRACK TO MEET DEADLINE

KEY DATA

CLUSTER MUNITION CONTAMINATION: HEAVY

OFFICIAL ESTIMATE FOR FEDERAL IRAQ ONLY

178 KM²

SUBMUNITION
CLEARANCE IN 2021

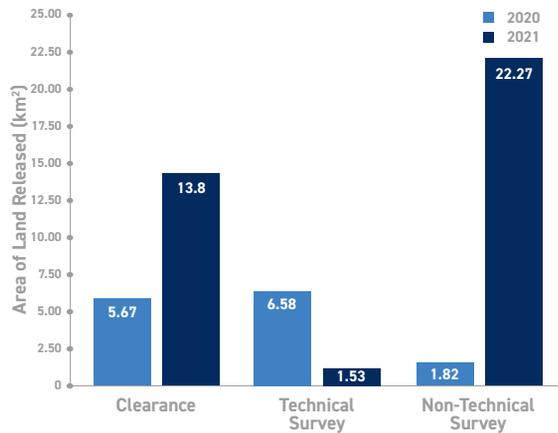
13.8 KM²

(FEDERAL IRAQ ONLY)
MINE ACTION REVIEW CALCULATION

SUBMUNITIONS
DESTROYED IN 2021

8,533

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Clearance of cluster munition remnants (CMR) recovered momentum after the disruption experienced in 2020 as a result of the COVID-19 pandemic. Survey operations identified significant amounts of previously unrecorded CMR contamination resulting in an increase in the total estimated area affected by CMR. Iraq released a national mine action strategy for 2022–2028, 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).

RECOMMENDATIONS FOR ACTION

- Iraq should provide data on results of CMR survey and clearance for Federal Iraq and the Kurdistan Region of Iraq (KRI) disaggregated by operator and district.
- The DMA and implementing partners should address and resolve persistent data inconsistencies in reported results of survey and clearance.
- Iraq should provide an annual work plan setting out goals for survey and clearance of cluster munitions remnants.
- Iraq should develop a resource mobilisation strategy to attract support from international donors for survey and clearance of cluster munition-contaminated areas in the south and should commit more national funding to this work.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2021)	Score (2020)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	6	6	Survey continued to build Iraq's understanding of its CMR challenge but the amount of previously unrecorded CMR hazardous areas discovered in 2021 exceeded the area of land release so that the estimate of CMR contamination increased.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	7	6	Iraq released a new mine action strategy for 2022–2028, the first produced in consultation between the mine action authorities for the Kurdish Region and Federal Iraq, underscoring a commitment to increase national ownership and to seek increased national funding for the sector. CMR contamination and operations are heavily concentrated in southern governorates overseen by the DMA Regional Mine Action Centre-South (RMAC-S), which has continued its constructive engagement with operators on land release methodologies and priorities.
GENDER AND DIVERSITY (10% of overall score)	7	6	Iraq's mine action strategy for 2022–2028 acknowledges the importance of gender and diversity to the sector. Conservative social attitudes to women's employment hamper recruitment in what has been a male-dominated sector but an increasing number of women work for demining organisations, including in supervisory positions and in survey, community liaison and clearance teams as well as in office roles.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	6	5	Iraq's mine action authorities operate Information Management System for Mine Action (IMSMA) data management systems. The DMA is in the process of upgrading to IMSMA Core while IKMAA is replacing its IMSMA database with one based on open source technology. The DMA also moved to digital reporting, which should streamline hitherto cumbersome procedures and reduce delays uploading survey and clearance results. Significant discrepancies between official and operator data point to continuing difficulties in data management. Iraq, meanwhile, submits comprehensive annual updates in improved and promptly submitted Article 7 reports.
PLANNING AND TASKING (10% of overall score)	7	6	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. Operators say RMAC-S' task order system works efficiently prioritising tasks according to local recommendations, DMA priorities, and operator requests.
LAND RELEASE SYSTEM (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. Norwegian People's Aid (NPA) deployed drones to assess the effectiveness of thermal imagery technology in locating CMR. Initial results revealed significant limitations but NPA was continuing trials in 2022.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	6	5	Without the disruptions resulting from the COVID-19 pandemic the previous year, Iraq reported roughly doubling the amount of CMR land cleared in 2021. Operator data suggests significantly larger amounts of land released through survey and clearance than the official data. The size of Iraq's CMR contamination, however, ensures that it will not meet its 2023 Article 4 deadline and Iraq says it will request an extension.
Average Score	6.5	5.9	Overall Programme Performance: AVERAGE

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

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

NATIONAL OPERATORS

- Ministry of Defence
- 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)
- Swiss Foundation for Mine Action (FSD)

OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

UNDERSTANDING OF CMR CONTAMINATION

Iraq ranks as one of the nations most heavily contaminated by cluster munitions. Federal Iraq reported CMR contamination of nearly 178km² at the end of 2021 (see Table 1). CMR affected 10 of Federal Iraq's 15 governorates but close to 90% of it was concentrated in the three southern governorates of Basrah, Muthanna, and Thi Qar.¹ The Kurdistan Region of Iraq (KRI) in the north of the country, which covers four governorates (Duhok, Erbil, Halabja, and Sulaymaniyah), is also believed to have a small amount of CMR contamination, but no estimate of the area affected is available.

Table 1: Cluster munition-contaminated area in Federal Iraq by province (at end 2021)²

Province	Area (m ²)
Anbar	6,192,126
Babylon	633,031
Basrah	42,838,415
Karbala	1,331,881
Missan	990,312
Muthanna	68,954,722
Najaf	5,010,038
Ninewa	4,157,090
Thi Qar	44,893,607
Qadisiya	3,137,824
Total	178,139,046

Iraq is still building up a comprehensive understanding of CMR contamination. Despite the release of more CMR-affected land in 2021, the amount of previously unrecorded CMR contamination added to the database in 2021 pushed Iraq's estimate of total CMR contamination up by 23.17km² or more than 9% over the previous year.³ Operators report that most CMR casualties in Basrah governorate occur in areas that have not been surveyed,⁴ underscoring the need for more evidence-based survey to establish a comprehensive baseline.

The DMA said survey added a little over 30km² of previously unrecorded CMR contamination to the database in 2021 (see Table 2). Information generated by population movements and taking over land for cultivation generated information leading to identification of new CMR hazardous areas. Initial survey of an area in Basrah governorate earmarked for preservation as an environmental sanctuary revealed more than 10km² of CMR contamination and non-technical survey teams also found significant areas of previously unrecorded CMR hazards in western Anbar province.⁵

Table 2: Cluster munition-contaminated area added to the database in 2021⁶

Governorate	Activity	New CHAs	Area (m ²)	New SHAs	Area (m ²)	Total area (m ²)
Kerbala	NTS	2	1,297,359	0	0	1,297,359
Anbar	NTS	3	5,300,583	2	875,817	6,176,400
Basrah	NTS	33	10,002,075	0	0	10,002,075
	TS	3	316,778	0	0	316,778
Missan	TS	1	194,487	0	0	194,487
Muthanna	NTS	30	11,283,445	0	0	11,283,445
	TS	2	924,955	0	0	924,955
Totals		74	29,319,682	2	875,817	30,195,499

NTS = Non-technical survey TS = Technical survey

1 CCM Article 7 Report (covering 2021), p. 5 and Form F.

2 Ibid.

3 CCM Article 7 Report (covering 2021), p. 5 and Form F.

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

5 CCM Article 7 Report (covering 2021), Form F; email from Haitham Fattah Lafta, Head of Operations, RMAC-South, DMA, 5 March 2022.

6 Email from Ahmed Aljasim, Head of Planning and Information, DMA, 15 April 2022. Iraq's Article 7 Report covering 2021 recorded a slightly lower figure of 29,317,361m² for previously unrecorded contamination added to the database in 2021.

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 in the last two years has not identified any CMR contamination in the governorate.⁷ The most commonly found items are BLU-63 and BLU-97 submunitions. Other CMR found in the affected areas include BLU-61, M42, M77, and M118 submunitions.⁸

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 reports to the Council of Ministers and is led by a director general who has ministerial rank. The two organisations have functioned largely autonomously though contacts appear to have improved in 2021 after years in which relations were overshadowed by tensions over funding and territorial demarcation issues.

Iraq's National Mine Action Strategy 2022–2028, the first produced jointly by the two authorities, 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.”⁹

The two authorities will also seek to increase both international and national funding. Iraq is to ensure its national survey and clearance capacities are strengthened, including through increased national funding to develop and sustain national non-governmental organisations (NGOs), and through formalised capacity development partnerships

between national and international partners. It sets as a strategic objective of the plan that “all relevant ministries, directorates, and governorates will dedicate specific funding for technical survey, clearance, and QM.”¹⁰

To promote cooperation between the DMA and IKMAA and achieve a unified programme the new national strategy states that:¹¹

- A Memorandum of Understanding (MoU) formalising the partnership between DMA and IKMAA should be developed and signed before the end of 2022.
- Regular and structured coordination meetings between the two will be formalised.
- The DMA and IKMAA will jointly promote Iraqi mine action internationally.
- The DMA, working closely with IKMAA, will take the lead in organising bi-annual coordination meetings involving Iraqi ministries, international donors, and national and international operators to strengthen coordination and information sharing.
- The DMA and IKMAA will collaborate with the Ministry of Planning and advocate for inclusion of mine action in broader national programmes, including the National Development Plan and Poverty Reduction Strategy.

FEDERAL IRAQ

The inter-ministerial Higher Council of Mine Action,¹² which reports to the Prime Minister, oversees and approves mine action strategy, policies, and plans. 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.¹³

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 cluster munition contamination. It maintains its own database and is responsible for tasking operators in its area of operations. RMAC North and MEU were located in Baghdad but RMAC North also opened a satellite office in Mosul in August 2019.¹⁴

DMA coordination of mine action remains a challenge in a sector in which its formal status as a department of the Ministry of Health has less authority than the powerful ministries of Defence, Interior, and Oil, which are also major actors in the sector. Rapid turnover of directors has also affected management and policy continuity. The present Director General, Dhafir Mahmood Khalaf, appointed on an acting basis in September 2020 and confirmed in 2021, was at least the 12th director since 2003.

7 Article 7 Reports (covering 2020 and 2021), Form F; and email from Haitham Lafta, DMA/RMAC-S, 21 April 2021.

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

9 Iraq National Mine Action Strategy 2022–2028, p. 36.

10 Ibid., pp. 18, 22, and 37.

11 Ibid., pp. 36–38.

12 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.

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

14 Interview with Gus Guthrie, NPA, in Geneva, 12 February 2020.

Iraq's new national strategic plan for 2022–2028 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 Council for Mine Action but does not indicate any timeline for this review.¹⁵

KRI

IKMAA functions as both the regulator and an operator in the KRI. It reports directly to the Kurdish Regional Government's Council of Ministers and coordinates four directorates in Dohuk, Erbil, Garmian, and Sulaymaniyah (Sleman). IKMAA had a total staff of 822, including 445 personnel in operations, but a budgetary crisis in the KRI in 2020 and 2021 imposed severe constraints on the mine action sector. IKMAA received no international donor support in 2021 but reported that the ITF Enhancing International Security had expressed willingness to provide funding in 2022 and 2023.¹⁶

ENVIRONMENTAL POLICIES AND ACTION

Iraq does not have a policy on environmental management in mine action. Individual operators, such as Mines Advisory Group (MAG), Norwegian People's Aid (NPA) and HALO Trust, have institutional policies in place at headquarters level.

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.¹⁷ Iraq's 2022–2028 strategic plan recognizes 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.¹⁸

The DMA, which first created a gender unit in 2017, adopted its first Gender Unit Action Plan in early 2021 and the DMA's director, who has advocated for employment of more women in mine action,¹⁹ approved the concept of a Gender Task Force in early 2021.²⁰ The DMA reported members of its gender unit participated in non-technical surveys conducted by international implementing partners, including the Swiss Foundation for Mine Action (FSD) and MAG.²¹ Female staff members also joined quality assurance team monitoring to clearance conducted by Civil Defence Muthanna governorate, as well conducting explosive ordnance risk education (EORE) and collecting victim data. It also requested support from international IPs in organising seminars on gender issues in rural areas and suggested they help prepare a register of all women working in mine action.²²

IKMAA reported that it offered equal employment opportunities to women who accounted for about 30% of its more than 800 employees and it encouraged them to seek advancement in their careers. IKMAA had appointed a woman for the first time as director of one of its four provincial mine

action centres in Duhok in 2021 and in 2022 had appointed a female as IKMAA's legal affairs director. IKMAA has had a female public affairs director for some years and women also held managerial positions in planning, information management and EORE departments. In 2022, IKMAA was seeking to create female explosive ordnance disposal (EOD) teams in all four provinces and appealed for international support to help achieve it.²³

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.²⁴ It can be problematic to deploy women outside the areas they live and some candidates have dropped out of training that required overseas travel.²⁵ Women make up well below 20% of the personnel in most international implementing partners (IPs). Some IPs report that non-technical survey and community liaison teams are gender mixed rather than gender balanced, but the number of female staff has risen across office and operational roles and most IPs said they intended to employ more women in the future.²⁶

DRC recruited six female deminers in Basrah in March 2022 who will work in mixed clearance teams. The same month it hired a female medic to address the needs of female staff and it has taken other steps to attract women staff, including offering 18 weeks of paid maternity leave and five days of paid leave to deal with child sickness in line with global DRC

15 Iraq National Mine Action Strategy 2022–2028, pp. 37–38.

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

17 National Strategic Mine Action Plan, pp. 12, 18, 20, and 30.

18 Iraq National Mine Action Strategy 2022–2028, p. 15.

19 Email from Chris Tierney, Programme Manager, NPA, 17 April 2022.

20 Email from Hannane Boulmaoui, Head of Programme Section, UNMAS Iraq, 16 April 2021.

21 Email from Ahmad Aljasim, DMA, 15 April 2022.

22 Email from Tim Marsella, HALO Trust, 17 March 2022.

23 Email from Niyazi Khalid Qusaim, IKMAA, 22 April 2022.

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

25 Email from Tim Marsella, HALO Trust, 17 March 2022.

26 Emails from Marie-Josée Hamel, DRC, 30 March 2022; Peter Smethers, FSD, 22 February 2022; Tim Marsella, HALO Trust, 17 March 2022; Chris Tierney, NPA, 17 April 2022.

Minimum Standards for employment of national staff.²⁷ It set improving gender representation as one of its priorities in 2022 drawing on the findings of two gender assessments conducted in 2021. The first focused on identifying barriers to employment and retention in the mine action sector in Ninewa, and provided recommendations for recruitment, training, and sustainable deployment of female or mixed clearance teams. The second assessment, conducted by the Geneva International Centre for Humanitarian Demining (GICHD), reviewed DRC's staff perception, knowledge and practices in relation to gender equality and inclusion and led to an action plan which DRC is now implementing.²⁸

FSD employed 21 female staff out of a total of 164 personnel, including 17 women in risk education and demining, of whom two were team leaders.²⁹ Women made up just under 15% of HALO Trust's 204 staff and 10% of operations staff at the end of 2021 but they include women in managerial positions in the office and two team leaders in the field. It emphasises

equal opportunity in recruitment and has addressed practical measures to improve conditions for women for better design of women's uniforms and separate facilities for field ablutions.³⁰

Mines Advisory Group (MAG) has traditionally found it easier to recruit women in Federal Iraq, particularly in the Sinjar area where it has employed female deminers since 2016, but hired additional women staff in Mosul in February 2021 and planned to recruit more female staff in Sulaymaniyah later in the year.³¹ By the middle of 2021, four women had progressed to become deputy team leaders and three women were team leaders.³² NPA also plans to hire more women who made up a little over 17% of its total staff of 274 people, varying between more than a quarter of management personnel but close to 14% of its operations staff. NPA's survey and community liaison teams are mixed gender and it actively encourages women to apply but also encounters attitudes questioning the point of female employment when there are not enough jobs for men.³³

INFORMATION MANAGEMENT AND REPORTING

Iraq's National Mine Action Strategy 2022–2028 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 landmine and CMR contamination through continuous updating of its baseline data by means of a database clean-up, desktop analysis, and contact with communities.³⁴

The DMA and IKMAA have operated databases using Information Management System for Mine Action New Generation (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 (WRA).

IKMAA is planning to replace its IMSMA database with one based on open source technology and licencing. IKMAA said in April 2022 that work had started on design of the new system and it expected to complete the work by the end of the year.³⁵

Federal Iraq's mine action database is located at the DMA's Baghdad headquarters. RMAC-S, the focal point for CMR survey and clearance, maintains a database in Basrah, which receives reports from demining organisations in its area of operations. The database is synchronised with Baghdad's at intervals determined by the volume of data to be uploaded.³⁶ The DMA started upgrading its database from IMSMA New Generation to IMSMA Core in 2021 and was working closely with the GICHD on migrating data to the new server but

commented the process would take time in view of the large volume of data to be transferred.³⁷ The DMA also operates an Online Task Management System (OTMS) developed by iMMAP and an online dashboard providing operators with access to data on operational developments.

Information management has been plagued by cumbersome procedures requiring hard copy reports and slow uploading of data. Operators say information available from the OTMS and dashboard is incomplete, not up to date on survey and clearance results and insufficient for the purposes of planning and informed decision-making. The DMA is moving towards streamlining procedures, requiring operators to submit reports in digital as well as hard copy, which is expected to accelerate data processing and facilitate access to information. It issued updated IMSMA reporting forms and also conducted a workshop on IMSMA reporting in 2021. It also required operators to submit weekly plans for all teams to RMACs enabling unannounced site visits.³⁸

NPA quality control (QC) teams set up in Anbar in 2021 to monitor site set-up, progress, and completion by open-area clearance teams work with Leica GG04 differential GPS (DGPS) for completion reports with probability of error of less than 10cm. NPA also updated Survey123 software on tablets and other smart devices so that GPS data is automatically logged on NPA forms to avoid possible manual data-entry errors. NPA's external QC teams use the same model of Leica DGPS units to mark sampling boxes.³⁹

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

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

29 Email from Peter Smethers, Country Director, FSD, 22 February 2022.

30 Email from Tim Marsella, HALO Trust, 17 March 2022.

31 Email from Jack Morgan, MAG, 19 April 2021.

32 Email from Katie Shaw, Programme Manager, MAG, 29 June 2021.

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

34 Iraq National Mine Action Strategy 2022–2028, pp. 20–21.

35 Email from Niyazi Khalid Qusaim, IKMAA, 22 April 2022.

36 Interview with Nibras Fakhir Matrood, RMAC-S, Basrah, 29 April 2019.

37 Email from Ahmad Aljasim, DMA, 15 April 2022.

38 Emails from Marie-Josée Hamel, DRC, 30 March 2022; Peter Smethers, FSD, 22 February 2022; Tim Marsella, HALO Trust, 17 March 2022; and Chris Tierney, NPA, 17 April 2022.

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

PLANNING AND TASKING

Iraq's National Mine Action Strategy 2022–2028, released in April 2022, sets broad goals for both the DMA and IKMAA, the first time the two authorities have cooperated in drawing up a national plan.⁴⁰ 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 does not have 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. The new national strategy says Iraq will seek to attract more funding to address the extensive CMR and mine contamination in the south, particularly in Basrah governorate.⁴¹

Tasking, previously a major source of friction between the DMA, operators and UNMAS, is reported to have improved significantly since 2019, although operators observe the process can be slow. 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 non-technical survey scoring system.⁴² 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.⁴³

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Federal Iraq has national mine action standards for mine and battle area clearance (BAC), non-technical survey, and technical survey but they were written in 2004–05, exist in Arabic only, and do not specifically address cluster munitions.

The DMA and UNMAS started conducting a review and update of 13 chapters of Iraq's national mine action standards (NMA) in 2021 to bring them into line with international standards.⁴⁴ The DMA said in April 2022 that it had updated many of the standards although they had yet to be translated into English. They included standards for non-technical and technical survey and mine clearance, battle area clearance, EOD, marking, personal protective equipment, and operational accreditation.⁴⁵ It was unclear how many of the revised standards had been officially approved. The new mine action strategy for 2022–2028 called for standards on land release to be finalised and approved by the middle of 2022.⁴⁶

The DMA has applied the Cluster Munition Remnants Survey (CMRS) methodology to CMR operations since 2018, and in 2019 adopted CMRS as a national standard, citing the benefits it has delivered for survey, planning, and clearance.⁴⁷ In August 2021, after a review of NMA 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 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 and NPA's SOPs provide for investigating signals below 20cm until the object is identified.⁴⁸

OPERATORS AND OPERATIONAL TOOLS

CMR clearance in Federal Iraq is conducted by three national organisations, the Ministry of Defence, the Ministry of Interior's Civil Defence units, and commercial operator Ta'az, which is believed to work under contract to the Ministry of Oil. Two international humanitarian organisations, NPA and DRC, conduct most CMR survey and land release.⁴⁹

DRC had a total staff of 41 based in Basrah and working on CMR survey and clearance at the start of 2022, including two battle area clearance teams with 22 staff. The team also included two teams with eight staff accredited by the DMA in August 2021 to conduct QC in the four governorates in the RMAC-S area of operations. DRC expected to add another manual clearance team in 2022.⁵⁰

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

41 Iraq National Mine Action Strategy 2022–2028, pp. 21–22 and 24.

42 Emails from Marie-Josée Hamel, DRC, 30 March 2022; Peter Smethers, FSD, 22 February 2022; Tim Marsella, HALO Trust, 17 March 2022; and Chris Tierney, NPA, 17 April 2022.

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

44 Emails from Ahmed Aljasim, DMA, 15 April 2021; and Hannane Boulmaoui, UNMAS Iraq, 16 April 2021.

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

46 Iraq National Mine Action Strategy 2022–2028, p. 24.

47 Email from Haitham Fattah Lafta, RMAC-S, 12 August 2020.

48 Emails from Chris Tierney, NPA, 17 April and 2 May 2022.

49 Email from Haitham Fattah Lafta, RMAC-S, 15 March 2022; CCM Article 7 Report (covering 2021), Form F.

50 Emails from Marie-Josée Hamel, DRC, 30 March 2022; Iraq National Mine Action Strategy 2022–2028, p. 12.

NPA, with 96 staff working on CMR survey and clearance from an office in Basrah, operated two dedicated non-technical survey teams, one in Basrah and the second in Muthanna. It also had seven multi-task teams (four in Basrah and three in Muthanna), focused mainly on clearance but also capable of conducting survey and risk education. In 2022, it expected to raise total staff numbers in the south to 129 by adding two multi-task teams in Muthanna along with support staff.⁵¹ In 2021, NPA assessed the utility of drone-carried thermal imagery in locating CMR contamination, but with mixed results. From a height of four metres the technology could detect larger BLU 97 and BLU63 in sand at a depth of one to two centimetres but not smaller CMR. The results were too limited to make it a useful tool for survey though NPA planned further trials for 2022.⁵²

IKMAA is the dominant operator in the KRI, reporting that at the end of 2021 it had 8 non-technical survey teams with 23 personnel, 36 ten-strong manual demining teams, 4 three-person EOD teams, 10 mechanical teams with 33 staff, and 9 EORE/community liaison teams employing 17 people. Two international organisations, MAG and FSD, were accredited to operate in the KRI in 2021. However, IKMAA reported no survey or clearance of cluster munition-contaminated area occurred in the KRI in 2021.⁵³

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2021

Federal Iraq reported releasing a total of more than 16.63km² of CMR-affected land in 2021,⁵⁴ 18% more than it recorded in the previous year when COVID-19 mitigation measures, including a March-to-July countrywide lockdown, interfered significantly with mine action operations. DMA data showed that land released through survey accounted for more than 6.47km² of the 2021 total and, reversing the balance in the previous year, that clearance accounted for the biggest share of land released amounting to 10.16km².⁵⁵

However, big discrepancies between official and operator data suggest Iraq may have significantly underreported total land release. DRC and NPA alone reported releasing a total of 36.02km² through survey and clearance (see Tables 4 and 6). The DMA also reported release of 1.47km² by Civil Defence units and 0.11km² by military engineers⁵⁶ which would bring the total area released in 2021 to 37.6km², of which 23.8km² was through survey and 13.8km² was through clearance.⁵⁷ The discrepancies appear to result from a backlog of operator reports awaiting entry to the database. Operator data represent results recorded in IMSMA forms submitted

to RMAC-S. Official results represent data that have been approved and entered into the database and reflect delays entering IMSMA reports in the database.⁵⁸

Similar uncertainty surrounds the number of CMR destroyed in 2021. Official data reported destruction of a total of 8,202 submunitions in 2021: 8,197 in the RMAC South region and 5 in the RMAC Middle Euphrates region.⁵⁹ The official total does not include 331 submunitions which MAG reported clearing during operations in Ninewa governorate in RMAC North's area of operations.⁶⁰ This would bring the total number of submunitions destroyed in 2021 to 8,533. DMA data, however, do not disaggregate results by operator and the official total far exceeds the total of 5,149 submunitions reported cleared by DRC and NPA, the operators working in the RMAC-S region which conduct most CMR clearance in Iraq (see Table 6).⁶¹ However, only Iraq's army is authorised to destroy explosive ordnance and a possible explanation for the apparent discrepancy between official data and operator results is that the official total of CMR destroyed by the army in 2021 may have included items held over from the previous year.

SURVEY IN 2021

Federal Iraq reported releasing 5.83km² through non-technical survey and 0.64km² through technical survey in 2021, three-quarters of it in the RMAC-S area of operations (see Table 3).⁶² NPA, however, reported releasing more than triple this amount by cancelling 22.27km² in 2022 and reducing an additional 1.5km² through technical survey (see Table 4).⁶³

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

52 Ibid.

53 Email from Niyazi Khalid Qusaim, IKMAA, 22 April 2022.

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

55 Ibid.

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

57 Emails from Marie-Josée Hamel, DRC, 30 March 2022; and Chris Tierney, NPA, 17 April 2022.

58 Email from Chris Tierney, NPA, 2 May 2022.

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

60 Email from Katie Shaw, Programme Manager – Grants & Partnerships, MAG, 3 May 2022.

61 Emails from Marie-Josée Hamel, DRC, 30 March 2022; and Chris Tierney, NPA, 17 April 2022.

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

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

Table 3: Cluster munition-contaminated area released through survey in Federal Iraq in 2021 (official data)⁶⁴

Region	Area cancelled through NTS (m ²)	Area reduced through TS (m ²)	Total area (m ²)
RMAC-S	3,761,411	642,894	4,404,305
RMAC-M EU	2,072,921	929	2,073,850
Totals	5,834,332	643,823	6,478,155

Table 4: Cluster munition-contaminated area released through survey in Federal Iraq in 2021 (international NGO data)⁶⁵

Operator	Governorate	Area cancelled through NTS (m ²)	Area reduced through TS (m ²)	Total area (m ²)
NPA	Basrah	10,121,344	0	10,121,344
	Muthanna	12,145,535	1,534,011	13,679,546
Totals		22,266,879	1,534,011	23,800,890

Among the most noteworthy results of survey in 2021 was the amount of previously unrecorded CMR contamination added to the database. NPA reported finding 79 new CMR hazardous areas covering 22,540,677m² and DRC said it identified 200,000m² of previously unrecorded contamination in Basrah.⁶⁶

The outcomes reflect the amount of time that has elapsed since the initial survey conducted in 2014-16 which identified significantly more suspected than confirmed hazardous

areas and the new information emerging with the expansion of land under cultivation. Large areas of Muthanna and south-western Basrah governorate are uninhabited and NPA said it is engaging with Bedouin communities to try to map contaminated areas more accurately. Still, from the experience of survey in recent years, NPA believes there may be little area left to cancel and in 2022 planned to shift the emphasis of survey to establishing an evidence-based baseline estimate of the remaining contamination.⁶⁷

CLEARANCE IN 2021

Official data shows Federal Iraq's clearance of cluster munition remnants hit a new peak of 10.16km² in 2021, nearly double the level the DMA reported in 2020 when operations were hit by COVID-19 measures.⁶⁸ But, as in the case of survey results, the data from operators suggest this figure may even understate the amount of clearance.

The DMA reported results by RMAC, not disaggregated by operator (see Table 5). It reported separately that Civil Defence units had cleared 1,470,597m² in Basrah, Muthanna, Najaf, and Wassit governorates and military engineers cleared 112,622m² in Basrah governorate.⁶⁹

NPA and DRC, operating only in the RMAC-S area, reported clearing 20% more area than the official total (see Table 6). DRC, which hardly conducted any CMR clearance in 2020, said it cleared 2.2km² in 2021 and NPA reported clearing an area of 9.97km², up from 5.5km² in 2020.⁷⁰ Their results,

combined with clearance attributed to Civil Defence and the military, make total clearance of 13.8km² in 2021. MAG, working in northern Federal Iraq and the KRI, did not conduct any clearance of CMR hazardous areas but cleared 331 submunitions during clearance of an improvised minefield and EOD tasks in Sinjar district of Ninewa governorate.⁷¹

Table 5: CMR clearance in 2021 (official data)⁷²

Region	Area cleared (m ²)
RMAC-S	9,711,159
RMAC-M EU	446,318
Total	10,157,477

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

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

66 Emails from Chris Tierney, NPA, 17 April 2022; and Marie-Josée Hamel, DRC, 30 March 2022.

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

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

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

70 Emails from Marie-Josée Hamel, DRC, 30 March 2022; and Chris Tierney, NPA, 17 April 2022.

71 Emails from Katie Shaw, MAG, 3 May 2022. MAG assessed the CMR items as copies of the US-made M42 and believed their presence was not the result of a cluster strike but occurred when the vehicle carrying them was blown up, throwing out its cargo.

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

Table 6: CMR clearance in Federal Iraq in 2021 (operator data)⁷³

Operator	Governorate	Area cleared (m ²)	Submunitions cleared	Other UXO cleared
DRC	Basrah	2,240,234	584	1
NPA	Basrah	4,100,342	1,661	190
	Muthanna	5,873,809	2,904	50
Totals		12,214,385	*5,149	241

* A further 331 submunitions were destroyed by MAG during clearance of a minefield containing improvised mines.

ARTICLE 4 DEADLINE AND COMPLIANCE



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 acknowledges in its Article 7 report covering 2021 that the extent of CMR contamination and the limited capacity available for CMR survey and clearance ensure it will not achieve its Article 4 deadline and it will request an extension.⁷⁴

Iraq's request will face two key issues: the amount of previously unrecorded contamination still being located which has pushed up the estimate of the total area affected by CMR, and the tiny resources available for CMR survey clearance in relation to the scale of the task. Iraq and international donors have focused resources almost exclusively on tackling improvised mine contamination in areas liberated from Islamic State. The DMA suggests that on the basis of existing capacity it would need around 17 years to complete clearance of CMR hazardous areas.⁷⁵ Iraq's new national mine action strategy through to 2028 says it

will strengthen survey and clearance capacity and aims for increased localisation of mine action by building capacity of national organisations and increasing national funding of mine action to ensure sustainability.⁷⁶

Table 7: Five-year summary of CMR clearance

Year	Federal Iraq (km ²)	KRI (km ²)	Totals (km ²)
2021	10.2	0	*13.8
2020	5.7	N/R	5.7
2019	4.3	0.4	*4.7
2018	7.2	0	7.2
2017	4.4	0.3	4.7
Totals	31.8	0.7	36.1

N/R = Not reported

* Based on Mine Action Review calculation

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Iraq has not laid out a strategy for tackling residual contamination which is hardly an urgent issue in view of the scale of confirmed CMR contamination and years of clearance that lie ahead. Iraq's 2022–2028 mine action strategy shows awareness of the issue and says Iraq will reinforce its institutional national survey and clearance capacities to facilitate the effective future management of residual explosive ordnance.⁷⁷

⁷³ Emails from Marie-Josée Hamel, DRC, 30 March 2022; and Chris Tierney, NPA, 17 April 2022.

⁷⁴ CCM Article 7 Report (covering 2021), Form F.

⁷⁵ Email from Haitham Fattah Lafta, RMAC-South, DMA, 5 March 2022.

⁷⁶ Iraq National Mine Action Strategy 2022–2028, p. 22.

⁷⁷ Ibid., p. 23.

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 2021

46.68 km²

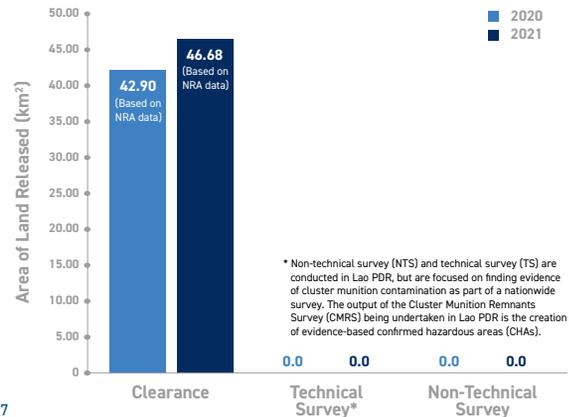
BASED ON CLEARANCE DATA
REPORTED BY THE NRA

SUBMUNITIONS
DESTROYED IN 2021

66,800

BASED ON DATA REPORTED BY
THE NRA AND INCLUDING 26,287
SUBMUNITIONS DESTROYED
DURING SPOT TASKS

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

The national programme in the Lao People's Democratic Republic (Lao PDR) continued to make solid progress in both survey and clearance of cluster munition remnants (CMR) in 2021. Clearance output in 2021 was higher than the previous year and the amount of cluster munition-contaminated area confirmed through technical survey was also an increase on 2020. This was a result of greater funding for clearance and a reduced impact of COVID-19 on operations in 2021. The new National Strategy for the unexploded ordnance (UXO) Sector (2021–30), "The Safe Path Forward III" is in the final process of being elaborated.

RECOMMENDATIONS FOR ACTION

- The National Regulatory Authority (NRA) should adopt the new Safe Path Forward III strategy for the sector for 2021–30 as soon as possible.
- The NRA should develop a planning and prioritisation system to support CMR survey and clearance as a matter of urgency.
- Procedures for issuing, amending, or renewing memorandums of understanding (MoUs) should be streamlined to avoid inefficiencies and excessive delays.
- 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 Cluster Munition Remnants Survey (CMRS). The NRA should ensure that historic UXO Lao data that are not already in the database are available to international operators engaged in survey and clearance.
- The NRA should be consistent in reporting on which of the country's 18 provinces are contaminated with CMR as opposed to other unexploded ordnance (UXO).
- The NRA and clearance operators should strengthen coordination with provincial, district, and village-level authorities during implementation and planning of CMRS and clearance, incorporating gender and diversity considerations.
- The NRA should consider expanding the mine action toolbox to include the use of mine/explosive detection dogs (MDDs/EDDs) and drones in order to increase operational efficiency.

- Lao PDR should use the “UXO Sector Working group” (its equivalent of a Country Coalition) to bring together key stakeholders on a regular basis to discuss progress and challenges in Article 4 implementation and to strengthen coordination and resource mobilisation.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2021)	Score (2020)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	7	7	Lao PDR does not yet have a reliable estimate of CMR contamination, but is undertaking a nationwide survey that should produce an evidence-based assessment of the full extent of CMR contamination. As at end 2021, 1,523km ² of confirmed hazardous area (CHA) had been identified through survey, a figure that will continue to rise over the coming years as CMRS continues to confirm CMR-contaminated area. Survey has yet to be completed in any province and Lao PDR is still many years away from completing survey and establishing a more accurate baseline of CMR contamination. Furthermore, in 2021, there was a greater focus on clearance rather than survey.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (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.
GENDER AND DIVERSITY (10% of overall score)	7	7	Gender mainstreaming in the UXO sector is led by the NRA as well as by the Lao Women’s Union. Clearance operators report having gender policies in place, consult with women and girls during survey and clearance operations, and disaggregate data by sex and age. International operators also 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, and persons with disabilities.
INFORMATION MANAGEMENT AND REPORTING (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 National Mine Action Standard (NMAS) on information management (IM) was reviewed and updated in 2019, but had yet to be formally approved as at May 2022.
PLANNING AND TASKING (10% of overall score)	6	6	In its 2019 Article 4 extension request, Lao PDR outlined a work plan for the five-year extension period, with three potential clearance output estimates, each with measurable benchmarks, dependent on the level of funding and capacity obtained. As at May 2022, the new National Strategy for the UXO Sector (2021–30), “The Safe Path Forward III”, was close to being finalised. No comprehensive national-level prioritisation matrix of clearance tasks exists. The NRA office, in conjunction with Tetra Tech and operators, planned to study and research the development of the guidelines and a manual for a priority selection system for planning.
LAND RELEASE SYSTEM (20% of overall score)	8	8	Lao PDR is due to revise 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 mine detection dogs (MDDs), which is not currently permitted.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (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 2021, the amount of land confirmed through survey as CHA, and the cluster munition clearance output, both increased compared to the previous year.
Average Score	7.1	7.1	Overall Programme Performance: GOOD

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- National Regulatory Authority (NRA) Board
- National Regulatory Authority (NRA)

NATIONAL OPERATORS

- UXO Lao
- Humanitarian teams of the Lao People's Army (Army 58)
- Commercial operators

INTERNATIONAL OPERATORS

- The HALO Trust
- 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,¹ but is undertaking a nationwide cluster munition remnants survey (CMRS) that should produce an evidence-based assessment of the full extent of CMR contamination.² US bombing data indicate 70,000 individual target locations across Lao PDR.³

Lao PDR is not consistent in its reporting of which of its 18 provinces are contaminated with CMR. The inconsistency appears to be due to the fact that reporting is based on which provinces contain UXO rather than CMR specifically.⁴ In Lao PDR's statement to Part 1 of the Second Review Conference of the Convention on Cluster Munitions (CCM) in November 2020, 15 provinces were said to be contaminated by cluster munitions.⁵ However, in its latest Article 7 report (covering 2021), all 18 provinces were listed as having cluster munition-contaminated area.⁶ This appears to be because the Article 7 report includes all UXO contamination. Those provinces which contain UXO other than submunitions should not be classified as CMR-contaminated or included in Lao PDR's baseline of CMR contamination.

The nine provinces most heavily affected by CMR are: Attapeu, Champassak, Houaphanh, Khammouane, Luang Prabang, Saravan, Savannakhet, Xekong, and Xiangkhouang.⁷

As at end of 2021, a total of almost 1,530km² of CHA had been identified through technical survey to-date (see Table 1);⁸ an increase on the 1,299km² of CMR-contaminated area as at the end of 2020.⁹ The nationwide survey is ongoing in eleven provinces and has yet to be completed in any province.¹⁰ The amount of CHA is expected to continue to increase and may double or even triple over the next few years.¹¹ Furthermore, technical survey conducted to date has been concentrated on populated areas and 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.¹²

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.

4 The NRA reported in July 2021 that 17 provinces and the capital contain "UXO contamination". Email from Nicholas Tan, Reporting Officer, UNDP, 21 July 2021.

5 Statement of Lao PDR on Clearance and Risk Reduction, Second CCM Review Conference (Part 1, virtual meeting), 25-27 November 2020.

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

7 CCM Extension Request 2019, Part B, Detailed Narrative, pp. 1 and 5; and Executive Summary, p. 1; and Article 7 Report (covering 2021), Form J.

8 Email from Douangsy Thammavong, Deputy Director, NRA, 20 June 2022. The amount of CMR contamination as at the end of 2021, reported in Lao PDR's Article 7 Report (covering 2021), Form F, was nearly 1,523km², slightly lower than the nearly 1,530km² reported to Mine Action Review.

9 Email from Chomyaeng Phengthongsawat, Director General, NRA, 21 June 2021. Lao PDR's Article 7 Report (covering 2020), Form F, put the total extent of cluster munition-contaminated area at end of 2020 at 1,298km².

10 Email from Douangsy Thammavong, NRA, 20 June 2022.

11 Interview with Phoukhieo Chanthasomboune, NRA, in Geneva, 7 February 2019.

12 Email from Douangsy Thammavong, NRA, 20 June 2022.

Table 1: Cluster munition-contaminated area confirmed through survey (at end 2021)¹³

Province	No. of villages	CHAs	Total area (km ²)
Attapeu	122	1,530	143.83
Bolikhamxai	36	25	1.48
Champassak	113	421	23.83
Houaphanh	115	447	44.61
Khammouane	103	603	112.54
Luang Prabang	54	280	27.93
Saravan	357	2,425	115.25
Savannakhet	400	4,740	200.56
Vientiane	7	2	0.16
Xekong	151	1,310	91.38
Xiengkhouang	244	1,628	767.94
Totals	1,702	13,411	1,529.51

In its 2019 Article 4 deadline extension request, and latest Article 7 report, Lao PDR estimated that the total CMR contamination is approximately 8,470km², a figure unchanged since its September 2011 clearance statement to the CCM Second Meeting of States Parties.¹⁴ In its latest Article 7 report (covering 2021), Lao PDR also reports that 87,000km² is contaminated by all UXO.¹⁵

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 1973,¹⁶ 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.¹⁷ Lao PDR estimates that over 75 million submunitions remain.¹⁸

During the period of its Article 4 extension period (2020–25), Lao PDR will focus survey on 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.¹⁹

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 at the village level.²⁰ According to the co-chairs of the UXO Sector Working Group, the United States and the United Nations Development Programme (UNDP), significant and efficient planning will be needed if the national survey is to be completed during Lao PDR's first five-year extension period.²¹ Survey has yet to be completed in any province, or even started in the less contaminated provinces, therefore Lao PDR is still many years away from completing the national survey. Furthermore, in 2021, there was a shift towards increasing clearance capacity and reducing survey capacity, in order to clear the CHAs identified during the CMRS up to now.

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 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.²² 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).

13 Ibid.

14 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.

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

16 CCM Extension Request 2019, Part B, Detailed Narrative, pp. 1 and 5.

17 Ibid., p. 1.

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

19 CCM Extension Request 2019, Executive Summary, p. 5; and Part B, Detailed Narrative, p. 23.

20 Emails from Mark Frankish, UNDP, 26 August 2020; Chomyaeng Phengthongsawat, NRA, 21 June 2021; and Douangsy Thammavong, NRA, 20 June 2022.

21 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.

22 CCM Extension Request 2019, Part B, Detailed Narrative, p. 1.

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The NRA, created by government decree in 2004 and active since 2006, has an interministerial board composed of representatives from government ministries and is chaired by the Minister of Labour and Social Welfare.²³ The Prime Minister of Lao PDR approved a new decree, "On the Organisation and Operations of the National Regulatory Authority for UXO in Lao PDR" in February 2018. The decree defines the position, role, duties, rights, organisational structure, and the working principles and methods of the NRA.²⁴

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.²⁵ Effective coordination is particularly needed to help prioritise clearance of the huge number of CHAs already in the database as a result of the ongoing CMRS.²⁶ The current director of the NRA has been in post since June 2019.²⁷

Lao PDR contributed \$18,000 towards the rental of the NRA office in 2021.²⁸ 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.²⁹ 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 2018.³⁰ In addition, a new Income Tax Law means that non-governmental (NGO) international staff now pay income tax since the start of 2021.³¹ Lao PDR has said that it requires \$50 million annually for clearance and mine risk education.³²

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 Ninth National Socio-Economic Development Plan (NSEDP) for 2021–2025, launched in April 2021, demonstrates Lao PDR's commitment to removing UXO

as a barrier to development. The new NSEDP aims to clear an average of 10,000 hectares (100km²) of land per year for socio-economic development purposes. This ambitious goal more than doubles the clearance achievements of 2021.³³

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.³⁴ 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 United States (US)-funded contractor, Tetra Tech.³⁵ Humanity and Inclusion (HI) provides capacity development support to the provincial NRA in Houaphanh province. In 2021, HI provided technical training on non-technical survey and on the inclusive village survey visits (a combination of non-technical survey, risk education, and victim assistance activities) promoted by HI in its current project.³⁶

In 2021, UXO Lao received capacity development support through various implementing partners as follows:

- Annual work plan formulation and CHA prioritisation system; Excel training for asset management officers; project management training for mid-level management, and an exchange programme on IM and QM between UXO Lao and the Cambodian Mine Action Centre (CMAC) through South-South Cooperation, all supported by the Japan International Cooperation Agency (JICA).
- Communications training, supported by UNDP.
- Vallon VMH4 detector training, supported by Tetra Tech.³⁷

A UXO Sector Working Group (SWG), led by the chair of the NRA board, and co-chaired by UNDP and the US Ambassador in Vientiane, which normally meets biannually, brings together key stakeholders, including donors.³⁸ There were two SWG meetings in 2021 – in June and November.³⁹ Other meetings were convened by UNDP on the draft Safe Path Forward III Strategy.⁴⁰ 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.⁴¹

23 Ibid., p. 18.

24 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.

25 CCM Extension Request 2019, Part B, Detailed Narrative, p. 18.

26 Ibid., p. 26.

27 Email from Olivier Bauduin, US PM/WRA, 29 September 2020.

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

29 Ibid.

30 Emails from Katherine Harrison, Programme Coordinator, 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.

31 Emails from Cameron Imber, HALO, 11 June 2021; and Katherine Harrison, NPA, 19 June 2021.

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

33 Email from Olivier Bauduin, US PM/WRA, 6 July 2021.

34 Interview with Olivier Bauduin, UNDP, Vientiane, 2 May 2018; and email, 10 July 2018.

35 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>.

36 Email from Julien Kempeneers, HI, 30 March 2022.

37 Email from Noupin Phimmasy, Deputy Chief of Programme Office and Public Information Unit, UXO Lao, 4 June 2022.

38 Interview with Phil Bean, US PM/WRA, and Olivier Bauduin, Sterling International, in Geneva, 14 February 2018; CCM Extension Request 2019, Part B, Detailed Narrative, pp. 4 and 25; and email from Blossum Gilmour, Programme Manager, MAG, 21 March 2019.

39 Emails from Rebecca Letven, MAG, 30 March 2022; Cameron Imber, HALO, 31 March 2022; and Katherine Harrison, NPA, 11 May 2022.

40 Email from Katherine Harrison, NPA, 11 May 2022.

41 CCM Extension Request 2019, Part B, Detailed Narrative, p. 7.

International clearance operators continued to have good cooperation and coordination with the NRA at the national level, and at provincial and district levels.⁴² Humanitarian clearance operators are involved in key decision-making processes by the NRA, including through participation in sector meetings and Technical Working Groups (TWGs), sector meetings, and through fruitful discussions during other formal and informal meetings and field visits.⁴³ There are four TWGs: for survey and clearance, IM, UXO/mine risk education, and victim assistance, which meet regularly.⁴⁴ These could help to enhance the speed and clarity of responses to requests to the NRA. In addition, it might be useful for the NRA to assign a focal point for each organisation, to enable smooth communication.⁴⁵ Furthermore, lack of resources and capacity of some of the provincial NRAs can impact their ability to fulfil their roles.⁴⁶

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.⁴⁷ Delays to MoUs continued to impact on operators, both in terms of deployment of teams, as well as import or procurement of equipment, and the issuing of multiple-entry visas for key international staff.⁴⁸ 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.⁴⁹

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. It is also difficult to present projects over more than one province within the same framework.⁵⁰ Furthermore, even after formal approval of an MoU, operators may still experience challenges importing necessary equipment⁵¹ or small items of additional equipment, which require time-intensive MoU amendments.⁵²

HI reported that the turnover of many key positions at the central NRA, in particular the International Cooperation Unit, had continued to slow down its ability to support the project administration process, mainly regarding accreditation renewal, project extension requests, and obtaining MoU. Due to the collective challenges, HI has to reject project funding opportunities that are less than two years in duration.⁵³

Mines Advisory Group (MAG) has continued where possible to organise roundtables at the central level (including online, when COVID-19 prevention measures prevented in-person gatherings), following the provincial and district level signature of the MoU. MAG organised joint meetings with the NRA, MoFA, and the Ministry of Labour and Social Welfare (MoLSW), during which the draft MoU was discussed. This is said to have streamlined the final process.⁵⁴ Norwegian People's Aid (NPA) also reported similar roundtable meetings with the key decision-makers from the NRA, MoLSW, MoFA in both 2020 and 2021.⁵⁵

NPA reported that continued delays in the MoU process resulted in lost operational days and outputs (72 searchers for 4 months in 2021). Furthermore, confusion/retraction of approval of interim work permission in 2022, while an MoU amendment had yet to be approved, resulted in additional loss of operational days and an inability of NPA to deploy at the start of May 2022 in two of the four provinces in which it works.⁵⁶

Operators were consulted during the elaboration of the 2019 Article 4 deadline extension request.⁵⁷ When commenting on the extension request in September 2019, the Article 4 Analysis group recommended the establishment of a Country Coalition in Lao PDR to enhance coordination in implementing the work plan included in its extension request.⁵⁸ Following a meeting on the concept in September 2019, hosted by the Netherlands and Peru in their capacity as CCM Coordinators on International Cooperation and Assistance, 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-19.⁵⁹ In May 2022, Lao PDR announced during the CCM intersessional meetings that a Country Coalition had been set up under the name "UXO Sector Working Group", which the national authorities had developed

42 Emails from Rebecca Letven, MAG, 30 March 2022; Cameron Imber, HALO, 31 March 2022; Katherine Harrison, NPA, 11 May 2022; and Julien Kempeneers, HI, 30 March 2022.

43 Emails from Simon Rea, Regional Director, South and South East Asia, MAG, 17 June 2020; Rebecca Letven, MAG, 30 March 2022; Katherine Harrison, NPA, 6 May 2020 and 31 March 2021; and Cameron Imber, HALO, 31 March 2022.

44 CCM Extension Request 2019, Part B, Detailed Narrative, p. 25.

45 Email from Julien Kempeneers, HI, 30 March 2022.

46 Emails from Cameron Imber, HALO, 31 March 2022; Julien Kempeneers, HI, 30 March 2022. Rebecca Letven, MAG, 30 March 2022; and Katherine Harrison, NPA, 6 May 2020 and 31 March 2021.

47 Interviews with international operators, Lao PDR, 1–12 May 2018; and emails from Fiona Kilpatrick, HALO Trust, 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.

48 Interviews with international operators, Lao PDR, 1–12 May 2018; and emails from Fiona Kilpatrick, HALO Trust, 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.

49 Email from Katherine Harrison, NPA, 9 September 2020.

50 Emails from Julien Kempeneers, HI, 16 June 2021 and 30 March 2022.

51 Interviews with international operators, Lao PDR, 1–12 May 2018.

52 Email from Julien Kempeneers, on behalf of Yvon Le Chevanton, Technical Survey/Clearance Operations Manager, HI, 25 March 2020.

53 Emails from Julien Kempeneers, HI, 16 March 2021 and 30 March 2022.

54 Emails from Rebecca Letven, MAG, 26 March 2021 and 30 March 2022.

55 Email from Katherine Harrison, NPA, 19 June 2021.

56 Email from Katherine Harrison, NPA, 11 May 2022.

57 Email from Fiona Kilpatrick, HALO Trust, 29 March 2019.

58 Statement of the Article 4 Analysis Group (Netherlands, Peru and Sweden) on conclusions of the extension request by Lao PDR, 9th Meeting of States Parties to the CCM, Geneva, 2 September 2019.

59 Statement of Lao PDR on International Cooperation and Assistance, Second CCM Review Conference (Part 1, virtual meeting), 25–27 November 2020.

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.⁶⁰

ENVIRONMENTAL POLICIES AND ACTION

Lao PDR has a National Mine Action Standard (NMAS) on Environmental Management (chapter 21), but it is in need of revision. The NMAS refers to outdated national laws on environmental protection, rather than the current national environmental legal framework with which UXO sector activities should comply.⁶¹ It is hoped that the new Safe Path Forward III Strategy, which was being finalised as at June 2022, will incorporate key environmental issues discussed during its drafting, such as waste management; water and waste-water management; protection of biodiversity and ecologically sensitive areas; impact assessment, monitoring, and reporting; and green office models in relation to UXO operations.⁶²

The HALO Trust said that its global head office had created an environment/sustainability committee and was exploring opportunities to improve programmes’ environmental footprint. However, HALO Laos currently does not have an environmental management system in place. HALO’s current UXO clearance task planning process does not involve a specific focus on environmental preservation, but HALO is committed to reducing its environmental footprint where possible.⁶³

HI has a generic “Environmental Management” standing operating procedure (SOP) available for all its country programmes, and it was planning to develop a dedicated SOP for its operations in Lao PDR. HI is also planning a research project on the environment in 2022, subject to available funding, following concerns in 2021 while partnering with authorities in national parks and other protected areas. HI believes the extent of explosive ordnance (EO) and the daily explosive ordnance disposal (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. As part of the planned research project, HI wants to look into soil remediation in the most contaminated areas, in partnership with development actors. According to HI, toxicity of explosives charges (TNT/DNT/MNT/nitrates) can be harmful at very small concentrations, with risks to children and pregnant women also resulting from the toxicity of heavy metals and other munition components. White phosphorus can lead to permanent disability, impacts on fertility, cancer, or even death.⁶⁴

MAG does not currently have a specific environmental SOP but this is being included as part of the SOP revision currently ongoing to incorporate International Mine Action

Standard (IMAS) 7.13. 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.⁶⁵

NPA has an annex on environmental management in its SOP on UXO clearance operations, which is followed during survey and clearance operations as part of its environmental protection and “do no harm” policy. 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 in partnership with the national youth volunteer organisation, Zero Waste Laos, focusing on three main areas: follow-on trainings for NPA staff members on environmental awareness and developing Green Office and Green Operations tools for establishing a baseline for measuring NPA’s environmental footprint; setting up recycling points and trainings for three high schools in NPA’s provinces of operations for use by NPA staff and local communities; and promoting Youth for SDGs events, with a focus on environmental protection, climate change, and SDG 18 on Lives Safe From UXO.⁶⁶

Positively, since environmental trainings were conducted and recycling and composting facilities put in place in May 2020, NPA’s Vientiane Office has reduced its waste generation by more than 50%. This also amounted to a cost-saving of \$15 a month in waste collection fees, while avoiding sending organic and mixed recyclable waste to landfill sites. In 2022, NPA’s teams, as well as the student population, and local communities, were able to use recycling collection points set up at three high schools in Attapeu, Saravan, and Sekong provinces. Results of these pilot school recycling projects will be monitored to assess the impact made in reducing waste which would otherwise be burned or illegally dumped.⁶⁷

UXO Lao does not currently have an environmental management SOP, but said that the environment is taken into consideration during demining, in particular with respect to mine contamination.⁶⁸

60 Statement of Lao PDR on International Cooperation and Assistance, CCM Intersessional meetings, Geneva, 16–17 May 2022.

61 Email from Katherine Harrison, NPA, 11 May 2022.

62 Ibid.

63 Email from Cameron Imber, HALO, 31 March 2022.

64 Email from Julien Kempeneers, HI, 30 March 2022.

65 Email from Rebecca Letven, MAG, 30 March 2022.

66 Email from Katherine Harrison, NPA, 11 May 2022.

67 Ibid.

68 Email from Noupin Phimmasy, UXO Lao, 4 June 2022.

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 is 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. Of the 58 employees at the NRA (including the national training centre), 16 (28%) were women, including two (17%) of the 12 NRA Officers.⁶⁹

Gender mainstreaming in the UXO sector is led by the NRA, together with the Lao Women's Union.⁷⁰ 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 2019.⁷¹

The HALO Trust, 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.⁷²

HALO continued to prioritise the hiring of women into operations roles to ensure that the proportion of men to women remained at 50%. This was done by setting quotas during recruitment drives. The programme also ensured that individuals from minority ethnic groups were adequately represented by providing battle area clearance (BAC) training in a number of different ethnic dialects and languages.⁷³ HALO also has a relationship with ARMI (Association for Rural Mobilisation and Improvement) in Savannakhet to provide employment opportunities to people with disabilities. Currently HALO employs seven staff with disabilities, two of whom are UXO victims. As at the end of March 2021, HALO Laos employed 524 female staff (51%) out of a total of 1,027; including 14 women (50%) of 28 staff in managerial or supervisory positions. Women make up 487 (nearly 52%) of HALO's 944 operations staff.⁷⁴

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 non-technical survey 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. HI plans to update the Disability, Gender, and Age marker to include an additional component on conflict

sensitivity.⁷⁵ HI encourages women and persons with disabilities to apply to all positions. Of HI's staff in Lao PDR, 40% are women, including 32% of managerial/supervisory positions and 40% of operations positions. One of HI's two multi-task teams is led by a female staff member, trained in EOD-level 3.⁷⁶ In 2021, HI, together with the MoLSW, organized 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 National Social-Economic Development Plan (NSEDPlan) can be inclusive for persons with disabilities, including those impacted by UXO.⁷⁷

MAG reported that women account for 36% of its employees in Lao PDR, including 36% of those in operational positions and 26% of managerial level/supervisory positions.⁷⁸ 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.⁷⁹

NPA has had a programme-specific gender strategy in place since 2018. Previously, activities focused primarily on gender equality in terms of increasing the number and participation of women in the workforce. NPA also prioritises ethnic and language minorities and women as part of its recruitment process. Women made up nearly 35% of NPA Lao PDR's 432 staff members as at 31 December 2021. This included 37% of operations staff. Approximately 13% of managerial positions in the programme were held by women. In 2021, with support from "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, NPA held a series of workshops, trainings, and focus interviews with staff. Findings from the focused interviews and post-training reports will be used to inform and strengthen NPA's policies with regard to gender equality and safeguarding.⁸⁰

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

69 Email from Douangsy Thammavong, NRA, 20 June 2022.

70 Statement of Lao PDR on National Implementation Measures, Second CCM Review Conference (Part 1, virtual meeting), 25–27 November 2020.

71 UN Lao PDR, "Training of Trainer's Workshop Promotes Gender Equality in UXO Sector", 13 December 2018, available at: <http://bit.ly/3haKMnB>.

72 Emails from Fiona Kilpatrick, HALO Trust, 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.

73 Email from Cameron Imber, HALO, 31 March 2022.

74 Ibid.

75 Emails from Julien Kempeneers, HI, 25 March 2020 and 30 March 2022; and on behalf of Minla Nanthavong, HI, 16 March 2021.

76 Email from Julien Kempeneers, HI, 30 March 2022.

77 Email from Julien Kempeneers, HI, on behalf of Pradeep Bagival, HI Inclusive Governance Specialist, 30 March 2022.

78 Email from Rebecca Letven, MAG, 30 March 2022.

79 Ibid.

80 Email from Katherine Harrison, NPA, 11 May 2022.

gender balanced, to facilitate access and participation from all groups.⁸¹ UXO Lao reported that it offers employment opportunity to all and is trying to promote and support the women to work in management positions, and is working to improve gender mainstreaming.⁸² UXO Lao advocates for equality in the workplace and its human resource policies encourage female applicants at all levels. In 2021, UXO Lao had one female unit chief, five women deputy unit chiefs, and twenty-seven female field staff working in the supervisory positions. Of its 1,459 staff employed, 26% are female, including 36 (13%) of the 281 managerial and supervisory positions, and 299 (26%) of the 1,131 operations positions.⁸³

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.⁸⁴ A TWG on IM meets quarterly.⁸⁵ The NRA has identified the need for better quality control of data in the IMSMA database,⁸⁶ and in 2021 continued to improve data quality, focusing again on the quality of forms and historical correcting data errors.⁸⁷ 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.⁸⁸

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.⁸⁹

Efforts to correct historical data within IMSMA (including incorporation of correct current data) are ongoing. It is also important that village-level data corrections made by operators during the nationwide CMRS are updated in IMSMA in a timely manner.⁹⁰ 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.⁹¹ NPA plans to support the NRA in achieving this within the framework of a new IM Capacity Development Project supported by the PM/WRA, which will be implemented from the date the MOU is approved by the Lao PDR government until December 2024.⁹²

When the organisation conducting the CMRS is different to the one holding historical records, there is an obvious need for the timely sharing of relevant data.⁹³ Communication between international operators and UXO Lao is continuing to improve. However, while UXO Lao does provide its data on historical tasks to international operators to help inform desktop studies before sending in survey teams, data are often slow to be made available.⁹⁴ UXO Lao said that efforts to ensure and improve the quality of data in the mine action database were ongoing. In 2022, UXO Lao was planning to provide electronic tablets to all field operations teams to help improve the quality of data and reduce the number of mistakes due to manual handwriting.⁹⁵

In July 2019–March 2020, NPA provided support to strengthen the IM capacity of the NRA and provincial authorities, as part of the United Kingdom (UK) Foreign, Commonwealth, and Development Office (FCDO) funded project.⁹⁶ NPA 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.⁹⁷ However, as at March 2022, it had still to be officially approved.⁹⁸

81 Email from Saomany Manivong, UXO Lao, 10 May 2019.

82 Emails from Saomany Manivong, UXO Lao, 10 May 2019; and Noupin Phimmasy, UXO Lao, 4 June 2022.

83 Email from Noupin Phimmasy, UXO Lao, 6 July 2022.

84 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.

85 Emails from Julien Kempeneers, HI, 30 March 2022; Rebecca Letven, MAG, 30 March 2022; and Katherine Harrison, NPA, 11 May 2022.

86 CCM Extension Request 2019, Part B, Detailed Narrative, p. 4.

87 Email from Douangsy Thammavong, NRA, 20 June 2022.

88 CCM Extension Request 2019, Executive Summary, p. 1, and Part B, Detailed Narrative, p. 6; and Article 7 Report (covering 2019), Form F.

89 "Data errors on IMSMA", Nigel Orr, Technical Adviser, (then with) Sterling International, 26 April 2017.

90 Presentation by HALO Trust, Sepon, 10 May 2018.

91 Emails from Douangsy Thammavong, NRA, 20 June 2022; and Katherine Harrison, NPA, 11 May 2022.

92 Email from Katherine Harrison, NPA, 11 May 2022.

93 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.

94 Emails from Fiona Kilpatrick, HALO Trust, 29 March 2019; and Blossum Gilmour, MAG, 21 March 2019.

95 Emails from Saomany Manivong, UXO Lao, 11 May 2021; and Noupin Phimmasy, UXO Lao, 4 June 2022.

96 Email from Katherine Harrison, NPA, 31 March 2021.

97 Emails from Katherine Harrison, NPA, 6 May and 9 September 2020.

98 Email from Rebecca Letven, MAG, 30 March 2022.

Following the NPA capacity development project, four provincial authorities in the south (Attapeu, Champassak, Saravan, and Xekong) were equipped with necessary technology and provided training. They now access and use the IMSMA database. The same training package and approach was also used to conduct IMSMA training in the remaining 11 provinces by the NRA.⁹⁹ This is a positive development, but will require continuous follow-up and commitment.¹⁰⁰ In 2022, NPA aims to enhance the capacity of the provincial authorities and expand the geographic coverage in nine provinces and fifty-five districts within the framework of its new three-year capacity development project funded by the US PM/WRA. NPA also plans to support the NRA in creating more sophisticated and easier to access and use applications that will be more beneficial to the provincial authorities and other relevant stakeholders.¹⁰¹

In 2021, HI continued to provide regular training to help strengthen the capacity of provincial NRA personnel in Houaphanh province in data management, QM, and operations planning.¹⁰²

Operators reported that data submitted to the NRA were typically updated in a timely manner and accurately.¹⁰³

An IMSMA virtual private network (VPN) has been successfully rolled out, with all operators, except for UXO Lao, using the network.¹⁰⁴ This has improved the accessibility of data, the speed and quality of data entry, and the reporting process, with crosschecks raising discrepancies for correction.¹⁰⁵ However, IMSMA is still not fully accessible to operators, who can only access their own data in the system and have to formally request the additional data.¹⁰⁶

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 non-technical survey is followed up by robust technical survey operations.¹⁰⁷ 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.¹⁰⁸ This topic had been discussed at the IM TWG, but it had yet to be formally implemented.¹⁰⁹

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

As part of efforts to implement the CCM Vientiane and Dubrovnik Action Plans, the Lao Government adopted “Safe Path Forward II, 2011–20”, a 10-year national strategy for the UXO sector. The strategy’s goal was “to reduce the humanitarian and socio-economic threats posed by UXO to the point where the residual contamination and challenges can be adequately addressed by a sustainable national capacity fully integrated into the regular institutional set-up of the Government.”

Through its funding of the agreement between Tetra Tech and the NRA, the United States continued to “support the Lao Government as it formulates its 10-year National Strategic Plan for the UXO Sector, a plan that will map the path to achieving SDG 18 – the elimination of UXO as a barrier to national development by 2030.”¹¹⁰

A new national strategic plan for the UXO Sector has been in the process of elaboration for 10 years, in line with SDG 18 under the 2030 SDG agenda. UNDP provided support to the NRA in elaboration of a new National Strategy for the UXO Sector (2021–30), “The Safe Path Forward III” in 2021, including a joint online consultation on the draft strategy in October 2021.¹¹¹ A new draft of the strategy was presented to stakeholders in February 2022.¹¹² At the CCM Intersessional Meetings in May 2022, Lao PDR announced that “Safe Path Forward III” was expected to be adopted in June 2022.¹¹³

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.¹¹⁴ Stakeholders were not brought together in the same way to help inform elaboration of the annual sector-wide work plan for 2019,

99 Emails from Katherine Harrison, NPA, 6 May and 9 September 2020 and 31 March 2021.

100 Email from Katherine Harrison, NPA, 31 March 2021.

101 Email from Katherine Harrison, NPA, 11 May 2022.

102 Email from Julien Kempeneers, HI, 30 March 2022.

103 Emails from Katherine Harrison, NPA, 6 May and 9 September 2020; Cameron Imber, HALO, 7 April 2020; and Julien Kempeneers, HI, 25 March 2020.

104 Emails from Mark Frankish, UNDP, 26 August 2020 and Saomany Manivong, UXO Lao, 11 May 2021.

105 Emails from Katherine Harrison, NPA, 6 May 2020; Simon Rea, MAG, 17 June 2020; Cameron Imber, HALO, 7 April 2020; and Julien Kempeneers, HI, 25 March 2020.

106 Emails from Cameron Imber, HALO, 7 April 2020; Julien Kempeneers, HI, 25 March 2020; and Katherine Harrison, NPA, 9 September 2020.

107 CCM Extension Request 2019, Part B, Detailed Narrative, p. 3.

108 Interview with Phil Bean, US PM/WRA, in Geneva, 6 February 2018.

109 Emails from Chomyaeng Phengthongsawat, NRA, 21 June 2021; Rebecca Letven, MAG, 30 March 2022; and Katherine Harrison, NPA, 11 May 2022.

110 “US Renews Partnership with Lao PDR to Build Capacity in UXO Sector”, US Embassy in Lao PDR, 31 January 2020.

111 Statement of Lao PDR on National Implementation Measures, Second CCM Review Conference (Part 1, virtual meeting), 25–27 November 2020; and email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.

112 Emails from Cameron Imber, HALO, 31 March 2022; Julien Kempeneers, HI, 30 March 2022; and Rebecca Letven, MAG, 30 March 2022.

113 Statement of Lao PDR on National Implementation Measures, CCM Intersessional meetings, Geneva, 16–17 May 2022.

114 Email from Bouala Thongsavanh, NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018; and interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.

reportedly due to lack of budget,¹¹⁵ but a consultative workshop was held to support the development of the sector-wide work plan for 2020.¹¹⁶ An NRA workshop was also held in September 2020 with all stakeholders, including UXO Lao and the four INGOs, to inform elaboration of a sector-wide work plan for 2021.¹¹⁷ However, the resultant final sector-wide work plans (for either 2020 or 2021), while shared with the districts, were not shared with clearance operators. A dedicated workshop to help elaborate the 2022 work plan could not take place in 2021 due to COVID-19 restrictions. However, the 2022 work plan was discussed during TWG meetings in Q4 2021. As at March 2022, the annual work plan was still under development and had yet to be shared with operators.¹¹⁸

In 2018, Lao PDR began a national CMRS baseline survey, with funding from the United States, and the baseline survey is ongoing. The first phase of the survey involves six province-wide surveys (in Attapeu, Champassak, Saravan, Savannakhet, Xekong, and Xiengkhouang) by HALO Trust, MAG, and NPA of all villages suspected or confirmed as CMR-contaminated, according to the NRA's village list.¹¹⁹ 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 2021.¹²⁰ As at June 2022, eleven provinces were in the process of being surveyed,¹²¹ and notable progress was being made in many provinces. As part of the US-funded survey efforts, NPA had concluded survey in the villages allocated to it under a three-year project ending in 2020 in the four southern provinces of Attapeu, Champassak, Saravan, and Xekong, and had technical survey capacity available for it to follow up and investigate any previously unknown contamination discovered. In the two most contaminated provinces of Savannakhet and Xiengkhouang, it will take more time to complete survey

due to the density of contamination. In Savannakhet, the US expected the proactive phase of survey (i.e. the systematic village-by-village approach) to be concluded in 2022 in the 492 villages allocated to HALO. In Xiengkhouang, completion of the proactive survey efforts will take longer to complete, and MAG was deploying 15 technical survey teams towards achieving this.¹²² That said, survey has fallen behind the NRA's set schedule and had yet to be completed in any province.¹²³

The US has highlighted that it is agreed in the UXO sector in Lao PDR, that additional evidence points outside of the CHAs already identified, will continue to require investigation through technical survey 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.¹²⁴

As HALO, MAG, and NPA make continued progress in province-wide CMRS in the seven provinces in which they operate, there is a shift towards increasing clearance capacity and reducing survey capacity, in order to clear the CHAs identified during CMRS.

In November 2020, the NRA said it had conducted initial capacity building for provincial authorities on identifying priority areas following the National Standard combined with the Social-Economic Development Plan, to help inform non-technical survey, technical survey, and clearance plans. However, COVID-19 has impacted the capacity building rollout and as at November 2020, only five of the fifteen cluster munition-contaminated provinces had completed their planned trainings, which was equivalent to only 30% of the NRA's target.¹²⁵

WORK PLAN FOR ARTICLE 4 IMPLEMENTATION IN 2020–25

The 2019 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 will be a strong concentration on survey during the extension period, with a focus on the six most contaminated provinces to be completed as soon as possible, followed by the others. Clearance will take place simultaneously with survey activities.¹²⁶

Over the five-year period (1 August 2020–31 July 2025), 25 non-technical survey teams are due to survey 1,463 cluster munition-contaminated villages (292 villages per year), at a total cost of US\$4.5 million while 76 technical survey teams will survey 2,873 villages at a predicted total cost of US\$38 million (US\$7.6 million per year). Re-survey is to be conducted, as required, if new evidence of CMR is reported and found.¹²⁷

115 Interview with Phoukheio Chanthasomboune, NRA, in Geneva, 7 February 2019.

116 Email from Amanda Shiel, UXO Unit Programme and Partnership Support Officer, UNDP, 4 September 2020.

117 Emails from Olivier Bauduin, US PM/WRA, 29 September 2020; Rebecca Letven, MAG, 26 March 2021; Katherine Harrison, NPA, 22 March 2021; and Julien Kempeneers, HI, 16 March 2021.

118 Emails from Rebecca Letven, MAG, 30 March 2022; and Cameron Imber, HALO, 31 March 2022.

119 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.

120 Statement of Lao PDR on National Implementation Efforts, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.

121 Email from Douangsy Thammavong, NRA, 20 June 2022.

122 Email from Olivier Bauduin, US PM/WRA, 13 July 2022.

123 Email from Douangsy Thammavong, NRA, 20 June 2022.

124 Email from Olivier Bauduin, US PM/WRA, 13 July 2022.

125 Statement of Lao PDR on Clearance and Risk Reduction, Second CCM Review Conference (Part 1, virtual meeting), 25–27 November 2020.

126 2019 UXO Sector Annual Report, NRA, undated, p. 14.

127 CCM Extension Request 2019, Executive Summary, p. 4; and Part B, Detailed Narrative, p. 21.

As at the end of 2021, a total of almost 1,523km² of CHA had already been identified through the survey and entered into IMSMA, representing several years of clearance efforts based on current clearance capacity.¹²⁸ The NRA predicts that the number of CHAs containing CMR will significantly increase during the five-year period of the extension request, at a rate far faster than the CMR-contaminated areas can be cleared.¹²⁹

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 50km² per annum, at a cost of US\$12.5 million per year. This would result in clearance of 250km² at a cost of US\$62.5 million, during the five-year extension request period.¹³⁰ While even this first scenario was ambitious, and Lao PDR has yet to achieve annual CMR clearance of 50km², it is getting closer to this goal and in 2021 cleared 46.68km² of cluster munition-contaminated area (excluding commercial clearance), despite the continuing impact of COVID-19.

The second, even more ambitious estimate, predicts clearance output based on the additional resources needed to address the 800km² of CHA already recorded in IMSMA as at end of 2018. This would see annual clearance output incrementally increased from 60km² per annum in 2020 to 280km² per annum in 2024, with total clearance output of 800km² during the five-year extension request period, at a total cost of US\$200 million.¹³¹

The third estimate predicts clearance based on the additional resources needed to address 1,600km² of CHA, which includes the further 800km² of CHA predicted to result from CMRS during the five-year extension request period, at a total cost of US\$400 million.¹³²

Lao PDR will, “for the foreseeable future”, integrate the Article 4 Extension Plan into the indicators of the 9th National Social-Economic Development Plan (NSEDP) 2021–2025, where the five-year plan sets targets to conduct non-technical survey in 2,776 villages; conduct technical survey to confirm hazardous area of 250,000 hectares

(2,500km²) (an average of 500km² per year); and conduct UXO clearance of 500km² (an average 100km² per year).¹³³ These are extremely ambitious targets, which 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.¹³⁴

In its latest Article 7 report, Lao PDR reported that due to limitations in clearance capacity and technology, clearance tasks cannot always cover the entire village, and clearance is often conducted on multiple occasions in order to clear all contaminated areas in a village.¹³⁵

Prioritisation of clearance is a critical step in the land release cycle. But no comprehensive national-level guidance on the prioritisation of clearance tasks yet exists, and prioritisation systems and criteria vary markedly between the operators.¹³⁶ The co-chairs of the UXO Sector Working Group, the United States and UNDP, believe a prioritisation plan will need to be developed for the entire UXO Sector, including both commercial and humanitarian operators.¹³⁷ The sector would benefit from the strengthening of the capacity and participation of the NRA at the provincial level and of district officers from the Labour and Social Welfare authorities. Operators also stressed the need for community participation in the process.¹³⁸ The NRA acknowledges difficulties in sector planning and prioritisation by local authorities.¹³⁹

TetraTech is supporting the NRA in the development of the nationwide prioritisation matrix.¹⁴⁰ The NRA said that following a delay to the prioritisation development process and accompanying national standard, work on the prioritisation matrix would resume and be finalised in 2022.¹⁴¹

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.¹⁴²

128 Statement of Lao PDR on Clearance, CCM Intersessional meetings, Geneva, 16–17 May 2022; and Lao PDR’s Article 7 Report (covering 2021), Form F, which put the extent of cluster munition-contaminated area at end of 2021 at 1,522,785,799m².

129 CCM Extension Request 2019, Executive Summary, pp. 1, 4, and 6, and Part B, Detailed Narrative, pp. 22 and 25.

130 CCM Extension Request 2019, Executive Summary, p. 4; and Part B, Detailed Narrative, pp. 7 and 22.

131 Ibid.

132 Ibid.; and Article 7 Report (covering 2021), Form J.

133 Statement of Lao PDR on Clearance and Risk Reduction, Second CCM Review Conference (Part 1, virtual meeting), 25–27 November 2020; and the 9th Five-year National Socio-Economic Development Plan (2021–2025), draft report; and Article 7 Report (covering 2021), Form J.

134 Email from Olivier Bauduin, US PM/WRA, 13 July 2022.

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

136 Interviews with national and international clearance operators, Lao PDR, 1–12 May 2018.

137 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.

138 Interviews with international operators, UNDP, and US Embassy in Vientiane, Lao PDR, 1–12 May 2018.

139 Email from Bouala Thongsavanh, Assistant to the Director of the NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018.

140 Email from Rebecca Letven, MAG, 30 March 2022.

141 Email from Douangsy Thammavong, NRA, 20 June 2022.

142 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.¹⁴³ The standards were officially approved by the NRA in 2018.¹⁴⁴ They are said to conform to the International Mine Action Standards (IMAS)¹⁴⁵ and are fully reflected in the SOPs of clearance operators, who confirm their relevance to the local threat and context.¹⁴⁶

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.¹⁴⁷ In 2021, operators were invited by the NRA to submit recommendations to the national standards, but as at March 2022 there had yet to be follow-up discussions.¹⁴⁸

With capacity development support from NPA, revisions to the IM NMAS were submitted to the NRA for consideration in 2019, but as at May 2022 had yet to be approved or shared with operators.¹⁴⁹ NPA has encouraged the NRA to approve the revised NMAS on IM as soon as possible, rather than delay approval while waiting for the other 23 chapters of NMAS to be revised and approved.¹⁵⁰ IM SOPs for the NRA, including IM process maps and guidelines, were also drafted.¹⁵¹

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.¹⁵² 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 2015.¹⁵³ As part of the new CMRS procedure, and the corresponding national standard, non-technical survey 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 technical survey. An additional aim during survey is to correct errors or omissions in historical data in IMSMA or in operator files.¹⁵⁴

The survey approach has been strengthened over the last couple of years, with more emphasis on desk assessment of historical data and comprehensive non-technical survey. Technical survey is only conducted based on CMR evidence points and is also conducted on whole villages.¹⁵⁵ Technical survey 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, technical survey 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.¹⁵⁶

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 technical survey teams, where the focus is on identifying the boundaries of CHAs.¹⁵⁷

CHAs are established based on red boxes and include a 50-metre fade-out from the place submunitions are found during technical survey, 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).¹⁵⁸

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".¹⁵⁹ 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.¹⁶⁰ 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

143 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017; and CCM Extension Request 2019, Executive Summary, p. 3.

144 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.

145 CCM Extension Request 2019, Executive Summary, p. 2; CCM Extension Request 2019, Part B, Detailed Narrative, pp. 9 and 17.

146 Emails from Cameron Imber, HALO, 7 April 2020; Simon Rea, MAG, 17 June 2020; Katherine Harrison, NPA, 6 May 2020; and Saomany Manivong, UXO Lao, 10 May 2019.

147 CCM Extension Request 2019, Part B, Detailed Narrative, p. 18.

148 Emails from Cameron Imber, HALO, 31 March 2022; Julien Kempeneers, HI, 30 March 2022; and Rebecca Letven, MAG, 30 March 2022.

149 Emails from Julien Kempeneers, HI, 30 March 2022; and Katherine Harrison, NPA, 11 May 2022.

150 Email from Katherine Harrison, NPA, 11 May 2022.

151 Emails from Katherine Harrison, NPA, 6 May and 9 September 2020.

152 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.

153 CCM Extension Request 2019, Executive Summary, p. 2; and Part B, Detailed Narrative, p. 9.

154 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.

155 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017; and emails from Cameron Imber, HALO, 11 June; Rebecca Letven, MAG, 18 June; and Katherine Harrison, NPA, 18 June.

156 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.

157 Ibid., p. 17; and interviews with Neil Arnold, MAG, Phonsavanh, 6 May 2018, and Robby Dehondt, Sterling International, Sepon, 11 May 2018; and email from Ulric Eriksson, NPA, 1 May 2018.

158 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.

159 Ibid.

160 Interviews with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018 and 7 February 2019, Geneva.

implementation, and further these development projects must allocate funding for survey and clearance.¹⁶¹

Except in the case of permanently inaccessible land or commercial concession areas, CHAs that are incomplete or have not been created using the technical survey process are not to be entered into IMSMA.¹⁶² Interpretation and understanding as to what constitutes “inaccessible” is not clearly defined and can vary between clearance operators,¹⁶³ but according to the national survey standards, dense vegetation and seasonal flooding are not valid reasons for the non-technical survey.¹⁶⁴ 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.¹⁶⁵ The minimum clearance depth in Lao PDR depth is 25cm, which is intended to capture all surface and shallow CMR contamination.¹⁶⁶ Operators have been collecting data on the depth at which CMR are found.¹⁶⁷

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.¹⁶⁸ Furthermore, in technical survey 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.¹⁶⁹

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 cluster munitions) discovered in 2021, justifies that it continues to conduct a “Clearing While Surveying” 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. In Phongsaly province, HI said CMRS had yet to begin and there were no defined CHAs yet.¹⁷⁰ UXO Lao is focusing

its technical survey on its annual clearance work plan, which is based on the needs of local authorities and communities.¹⁷¹ For development projects, clearance is conducted without technical survey having first taken place.¹⁷²

Based on the areas in which it is operational, NPA reported that typically CHAs cover the strike area and submunitions are not being found outside of CHAs polygons during clearance,¹⁷³ an indication of the effectiveness of evidence-based CMRS.

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 technical survey 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.¹⁷⁴

According to the NRA, understanding of the CMRS process, especially at the local and field levels, is sometimes limited.¹⁷⁵ Stakeholders across the mine action sector in Lao PDR agreed on the importance of strengthening coordination with village authorities as an integral component of the survey process, ensuring that communities understand and accept the results of survey. It is especially important that villagers fully understand that, despite demolition of UXO during the CMRS process, CHAs identified through survey remain hazardous until full clearance has taken place, which may not be for many years.¹⁷⁶

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.¹⁷⁷ HI revised its clearance SOP to integrate CWS. As at March 2022, the SOP had yet to be formally approved, but the NRA had deemed the procedure as being adequate, including during QA and QC inspections and during a TWG presentation. Furthermore, UXO Laos Houaphanh and the provincial NRA have also requested specific trainings on this procedure, which may be conducted in 2022, as they are also facing this same issue in Houaphanh. HI has also proposed to the NRA that a modification is made to the national standards.¹⁷⁸

161 Statement of Lao PDR on National Implementation Efforts, CCM Seventh Meeting of States Parties, Geneva, 4–5 September 2017.

162 NRA, draft “Lao PDR UXO Survey Procedures”, 20 September 2017.

163 Interviews with international operators, Laos, 1–12 May 2018.

164 NRA, draft “Lao PDR UXO Survey Procedures”, 20 September 2017.

165 CCM Extension Request 2019, Executive Summary, p. 5; and Part B, Detailed Narrative, pp. 24–25.

166 CCM Extension Request 2019, Part B, Detailed Narrative, p. 17.

167 Email from Katherine Harrison, NPA, 9 September 2020.

168 Interviews with Ulric Eriksson, NPA Laos, Saravan, 4 May 2018; and Olivia Meader, HALO Trust, Sepon, 11 May 2018.

169 Interview with Neil Arnold, MAG, Phonsavan, 6 May 2018.

170 Email from Julien Kempeneers, HI, 30 March 2022.

171 Email from Saomany Manivong, UXO Lao, 11 May 2021.

172 Email from Noupin Phimmasy, UXO Lao, 4 June 2022.

173 Email from Katherine Harrison, NPA, 6 May 2020.

174 Interview with Neil Arnold, MAG, Phonsavan, 6 May 2018.

175 Email from Bouala Thongsavan, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018.

176 Response to Mine Action Review questionnaire from Olivia Meader, HALO Trust, 11 May 2018; and interview with Olivier Bauduin, UNDP, Vientiane, 2 May 2018.

177 Email from Julien Kempeneers, HI, 25 March 2020.

178 Email from Julien Kempeneers, HI, 30 March 2022.

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 Trust, HI, MAG, and NPA; commercial clearance operators; and humanitarian teams of the Lao People's Army (Unit 58).¹⁷⁹

With regard to survey capacity in 2021: the Lao People's Army (Unit 58) deployed three technical survey teams totalling twenty-one personnel;¹⁸⁰ HALO deployed 20 technical teams, totalling 160 personnel;¹⁸¹ HI had 1 non-technical survey team of 2 personnel and 1 technical survey team of 6 personnel;¹⁸² MAG had 5 non-technical survey (community liaison) teams, totalling 20 personnel and 21 technical survey teams (20 in Xiengkhouang and 1 in Khammouane), totalling 168 personnel;¹⁸³ NPA has 8 CMRS (non-technical survey and technical survey) teams totalling 48 survey personnel (a significant decrease on the 24 CMRS teams and 120 personnel in 2020); and UXO Lao had 9 non-technical survey teams totalling 27 personnel and 16 technical survey teams totalling 108 personnel.¹⁸⁴

Table 2: Operational clearance capacities deployed in 2021¹⁸⁵

Operator	Manual teams	Total clearance personnel	Machines	Comments
Lao People's Army (Unit 58)	5	65	0	
HALO	47	505	0	This is a significant increase on the 25 teams totalling 269 personnel deployed previously. Medics are included as HALO has technician medics.
HI	2	16	0	HI's two multi-task teams are used to conduct technical survey, clearance, or roving tasks, as required.
MAG	47	376	0	MAG had 30 clearance teams (8 technicians per team) in total across Khammouane province and Xiengkhouang province; with capacity rising to 47 teams, following the deployment of an additional 17 teams in Xiengkhouang between July and September 2021. It does not have any mechanical assets for clearance, but does have five machines for ground preparation.
NPA	20	300	0	Significant increase on the 9 clearance teams, totalling 108 personnel, in 2020.
UXO Lao	81	506	*9	*Two cluster munition demolition machines in Xiengkhouang province. The seven brush cutter machines operating across Saravan, 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.
Totals	202	Approximately 1,768 clearance personnel	9	

179 CCM Extension Request 2019, Part B, Detailed Narrative, p. 20.

180 Email from Douangsy Thammavong, NRA, 20 June 2022.

181 Email from Cameron Imber, HALO, 31 March 2022.

182 Email from Julien Kempeneers, HI, 30 March 2022.

183 Email from Rebecca Letven, MAG, 30 March 2022.

184 Email from Noupin Phimmasy, UXO Lao, 4 June 2022.

185 Emails from Cameron Imber, HALO, 31 March 2022; Julien Kempeneers, HI, 30 March 2022; Rebecca Letven, MAG, 30 March and 20 June 2022; Katherine Harrison, NPA, 11 May 2022; and Noupin Phimmasy, UXO Lao, 4 June 2022.

UXO Lao, the oldest and largest clearance operator in Lao PDR, is a government organisation working under the Ministry of Labour and Social Welfare,¹⁸⁶ operating in nine provinces (Attapeu, Champassak, Houaphanh, Khammouane, Luang Prabang, Savannakhet, Saravan, Xekong, and Xiengkhouang).¹⁸⁷ In Luang Prabang, UXO Lao was operating with funding from Norway and management support from NPA, up until the agreement ended on 31 December 2020 and UXO Lao's field operations were stood down in the province.¹⁸⁸ The United States has subsequently provided funding through Tetra Tech, allowing UXO Lao's operations in Luang Prabang to resume. A new Director of UXO Lao was appointed in 2019. While UXO Lao's capacity in 2021 was broadly consistent with 2020, it did, however, report that funding challenges in 2022 will result in a decrease of 360 personnel (200 clearance personnel, 66 in technical survey, 16 in non-technical survey, 24 in mine risk education, and 54 in Brush Cutter operations).¹⁸⁹

The HALO Trust's survey and clearance efforts are focused on Savannakhet province. Capacity increased in 2020 as part of the new US-funded clearance project. With new US funding, HALO's combined survey and clearance capacity increased by 53% in 2021, from 569 personnel in 2020 to 876 personnel in December 2021, as part of an ongoing expansion. HALO expected combined technical survey and clearance personnel to increase to 952 personnel by the end of 2022.¹⁹⁰

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.¹⁹¹ From 2021, HI is deploying multi-task teams which can conduct technical survey, area clearance, or roving tasks.¹⁹² HI also implements projects in Champassak, Savannakhet, and Vientiane provinces, relating to other fields (such as disability inclusion and health and rehabilitation).¹⁹³ HI expected to increase its EOD capacity, with funding approved from the Netherlands for extension of the project into Phongsaly province (two districts) and Houaphanh province (two districts, including the current one of Houamuang). As at March 2022, the MoU for Phongsaly province was still under discussion, but operations were expected to start during the year.¹⁹⁴

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.¹⁹⁵

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. It increased its clearance capacity from 9 to 20 BAC teams, while retaining a survey capacity of 8 CMRS teams to address any limited additional survey requirements.¹⁹⁶

The Lao armed forces humanitarian demining teams (Unit 58) had five clearance teams in 2021, totalling 65 personnel.¹⁹⁷ 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 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.¹⁹⁸ According to an online media source, Russian troops are working with Lao counterparts to clear an area of 500 hectares (5km²) to build a new airport and military facility in Xiengkhouang.¹⁹⁹

While MAG had previously secured a drone permit in late 2019, and used drones in 2020 to assess the ground situation,²⁰⁰ its drone was under repair for most of 2021 and therefore not used.²⁰¹ In Houaphanh province, HI had yet to secure approval from local authorities for the use of drones to ensure the safety radius when disposing large items of explosive ordnance, such as aircraft bombs. HI has also raised this issue in its feedback on recommended changes to the national standards.²⁰² NPA had lengthy discussions with the NRA throughout 2021 regarding the use of drones for 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.²⁰³

186 Presentation by Saomany Manivong, UXO Lao, Vientiane, 2 May 2018.

187 Email from Noupin Phimmasy, UXO Lao, 4 June 2022.

188 Emails from Katherine Harrison, NPA, 31 March 2021; and Saomany Manivong, UXO Lao, 11 May 2021.

189 Email from Noupin Phimmasy, UXO Lao, 4 June 2022.

190 Email from Cameron Imber, HALO, 31 March 2022.

191 Email from Julien Kempeneers, HI, 16 March 2021.

192 Email from Julien Kempeneers, HI, 30 March 2022.

193 Emails from Julien Kempeneers, HI, 25 March 2020 and 16 June 2021.

194 Emails from Julien Kempeneers, HI, 16 March and 16 June 2021, and 30 March 2022.

195 Emails from Rebecca Letven, MAG, 30 March and 20 June 2022.

196 Email from Katherine Harrison, NPA, 11 May 2022.

197 Email from Douangsy Thammavong, NRA, 20 June 2022.

198 Souksakhone Vaenko, "Army deployed to clear UXO for Laos-China railway", *Vientiane Times*, 6 January 2017; and email from Bouata Thongsavanh, NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018.

199 "Russia to Build Airport in Laos, Train Armed Forces in Sign of Strengthening Military Ties", *Radio Free Asia*, 4 April 2021.

200 Email from Rebecca Letven, MAG, 26 March 2021.

201 Email from Rebecca Letven, MAG, 30 March 2022.

202 Emails from Julien Kempeneers, HI, 16 March 2021 and 30 March 2022.

203 Email from Katherine Harrison, NPA, 11 May 2022.

NPA was also seeking 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.²⁰⁴ However, the NRA did not approve NPA's request to introduce the use of MDDs.²⁰⁵

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.²⁰⁶ 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.²⁰⁷

DEMINER SAFETY

NPA had two demining incidents in 2021, although neither was the result of a submunition. One NPA employee sustained minor injuries from an aircraft bomb fuse during CMRS; and a second employee sustained minor injuries during low order disposal of an Aircraft Bomb MK-82, during roving task EOD activities. Both accidents occurred in Champassak province. Internal NPA and external NRA investigations were conducted, both of which came to similar conclusions and recommendations.²⁰⁸

UXO Lao reported two incidents in 2021. The first was in Xiengkhouang province and resulted in injury to one Senior Explosive Ordnance Disposal Technician (SEODT), as a result of the explosion of a BLU 49 submunition. The second incident was in Champassak province, where explosion of a BLU 3/B submunition resulted in three fatalities and injury to a further two staff. An accident investigation was conducted by the NRA and UXO Lao headquarters. The investigation report was prepared by UXO Lao and submitted to the NRA in March 2022. The final investigation report shall be shared by the NRA with development partners and donors.²⁰⁹

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2021

According to data reported by NRA to Mine Action Review, CMR clearance output in Lao PDR in 2021 was more than 46.68km². A total of 66,800 submunitions, 17,934 other items of UXO, and 56 anti-personnel mines were destroyed during area clearance, technical survey, and spot tasks.²¹⁰

A slightly lower figure was reported in Lao PDR's Article 7 report covering 2021, which showed more than 45.5km² of CMR clearance, with the destruction of 64,304 submunitions, 157 big bombs, 17,129 other UXO, and 56 mines.²¹¹

The total amount of submunitions reported as destroyed in 2021 was significantly less than the total reported by humanitarian operators to Mine Action Review, which came to 77,191 submunitions (18,837 through technical survey, 45,255 through clearance, and 13,099 through spot tasks).²¹²

SURVEY IN 2021

According to the NRA data reported to Mine Action Review, a total of more than 228km² of CHA containing CMR was identified in 2021 (see Table 3). This is an increase on the more than 181km² of CHA identified in 2020.

In February 2021, HALO trained and deployed a non-technical survey team with the express goal of identifying areas of landmine contamination in Savannakhet Province. CMRS was postponed in villages that were suspected of containing landmine contamination until the extent and nature of the contamination was confirmed by the non-technical survey team. This did not, however, significantly delay CMRS operations. HALO expected to complete CMRS in Savannakhet province in 2022.²¹³

204 Email from Katherine Harrison, NPA, 19 June 2021.

205 Email from Katherine Harrison, NPA, 11 May 2022.

206 Email from Cameron Imber, HALO, 31 March 2022.

207 Email from Rebecca Letven, MAG, 30 March 2022.

208 Email from Katherine Harrison, NPA, 11 May 2022.

209 Email from Noupin Phimmasy, UXO Lao, 4 June 2022.

210 Email from Douangsy Thammavong, NRA, 20 June 2022.

211 Article 7 Report (covering 2020), Form F. Table 3 in the Article 7 report, reported the sum clearance to be 45,569,498m², however the sum of the sub-totals in fact sums to 45,542,407m².

212 Emails from Cameron Imber, HALO, 31 March 2022; Julien Kempeneers, HI, 30 March 2022; Rebecca Letven, MAG, 30 March 2022; Katherine Harrison, NPA, 11 May 2022; and Noupin Phimmasy, UXO Lao, 4 and 15 June 2022.

213 Email from Cameron Imber, HALO, 31 March 2022.

The amount of area surveyed by HI in 2021 was similar to the previous year. HI reported that it found fewer suspected and confirmed minefields in its new target villages in 2021: four suspected mine fields identified in three villages (Ban Pacha, Ban Bouamngam, Ban Nakeng). Nonetheless, the issue of landmine contamination remains significant in the Houamuang and significantly impedes HI's capacity to establish CHA and therefore to complete the planned CMRS in at least 22 villages of the district.²¹⁴

Table 3: Technical survey of CMR-suspected area in 2021 (based on NRA data)²¹⁵

Operator	Area surveyed (m ²)	Area identified (m ²)	Submunitions destroyed	Other UXO destroyed	Mines destroyed
Lao People's Army (Unit 58)	2,992,500	284,500	42	8	0
HALO Trust	60,680,254	23,488,681	6,049	1,022	0
HI	1,150,000	570,000	140	3	1
MAG	164,903,356	160,531,323	10,399	12	0
NPA	5,015,000	1,589,216	192	13	0
UXO Lao	68,257,200	41,844,116	5,477	1,108	1
Totals	302,998,310	228,307,836	*22,299	2,166	2

* Already included in EOD roving task total

CLEARANCE IN 2021

According to the NRA data reported to Mine Action Review, a total of more than 46.68km² of cluster munition-contaminated area was cleared in 2021, with the destruction of 66,800 submunitions, 17,934 other items of UXO, and 56 anti-personnel mines during area clearance (see Table 4).²¹⁶ This includes submunitions destroyed during technical survey and 26,287 submunitions destroyed during roving tasks in 2021.²¹⁷ The 46.68km² area clearance total used by Mine Action Review excludes: 7,173m² of commercial clearance by BSL, during which no submunitions were found; 640,378m² cleared by Milsearch during which only three submunitions were found; and 228,421m² cleared by OUMMA during which only four 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 of often uncontaminated land, required for confidence building for construction and development projects. Mine Action Review does not consider this as CMR clearance.

The 2021 clearance output reported by the NRA to Mine Action Review of nearly 46.68km², was an increase on the 42.90km² of humanitarian clearance of CMR in the data for 2020 used by Mine Action Review in last year's *Clearing the Mines* report on Lao PDR.²¹⁸ The increase in clearance in 2021, compared to 2020, is largely due to increased funding for humanitarian clearance resulting in additional clearance capacity and output.²¹⁹

²¹⁴ Email from Julien Kempeneers, HI, 30 March 2022.

²¹⁵ Email from Douangsy Thammavong, NRA, 20 June 2022. There was a discrepancy in data reported by the NRA and data reported directly by some operators. HALO Trust reported that it surveyed 48,900,000m², identified 23,484,117m², and destroyed 2,610 submunitions and 383 other UXO (email from Cameron Imber, HALO, 31 March 2022); HI's data matched that reported by the NRA (email from Julien Kempeneers, HI, 30 March 2022); MAG's data matched that reported by the NRA (email from Rebecca Letven, MAG, 30 March 2022); NPA reported that it surveyed 4,920,000m² in Attapeu, Champassak, and Saravan, and identified 1,589,216m², and destroyed 183 submunitions and 13 other UXO (email from Katherine Harrison, NPA, 11 May 2022); and UXO Lao reported that it surveyed 69,659,700m², identified 47,309,991m², and destroyed 5,505 submunitions, 1,120 other UXO, and 1 anti-personnel mine (emails from Noupin Phimmasy, UXO Lao, 4 and 15 June 2022).

²¹⁶ Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021. According to Lao PDR's reporting under the CCM and CCW, a total of 32 landmines were discovered and destroyed. CCW Protocol V Article 10 Report (covering 2020), Form A; and CCM Article 7 Report (covering 2020), Form F.

²¹⁷ Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021. According to Lao PDR's reporting under the CCM and CCW, a total of 32 landmines were discovered and destroyed. CCW Protocol V Article 10 Report (covering 2020), Form A; and CCM Article 7 Report (covering 2020), Form F. HALO Trust reported that it destroyed 1,818 submunitions, 740 UXO, and 14 landmines during spot tasks (email from Cameron Imber, HALO, 31 March 2022); HI reported that it destroyed 157 submunitions (email from Julien Kempeneers, HI, 30 March 2022); MAG reported that it destroyed 2,091 submunitions, 1,415 UXO, and 2 AP mines (email from Rebecca Letven, MAG, 30 March 2022); NPA reported that it destroyed 355 submunitions (email from Katherine Harrison, NPA, 11 May 2022); and UXO Lao reported that it destroyed 8,678 submunitions during spot tasks (email from Noupin Phimmasy, UXO Lao, 4 June 2022).

²¹⁸ 2019 UXO Sector Annual Report, NRA, undated, pp. 5 and 7.

²¹⁹ Email from Douangsy Thammavong, NRA, 20 June 2022.

Table 4: CMR clearance by operator in 2021 (based on NRA data)²²⁰

Operator	Area cleared (m ²)	Submunitions destroyed	UXO destroyed	Anti-personnel mines destroyed
Lao People's Army (Unit 58)	103,796	263	1,144	3
BSL	N/A	0	0	0
HALO Trust	4,922,051	7,245	3,116	13
HI	254,083	393	370	9
LXML	501,589	536	43	0
MAG	10,357,454	18,288	2,056	4
Milsearch	N/A	3	124	0
NPA	5,421,846	6,011	500	1
OUMMA	N/A	4	1	0
UXO Lao	25,114,970	34,057	10,580	26
Totals	46,675,789	*66,800	*17,934	56

N/A = Not applicable. This relates to commercial clearance in which no or very few submunitions were found.

* Believed to include submunitions destroyed during technical survey, in addition to 26,287 destroyed during roving tasks by the Lao People's Army humanitarian teams, HALO, HI, MAG, Milsearch, NPA, and UXO Lao.²²¹

According to Lao PDR's Article 7 report, a total of more than 45.54km² was cleared in 2021, across 13 provinces, with the destruction of nearly 64,304 CMR, in addition to 56 mines, 157 big bombs, and 17,129 items of other UXO, during clearance, technical survey, and roving tasks (see Table 5). Nearly 2.56km² of the total clearance was for development areas, and the remainder for agricultural areas.²²²

The 45.54km² of total CMR clearance (including humanitarian and commercial clearance) reported in Lao PDR's Article 7 report covering 2021, is a reduction compared to the reported 53.92km² of total clearance in 2020 (similarly including humanitarian and commercial clearance), with the destruction of nearly 71,235 submunitions. This appears to be because far less commercial clearance was recorded in 2021, compared to the previous year.

HALO reported that of the CMR cleared in 2021, 26 tasks totalling 452,888m² proved not to contain CMR, although 10 of the 26 tasks did contain other ERW.²²³ HI found submunitions in all its clearance tasks in 2021, which were on CHAs established by HI.²²⁴ MAG reported that 9 clearance tasks (2 in Khammouang and 7 in Xiengkhouang), totalling 397,156m², were completed in 2021 in which no further CMR were discovered during clearance. A further 18 sites (two in Khammouang and 16 in Xiengkhouang),

totalling 158,587m², were cleared in which no CMR were discovered, but these sites were outside of CHAs and were for specific development projects.²²⁵

Six task areas were cleared by NPA in 2021 which proved to contain no CMR, with a total size of 222,710m². One of these tasks was cleared as a non-CHA task requested as emergency clearance and approved by the NRA and the donor. The other five were cleared based on findings during technical survey.²²⁶

UXO Lao's CMR clearance in 2021 was broadly the same (just a little below) the previous year.²²⁷ The preliminary work plan for land clearance of UXO Lao is mainly focused on CHA, and the cleared areas contained submunition and other type of UXO. However, 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. In 2021, 27.6 hectares (nearly 0.28km²) of non-CHA was cleared which contained no CMR. Prior to clearance, desk analysis was conducted initially to verify if bombing or fighting took place in those areas. Upon completion of clearance, a certificate was handed to local authorities to start development activities, such as the construction of schools, health centres, and a gravity-fed water system.²²⁸

220 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021. Excludes 7,173m² of commercial clearance by BSL, in which no submunitions were found; 640,378m² cleared by Milsearch in which only three submunitions were found; and 228,421m² cleared by OUMMA in which only four submunitions were found. There was a discrepancy in data reported by the NRA and data reported directly by some operators. HALO Trust reported that it cleared 4,930,784m², and destroyed 3,288 submunitions and 1,992 other UXO (email from Cameron Imber, HALO, 31 March 2022); HI reported that it cleared 254,083m², and destroyed 236 submunitions, 124 other UXO, and 1 anti-personnel mine (email from Julien Kempeneers, HI, 30 March 2022); MAG reported that it cleared 10,357,454m², and destroyed 5,798 submunitions, 629 other UXO, and 2 anti-personnel mines (email from Rebecca Letven, MAG, 30 March 2022); NPA reported that it cleared 7,120,076m², destroyed 9,553 submunitions, and 378 other UXO (Email from Katherine Harrison, NPA, 11 May 2022); and UXO Lao reported that it cleared 26,251,935m², and destroyed 26,380 submunitions, 7,343 other UXO, and 3 anti-personnel mines (email from Noupin Phimmasy, UXO Lao, 4 June 2022).

221 Email from Douangsy Thammavong, NRA, 20 June 2022. HALO Trust reported that it destroyed 1,818 submunitions, 740 UXO, and 14 landmines during spot tasks (email from Cameron Imber, HALO, 31 March 2022); HI reported that it destroyed 157 submunitions (email from Julien Kempeneers, HI, 30 March 2022); MAG reported that it destroyed 2,091 submunitions, 1,415 UXO, and 2 AP mines (email from Rebecca Letven, MAG, 30 March 2022); NPA reported that it destroyed 355 submunitions (email from Katherine Harrison, NPA, 11 May 2022); and UXO Lao reported that it destroyed 8,678 submunitions during spot tasks (email from Noupin Phimmasy, UXO Lao, 4 June 2022).

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

223 Email from Cameron Imber, HALO, 31 March 2022.

224 Email from Julien Kempeneers, HI, 30 March 2022.

225 Email from Rebecca Letven, MAG, 30 March 2022.

226 Email from Katherine Harrison, NPA, 11 May 2022.

227 Email from Noupin Phimmasy, UXO Lao, 4 June 2022.

228 Ibid.

Compared to the previous year, and based on operator data, HALO and MAG's clearance output was slightly higher in 2021.²²⁹ HALO said the increase was a result of the number of clearance teams deployed during 2021 and the introduction of a new detector that increased productivity in areas with mineralised soil.²³⁰ MAG said that the increase was primarily due to the deployment of 17 new teams in Xiengkhouang between July and September 2021, although it did lose operational time as a result of COVID-19.²³¹ HI's clearance output in 2021 roughly halved compared to the previous year, in part due to time lost in negotiating the new MoU in 2021 and the impacts caused by the COVID-19 pandemic.²³²

In 2021, NPA changed its focus from CMRS to clearance in 2021, increasing its BAC capacity significantly and resulting in a significant increase in the area of cluster munition-contaminated area cleared, compared to 2020. However, at the same time, NPA did not achieve its increased clearance target for 2021 due to the delay in the MoU process which blocked the employment and deployment of 72 deminers (surveyors) for the whole of Q1 2021. Furthermore, COVID-19 prevention measures and lockdowns in the four southern provinces partially prevented deployment of NPA teams in Q2 and Q3. NPA's total clearance output was therefore just over 71% of the 2021 clearance target.²³³

UXO Lao said that its CMR clearance output in 2021 was broadly consistent, but slightly down, on the previous year, due to COVID-19 restrictions preventing deployment of teams across the country.²³⁴

All clearance organisations in Lao PDR are required to have a documented internal QM system, covering both quality assurance (QA) and quality control (QC) procedures. External QM inspections of clearance organisations are conducted by

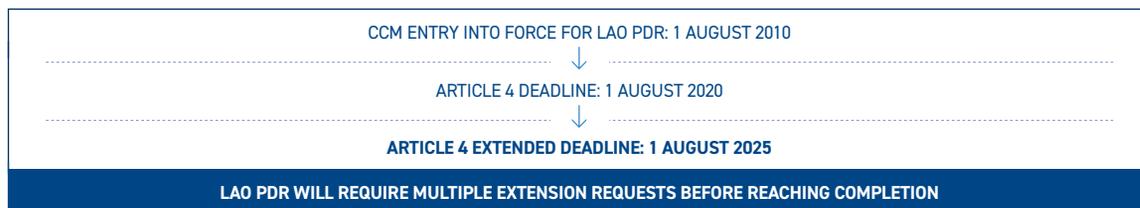
the NRA.²³⁵ The NRA's QM capacity is extremely limited, with only two QM teams to cover sector-wide clearance, but the NRA planned to double QM capacity to four teams in 2022.²³⁶

Table 5: CMR clearance by province in 2021 (Article 7 data)²³⁷

Province	Area cleared (m ²)
Attapeu	3,127,025
Bolikhamxai	48,565
Champassak	3,547,537
Houaphanh	1,309,330
Khammouane	6,959,273
Luangnamtha	0
Luang Prabang	509,203
Oudomxay	22,198
Saravan	4,566,546
Savannakhet	9,482,229
Vientiane Province	21,821
Vientiane Capital	0
Xaisomboun	591,460
Xekong	3,003,914
Xiengkhouang	12,353,306
Total	*45,542,407

* In Lao PDR's Article 7 report, the total was said to be 45,569,498, but the sum of the subtotals is 45,542,407m².

ARTICLE 4 DEADLINE AND COMPLIANCE



229 Emails from Cameron Imber, HALO, 31 March 2022; and from Rebecca Letven, MAG, 30 March 2022.

230 Email from Cameron Imber, HALO, 31 March 2022.

231 Email from Rebecca Letven, MAG, 30 March 2022.

232 Email from Julien Kempeneers, HI, 30 March 2022.

233 Email from Katherine Harrison, NPA, 11 May 2022.

234 Email from Nouphin Phimmasy, UXO Lao, 4 June 2022.

235 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.

236 Email from Douangsy Thammavong, NRA, 20 June 2022.

237 Article 7 Report (covering 2020), Form F.

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".²³⁸

As at end of 2021, a total of more than 1,530km² of CHA had already been identified through the ongoing nationwide survey.²³⁹ 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.²⁴⁰

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, annual clearance output based on current capacity and resources available averages approximately 50km².²⁴¹ Although annual humanitarian clearance output over the last five years has been significantly less (see Table 7), the 46.68km² of clearance of cluster munition-contaminated area achieved in 2021 is getting closer to achieving this target.

Table 7: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2021	*46.68
2020	*42.90
2019	*45.77
2018	36.20
2017	33.02
Total	204.57

* 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.²⁴² Commencement of FCDO-funded clearance operations in Lao PDR in 2019 helped increase clearance output of HALO Trust, MAG, and NPA.²⁴³ While NPA withdrew from the partnership in April 2020, FCDO funding continued for HALO and MAG, but decreased by more than half from April 2021.²⁴⁴ The United States is however, supporting increased clearance capacity of both international clearance operators and UXO Lao,²⁴⁵ which resulted in a significant increase in clearance capacity in 2021.²⁴⁶

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.²⁴⁷ 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.²⁴⁸

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).²⁴⁹ The NRA is seeking international assistance in order to comprehensively update its national prioritisation system; expand clearance capacity, including that of the Humanitarian Demining units of the Army (Unit 58); and upgrade its data and IM systems.²⁵⁰

238 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.

239 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.

240 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.

241 CCM Extension Request 2019, Executive Summary, p. 3.

242 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.

243 Emails from Rebecca Letven, MAG, 26 March 2021; Cameron Imber, HALO, 14 March 2021; and Katherine Harrison, NPA, 22 March 2021.

244 Emails from Rebecca Letven, MAG, 20 June 2022; and Cameron Imber, HALO, 28 June 2022.

245 Interview with Olivier Bauduin, US PM/WRA, in Geneva, 13 February 2020.

246 Emails from Cameron Imber, HALO, 31 March 2022; Rebecca Letven, MAG, 30 March 2022; Katherine Harrison, NPA, 11 May 2022; and Noupin Phimmasy, UXO Lao, 4 and 15 June 2022.

247 Statement of Lao PDR on National Implementation Efforts, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.

248 CCM Extension Request 2019, Executive Summary, p. 5; and Part B, Detailed Narrative, pp. 24–25.

249 CCM Article 7 Report (covering 2021), Form F.

250 CCM Article 7 Report (covering 2021), Form F; and Statement of Lao PDR on Clearance, CCM Intersessional meetings, Geneva, 16–17 May 2022.

In 2021, COVID-19 continued to disrupt survey and clearance operations. HI, HALO, MAG, NPA, and UXO Lao all reported losing working days or having to delay deployments, as a result of COVID-19 infections or COVID-related restrictions, including national and province-by-province lockdowns and travel restrictions.²⁵¹ Most impacted was UXO Lao, whose field operations were suspended for three months (August–October 2021) as the result of the COVID-19 pandemic, resulting in lower outputs than its annual targets. UXO Lao has revised its work plan to take into account the actual situation and capacity.²⁵²

Currently impacting HI's operations in Houaphanh province is the discovery of mines during CMRS, which impedes operations.²⁵³ Other operational challenges in clearance tasks 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.²⁵⁴

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 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 on planning for residual contamination, which the NRA attended along with other national authorities and implementing partners from the region.²⁵⁵

251 Emails from Julien Kempeneers, HI, 30 March 2022; Cameron Imber, HALO, 31 March 2022; Rebecca Letven, MAG, 30 March 2022; Katherine Harrison, NPA, 11 May 2022; and Noupin Phimmasy, UXO Lao, 4 June 2022.

252 Email from Noupin Phimmasy, UXO Lao, 4 June 2022.

253 Emails from Julien Kempeneers, HI, 25 March 2020 and 16 March 2021.

254 Presentation by HALO Trust, Sepon, 10 May 2018.

255 Email from GICHD, 21 June 2022.

ARTICLE 4 DEADLINE: 1 MAY 2026
NOT ON TRACK TO MEET DEADLINE

KEY DATA

CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

6.3 km²

SUBMUNITION
CLEARANCE IN 2021

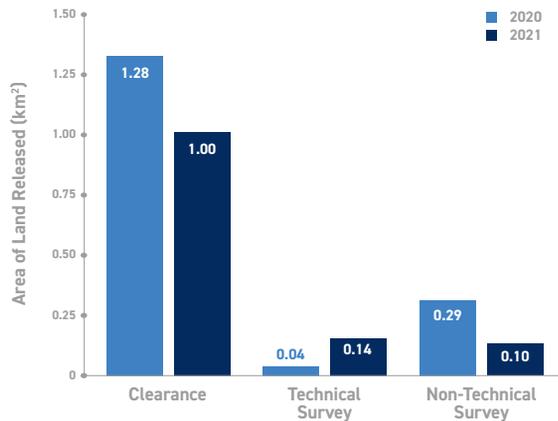
1 km²

SUBMUNITIONS
DESTROYED IN 2021

2,418

(INCLUDING 315 SUBMUNITIONS
DESTROYED DURING SPOT TASKS)

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

The Lebanon Mine Action Centre (LMAC) continued to make good progress in addressing cluster munition remnant (CMR) contamination in 2021. Although clearance output in 2021 was lower than the previous year, the amount of cluster munition-contaminated area released through technical survey in 2021 increased slightly. This was as a result of LMAC now permitting routine technical survey of CMR tasks and the incorporation of technical survey into national mine action standards (NMAS) and operator standing operating procedures (SOPs) – a welcome and overdue development. However, Lebanon saw a significant drop in CMR clearance capacity in 2021, as a result of decrease in international funding and the absence of national funding for CMR clearance due to the economic crisis in Lebanon. The funding and capacity cuts will hinder Lebanon's ability 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 NMAS in 2021, all implementing agencies in Lebanon should conduct technical survey (manual, mechanical, or with the use of explosive detection dogs (EDDs)), as a routine part of the toolbox for the release of CMR tasks.
- LMAC should continue making progress in its joint study with the Geneva International Centre for Humanitarian Demining (GICHD) to 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.
- Lebanon should provide regular updates to its Article 4 planning, based on actual annual outputs achieved.
- Lebanon should develop a resource mobilisation strategy, to help it fill funding gaps and secure the additional funding required to meet its annual CMR clearance targets as set out in its Article 4 deadline extension request.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2021)	Score (2020)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	8	8	LMAC has a good understanding of its CMR contamination baselines, having completed non-technical re-survey of all CMR tasks in 2020. It has also 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) with an estimated standard size of 10,000m ² (for hazardous areas recorded without defined boundaries), whose true size may differ markedly. For the purposes of Article 4 planning LMAC has increased the standard sized area estimation by 250% to factor in fade-out.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	8	8	LMAC continued to demonstrate effective programme management in 2021, maintaining Mine Action Forum and technical working group (TWG) meetings. Regrettably, due to continued political and financial unrest in Lebanon, none of the 50 billion Lebanese Pounds (approximately US\$33 million) for CMR clearance over five years (2019–23) had been allocated as of writing.
GENDER AND DIVERSITY (10% of overall score)	7	7	LMAC has acted to mainstream gender in its mine action programme, including through data disaggregation, inclusive survey, and participation in courses. Gender and diversity considerations are included in the National Mine Action Strategy 2020–25 and LMAC has a gender focal point. The number of staff at LMAC is determined by the Lebanese Armed Forces (LAF) headquarters, so LMAC has limited control over the number of women, but it consistently requests that the percentage of women be increased.
INFORMATION MANAGEMENT AND REPORTING (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 prioritisation of clearance tasks. The transition to IMSMA Core revealed errors in the province name in which some CMR tasks were registered, and these have been corrected. LMAC produced a comprehensive and accurate Article 7 report covering 2021.
PLANNING AND TASKING (10% of overall score)	8	8	LMAC has a National Mine Action Strategy for 2020–25 and an accompanying plan for the implementation and monitoring of the strategy which will be updated annually. In 2021, Lebanon fell short of the 1.9km ² clearance target from its 2020 Article 4 extension request, partly due to decreased clearance capacity as a result of funding cuts. A new prioritisation system was adopted in 2021 and LMAC introduced new forms for non-technical survey which now capture information needed for the new prioritisation matrix.
LAND RELEASE SYSTEM (20% of overall score)	8	7	LMAC has steadily strengthened its NMAS over the last five years. In 2021, the NMAS were updated to enable routine technical survey of CMR tasks – a welcome and long overdue development which is essential in order to improve operational effectiveness and ensure clearance of CMR is evidence-based. In addition, enhancements have also been made to the required fadeout distance, the marking system for battle area clearance (BAC) tasks, and the frequency of demolitions. Unfortunately, capacity for CMR technical survey and clearance decreased in 2021, due to funding cuts.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	6	7	<p>While CMR clearance output of 1km² in 2021 was a slight decrease on output in 2020, there was a slight increase in the amount of CMR-contaminated area reduced through technical survey. This reflects the change to the NMAS published in May 2021, which now permits routine technical survey of CMR tasks. Lebanon's extended Article 4 clearance deadline is 1 May 2026, but a reduction in international funding and the lack of any national funding to CMR clearance in 2021, will significantly affect Lebanon's ability to meet this deadline.</p> <p>In 2020, Lebanon was granted a five-year extension to its CCM Article 4 deadline to 1 May 2026. However, meeting this deadline was contingent on funding, and a decrease in international funding and absence of national funds allocated to CMR clearance, mean that current CMR clearance capacity will be insufficient for Lebanon to complete clearance by its 2026 deadline, despite the gains in operational efficiency expected to result from widespread application of technical survey.</p>
Average Score	7.5	7.5	Overall Programme Performance: GOOD

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)
- 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)
- United Nations Mine Action Service (UNMAS)

UNDERSTANDING OF CMR CONTAMINATION

At the end of 2021, Lebanon had 709 confirmed hazardous areas (CHAs) containing CMR covering a total area of nearly 6.3km² (see Table 1).¹ This is a decrease in CMR contamination compared to the end of 2020, when 749 CHAs were confirmed to contain CMR, over a total area of almost 7.3km²,² and is the result of release of CMR-contaminated area through survey and clearance in 2021.

In 2021, 0.22km² of previously unrecorded CMR contamination was added to the database (11 new CMR sites in the north-east region totalling 117,045m² and resulting from new contamination that was first discovered in the region in 2017; and 105,477m² in other regions, resulting from the correction to the perimeters of existing CMR sites.³

Table 1: Cluster munition-contaminated area by province (at end 2021)⁴

Province	CHAs	Area (m ²)
Beqaa (including the north-east region)	99	867,089
Janoub and Nabatiyeh (South of Lebanon)	550	4,924,455
Jabal Loubnan (Mount Lebanon)	60	478,918
Totals	709	6,270,462

With support from the GICHD, in 2021 the LMAC migrated its Information Management System for Mine Action (IMSMA) to the new version, IMSMA Core. The migration revealed 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.⁵

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 10,000m² in the database, based on the fade-out distance for cluster munition clearance and LMAC's experience to date.⁶ But operators have found that the standardised 10,000m² (per task) area is in some instances an overestimate and in other instances an underestimate of the actual task size.⁷ LMAC, however, believes that this is the best approach for this type of hazardous area and to be conservative in its CCM Article 4 planning it has increased the size of these areas by 250% (to 25,000m²) to factor in fade-out.⁸

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.⁹ This included emergency clearance undertaken by the Lebanese Armed Forces (LAF) in and around infrastructure, schools, and

1 Email from Lt.-Col. Fadi Wazen, Operations Section Head, LMAC, 29 March 2022: and presentation of Lebanon, CCM Intersessional meetings, Geneva, 16 May 2022.

2 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.

3 CCM Article 7 Report (covering 2021), Form F; LMAC, "2021 Annual Report Lebanon Mine Action Centre", p. 17; and email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

4 Article 7 Report (covering 2021), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

5 Ibid.

6 Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; LMAC, "2018 Annual Report Lebanon Mine Action Centre", 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.

9 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 12.

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).¹⁰

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 2020,¹¹ and LMAC's non-technical survey teams will revisit the CMR sites every three years.¹²

A study on operational efficiency, conducted by an external international consultant in 2020, highlighted the need for greater emphasis on technical survey as part of the land release process in Lebanon, in order to reduce land found not to be contaminated, including in the fade-out, and prevent unnecessary clearance.¹³ These recommendations were subsequently incorporated in Lebanon's NMAS (see section below, "Land Release System" for details).¹⁴

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.¹⁵ An estimated one million submunitions failed to explode.¹⁶ Some Israeli bombing data have been provided – most recently through the UN Interim Force in Lebanon (UNIFIL) – but has proved to be very inaccurate.¹⁷ In addition, some CMR still remain from earlier conflicts with Israel in 1978 and 1982,¹⁸ 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 2014–17.¹⁹ 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-2.²⁰ Some areas contain unexploded submunitions resulting from both ground-launched and air-dropped cluster munitions, which can further complicate the picture.²¹

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.²²

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.²³ 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 in this region.²⁴ 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.²⁵ The current director of LMAC started in March 2019, replacing his predecessor who had served as director for two years.²⁶

A new SOP for LMAC was developed in 2020 and approved on 9 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.²⁷

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 2021), Form F; LMAC, "2021 Annual Report Lebanon Mine Action Centre", p. 17; and email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

13 LMAC, "Annual Report 2020", p. 36.

14 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

15 Landmine Action, "Foreseeable Harm: the use and impact of cluster munitions in Lebanon: 2006", 2006.

16 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; and Article 7 Report (covering 2019), Form F.

17 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016; presentation by Brig.-Gen. Fakhri, LMAC, Beirut, 16 November 2016; and Article 7 Report (covering 2019), Form F.

18 Landmine Action, "Foreseeable Harm: the use and impact of cluster munitions in Lebanon: 2006", 2006; interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016; and Article 7 Report (covering 2016) Form F.

19 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 2.

20 *Ibid.*, p. 23.

21 Interview with Oussama Merhi, UNDP, in Geneva, 26 June 2015.

22 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014, pp. 4–5.

23 LMAC, "Lebanon Mine Action Strategy 2011–2020", September 2011, p. 4.

24 Email from Lt.-Col. Fadi Wazen, LMAC, 21 August 2019.

25 LMAC, Lebanon Mine Action Strategy 2020–25, signed June 2020, p. 4.

26 Email from Brig.-Gen. Ziad Nasr, Director, LMAC, 26 March 2019.

27 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020 and 15 March 2021; and LMAC, "Annual Report 2020", p. 28.

UN Development Programme (UNDP) personnel, funded by the European Union (EU), are also seconded to LMAC, providing support for capacity building, including transparency reporting, strategic reviews, IMSMA database entry, community liaison, and quality assurance (QA). In 2021, there were six UNDP personnel supporting LMAC.²⁸

UNDP received funding in 2020 from the Norwegian Embassy for a three-year project for 2020–23 of support to LMAC coordination capacities.²⁹ In April 2021, the Netherlands agreed a further three-year contract with UNDP for international support to LMAC, totalling US\$1.5 million.³⁰

The GICHD also provides support to LMAC on information management and on gender and diversity. LMAC staff have benefitted from courses under the regional framework of the Arab Regional Cooperation Programme (ARCP).³¹ In addition, the GICHD is partnering with LMAC on a study of contamination in “difficult” terrain.³²

A “Mine Action Forum” was established in Lebanon in close partnership between LMAC and Norway. The forum was the result of a two Lebanon-focused workshops, the first of which took place in November 2016, convened by Norway and the Netherlands in their capacity as CCM Co-Coordiators on clearance, and facilitated by the GICHD. The second workshop, in January 2018, convened in partnership between Norway and LMAC, resulted in the establishment of the Mine Action Forum. The forum meets twice a year, with UNDP designated as the secretariat for the Forum.³³ In 2021, the Netherlands took over from Norway as Forum co-chair.³⁴

The Mine Action Forum provides an informal mechanism for LMAC to maintain open dialogue and information sharing with implementing partners and donors on national priorities and needs for the survey and clearance of CMR and landmines.³⁵ It is an example of what a “Country Coalition” under the CCM could look like, but in the case of Lebanon it was agreed the forum should be broadened to include landmines as well as CMR. During each meeting, stakeholders present achievements compared to previously set action points, discuss challenges and needs, and then propose future steps for the coming six months.³⁶ In 2021, the Netherlands has taken the lead for the forum. 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 national mine action standards (NMAS).³⁷

There is good coordination and collaboration between LMAC/ the RMAC and clearance operators, with the operators consulted before key decisions are taken.³⁸ 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 the importation of equipment, including exemption of customs fees for equipment.³⁹ 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.⁴⁰

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, provides a useful forum for LMAC/the RMACs to meet collectively with clearance operators to review and discuss field issues, including implementation of revisions to the NMAS, to identify issues, and suggest further NMAS revisions and potential ways to improve operational efficiencies. The LMAC is open to suggestions from operators for improvements.⁴¹ The TWG met twice in 2021 – in March and December.⁴²

As in the previous year, the Lebanese government contributed US\$9 million annually in 2021 towards mine action in Lebanon (for both mine- and CMR-related work): to support costs associated with the running of LMAC (facilities and staff); for the LAF Engineering Regiment companies working in demining (four teams, two of which work on CMR, in addition to mechanical and mine detection dog (MDD) support); risk education; victim assistance, and training. However, the devaluation of the Lebanese Pound due to the economic crisis in the country affects the amount actually received.⁴³

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. Unfortunately, due to political and financial unrest in Lebanon this national funding has not been provided.⁴⁴ LMAC had expected that a reduced amount of

28 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

29 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and LMAC, “Annual Report 2020”, p. 28.

30 Email from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021; and LMAC, “2021 Annual Report Lebanon Mine Action Centre”, p. 38.

31 Email from GICHD, 22 April 2022.

32 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

33 LMAC, “2018 Annual Report Lebanon Mine Action Centre”, p. 23.

34 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

35 LMAC, “2018 Annual Report Lebanon Mine Action Centre”, p. 23; Statement of Lebanon on International Cooperation and Assistance, CCM Ninth Meeting of States Parties, Geneva, 4 September 2019; and LMAC, Lebanon Mine Action Strategy 2020–25, Foreword by the chair of the LMAA (Minister of Defence).

36 Statement of Lebanon, CCM Intersessional meetings, Geneva, 16 May 2022.

37 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.

38 Emails from Sylvain Lefort, Country Director, 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.

39 Emails from Hiba Ghandour, Programme Manager, MAG, 7 April 2022; and Southern Craib, Operations Manager, NPA, 28 March 2022.

40 Email from Southern Craib, NPA, 28 March 2022.

41 LMAC, “2018 Annual Report Lebanon Mine Action Centre”, 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, acting Country Director, DCA, 4 April 2022; and Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 8 and 54.

42 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

43 Article 7 Report (covering 2021), Form I; and email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

44 Article 7 Report (covering 2019), Form I; and email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

around US\$3 million of national funding would still be allocated to CMR clearance yearly.⁴⁵ In fact, no national funds were allocated for CMR clearance in either 2020 or 2021.⁴⁶

A Regional School for Humanitarian Demining in Lebanon (RSHDL) was established in partnership between Lebanon and France.⁴⁷ The School became operational in 2017, enabling civilian and military personnel from Arab and other countries to benefit from an array of courses and workshops on non-technical survey, explosive ordnance disposal (EOD), operational efficiency, and gender and diversity.⁴⁸

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 EO, and fill any holes in the ground to stabilise the surface to allow for natural regeneration, using water to consolidate the soil when appropriate.⁴⁹

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 2021.⁵⁰

Mines Advisory Group (MAG) has an environmental management system in place, which was in the process of being revised as at April 2022.⁵¹ The integration of non-technical and technical survey in the land release approach 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 in unnecessary clearance.⁵² This will have a significant positive impact on the environment.

NPA Lebanon said it has an environmental plan in place which it is implementing, including recent installation of a solar system; a recycling programme (paper, plastic, glass, and plastic); and fleet upgrading for fuel efficiency. NPA has also begun to track its environmental footprint through the use of an annual reporting tool. It also strives to minimise the removal of vegetation to the extent that it is safe.⁵³

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.⁵⁴

LMAC has taken several actions to mainstream gender in its implementation plan, including through inclusive policies, data disaggregation in risk education and victim assistance, and participation in courses at the RSHDL.⁵⁵ In agreement with LMAC,

45 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.

46 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021 and 29 March 2022; Article 7 Reports (covering 2020 and 2021), Form I; and LMAC, "2021 Annual Report Lebanon Mine Action Centre", p. 30.

47 LMAC, "Lebanon Mine Action Strategy. Second Milestone Review 2014–2016", March 2018.

48 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; CCM Article 7 Reports (covering 2018 and 2019), Form A; Statement of Lebanon on International Cooperation and Assistance, CCM Seventh Meeting of States Parties, Geneva, 4–6 September 2017; and LMAC, "Annual Report 2020", p. 29.

49 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

50 Email from Mouhamed Chour, DCA, 4 April 2022.

51 Email from Hiba Ghandour, MAG, 7 April 2022.

52 Ibid.

53 Email from Southern Craib, NPA, 28 March 2022.

54 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

55 LMAC, "Annual Report 2018", p. 5; and email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019.

the GICHD conducted a gender and diversity capacity assessment mission to Lebanon in July 2019. The aim was to reinforce a sustainable national capacity for gender and diversity mainstreaming in the LMAC and contribute to the achievement of gender equality and inclusion.⁵⁶ In August 2019, LMAC reported that it had appointed a new gender focal point, who will help mainstream gender-sensitive policies and procedures and monitor their implementation in the mine action centre and across the national programme.⁵⁷ LMAC's gender focal point participated in the Remote regional ARCP Gender Equality and Inclusion capacity development programme held online from October 2020 to March 2021.⁵⁸

Lebanon's new National Mine Action Strategy 2020–25, approved by the LMAA in June 2020, includes considerations on gender and diversity.⁵⁹ 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".⁶⁰ As per its strategic implementation plan, LMAC has drafted a code of conduct regarding gender, diversity, and inclusion, in collaboration with a committee composed of human resources personnel, safeguarding personnel, and gender focal points from the NGOs in Lebanon.⁶¹ Lebanon's NMAS was due to be reviewed in 2022 from a gender perspective.⁶²

Of LMAC's total personnel, 17 (11%) are female. With respect to operational roles, eight (16%) of LMAC's 49 personnel are female. With respect to managerial/supervisory level positions at LMAC, none are currently held by women.⁶³ 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.⁶⁴ 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.⁶⁵

DCA's gender focal point conducted internal training on gender and diversity mainstreaming in 2021 and encouraged DCA to enhance the role of women within the organisation.

DCA also held meetings with other NGOs regarding strengthening the role of women and attended two meetings convened by LMAC on gender and diversity mainstreaming. It reported that 15 of its 69 overall staff in Lebanon are female, with women accounting for 53% of managerial/supervisory positions (8 women) and 14% of all operations positions (7 women).⁶⁶

MAG, NPA, and Peace Generation Organization for Demining (POD) all reported having gender policies in place.⁶⁷

MAG reported that it consults women during survey and community liaison activities; that all its community liaison teams are mixed; and that its data is disaggregated by sex, age, and nationality. Overall, women account for 19% of MAG's Lebanon programme, including 18% of operational roles in MAG's survey and clearance teams in Lebanon, and 14% of managerial level/supervisory positions.⁶⁸ MAG considers a wide range of elements under diversity as part of its operations, taking into consideration the diverse community and religious background of the areas in which it works and trying to consider these aspects during recruitment, to ensure they are reflected in MAG's personnel.⁶⁹ In 2021, MAG promoted the first women as Field Operations Manager and the first national staff member (male) to Technical Field Manager. MAG was able to establish a Gender Diversity and Inclusion Steering Committee for the programme.⁷⁰

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 personnel participated in various trainings and fora on gender and diversity co-hosted by the GICHD and LMAC in 2021. As at June 2022, NPA reported that 22% of its employees are women, including 16% of employees in operational roles, and 50% of management personnel.⁷¹ NPA disaggregates data by sex and age.⁷²

Women, girls, boys, and men are said to be consulted during survey and community liaison activities.⁷³ According to LMAC, Lebanon's baseline of CMR contamination has been developed over many years. As per Lebanon's NMAS, non-technical survey teams consult with women, girls, boys, and men, including, where relevant, minority groups, in order to make sure all available information is included.⁷⁴

56 Email from Rana Elias, Cooperation Programmes Coordinator, GICHD, 26 August 2020.

57 Email from Lt.-Col. Fadi Wazen, LMAC, 21 August 2019.

58 Emails from GICHD, 14 May 2021 and 22 April 2022.

59 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March and 22 July 2020.

60 LMAC, Lebanon Mine Action Strategy 2020–25, p. 8.

61 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

62 Ibid.

63 Ibid.

64 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.

65 LMAC, "Annual Report 2020", p. 37.

66 Email from Mouhamed Chour, DCA, 2 June 2022.

67 Emails from Emile Ollivier, NPA, 19 March 2019; David Willey, MAG, 7 March 2019; and Mahmoud Rahhal, POD, 8 March 2019.

68 Emails from Hiba Ghandour, MAG, 7 April and 3 June 2022.

69 Email from Sylvain Lefort, MAG, 27 May 2021.

70 Email from Hiba Ghandour, MAG, 7 April 2022.

71 Email from Valerie Warmington, NPA, 6 June 2022.

72 Email from Valerie Warmington, NPA, 28 May 2020.

73 Email from Lt.-Col. Fadi Wazen, LMAC, 5 April 2019.

74 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

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 transition to IMSMA Core revealed errors in the province name in which some CMR tasks were registered, which were corrected.⁷⁵ As at April 2022, IMSMA Core was fully functional for all activities, but LMAC was still in a transition period for daily and weekly progress reporting. Any errors identified are corrected by LMAC's information management section and feedback from NGOs on the use of the different applications is used to help improve the entire system.⁷⁶

LMAC hopes IMSMA Core will help facilitate the production of clearer reports that can be translated into dashboards for stakeholders, including donors, to monitor and follow.⁷⁷ Operators believe that IMSMA Core will enable better direct access to data, which will enhance understanding of broader CMR contamination and assist in identifying tasks where further non-technical and technical survey could be valuable.⁷⁸

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 remnant 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 re-survey currently in process, 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.⁷⁹ According to its 2020 Article 4 deadline extension request, there were 116 disclaimed areas on the database, totalling 338,932m².⁸⁰

DCA has been using Tiramisu Information Management Tool (T-IMS) for the past three years.⁸¹ MAG started using "Survey123" software in Lebanon in August 2021 after training and field testing the new data collection system.⁸² 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.⁸³

The GICHD provides support to LMAC under its Information Management Capacity Development Framework and conducts IM training sessions and workshops.⁸⁴

PLANNING AND TASKING

In September 2011, LMAC adopted a strategic mine action plan for 2011–20.⁸⁵ 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.

LMAC has developed a new National Mine Action Strategy for 2020–25, with support from the EU-funded UNDP project, in a participatory approach with national and international implementing agencies, mine action NGOs, UN agencies, and donors.⁸⁶ One objective of the new strategy is to complete clearance of all known cluster munition-contaminated areas by the end of 2025.⁸⁷ 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.⁸⁸

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.⁸⁹ 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.⁹⁰ The implementation plan will be revised annually by LMAC, the Institutional Support Programme (UNDP at present), and in consultation with humanitarian clearance operators.⁹¹ LMAC planned to conduct a full review of the strategy and implementation plan in 2022, in cooperation with all stakeholders.⁹² In addition, LMAC had an annual work

75 Article 7 Report (covering 2021), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

76 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

77 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; email from LMAC Operations Department, 28 June 2018; "Mine Action Forum: Action Points 1st Quarter Progress Report, March 2018"; and LMAC, "2018 Annual Report Lebanon Mine Action Centre", p. 14.

78 Email from Valerie Warmington, NPA, 28 May 2020.

79 Emails from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020 and 15 June 2021.

80 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 36.

81 Email from Matthew Benson, Country Director, DCA, 4 June 2021.

82 Email from Hiba Chandour, MAG, 7 April 2022.

83 Email from Hala Amhaz, NPA, 15 March 2021.

84 Emails from GICHD, 14 May 2021 and 22 April 2022.

85 LMAC, "Lebanon Mine Action Strategy 2011–2020", September 2011, p. 4.

86 LMAC, Lebanon Mine Action Strategy 2020–25; and LMAC, "Annual Report 2019", p. 7.

87 LMAC, Lebanon Mine Action Strategy 2020–25, p. 4.

88 Email from Lt.-Col. Fadi Wazen, LMAC, 22 July 2020; and LMAC, Lebanon Mine Action Strategy 2020–25, p. 4.

89 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.

90 LMAC, "Plan for the Implementation and Monitoring of the LMAP Strategy (2020–25)", p. 21.

91 LMAC, "Annual Report 2020", p. 33.

92 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

plan for 2021 which was subsequently shown to have been slightly over-ambitious – something which its 2022 work plan has taken into consideration.⁹³

Lebanon's request to extend its Article 4 deadline by five years to 1 May 2026 was considered by States Parties at the Part 1 of Second CCM Review Conference in November 2019. It was granted by a so-called "silence" procedure (meaning it is granted unless there are objections from any State Party), because Part 2 of the Review Conference, which had been scheduled to be held in a hybrid format in early 2021, was forced to be postponed due to COVID-19. Clearance operators were consulted by LMAC on the extension request, including in a workshop prior to the request being elaborated.⁹⁴

LMAC aims to release 1.6km² of cluster munition-contaminated area each year, subject to the availability of funding.⁹⁵ 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 new, more efficient methodologies will increase this average, it also expects that any gain will be offset by the more difficult terrain of contaminated area that remains to be cleared.⁹⁶

Table 2 outlines the predicted annual clearance output and capacity up to the end of 2025, as per its 2021 extension request. Planned output considers fade-out and the possible increase in the area to be cleared in the 10,000m² sites, using a factor of 2.5.⁹⁷ LMAC plans to conduct technical survey, where appropriate, but did not provide predictions in the extension request of the amount of area expected to be reduced through technical survey. In 2021, LMAC cleared just over 1km² (and reduced a further 0.14km² through technical survey, and cancelled 0.10km² through non-technical survey), less than the 2021 clearance target in the extension request.⁹⁸

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.⁹⁹ LMAC has introduced new forms for non-technical survey for entry into IMSMA Core which now capture information needed for the new prioritisation matrix. The new IMSMA Core only became fully functional in 2021, therefore additional information is still required to be able to specify the priorities. As at April 2022, non-technical survey teams had collected information and updated the priorities for three districts and were working to complete reprioritisation in 2022. In the meantime, LMAC is using the district-level priorities for the equitable distribution of teams.¹⁰⁰

Table 2: Planned CMR clearance and capacity (2021-25)¹⁰¹

Year	2021	2022	2023	2024	2025
Cleared (km ²)	1.9	1.9	1.9	1.5	1.5
Teams	26	26	26	21	21

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Lebanon developed its first NMAS in 2010.¹⁰² In 2017, LMAC revised and harmonised national standards with IMAS, adding new modules not present in the original standards.¹⁰³ It has since continued to review and 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 evidence-based non-technical and technical survey to more accurately define the presence of an explosive threat (or confirm its absence).¹⁰⁴ A study on operational efficiency found that the NMAS generally places heavy limitations on how mine action operators are able to operate and that this drastically affects efficiency.¹⁰⁵ The

93 Ibid.

94 Emails from Sylvain Lefort, MAG, 3 April 2020; and Valerie Warmington, NPA, 28 May 2020.

95 Article 7 Report (covering 2020), Form F.

96 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 5 and 34.

97 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

98 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

99 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021; and LMAC, "Annual Report 2020", p. 35.

100 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

101 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 37.

102 Email from Brig.-Gen. Elie Nassif, LMAC, 17 June 2015.

103 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.

104 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.

105 Email from Hala Amhaz, NPA, 15 March 2021.

study called for a comprehensive and harmonised understanding of, and training on, land release across stakeholders, with an emphasis on the importance of evidence-based technical survey before clearance.¹⁰⁶ The study also recommended use of technical survey for fade-out in many instances, as the existing system stipulated clearance of areas that were most likely free of CMR. Other recommendations included allowing a more flexible marking system based on the NMAS; extending the time slot for demolitions; and improving and expanding the role of animal detection systems (ADS).¹⁰⁷

Participants at the Mine Action Forum meeting on 22 January 2021 agreed on the need to strengthen the use of technical survey and analyse existing methods and tools to identify areas for potential improvement in operational efficiency.¹⁰⁸ LMAC subsequently reviewed and field tested the recommendations, and further updates to the NMAS on technical survey, battle area clearance (BAC), and minefield clearance were discussed in the TWG in 2021, and shared with operators for feedback. Training was subsequently conducted in April 2021 and the revised NMAS, which now includes technical survey of BAC tasks (including CMR tasks), were adopted by LMAC and released in May 2021.¹⁰⁹ NGO clearance operators updated their SOPs accordingly and commenced application of technical survey on BAC tasks.¹¹⁰ LMAC is supporting the LAF ER to update its SOPs.¹¹¹

LMAC updated its strategic implementation plan to reflect the increased focus on technical survey,¹¹² and it was agreed at the TWG meeting in December 2021 that more technical survey will be conducted by manual search teams. Further training was conducted in February 2022 to unify and enhance understanding of the concept and improve the application of technical survey in all hazardous areas, and specifically in CMR tasks.¹¹³ This will significantly improve the operational efficiency of CMR operations in Lebanon. LMAC found that where technical survey for CMR tasks was applied in 2021, an average of 34% of land was reduced.¹¹⁴

Prior to the incorporation of technical survey into the revised NMAS released in May 2021, technical survey activities had not been a routine part of the toolbox for operators for the release of cluster munition tasks.¹¹⁵

In addition, following recommendations and discussions with implementing partners in early 2021 regarding reducing the amount of fade-out area requiring full clearance, the required fade-out distance 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. LMAC and operators reported that this approach is now being operationally applied.¹¹⁶

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.¹¹⁷

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.¹¹⁸

With respect to non-technical survey, 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.¹¹⁹ LMAC plans to re-survey these tasks every three years and it also has a non-technical survey officer in its operations section, who is responsible for developing an annual plan and following up with all implementing agencies.¹²⁰ LMAC also agreed with the NGO operators the option for each to have a non-technical survey team to re-survey each new task prior to starting clearance.¹²¹

LMAC has said that with the introduction of IMSMA Core, the assigning of tasks for non-technical survey teams, and the reviewing of them by the implementing partners and by LMAC's non-technical survey officer, is faster, easier, and very effective. LMAC's non-technical survey officer meets with the non-technical survey teams from implementing agencies on a weekly basis, to discuss results and planning. LMAC also assigns a group of tasks to implementing agencies rather than one task, and the operators have the capability in IMSMA Core to see which tasks are close by to the area in which they are working and to ask to expand their mission directly while in the field. Priority levels in accordance with the new system are then determined based on their reports.¹²²

With respect to environmental considerations, as noted above Lebanon has an NMAS (10.70) on Safety & Occupational Health – Protection of the Environment.¹²³

106 LMAC, "Annual Report 2020", p. 36.

107 Ibid.

108 Ibid., p. 26.

109 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021 and 29 March 2022; and Hiba Ghandour, MAG, 7 April 2022.

110 Emails from Hiba Ghandour, MAG, 7 April 2022; and Mouhamed Chour, DCA, 4 April 2022.

111 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

112 Email from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021.

113 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

114 Article 7 Report (covering 2021), Form F; LMAC, "2021 Annual Report Lebanon Mine Action Centre", p. 32.

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 Lt.-Col. Fadi Wazen, LMAC, 15 June 2021; Hiba Ghandour, MAG, 7 April 2022; and Mouhamed Chour, DCA, 4 April 2022.

117 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.

118 Article 7 Report (covering 2021), Form F; and presentation of Lebanon, CCM Intersessional meetings, Geneva, 16 May 2022; and LMAC, "2021 Annual Report Lebanon Mine Action Centre", p. 33.

119 Article 7 Report (covering 2019), Form F; and LMAC, "Annual Report 2019", p. 12.

120 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

121 Emails from Lt.-Col. Fadi Wazen, LMAC, 5 April 2019 and 19 March 2020.

122 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

123 Ibid.

OPERATORS AND OPERATIONAL TOOLS

In 2021, CMR clearance was conducted by international operators DCA, MAG, and NPA; national operator POD; and the LAF Engineering Regiment.¹²⁴

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 company has its own combat engineering company which can also conduct rapid-response call-outs. The LAF has seven MDD teams for technical survey 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.¹²⁵

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 technical survey and low threat hazardous

area (LTHA).¹²⁶ 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.¹²⁷ In addition, new mechanical assets have been introduced by MAG, which will be used as primary assets.¹²⁸

NPA worked with LMAC and the LAF to assess the capacities of the LAF EDDs for surveying and clearing CMR. As at April 2022, a proposal was being developed to build the capacity of the LAF EDD teams in order to provide LMAC with IMAS/ NMAS compliant EDD capacity for technical survey.¹²⁹ Dogs are not currently accredited for CMR clearance in Lebanon.¹³⁰

Table 3: NGO operational CMR clearance capacities deployed in 2021¹³¹

Operator	Manual teams	Total clearance personnel*	Dogs and handlers	Machines**	Comments***
DCA	2	20	0	0	Combined mine and BAC capacity. Each team consists of 10 operational personnel (supervisor, team leader, and 8 searchers; in addition to a medic and driver). Reduction of one team compared to previous year.
MAG	5	50	0	12	LMAC reported MAG as having 7 manual CMR clearance teams, most likely splitting the large teams into subteams.
NPA	4	26	0	0	NPA had 9 clearance teams (totalling 56 deminers) up to the end of March 2021. This was then decreased to 8 teams (totalling 42 personnel) in April, and then further reduced to four teams totalling 26 personnel for the remainder of the year.
POD	4	N/K	N/K	N/K	Reduction of one team compared to previous year.
Totals	15	>96	0	12	

* Clearance personnel may also conduct technical survey. ** Excluding vegetation cutters and sifters. *** Clearance teams also work on technical survey tasks. N/K = not known.

¹²⁴ Ibid.

¹²⁵ Ibid.

¹²⁶ Ibid.

¹²⁷ Ibid.

¹²⁸ Ibid.

¹²⁹ 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, "2021 Annual Report Lebanon Mine Action Centre", p. 32.

¹³⁰ Email from Southern Craib, NPA, 28 March 2022.

¹³¹ LMAC, "2021 Annual Report Lebanon Mine Action Centre", p. 12; and emails from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; Hiba Ghandour, MAG, 7 April 2022; Southern Craib, NPA, 28 March 2022; and Mouhamed Chour, DCA, 2 June 2022.

DCA's clearance capacity remained constant in 2021 and was expected to continue to remain constant in 2022. It reported a decrease in the amount of required clearance as part of technical survey and a reduction in clearance fade-out. In addition, the types of tasks assigned to DCA in 2021 allowed it to deploy several types of detectors, including large-loop detectors.¹³²

MAG's BAC capacity was reduced by two teams in 2021, due to the loss of UK Foreign, Commonwealth & Development Office (FCDO) funding. MAG expected its survey and clearance capacity to remain constant in 2022.¹³³

Likewise, NPA saw a significant reduction in operational capacity in 2021 due to loss of funding, in particular from the EU and FCDO, which resulted in closure of NPA's sub-base and operations in north-east Lebanon from the end of April 2021.¹³⁴

With respect to non-technical survey capacity (for both CMR and mines) in 2021, there were seven non-technical survey teams in total: two LMAC teams (totalling two personnel); two

DCA teams (totalling four personnel); one person deployed for Humanity and Inclusion (HI); one MAG team (totalling three personnel); and one NPA team (totalling three personnel up to the end of March and then one person thereafter).¹³⁵

With respect to technical survey capacity, in 2021, DCA had two teams, totalling 14 personnel (conducting both technical survey and clearance).¹³⁶ NPA had one EDD-supported technical survey team comprising two EDDs and two dog handlers, and two manual technical surveyor personnel, which was stood down at the end of April due to lack of funding. NPA's other technical survey personnel are clearance personnel and included in Table 3.¹³⁷ MAG's clearance teams conduct technical survey and are included in Table 3.¹³⁸

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.¹³⁹

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2021

A total of 1.2km² of CMR-contaminated area was released in 2021, of which more than 1km² was cleared, almost 0.14km² was reduced through technical survey, and more than 0.10km² was cancelled through non-technical survey.¹⁴⁰ A total of 2,418 submunitions were destroyed in 2021, including 315 submunitions during EOD spot tasks.

In addition, 0.22km² of previously unrecorded CMR contamination was added to the database in 2021.¹⁴¹

SURVEY IN 2021

In 2021, 96,602m² was cancelled through non-technical survey (see Table 4) and a further 140,392m² was reduced through technical survey (see Table 5).¹⁴²

Non-technical survey output in 2021 marked a decrease compared In 2020, when almost 286,443m² was cancelled through non-technical survey as part of efforts to complete re-survey of all CMR tasks. This decrease was expected, since non-technical survey of all CMR sites was completed in late 2020.¹⁴³

Technical survey output in 2020 was an increase on the 35,209m² reduced through technical survey in 2020. This was the result of the positive development of technical survey being conducted by manual search teams in CMR tasks in 2021, and not only EDD teams.¹⁴⁴

In 2021, 222,522m² of previously unrecorded CMR contamination was added to the database (117,045m² in the north-east region and 105,477m² in other regions).¹⁴⁵

132 Email from Mouhamed Chour, DCA, 4 April 2022.

133 Email from Hiba Ghandour, MAG, 7 April 2022.

134 Email from Southern Craib, NPA, 28 March 2022.

135 LMAC, "2021 Annual Report Lebanon Mine Action Centre", p. 17; and emails from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; Hiba Ghandour, MAG, 7 April 2022; Southern Craib, NPA, 28 March 2022; and Mouhamed Chour, DCA, 4 April 2022.

136 Emails from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; and Mouhamed Chour, DCA, 4 April 2022.

137 Emails from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; Valerie Warmington, NPA, 2 June 2021; and Southern Craib, NPA, 28 March 2022.

138 Email from Hiba Ghandour, MAG, 7 April 2022.

139 Emails from Hiba Ghandour, MAG, 7 April 2022; and Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; Article 7 Report (covering 2021), Form F; and LMAC, "2021 Annual Report Lebanon Mine Action Centre", p. 32.

140 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

141 Ibid.

142 Ibid.

143 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.

144 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

145 LMAC, "2021 Annual Report Lebanon Mine Action Centre", p. 17; and email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022. DCA reported discovering 52,500m² of previously undiscovered CMR contamination through non-technical survey in Mount Lebanon in 2021 (email from Mouhamed Chour, DCA, 4 April 2022). Neither MAG nor NPA discovered any previously undiscovered CMR contamination in 2021.

Table 4: Cancellation through non-technical survey in 2021¹⁴⁶

Province	Operator	Area cancelled (m ²)
Bekaa	MAG	13,047
Mount Lebanon	DCA	80,767
Mount Lebanon	HI	2,788
Total		96,602

Table 5: Reduction through technical survey in 2021¹⁴⁷

Province	Operator	Area reduced (m ²)
Bekaa	MAG	20,854
Bekaa	NPA	19,712
Mount Lebanon	DCA	99,826
Total		140,392

CLEARANCE IN 2021

Lebanon reported clearing more than 1km² of CMR-contaminated land in 2021 (see Tables 6 and 7), destroying in the process 2,418 submunitions.¹⁴⁸ This included 315 submunitions destroyed during rapid response/EOD spot tasks.¹⁴⁹

Clearance during the year was a decrease on the 1.28km² of CMR-contaminated land cleared in 2020, due to a reduction in funding and clearance capacity in 2021.¹⁵⁰

A further 315 submunitions were destroyed during spot tasks in 2021: 208 by the LAF and 107 by clearance operators.¹⁵¹

DCA's clearance output increased in 2021, compared to the previous year, due to a decrease in the number of lockdown days caused by COVID-19, protests, and roadblocks. DCA reported that all its CMR-clearance tasks in 2021 contained submunitions.¹⁵²

Table 6: CMR clearance by province in 2021¹⁵³

Province	Area cleared (m ²)	Submunitions destroyed*
Bekaa	536,516	N/R
Mount Lebanon	217,650	N/R
South of Lebanon	247,425	N/R
Totals	1,001,591	2,418

* Figures include items destroyed during technical survey and EOD spot tasks. N/R = Not reported

Table 7: CMR clearance in 2021 by implementing agency¹⁵⁴

Operator	Area cleared (m ²)	Submunitions destroyed*
DCA	196,805	567
LAF	20,845	47
MAG	521,384	55
NPA	113,342	954
POD	149,215	480
Totals	1,001,591	*2,103

* Figures include items destroyed during technical survey but not the 315 submunitions destroyed during EOD spot tasks.

146 Ibid. LMAC, "2021 Annual Report Lebanon Mine Action Centre", p. 16. LMAC's Article 7 Report (covering 2021), Form F also reported that 96,602m² of CMR-contaminated area was cancelled through non-technical survey in 2021, however it had a slightly different split by geographical region compared to the data reported to Mine Action Review: 8,608m² cancelled in Bekaa; 4,439m² in Mount Lebanon; and 83,555m² in South of Lebanon. Furthermore, DCA and MAG reported slightly different cancellation data to Mine Action Review, compared to LMAC data. DCA reported that it cancelled 93,326m² in Mount Lebanon in 2021 (email from Mouhamed Chour, DCA, 4 April 2022). MAG reported that it cancelled a total of 746,000m² in 2021: 141,000m² in Baalbek; 428,000m² in Bekaa; 154,000m² in Mount Lebanon; and 23,000m² in Nabatiyeh (email from Hiba Ghandour, MAG, 7 April 2022). The differences between LMAC and MAG data may be due to LMAC registering cancellation upon approval of non-technical survey reports, and MAG reporting cancellation upon completion of the non-technical survey and submission of the report.

147 LMAC's Article 7 Report (covering 2021), Form F; LMAC, "2021 Annual Report Lebanon Mine Action Centre", p. 16; and emails from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; Mouhamed Chour, DCA, 4 April 2022; and Southern Craib, NPA, 28 March 2022. MAG's data was slightly different to that of LMAC's. MAG reported reducing 25,224m² in Beqaa and 5,419m² in Ras Baalbeck (email from Hiba Ghandour, MAG, 7 April 2022). The differences between LMAC and operator data may be due to LMAC only reporting land release after full completion and hand over.

148 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

149 Ibid.

150 Article 7 Report (covering 2020), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.

151 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022. DCA reported destroying two submunitions during spot tasks in 2021 (email from Mouhamed Chour, DCA, 4 April 2022). MAG reported destroying 3 submunitions during spot tasks in 2021 (email from Hiba Ghandour, MAG, 7 April 2022). NPA reported destroying 1 submunition during spot tasks in 2021 (email from Southern Craib, NPA, 28 March 2022).

152 Email from Mouhamed Chour, DCA, 4 April 2022.

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

154 Ibid.; LMAC, "2021 Annual Report Lebanon Mine Action Centre", pp. 12 and 14; and email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022. Operator clearance data reported to Mine Action Review differed from LMAC's data in some instances. DCA reported clearing 181,530m² of CMR-contaminated area with the destruction of 526 submunitions (email from Mouhamed Chour, DCA, 4 April 2022). MAG reported clearing 509,014m² of cluster munition-contaminated area with the destruction of 59 submunitions (email from Hiba Ghandour, MAG, 7 April 2022). NPA reported clearing 109,734m² with the destruction of 954 submunitions (email from Southern Craib, NPA, 28 March 2022). The difference between LMAC and NPA data may have been because LMAC included a small amount of confirmation clearance (ground that has already been cleared), which NPA did not include.

While the area MAG cleared in 2021 was a decrease on the previous year, in part because of increased area released through technical survey rather than clearance thanks to the changes to the NMAS, but also because MAG's CMR teams in the north-east were redeployed to minefield and improvised explosive device (IED) clearance tasks. In addition, MAG lost FCDO funding for operations in the south and EU funding in the north-east, also impacting BAC outputs.¹⁵⁵ MAG reported that 26 CMR tasks totalling 287,757m², proved to contain no cluster munition remnants.¹⁵⁶ 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 technical survey in BAC tasks.¹⁵⁷

The amount of cluster munition-contaminated area cleared by NPA in 2021 was a decrease on the previous year, due to a reduction in funding and loss of four teams in the north-east of Lebanon and one in the south from the beginning of May 2021. NPA reported clearing three tasks in 2021 which did not contain CMR: with two completed tasks which totalled 13,400m², and a third task which was suspended when NPA closed its operations in north-east Lebanon. A further two tasks which did not contain submunitions were reduced through technical survey.¹⁵⁸ The tasks in the North were completed or suspended prior to the approval of the use of technical survey in BAC tasks. The task in the south in which no submunitions were found was a task that was previously

disclaimed (i.e. the landowner had refused clearance). Items had been found in both adjacent tasks, and the task size was small, so NPA elected to conduct clearance.¹⁵⁹

In 2020, LMAC developed new guidelines and safety measures with respect to COVID-19, which allowed implementing partners to remain fully operational.¹⁶⁰ The SOP for safe behaviour continued to be applied and monitored by QA officers in 2021, but COVID-19 cases continued to result in the need for self-isolate, reducing operational output.¹⁶¹ In 2021, operations were stood down for four weeks during the countrywide COVID-19 lockdown in January–February 2021.¹⁶² DCA said COVID-19 impacted its land release operations due to operations personnel being off work sick or in quarantine awaiting negative test results.¹⁶³ According to MAG, there were 86 positive cases of COVID-19 among its deminers during 2021, resulting in the loss of 272 working days.¹⁶⁴ NPA reported 242 operational days lost due to personnel testing positive to COVID-19 or precautionary isolation prior to testing following direct exposure.¹⁶⁵

As in the previous year, roadblocks due to civil unrest prevented or delayed DCA teams from getting to their site on some instances in 2021, although the disruption was less than in 2020.¹⁶⁶ MAG reported that the political unrest did not, however, affect its CMR operations in 2021.¹⁶⁷

ARTICLE 4 DEADLINE AND COMPLIANCE



¹⁵⁵ Email from Hiba Ghandour, MAG, 7 April 2022.

¹⁵⁶ Ibid.

¹⁵⁷ Email from Hiba Ghandour, MAG, 3 June 2022.

¹⁵⁸ Email from Southern Craib, NPA, 28 March 2022.

¹⁵⁹ Email from Southern Craib, NPA, 20 May 2022.

¹⁶⁰ Emails from Lt.-Col. Fadi Wazen, LMAC, 22 July 2022; Sylvain Lefort, MAG, 23 June 2020; and Brig.-Gen. (ret.) Badwi El Sakkal, LAMINDA, 22 June 2020.

¹⁶¹ Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021 and 29 March 2022.

¹⁶² Email from Southern Craib, NPA, 28 March 2022.

¹⁶³ Email from Mouhamed Chour, DCA, 4 April 2022.

¹⁶⁴ Email from Hiba Ghandour, MAG, 7 April 2022.

¹⁶⁵ Email from Southern Craib, NPA, 28 March 2022.

¹⁶⁶ Email from Mouhamed Chour, DCA, 4 April 2022.

¹⁶⁷ Email from Hiba Ghandour, MAG, 7 April 2022.

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). It looks highly unlikely LMAC will be able to meet its extended deadline based on current CMR capacity and funding. There is potential for improvements in operational efficiency through increased use of technical survey, now permitted in the NMAS, and which, if routinely applied, will help increase annual land release output. However, the CMR funding and clearance capacity planned for in the extension request decreased significantly in 2021, which puts achievement of LMAC's clearance targets in serious doubt. At the CCM Intersessional Meetings in May 2022 and in its annual report, LMAC has said that based on the average land release over the last two years, it would currently need an additional year on top of its current Article 4 deadline in which to complete clearance.¹⁶⁸

Clearance of CMR-contaminated land had previously been expected to be completed by the end of 2016, in accordance with the 2011–20 national strategy.¹⁶⁹ However, meeting this target was contingent on securing the number of BAC teams needed, which did not happen, and progress against the strategy fell well behind schedule.¹⁷⁰ Progress was also hindered by the historical lack of non-technical survey and technical survey, which often resulted in inefficient land release and unnecessary clearance of uncontaminated land.

LMAC still aims to complete clearance by the end of 2025, in line with objective 4 of Lebanon's Mine Action Strategy 2020–25.¹⁷¹ In its Article 4 deadline extension request, Lebanon used the same average clearance rates as in the three previous years, despite the fact that new methodologies (most notably technical survey and new detectors) should increase this average. This is intended to compensate for the difficult terrain in many of the remaining area, which will slow down the rate of clearance.¹⁷²

Lebanon's annual clearance totals are however, contingent on LMAC securing the same level of international funding it had received over the three years preceding its extension request submission and on the Government of Lebanon contributing the envisaged US\$3 million of annual national clearance funding for the first three years of the extension period. The extension request also assumes that there will be no additional contamination; that the political and security situation in Lebanon will remain stable; and that operations will not be affected by that or other factors.¹⁷³ With national capacity (LAF teams) only, LMAC had calculated in its 2021 extension request that it would take until 2048 to reach Article 4 completion.¹⁷⁴

However, due to continued political and economic unrest, as well as the COVID-19 pandemic, Lebanon did not contribute any national funding to CMR clearance in either 2020 or 2021. Furthermore, the FCDO ceased its mine action funding to Lebanon at the end of 2020, which represents a US\$2 million (29%) drop in total funding.¹⁷⁵ These funding shortfalls significantly affect LMAC's ability to meet the annual targets, and its 2025 deadline. Inflation has meant that the salaries of LMAC staff have dropped to almost 5% of their original purchasing power, significantly impacting on morale.¹⁷⁶

As mentioned, the strengthening of Lebanon's NMAS in 2021 to allow for routine use of technical survey for CMR tasks, will help improve operational efficiency, increase productivity, and compensate for some of the funding/capacity shortfalls.¹⁷⁷ LMAC has said that, where possible, technical survey will be applied more systematically in 2022 and that it expected to increase the area reduced through technical survey over the course of the year.¹⁷⁸

In light of the improvements to the CMR land release methodology in 2021, funding now represents the most significant challenge to Lebanon's Article 4 implementation. In order to meet its 2026 clearance deadline, Lebanon has recognised it must maintain international interest in CMR clearance and secure necessary funds as stated in the extension request plan (US\$6.6 million per year). LMAC has said that it requires additional funds of US\$2 million–3 million per year for the next two years, to compensate for the 22% drop in international funding for CMR in 2021 and the inability of the Government of Lebanon at present to provide financial support for CMR clearance operations due to the ongoing economic crisis.¹⁷⁹

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.¹⁸⁰ 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.¹⁸¹

Lebanon has cleared approximately 6.1km² of cluster munition-contaminated area in the last five years (see Table 8). 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 and the corresponding drop in the number of CMR survey and

168 Presentation of Lebanon, CCM Intersessional meetings, Geneva, 16 May 2022; and LMAC, "2021 Annual Report Lebanon Mine Action Centre", p. 31.

169 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014.

170 LMAC, "Lebanon Mine Action Strategy 2011–2020", September 2011.

171 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 36; and LMAC, Lebanon Mine Action Strategy 2020–25, p. 4.

172 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 5.

173 *Ibid.*, pp. 28 and 36.

174 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020.

175 Article 7 Report (covering 2020), Form I.

176 LMAC, "2021 Annual Report Lebanon Mine Action Centre", p. 34.

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

178 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; and LMAC, "2021 Annual Report Lebanon Mine Action Centre", p. 15.

179 Article 7 Report (covering 2021), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

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

181 Email from Matthew Benson, DCA, 24 May 2021.

clearance teams will reduce the amount of CMR-contaminated area released. LMAC estimates that if the CMR funding remains at current levels it will need one additional year to achieve completion – something it also recognises as a possibility in its Article 7 report.¹⁸² LMAC has said that it will work hard to try to convince donors to stay committed to the strategy and its implementation plan, in order to avoid the need for an additional Article 4 extension request.¹⁸³

An additional challenge in Lebanon's remaining Article 4 implementation is posed by "difficult terrain" such as 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 recognises that suspected or confirmed cluster munition-contaminated areas on difficult terrain need to be released in order to comply with its Article 4 obligations.¹⁸⁴

Table 8: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2021	1.00
2020	1.28
2019	1.26
2018	1.15
2017	1.41
Total	6.10

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 247,619m²) were visited in order to better assess the sites, the conditions, and determine the best solution. The study was expected to be completed in 2022 and will provide recommendations to help complete the release of these sites.¹⁸⁵ LMAC planned to jointly develop an SOP in 2022 to tackle these areas.¹⁸⁶

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.¹⁸⁷ LMAC presented a draft exit strategy to all stakeholders including donors at the last Mine Action Forum meeting and will organise a workshop in 2022 for all stakeholders to finalise this strategy.¹⁸⁸

¹⁸² Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; and Article 7 Report (covering 2021), Form F.

¹⁸³ Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

¹⁸⁴ 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, "2021 Annual Report Lebanon Mine Action Centre", pp. 30 and 33.

¹⁸⁵ 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.

¹⁸⁶ Ibid.

¹⁸⁷ LMAC, "Annual Report 2020", p. 31.

¹⁸⁸ Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

ARTICLE 4 DEADLINE: 1 AUGUST 2024
NOT ON TRACK TO MEET DEADLINE

KEY DATA

CLUSTER MUNITION CONTAMINATION:

NATIONAL ESTIMATE

14.41 km²

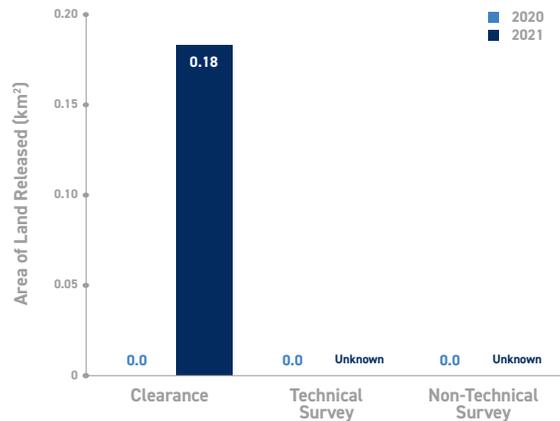
SUBMUNITION
CLEARANCE IN 2021

0.18 km²

SUBMUNITIONS
DESTROYED IN 2021

7

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Having previously declared fulfilment of its Article 4 obligations under the Convention on Cluster Munitions (CCM) in September 2014 at the Fifth Meeting of States Parties, Mauritania reported in its CCM Article 7 transparency report covering 2019 that it had discovered previously unknown cluster munition-contaminated areas under its jurisdiction or control. In February 2021, at the request of Mauritania, Norwegian People's Aid (NPA) conducted an assessment of the newly discovered cluster munition-contaminated areas, as well as of the mined areas that Mauritania newly reported in 2019. The assessment identified a total of more than 14km² of cluster munition remnants (CMR) contamination across nine suspected hazardous areas (SHAs), although further survey is likely to reduce this figure.¹ NPA believes that CMR clearance could be completed in approximately one year.²

In June 2021, Mauritania submitted an Article 4 deadline extension request of two years, through to 1 August 2024,

which was granted at the Second CCM Review Conference in October 2021. Mauritania had yet to secure funding and operational support to initiate large-scale clearance of the contamination. Mauritania identifies the contaminated areas as confirmed hazardous areas (CHAs), but adds that more survey is needed to better determine their final size.³ In July 2022, MAG said that it had potentially secured Norwegian government funding to provide capacity development support to the national authority (the Programme National de Déminage Humanitaire pour le Développement, PNDHD), including with respect to information management and revision of national mine action standards. It will also be funded to conduct a contamination baseline assessment, non-technical survey, and explosive ordnance risk education (EORE). The planned project will benefit the whole of Mauritania's mine action programme, but MAG planned to prioritise CCM Article 4 compliance first.

¹ NPA, Mauritania Assessment Report, 12 April 2021, pp. 2–8.

² Ibid., p. 12.

³ Response of Mauritania to the Article 4 CCM Analysis Group in relation to its deadline extension request, 28 July 2021, p. 1.

RECOMMENDATIONS FOR ACTION

- Mauritania should conduct technical survey to establish a more accurate baseline of CMR contamination and better determine the size of the identified CHAs.
- 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.
- Mauritania should continue its efforts to mobilise the necessary funds and operational support to enable survey and clearance of CMR contamination.
- Mauritania should ensure its national mine action standards (NMAS) are updated and are in accordance with the IMAS.
- Mauritania should elaborate a gender and diversity policy for mine action and an associated implementation plan.
- Mauritania should ensure that it establishes a sustainable national capacity to address any residual CMR contamination discovered following fulfilment of Article 4.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2021)	Score (2020)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	7	7	In 2021, NPA, in collaboration with the National Humanitarian Demining Programme for Development (Programme National de Déminage Humanitaire pour le Développement, PNDHD), conducted the first baseline survey assessment to determine the extent of CMR contamination since Mauritania's discovery of new contaminated areas in 2019. The PNDHD, albeit with limited resources, continued to survey and identify new hazardous areas throughout 2021. Further technical survey is required to accurately determine the size and extent of the actual contamination.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	5	5	The PNDHD is the national entity responsible for coordination of mine action in Mauritania. Mauritania contributes resources to support its mine action programme but the PNDHD needs greater operational, financial, and technical capacities to fulfil that role.
GENDER AND DIVERSITY (10% of overall score)	3	3	Mauritania does not appear to have a gender and diversity policy for mine action, and neither issue is referenced in Mauritania's Article 4 deadline Extension Request submitted in June 2021 nor in its latest Article 7 report to the CCM (covering 2021). Mauritania did, however, state in response to the questions of the CCM Article 4 Analysis Group that it intends to deploy diverse and gender-balanced teams to the extent possible, and that it includes consultation of women, girls, and boys in the planning of its mine action programme.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	4	4	Mauritania uses Version 6 of the Information Management System for Mine Action (IMSMA) software. Mauritania's reporting does not classify cluster munition-contaminated areas into SHAs and CHAs in a manner consistent with IMAS and international best practice. Mauritania's reporting to the Convention is often late, lacks accuracy and consistency, and data it provides often vary across the reports.
PLANNING AND TASKING (10% of overall score)	3	3	Mauritania's last mine action strategic plan and work plan expired in 2020. Part of the international cooperation and assistance sought by Mauritania is to support its efforts to draft a new mine action strategy. Mauritania estimates that CMR clearance can be concluded within approximately one year of starting operations and requested an extension for a total of two years to account for the time required to mobilise resources, deploy teams to the field, and finalise reporting.
LAND RELEASE SYSTEM (20% of overall score)	6	6	Mauritania's NMAS were published in 2007, and were said to be in accordance with the IMAS at that time. The NMAS include standards on non-technical survey, technical survey, mine clearance, and quality control (QC). The PNDHD reportedly reviewed and adapted the NMAS to the "new ways of working". What is meant by this is unclear.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	6	5	In October 2021, Mauritania was granted a two-year extension to its Article 4 deadline to complete clearance. The PNDHD continued to survey and clear contamination within its limited resources, and has appealed for further support from the international community.
Average Score	5.3	5.1	Overall Programme Performance: AVERAGE

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

- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA) (programme closed in 2015; however, a new assessment of contamination was conducted in 2021)

UNDERSTANDING OF CMR CONTAMINATION

Having previously declared fulfilment of its Article 4 obligations in September 2014 at the Fifth Meeting of States Parties,⁴ Mauritania reported newly discovered cluster-munition-contaminated areas in its CCM Article 7 report covering 2019.⁵ These areas are reported to be located in the "Tigert 2" region of Tiris Zemmour in the north of Mauritania, which borders Western Sahara.⁶

In 2020, Mauritania requested 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 2021.⁷ Based on direct evidence, NPA confirmed the presence of 14.02km² of CMR contamination across nine SHAs in Tiris Zemmour region.⁸ However, NPA reported that the contamination lies in very remote and sparsely populated areas, and future residual contamination post completion is likely.⁹ Following the NPA assessment, ongoing surveys by the PNDHD continued to discover previously unknown contamination in the same region, as described below. The contamination was the result of use of MK118 and BLU-63 cluster munitions.¹⁰

In June 2021, Mauritania requested a two-year extension, through to 1 August 2024, of its Article 4 deadline, which was granted by Part Two of the Second CCM Review Conference in October 2021. In its Article 7 report covering 2021, Mauritania reported the presence of 14.41km² of CMR contamination across ten hazardous areas. Mauritania did not clearly spell out the type of hazardous areas in its Article 7 report, but in its answers to the CCM Article 4 Analysis Group in July 2021, it identified the areas as CHAs due to the presence of direct evidence of contamination in all of them. Mauritania added that

further survey was required to define the exact perimeter of the CHAs.¹¹ Having continued to survey since then, by March 2022, there was 0.56km² of newly discovered CMR-contaminated area across two CHAs in Bir Moghrein in Tiris Zemmour, bringing the total figure of contamination to 14.59km² across 11 CHAs.¹² The PNDHD did not elaborate further on the newly discovered CHAs.

Mauritania reported that all identified cluster munition-contaminated areas lie clearly within both its jurisdiction and control,¹³ 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 of Mauritania's jurisdiction and control and therefore any clearance would need to be agreed upon with the Saharawi Arab Democratic Republic.

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.¹⁴ 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.¹⁵

Mauritania reported that it previously cleared a total of more than 1.96km² of cluster munition-contaminated area in 2014, with the destruction of 1,246 submunitions.¹⁶ Clearance covered the same ten locations listed in Table 1.

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Mauritania has also reported discovering anti-personnel mine contamination in 2019.¹⁷ Please see Mine Action Review's *Clearing the Mines* report on Mauritania for more information.

4 Declaration of Compliance with Art. 4(1)(a) of the CCM, submitted by Mauritania, 3 September 2014.

5 CCM Article 7 Report (covering 2019), Form F.

6 Ibid.

7 NPA, Mauritania Assessment Report, 12 April 2021, p. 2.

8 Ibid., p. 8.

9 Ibid., pp. 2–3.

10 Ibid., p. 8.

11 Response of Mauritania to the CCM Article 4 Analysis Group, 28 July 2021, p. 1.

12 Email from Lt-Colonel Moustapha ould Cheikhna, PNDHD, 15 March 2022.

13 2021 Article 4 deadline Extension Request, 30 June 2021, p. 2, and email from Lt-Colonel Moustapha ould Cheikhna, PNDHD, 15 March 2022.

14 Declaration of Compliance with Art. 4(1)(a) of the CCM, submitted by Mauritania, 3 September 2014.

15 Ibid.

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

17 Third Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, received June 2020.

Table 1: Cluster munition-contaminated area by location (at end 2021)¹⁸

Region	Location ID	Submunition Type	CHA ¹⁹	Area (m ²)
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	Gneive	BLU-63	1	4,683,196
Tiris Zemmour	Gneive 1	BLU-63	1	392,998
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
Totals			10	14,410,594

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The PNDHD, which was created in 2000, coordinates mine action operations in Mauritania.²⁰ Since 2007, the programme has been the responsibility of the Ministry of Interior and Decentralisation, with oversight from an interministerial steering committee.²¹ 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).²² The Mauritanian government allocated a budget of €91,000 to the PNDHD in 2020.²³

Mauritania estimates in its extension request that it requires a total two-year budget of US\$1.8 million to address the newly reported CMR, of which US\$1.55 million needs to be mobilised from external sources and US\$250,000 will be covered from Mauritania's national budget. The external funding sought includes an initial investment of US\$400,000 to procure vehicles, detectors, personal protective equipment (PPE), and "field equipment", along with US\$1.15 million of running costs.²⁴

In March 2022, two participants from the PNDHD participated in the Arab Regional Cooperation Programme (ARCP) IMSMA Core workshop organised by the Geneva International Centre of Humanitarian Demining (GICHD).²⁵

According to its Article 4 deadline extension request, the Government of Mauritania will provide staff members from its "Corps of Engineers" and support the deployment of the teams to the remote areas by providing fuel and water trucks. The PNDHD will make available its office space and facilitate the operation through liaison with national and local government and military officials.²⁶ Mauritania states in the Request that it "does not have a lot of resources, but does have the political will and the desire to contribute financially and in-kind towards the cost of the program".²⁷ Mauritania allocated a budget of €91,000 to its mine action programme in 2021.²⁸

In July 2022, MAG said that it had secured Norwegian government funding for Mauritania, subject to contract signature. Under the planned project MAG will conduct capacity and needs assessments and create a capacity development plan with the national authority, 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 national mine action standards, 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.²⁹

18 Article 4 deadline Extension Request, 30 June 2021, p. 5; and Mauritania CCM Article 7 report (covering 2021), Form F.

19 Mauritania's Extension Request did not clearly specify the type of hazardous areas. While NPA's assessment report (p. 8), defined them as SHAs, in its response to the questions of the CCM Analysis Group, Mauritania declared the areas to be CHAs due to direct evidence of CMR.

20 Decree No. 1960/MDAT/MDN establishing the PNDHD, 14 August 2007; and Third APMBC Article 5 deadline Extension Request, received June 2020, p. 2.

21 Decree No. 001358/MDAT establishing the Steering Committee of the PNDHD, 3 September 2007; and Third APMBC Article 5 deadline Extension Request, received June 2020, p. 2.

22 Mauritania Assessment Report, NPA, 12 April 2021, p. 10.

23 CCM Article 7 Report (covering 2020), Form I.

24 2021 Article 4 deadline Extension Request, 30 June 2021, pp. 7-8.

25 Email from Lubna Allam, Programme Officer, GICHD, 10 June 2022.

26 2021 Article 4 deadline Extension Request, 30 June 2021, p. 8; and email from Lt-Colonel Moustaphaould Cheikhna, PNDHD, 15 March 2022.

27 2021 Article 4 deadline Extension Request, 30 June 2021, p. 7.

28 CCM Article 7 Report (covering 2021), Form F.

29 Email from Roxana Bobolicu, International Policy Manager, MAG, 19 July 2022.

GENDER AND DIVERSITY

It is believed that the PNDHD does not have policies in relation to gender and diversity in its mine action programme, and gender and diversity are not referenced in either Mauritania's latest Article 7 report (covering 2021) or its Article 4 deadline Extension Request submitted in June 2021. Mauritania stated in its responses to the CCM Analysis Group that it considered gender and diversity to be important cross-cutting issues for its mine action programme, and that it intends to ensure that all groups are consulted when designing and implementing activities. It also stated that it will seek to achieve gender-balanced and diverse survey and BAC teams "to the extent this might be possible", while acknowledging "some limitations to achieving gender balance from the staff that would be seconded by the Corps of Engineers".³⁰

Mauritania stated that it involves civil society organisations and "target groups" in the areas of mine risk education (MRE) and ensures women's participation in both administration and operational levels. According to its statement, two women were employed in financial management and in victim assistance.³¹

INFORMATION MANAGEMENT AND REPORTING

The national mine action database is held at the PNDHD. As at December 2017, Mauritania had strengthened its information management capacity by providing additional training to an information management specialist and migrating to Version 6 of IMSMA software.³² Mauritania did not disaggregate cluster munition-contaminated areas into CHAs and SHAs, in line with best practice and IMAS in its Article 7 report covering 2021 or its Article 4 deadline extension request submitted in June 2021. Mauritania often provides inconsistent and inaccurate contamination and clearance figures in its reports. It submitted its latest CCM Article 7 report (covering 2021) with a delay of nearly three months.

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, non-technical surveys, clearance, and victims data.³³

PLANNING AND TASKING

Mauritania's CCM Article 4 deadline Extension Request envisages one year to technically survey and clear the CMR: six months to mobilise resources, including funding, staffing, equipment, and team deployment; and another six months to address any additional contamination that might be found during clearance. The latter six months will also be used to finalise reporting on the CMR clearance prior to submitting the final completion report.³⁴ Mauritania presented an action plan for its proposed extension period.³⁵ The plan, however, lacks detail.

According to its 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 existing strategy which was expiring in 2020.³⁶ In its 2021 Article 5 mine clearance deadline Extension Request under the APMBC, Mauritania said it will prioritise survey and clearance of the newly reported contaminated areas based on humanitarian impact and taking into account gender and diverse needs of the mine-affected communities.³⁷ Mauritania makes no reference to prioritisation of CMR tasks in its 2021 CCM Article 4 extension request.

30 Response of Mauritania to the CCM Analysis Group, 28 July 2021, p. 3.

31 Third Article 5 deadline Extension Request under the APMBC, additional information received 16 September 2020, response 5.

32 APMBC Article 7 Report (covering 2017), Form D.

33 Statement of Mauritania, APMBC Intersessional meetings, Geneva, 20–22 June 2022.

34 2021 Article 4 deadline Extension Request, 30 June 2021, pp. 5–6.

35 *Ibid.*, p. 11.

36 APMBC Article 7 Report (covering 2019), pp. 13–14.

37 Fourth Article 5 deadline Extension Request under the APMBC, received June 2021, p. 12.

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 antimines, NMAM), which are said to reflect the IMAS. The NMAS, which include standards on non-technical survey, technical survey, 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 2011.³⁸

Mauritania recognises that an update to its NMAS is due and committed to "carry out an analysis of its NMAS to ensure that they are up to date and fit for purpose to address the remaining challenge".³⁹ In 2021, the PNDHD reported having revised and adapted the NMAS to the "new ways of working".⁴⁰ What is meant by this is unclear. As noted above, subject to signing of a funding contract with the Norwegian government, MAG intends to support Mauritania review its NMAS as part of its capacity development plan.⁴¹

OPERATORS AND OPERATIONAL TOOLS

In accordance with a 2006 decree, all clearance activities were conducted by the Army Engineering Corps operating under the PNDHD.

Mines Advisory Group (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.⁴² As previously mentioned, MAG reported in July 2022 that it had potentially secured Norwegian funding for capacity development support to PNDHD and to conduct a contamination baseline assessment, non-technical survey, and EORE.⁴³

In 2011, NPA signed a memorandum of understanding (MoU) with Mauritania to provide support for both mine clearance and battle area clearance (BAC) in the country. NPA subsequently worked in Mauritania both as an operator and in a capacity-building role as a technical advisor for PNDHD until the end of 2015.⁴⁴ In 2021, NPA conducted a one-month assessment mission of the CMR and mined areas discovered or reported since Mauritania's respective declarations of APMBBC Article 5 completion in November 2018 and CCM Article 4 declaration of compliance in September 2014.⁴⁵

Mauritania requires a clearance capacity of four teams each of ten deminers for about one year to technically survey and clear the cluster munition-contaminated areas. Each team is expected to clear 15,000m² per day. The estimated clearance time is based on the area, the expected level of CMR contamination, and NPA's past experience working in similar areas.⁴⁶ Mauritania intends to address the CMR contamination using BAC methodology, and said that its Army Engineering Corps will second the BAC searchers to the PNDHD.⁴⁷

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.⁴⁸

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2021

In 2021, Mauritania reported the release of 0.18km² of CMR-contaminated land through clearance. A total of seven submunitions were destroyed in the process.⁴⁹

SURVEY IN 2021

Mauritania conducted both technical and non-technical surveys in 2021, but these did not result in any land release in 2021, although additional CMR-contaminated area was identified, as noted above.⁵⁰

38 Email from Alioune O. Mohamed El Hacen, PNDHD, 17 April 2011; and Third APMBBC Article 5 deadline Extension Request, received June 2020, pp. 5 and 8.

39 Fourth Article 5 deadline Extension Request under the APMBBC, received June 2021, p. 9; and Mauritania's answers to the CCM Analysis Group, 29 July 2021, p. 2.

40 Email from Lt-Colonel Moustaphaould Cheikhna, PNDHD, 15 March 2022.

41 Email from Roxana Bobolicu, International Policy Manager, MAG, 19 July 2022.

42 MAG website, accessed on 28 May 2022, at: <https://bit.ly/3NFVEKD>.

43 Email from Roxana Bobolicu, MAG, 19 July 2022.

44 Emails from Aliouneould Menane, PNDHD, 1 September 2016; and Melissa Andersson, Country Director, NPA, 12 September 2016 and 13 March 2017.

45 Interview with Hans Risser, Head Office Management Team, and Melissa Andersson, NPA, 19 April 2021.

46 2021 Article 4 deadline Extension Request, 30 June 2021, p. 6; and NPA, Mauritania Assessment Report, 12 April 2021, p. 12.

47 Mauritania's response to the CCM Article 4 Analysis Group, 29 July 2021, p. 2.

48 Email from Lt-Colonel Moustaphaould Cheikhna, PNDHD, 15 March 2022.

49 CCM Article 7 Report (covering 2021), Form F; and email from Lt-Colonel Moustaphaould Cheikhna, PNDHD, 15 March 2022.

50 Email from Lt-Colonel Moustaphaould Cheikhna, PNDHD, 15 March 2022.

CLEARANCE IN 2021

The PNDHD cleared 0.18km² of cluster munition-contaminated area in the province of Tiris Zemmour in 2021 (see Table 2). A total of seven submunitions were destroyed in the process.⁵¹ Prior to 2021, there had been no clearance since the original declaration of completion of Article 4 in 2014.

Table 2: CMR clearance in 2021⁵²

Province	Operator	Area cleared (m ²)
Tiris Zemmour	PNDHD	177,574
Total		177,574

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.

Mauritania's 2021 Article 4 deadline Extension Request plans for one year to technically survey and clear the cluster munitions and one year to mobilise resources and finalise reporting.⁵³ It plans to form a country coalition involving the government of Mauritania, a willing donor government, and a willing international operator to assist its clearance operation.⁵⁴ In this regard, Mauritania intends to engage with States Parties who have previously provided donations to its demining programme, including Germany, Japan, and Norway.⁵⁵

Mauritania participated in an individualised approach initiative meeting with the support of the Committee on

the Enhancement of Cooperation and Assistance (ISU) of the APMBBC on 17 June 2021. Mauritania also presented its request for extension that included both the newly discovered mined and CMR contaminated areas to the APMBBC intersessional meetings on 22–24 June 2021, and called for support in the CCM Intersessional Meetings in May 2022.

In a statement to the APMBBC intersessional meetings in June 2022, Mauritania stated that it had conducted all the necessary "diagnosis", identified its contamination, and availed its resources and expertise. Mauritania appealed to the States Parties to provide funding that is "shared in a logical manner", to enable Mauritania to fulfil its obligations.⁵⁶

As previously mentioned, in July 2022 MAG reported that it had secured funding from Norway for capacity development support to the PNDHD and to conduct a contamination baseline assessment, non-technical survey, and EORE.⁵⁷

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

As noted above, as the newly discovered CMR contamination is located in very remote and sparsely populated areas, it is likely that Mauritania will discover additional contamination in the course of the one-year clearance period and beyond. According to Mauritania's 2021 Article 4 deadline Extension Request, "Future residual risk will be dealt with by the Corps of Engineers and the PNDHD will continue to build the capacity of this national body in order to be able to address any further contamination that may surface after completion of these currently identified cluster munition tasks. Mauritania will continue to strengthen and maintain a capacity in-country that is equipped to deal with residual risk".⁵⁸

Since the closure of NPA's programme in 2015, some additional contaminated areas were identified, surveyed, and cleared in Mauritania by PNDHD with UNDP support in 2017.⁵⁹ The area and type of contamination addressed, however, are unclear. 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.⁶⁰ The PNDHD subsequently confirmed its commitment to building national capacity to address any residual contamination.⁶¹

51 CCM Article 7 Report (covering 2021), Form F; and email from Lt-Colonel Moustaphaould Cheikhna, PNDHD, 15 March 2022.

52 Ibid.

53 2021 Article 4 deadline Extension Request, 30 June 2021, pp. 5–6.

54 Ibid., p. 7.

55 Response of Mauritania to the CCM Article 4 Analysis Group, 29 July 2021, p. 2.

56 Statement of Mauritania, APMBBC Intersessional meetings, Geneva, 20–22 June 2022.

57 Email from Roxana Bobolicu, MAG, 19 July 2022.

58 2021 Article 4 deadline Extension Request, 30 June 2021, p. 8.

59 NPA, Mauritania Assessment Report, 12 April 2021, p. 4.

60 Email from Aliouneould Menane, PNDHD, 23 July 2018.

61 Email from Lt-Colonel Moustaphaould Cheikhna, PNDHD, 15 March 2022.

ARTICLE 4 DEADLINE: 1 MARCH 2026
NOT ON TRACK TO MEET DEADLINE

KEY DATA

CLUSTER MUNITION CONTAMINATION: LIGHT

MINE ACTION REVIEW ESTIMATE

LESS THAN 5 km²

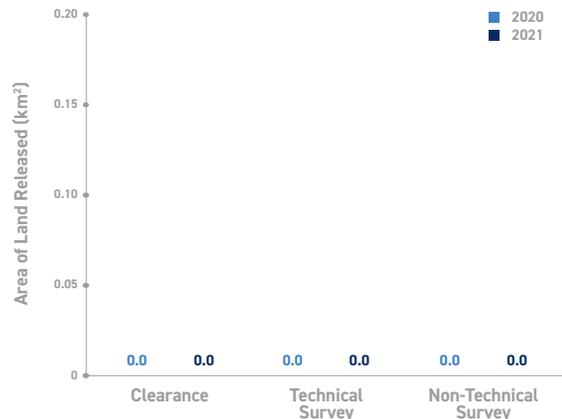
SUBMUNITION
CLEARANCE IN 2021

0 km²

SUBMUNITIONS
DESTROYED IN 2021

2

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

No overview of the extent of contamination from cluster munition remnants (CMR) exists as no baseline survey has been conducted. Somalia also has no plan for implementing its obligations under Article 4 of the Convention on Cluster Munitions (CCM). There is a continued lack of formal recognition of the Somali Explosive Management Authority (SEMA) in domestic law and a major obstacle to mine action operations is SEMA's limited ability to access State funding and cover its costs. Two submunitions were found and destroyed during battle area clearance (BAC) in 2021. Somalia is not on track to meet its Article 4 deadline and the continued inaction of Somalia in relation to its Article 4 obligations puts it at risk of non-compliance.

RECOMMENDATIONS FOR ACTION

- Somalia should ensure timely survey and clearance of CMR in accordance with its CCM obligations, alongside efforts to address mines and explosive remnants of war (ERW) other than CMR.
- Somalia should elaborate a plan for Article 4 implementation, including determining a comprehensive baseline of CMR contamination.
- SEMA's status within the Federal Government of Somalia should be officially recognised in law and national resources budgeted annually for its operating costs.
- Operators should comply with the accreditation requirements set by SEMA as the de facto national authority.
- Continued efforts should be undertaken to support SEMA to manage the Information Management System for Mine Action (IMSMA) database. Regular updates from the database should be shared with all implementing partners.
- Somalia should elaborate a new National Mine Action Strategic Plan, updating the National Mine Action Strategic Plan 2018–2020.
- Somalia should develop a resource mobilisation strategy for national and international funding, as indicated in its Article 5 deadline extension request, and initiate dialogue with development partners on long-term support for mine action, including to address CMR.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2021)	Score (2020)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	3	3	No baseline of CMR contamination has been established. A pilot non-technical survey was planned for 2021, but it is unclear whether this included CMR.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	4	4	SEMA continued to receive capacity development support during 2021. 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. SEMA continues to be unable to access state funding.
GENDER AND DIVERSITY (10% of overall score)	5	5	Somalia's National Mine Action Strategic Plan 2018–2020 included provisions on gender and diversity. 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 when considering diversity. SEMA has not reported on any additional progress on this issue in 2021.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	4	5	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. As at June 2022, Somalia had not submitted its Article 7 report covering 2020 or 2021.
PLANNING AND TASKING (10% of overall score)	5	5	Somalia's National Mine Action Strategic Plan 2018–2020 was approved in 2020 and extended for one year to allow SEMA sufficient time to develop a new strategy but as at June 2022, SEMA had not reported on whether a new strategy has been developed. The current strategic plan does not contain any specific provisions of 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.
LAND RELEASE SYSTEM (20% of overall score)	5	5	A process to revise Somalia's National Technical Standards and Guidelines was due to be completed in 2019 but was still awaiting approval as of writing. Existing standards are not deemed to meet the mine action requirements for Somalia.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	2	2	No CMR-contaminated area was surveyed in 2021 but two submunitions were found and destroyed during BAC operations. Somalia is not currently on track to meet its Article 4 deadline of 2026.
Average Score	3.8	3.9	Overall Programme Performance: VERY POOR

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) NGO consortium

INTERNATIONAL OPERATORS

- The HALO Trust
- Norwegian People's Aid (NPA)
- Ukroboronservice
- Danish Refugee Council Humanitarian Disarmament and Peacebuilding sector (formerly known as Danish Demining Group (DDG))

OTHER ACTORS

- United Nations Mine Action Service (UNMAS)
- United Nations Development Programme (UNDP)

UNDERSTANDING OF CMR CONTAMINATION

The extent of CMR contamination in Somalia is unknown.¹ However, according to SEMA, CMR are suspected to remain in areas along the border with Kenya, in the north of Jubaland state. It reported that in the old version of the national database managed by the United Nations Mine Action Service (UNMAS), five areas suspected to contain CMR contamination were recorded in Jubaland and that verification of this information was "ongoing".² No further survey of CMR-contaminated areas has been possible in recent years, primarily due to lack of funding, according to SEMA.³

According to the 2021 Article 5 deadline extension request under the Anti-Personnel Mine Ban Convention (APMBC) a nationwide non-technical survey is planned to be conducted between October 2022 and October 2027.⁴ There is no mention of CMR contamination in this plan. Norwegian People's Aid (NPA), funded by the UN Development Programme (UNDP) and the Norwegian Ministry of Foreign Affairs, has completed non-technical survey of mine contamination in the border district of Burtinle in Puntland. NPA has committed to complete non-technical survey across the whole of the Puntland state by the end of the year.⁵

In 2013, dozens of PTAB-2.5M submunitions and several AO-1-Sch submunitions were found within a 30km radius of the town of Dolow on the Somali-Ethiopian border in south-central Somalia.⁶ CMR were also identified around the town of Galdogob in the north-central Mudug province of Puntland, further north on the border with Ethiopia.⁷ More contamination was expected to be found in the Lower and Upper Juba regions of south-central Somalia.⁸

Submunitions have been sporadically found in previous years, including in 2017 when UNMAS reported that it was shown two photos of the body of a BL755 submunition being used in what it assessed to be an improvised explosive device (IED) in Kismayo, Lower Juba region.⁹ Three reports of CMR were made in 2016:

several BL755 submunitions were reportedly found near Bu'ale, Middle Juba region in January, which were claimed by Somali media to have been recently used; a modified BL755 submunition was found in Bardera (Baardheere), Gedo region in March; and one PTAB-2.5M submunition was reportedly found in Dinsoor, Bay region in September.¹⁰

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.¹¹ 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.¹² 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.¹³ 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 IEDs.¹⁴

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".¹⁵ There is no reported CMR contamination in Somaliland.

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Somalia is contaminated with ERW other than CMR, primarily as a result of conflict between 1990 and 2012. Contamination exists across four major regions: south-central Somalia (including Mogadishu); Jubaland (a Federal State in southern Somalia, bordering Kenya); Puntland (a semi-autonomous administration in the north-east); and Somaliland (a self-proclaimed, though generally unrecognised, state that operates autonomously in the north-west). Landmines along the border with Ethiopia, mainly as a result of legacy minefields, also exist in south-central Somalia. Contamination in Somaliland consists of mines and ERW (see Mine Action Review's *Clearing the Mines* report on Somalia and Somaliland for further information of the mine problem).¹⁶

1 Email from Claus Nielsen, Country Director, Norwegian People's Aid (NPA), 26 May 2021.

2 CCM Article 7 Report (covering 2019), Form F.

3 Ibid.

4 Revised APMBC Article 5 deadline extension request, September 2021, p. 58.

5 Emails from Robert Iga Afedra, Country Director, NPA, 1 and 10 June 2022.

6 Emails from Mohamed Abdulkadir Ahmed, Director, SEMA, 14 June 2016; and Mohammad Sediq Rashid, Project Manager, UNMAS Somalia, 8 June 2017. UNMAS reported in June 2017 that these items had all been cleared.

7 Response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.

8 Presentation by Mohamed Abdulkadir Ahmed, National Director, Somali National Mine Action Authority (SNMAA), "Somalia Weapons Contamination: Addressing Key Challenges to Meeting Clearance Deadlines under the Mine Ban Convention and Convention on Cluster Munitions", African Union and International Committee of the Red Cross (ICRC) workshop, Addis Ababa, 5 March 2013.

9 Emails from Ghirmay Kiros, Explosive Threat Mitigation Operations Officer, UNMAS, 27 June and 29 June 2018.

10 Ibid.

11 Email from Mohamed Abdulkadir Ahmed, SNMAA, 17 April 2013.

12 Ibid.

13 "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.

14 Ibid.

15 Ibid.

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.¹⁷

SEMA maintains a presence across Somalia through its five Federal Member States (FMS): the Galmudug State Office, Hirshabelle State Office, Jubaland State Office, Puntland State Office, and South West State Office.¹⁸ Under each of the five states is an independent consortium of national non-governmental organisations (NGOs) implementing mine action activities.

SEMA was established in 2013 as the mine action centre and serves as the de facto mine action authority for Somalia, replacing the Somalia National Mine Action Authority (SNMAA) created two years earlier.¹⁹ SEMA's aim was to assume full responsibility for all explosive hazard coordination, regulation, and management by December 2015.²⁰ However, SEMA's legislative framework was not approved by the Federal Parliament in 2016 as expected, and progress was further stalled by elections in February 2017 that resulted in a period of government paralysis.²¹ Due to this lack of parliamentary approval, SEMA has not received funding from the Federal Government of Somalia since the expiry of its grant in 2015.²² Salaries at SEMA were covered by NPA from 2015 to March 2021.²³ UNMAS was supporting SEMA state offices with operational incentives from January to December 2021.²⁴ UNDP supported SEMA with two months of stipends for staff from January 2022.²⁵

The Government of Somalia does not provide any national funding for survey or clearance.²⁶ However, the Ministry of Defence in Somaliland provides a financial allocation to two manual clearance teams totalling 18 personnel.²⁷

In its revised APMBC Article 5 deadline extension request, Somalia reported that SEMA expects to receive parliamentary approval in 2022 but, as at June 2022, this has yet to happen.²⁸

UNMAS, the Geneva International Centre for Humanitarian Demining (GICHD), The HALO Trust, and NPA all provided

capacity development support to SEMA during 2021.

UNMAS provided technical and financial support to SEMA to participate in national and international advocacy forums; information management capacity support; "extensive" technical support for the Somalia's APMBC Article 5 deadline extension request; and training in Gender and Diversity in Mine Action.²⁹

In 2021, SEMA was one of the attendees at online activities by the GICHD, conducted remotely due to the restrictions related to COVID-19. These activities included workshops and webinars on national mine action standards, mine action operations, information management, and gender and diversity. In addition, SEMA received in-person training on the gender focal point capacity development programme, which aims to improve gender and diversity mainstreaming in mine action operations and employment policies.³⁰

In 2021 and early 2022, the HALO Trust provided support to SEMA on information management, geographic information systems (GIS), and quality management.³¹ NPA is providing support to the Puntland State Office on information management until 2023.³²

UNDP launched a capacity development project in January 2022 with funding allocated to NPA to conduct non-technical survey in Puntland state and provide information management capacity building to SEMA and Puntland State Office; to the HALO Trust to provide capacity development support to SEMA on technical survey and land release; and for IT equipment and a vehicle provided directly to SEMA.³³

SEMA recommends that, together with operators, it should establish a comprehensive capacity development framework for Somalia.³⁴ SEMA also believes that capacity-building support for mine action in Somalia is "crucial" to land release efforts, including in areas such as coordination and management, and has appealed to the international community for technical support.³⁵ UNMAS has pledged, in line with Somalia's Article 5 Extension, to collaborate with SEMA in the development of an Action Plan that will map capacity building of the national authority and prioritisation of land release activities during the extension period. Discussions on this were said to be ongoing as of July 2022.³⁶

17 Email from Mohamed Abdulkadir Ahmed, SEMA, 14 October 2016; and telephone interview with Dahir Abdirahman Abdulle, SEMA, 19 August 2020.

18 Email from Mohamed Abdulkadir Ahmed, SEMA, 14 October 2016.

19 Interview with Mohamed Abdulkadir Ahmed, SEMA, in Geneva, 9 April 2014; and email from Kjell Ivar Breili, UNMAS, 12 July 2015.

20 Response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.

21 Emails from Mohamed Abdulkadir Ahmed, SEMA, 14 June 2016; and Hilde Jørgensen, NPA, 3 May 2017.

22 Emails from Terje Eldøen, Programme Manager, NPA, 22 October 2016; and Mohamed Abdulkadir Ahmed, SEMA, 14 October 2016.

23 Email from Claus Nielsen, NPA, 26 May 2021.

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 Daniel Redelinghuys, Country Director, HALO Trust, 29 May 2022.

27 Email from Tobias Hewitt, Programme Manager - Somaliland, HALO Trust, 21 May 2022.

28 Revised APMBC Article 5 deadline extension request, September 2021, p. 61.

29 Email from Clemence Nyamandi, UNMAS, 17 March 2022.

30 Emails from Noor Zangana, Advisor, Information Management Capacity Development, GICHD, 6 May and 16 June 2022.

31 Email from Daniel Redelinghuys, HALO Trust, 29 May 2022.

32 Email from Robert Iga Afedra, NPA, 12 March 2022.

33 Emails from Helen Olafsdottir, UNDP, 7 June 2022; and Robert Iga Afedra, NPA, 10 June 2022.

34 Email from Dahir Abdirahman Abdulle, SEMA, 22 June 2022.

35 Presentation by Dahir Abdirahman Abdulle, SEMA, APMBC Intersessional meetings, Geneva, 22 June 2022.

36 Email from Clemence Nyamandi, UNMAS, 5 July 2022.

SEMA began conducting quarterly meetings with all mine action implementing partners in 2018, with a focus on monitoring of operations.³⁷ However, SEMA has raised concerns about the level of coordination by the operators, on issues such as tasking and prioritisation, and SEMA does not believe that operators fully adhere to it as the national authority.³⁸ In turn, operators have reported that coordination remains ineffective due to the status of SEMA.³⁹

In 2021, Somalia submitted its APMBBC Article 5 deadline extension request in which SEMA stated that it planned to convene regular technical meetings with operators as well as broader national level meetings.⁴⁰

ENVIRONMENTAL POLICIES AND ACTION

A section on environmental management is contained within Somalia's national mine action standards, however, as at June 2022, they were still awaiting approval.⁴¹

UNMAS, NPA, and the HALO Trust all reported that they have an environmental policy in place.⁴² In 2021, UNMAS adopted the HSSE (Health, Safety, Social and Environment) standards for mine action sites, which is a social and environmental management plan for mine action operational sites. This, along with UNMAS's health and safety plan for mine action sites, make up the two plans needed for operational compliance with their HSSE obligations. The HSSE standards cover the following major areas:

- Waste Management
- Site specific social/environmental risk assessment
- Social and Environmental Quality Assurance; and
- Contractor Monthly Reporting.⁴³

All UNMAS tasks are preceded by a comprehensive situational analysis report on the various security and environmental factors surrounding the specific task site. These are then reviewed by the UNMAS project team, along with UNMAS Security and senior management if required, for mitigation where necessary and for an alternative task site selection if the situation is untenable.⁴⁴ The HALO Trust mitigates the environmental impact of clearance by removing the minimum vegetation necessary to conduct safe demining in Somalia, recognising that most of the mined land in Somalia is located along the Ethiopian border where most livelihoods are dependent upon grazing lands for animals and where drought is extremely common.⁴⁵

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.⁴⁶ In 2021, SEMA reported that the Puntland State Office coordinated mine action under SEMA, working with its international partner, NPA.⁴⁷

In 2021, NPA relocated its main country office from Mogadishu to Puntland so it could be closer to its operations. SEMA stated that this move was done without permission from SEMA.⁴⁸ A decision was taken in August 2021 to re-focus

NPA operations on non-technical survey of Puntland as the amount of contamination found during land release to date has been consistently low and it was deemed a better use of resources to define existing hazardous areas with the intention of cancelling areas without contamination before any further clearance takes place. It was expected that non-technical survey would be completed by the end of 2022. NPA will solely focus its land release activities on completion within Puntland state for the foreseeable future while maintaining a lean coordination office in Mogadishu to support its crisis preparedness and protection (CPP) project and provide capacity development support to SEMA.⁴⁹

37 Emails from Chris Pym, HALO Trust, 9 May 2019; and Claus Nielsen, NPA, 13 April 2019.

38 Email from Dahir Abdirahman Abdulle, SEMA, 3 July 2021.

39 Email from Robert Iga Afedra, NPA, 12 March 2022.

40 Revised APMBBC Article 5 deadline extension request, September 2021, p. 52.

41 Email from Clemence Nyamandi, UNMAS, 17 March 2022.

42 Emails from Clemence Nyamandi, UNMAS, 17 March 2022; and Robert Iga Afedra, NPA, 12 March 2022; and Daniel Redelinghuys, HALO Trust, 29 May 2022.

43 Email from Clemence Nyamandi, UNMAS, 17 March 2022.

44 Ibid.

45 Email from Daniel Redelinghuys, HALO Trust, 29 May 2022.

46 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.

47 Email from Dahir Abdirahman Abdulle, SEMA, 22 June 2022.

48 Email from Dahir Abdirahman Abdulle, SEMA, 17 June 2022.

49 Email from Robert Iga Afedra, NPA, 12 March 2022.

SOMALILAND

As part of a larger process of government reform in early 2018, SMAC, which was 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.⁵⁰ It was then renamed the Mine Action Department in January 2019.⁵¹

In Somaliland, The HALO Trust, working in collaboration with the government and through Swiss consulting firm, Small Arms Survey, is developing a National Action Plan to include a comprehensive plan for Explosives Hazards Management. This is expected to be completed by mid-2022 and will be a five year plan.⁵²

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". The National Mine Action Strategic Plan stipulates that the mine action programme must reflect gender objectives and ensure the specific needs of women, girls, boys, and men are taken into account, including through delivery of gender-equality programming and adoption of a gender-sensitive approach by consortia and implementing partners. The Plan also recognises the importance of conducting context analyses in areas of mine action operations to clarify important gender and diversity issues, such as clan affiliation, movement patterns of local populations, and barriers to participation for different gender and age groups.⁵³ SEMA reported that gender and diversity have also been integrated into the national mine action standards.⁵⁴

In May 2019, SEMA informed Mine Action Review that it does not have an internal gender or diversity policy or implementation plan. It acknowledged that this was "unfortunate", and pledged that it would strive for gender balance in the future, by ensuring equal employment opportunities for qualified men and women.⁵⁵ In Somalia's revised APMB Article 5 deadline extension request it is planned that a gender policy for mine action will be developed by October 2022.⁵⁶

SEMA also reported that within the federal State national mine action NGO consortia, there was a large focus on gender in survey and community liaison teams to ensure the inclusive participation of all affected groups, including women and children.⁵⁷ Operators are working towards gender-balanced survey and clearance teams. This is a challenge in Somalia as a traditionally patriarchal society

where women are not usually encouraged to engage in physical work or to assume leadership roles.⁵⁸ 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,⁵⁹ although it is unclear how gender is being taken into account.

All operators confirmed that clan affiliation was also an important consideration when recruiting and deploying operational staff. It is important that the hiring process includes people from across the different clan and ethnic groups to ensure diversity and that there is sensitivity to this when teams are deployed.⁶⁰ Employing more women typically enables operators to access all strata of Somali society to gain information and consider the views of all relevant groups.⁶¹ In Somaliland, 35% of the population are nomadic pastoralists, with many transiting between Somaliland and Ethiopia. HALO in Somaliland ensures that it employs survey staff from both a rural and urban background, and from various regions in Somaliland, to ensure that there is a strong understanding of all sections of Somaliland society.⁶²

In 2021, 39% of NPA's total workforce were women with 4% of managerial/supervisory roles held by women and 12% of operational roles. NPA has four women embedded within its non-technical survey teams, two of which have been seconded from the police force.⁶³

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. However, UNMAS acknowledges that this target is difficult to achieve due to Somalia's traditional patriarchal society where women are not in a position to participate in manual demining. This challenge notwithstanding, the proportion of women among all recruited teams by UNMAS implementing partners was up

50 Email from Chris Pym, HALO Trust, 9 May 2019.

51 Email from Chris Pym, HALO Trust, 2 June 2019.

52 Email from Tobias Hewitt, HALO Trust, 26 June 2022.

53 SEMA, "Somalia National Strategic Plan, 2019", pp. 21–22.

54 Email from Dahir Abdirahman Abdulle, SEMA, 11 May 2020.

55 Email from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019.

56 Revised APMB Article 5 deadline extension request, September 2021, p. 50.

57 Email from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019.

58 Email from Lawrie Clapton, HALO Trust, 14 June 2020.

59 Email from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019.

60 Emails from Mustafa Bawar, UNMAS, 17 March 2020; Claus Nielsen, NPA, 14 April 2020; and Lawrie Clapton, HALO Trust, 14 June 2020.

61 Email from Lawrie Clapton, HALO Trust, 14 June 2020.

62 Ibid.

63 Email from Robert Iga Afedra, NPA, 12 March 2022.

to 15% with up to 35% youth recruitment. In 2021, 42% of all UNMAS Somalia personnel overall were women with 20% of all managerial/supervisory positions held by women and in operational positions 22% of employees were women.⁶⁴

Since 2020, HALO Somaliland has been making an active effort to recruit women to its demining teams and in support of these efforts has worked with local communities to increase acceptance of women working as deminers which could take them away from their communities and families. Additionally, to promote retention of female

recruits, HALO Somaliland has implemented 20-weeks maternity leave, a childcare stipend for mothers of children up to two years old, provided yearly medical check-ups and made available hygiene kits in camps. Overall, 10% of HALO Somaliland staff are female with four women in managerial/supervisory positions and 40 women in operations positions.⁶⁵ In HALO Somalia, 23% of all employees are women, filling 14% of managerial/supervisory positions and 18% of operations positions.⁶⁶ In SEMA, 17% of the workforce in 2021 were female.⁶⁷

INFORMATION MANAGEMENT AND REPORTING

In 2017, ownership of the national IMSMA database was fully transferred from UNMAS to SEMA, with support and capacity-building from NPA.⁶⁸ Under the database reporting formats, CMR are recorded separately from other types of ERW.⁶⁹ SEMA received technical advisory support on information management from the GICHD and UNMAS during 2021 with UNMAS supporting SEMA with the recruitment of an Information Management Assistant in September 2021 and providing IMSMA training to the IM assistant. UNMAS will also be providing IT equipment to SEMA which was expected to be delivered in 2022.⁷⁰ The HALO Trust provided training for SEMA personnel on IMSMA and database quality control to improve the quality of data in the mine action database. The HALO Trust will continue to work with SEMA in 2022 on database information quality and information sharing.⁷¹

SEMA decided to upgrade its database to IMSMA Core starting in 2022 but the data within the database are considered to be of poor quality, which leads to issues with reporting. Although data collection forms have been introduced there is no sustainable process of entering the data into their information management system.⁷²

SEMA states that, working with international partners, it has made significant progress towards elaborating an accurate picture of existing contamination through data consolidation and confirms they will continue to work on this with partners. SEMA has also restated its intention to migrate data to IMSMA Core to improve operations, planning and survey capabilities.⁷³ The implementation of IMSMA Core began in July 2022, while a work plan and timeline for completion was being finalised.⁷⁴

In 2021, NPA established an IMSMA database for the Puntland State Office and provided training on information management to its staff. It is expected that this will improve information sharing of mine action data between the Puntland authorities and SEMA. NPA has fully synchronised its land release, risk education, and survey assessment data for Puntland state with the IMSMA database at the Puntland State Office. Once the non-technical survey of Puntland state is completed this will also be updated in the IMSMA database so that baseline contamination data are accurate and available for planning.⁷⁵

The Mine Action Department, the mine action authority in Somaliland, manages a separate IMSMA database. The HALO Trust stated that its data undergo monthly QA before being reported to the Mine Action Department, which uploads it onto the central database. In Somaliland, HALO creates its own data collection forms, which it says ensure accurate collection of data by its survey teams.⁷⁶

Somalia's national mine action strategic plan stipulates the submission of annual transparency reports for the CCM, along with those under the APMBC. In October 2019, Somalia submitted its first CCM Article 7 transparency report, which included the limited information available on the extent of CMR contamination. In mid-September 2020, Somalia submitted its Article 7 report covering 2019, reporting no survey and clearance during the year. In April 2021, Somalia submitted its APMBC Article 5 deadline extension request followed by a revised request in September but there was no mention of CMR contamination, survey, or clearance in the request. As at June 2022, Somalia had still to submit its CCM Article 7 reports covering 2020 and 2021.

64 Email from Clemence Nyamandi, UNMAS, 17 March 2022.

65 Email from Tobias Hewitt, HALO Trust, 21 May 2022.

66 Email from Daniel Redelinghuys, HALO Trust, 29 May 2022.

67 Email from Mustafa Bawar, UNMAS, 4 July 2021.

68 Email from Claus Nielsen, NPA, 22 March 2018.

69 Email from Claus Nielsen, NPA, 13 April 2019.

70 Email from Clemence Nyamandi, UNMAS, 17 March 2022.

71 Email from Daniel Redelinghuys, HALO Trust, 29 May 2022.

72 Email from Noor Zangana, GICHD, 6 May 2022.

73 Presentation by Dahir Abdirahman Abdulle, SEMA, APMBC Intersessional meetings, Geneva, 22 June 2022.

74 Email from GICHD, 12 July 2022.

75 Email from Robert Iga Afedra, NPA, 12 March 2022.

76 Email from Lawrie Clapton, HALO Trust, 14 June 2020.

PLANNING AND TASKING

Somalia's National Mine Action Strategic Plan 2018–2020 was developed with input from SEMA, UNMAS, international operators, national NGO consortia, and international institutions in late 2017.⁷⁷ The strategic plan finally received approval from the Somali Minister of Internal Security at the end of 2020 and has been extended for one year to provide SEMA with sufficient time for the development of a new strategy.⁷⁸ As at June 2022, SEMA has not reported on whether a new strategy has been developed.

The old plan focused on setting “achievable” goals over the three-year period. The strategy's five goals, identified by SEMA, were as follows:

- To enhance SEMA's ability to lead and enable effective and efficient mine action
- To develop the Somali mine action consortia into a wholly national mine action capacity
- To engage with stakeholders in order to understand, and better respond to, their mine action needs
- To achieve a mine-impact-free Somalia
- To comply with treaties binding Somalia on mines and other explosive threats.

The strategy noted Somalia's status as a State Party to the CCM and its reporting obligations and commits to complying with the Convention, but did not contain specific provisions on survey and clearance of CMR.

NPA supported SEMA with an implementation plan for 2021 for SEMA specific activities, an overall operational implementation plan was also discussed but due to time constraints was postponed until 2022.⁷⁹

SEMA intends to develop a National Clearance Work Plan in collaboration with partners by the end of 2022, in line with Somalia's APMB Article 5 deadline extension request.⁸⁰ UNMAS is planning to collaborate with SEMA in the development of an action plan that will include prioritisation of land release activities during the extension period.⁸¹

NPA reported that in Puntland survey and clearance task dossiers are issued in a timely and effective manner.⁸² The HALO Trust reported an improvement in tasking in Somalia since the new Director of SEMA was appointed with the Authority becoming much more responsive to requests.⁸³ This remains an area needing further strengthening. According to UNMAS, there are no agreed prioritisation criteria and task dossiers are not issued in a timely and effective manner due to the limited capacity of the national mine action authority responsible for task issuance.⁸⁴ SEMA, however, expressed concern that operators task themselves without its agreement.⁸⁵ In Somalia's revised APMB Article 5 deadline extension request it was planned that a clear tasking order request system would be developed and implemented by October 2022.⁸⁶

In Somaliland, The HALO Trust manages its own tasking and prioritisation.⁸⁷

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

There is no national mine action legislation in Somalia. UNMAS developed National Technical Standards and Guidelines (NTSGs) for Somalia in 2012–13.⁸⁸ SEMA conducted a review of the NTSGs in 2019 with technical support from NPA and in compliance with the International Mine Action Standards (IMAS). It was expected that the NTSGs would receive approval from the Ministry of Internal Security during 2021 but, as at June 2022, this had not yet happened.⁸⁹

OPERATORS AND OPERATIONAL TOOLS

In 2021, one international NGO, The HALO Trust, conducted operations, with battle area and mine clearance teams in Somalia and mine clearance teams in Somaliland. UNMAS-contracted commercial clearance company, Ukroboronservice, also had teams in operation. NPA also conducted clearance in 2021, but only of mined areas.⁹⁰

77 Emails from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019; and Claus Nielsen, NPA, 13 April 2019.

78 Email from Claus Nielsen, NPA, 26 May 2021.

79 Skype interview with Claus Nielsen, NPA, 10 February 2020 and email from Claus Nielsen, NPA, 26 May 2021.

80 Presentation by Dahir Abdirahman Abdulle, SEMA, APMB Intersessional meetings, Geneva, 22 June 2022.

81 Email from Clemence Nyamandi, 5 July 2022.

82 Email from Claus Nielsen, NPA, 6 April 2021.

83 Email from Abdullah Alkhasawneh, HALO Trust, 16 May 2021.

84 Email from Mustafa Bawar, UNMAS, 4 April 2021.

85 Email from Dahir Abdirahman Abdulle, SEMA, 3 July 2021.

86 Revised APMB Article 5 deadline extension request, September 2021, p. 53.

87 Email from Lawrie Clapton, HALO Trust, 14 June 2020.

88 Email from Terje Eldøen, NPA, 5 June 2016; and response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.

89 Revised APMB Article 5 deadline extension request, September 2021, p. 38.

90 DDG and MAG continued to operate in Somalia and Somaliland in 2021, but did not carry out demining.

Table 1: Operational mine and battle area clearance capacities deployed in 2021⁹¹

Operator	Manual teams	Total deminers*	Dogs and handlers	Machines**	Comments
Ukroboronservice (UNMAS)	6	120	0	0	Increase from 6 teams of 46 deminers in 2020 Conduct BAC and mine clearance
HALO Somalia	20	190	0	0	Increase from 20 teams of 169 deminers in 2020 Conduct BAC and mine clearance although increased focused on mine clearance in 2021
HALO Somaliland	32	289	0	3	Increase from 34 teams of 272 personnel in 2020 Conduct mine clearance
Totals	58	599	0	3	

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

UNMAS, through its implementing partner Ukroboronservice, deployed two quick reaction teams totalling ten personnel which conducted non-technical survey and technical survey and four teams of community liaison officers totalling eight people conducted non-technical survey.⁹² UNMAS increased its clearance capacity from 2020 to 2021 with the addition of two clearance teams with a total of 72 deminers deployed in Galmudug and Puntland states. In 2022, UNMAS expected capacity to decrease due to a reduction in funding.⁹³

In 2021, HALO Somalia increased its focus on manual mine clearance rather than BAC with improved security conditions enabling access for clearance along the Ethiopian border. There was an increase in survey and clearance personnel deployed from 2020 to 2021 due to increased funding with the amount of personnel also expected to increase in 2022. The HALO Trust reported no significant change in operational capacity in Somaliland between 2020 and 2021. As well as clearance teams, the HALO Trust also deployed two non-technical survey teams totalling ten personnel and 35 technical survey teams totalling 311 personnel.⁹⁴

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2021

In 2021, The HALO Trust found two submunitions during BAC operations.⁹⁵ In 2020, the HALO Trust found two submunitions in Bakol during BAC operations.⁹⁶ No other CMR survey or clearance took place during 2020 or 2021.

ARTICLE 4 DEADLINE AND COMPLIANCE



⁹¹ Emails from Clemence Nyamandi, UNMAS, 17 March 2022; and Daniel Redelinghuys, HALO Trust, 29 May 2022.

⁹² Email from Clemence Nyamandi, UNMAS, 17 March 2022.

⁹³ Ibid.

⁹⁴ Email from Tobias Hewitt, HALO Trust, 21 May 2022.

⁹⁵ Email from Daniel Redelinghuys, HALO Trust, 29 May 2022.

⁹⁶ Email from Abdullah Alkhasawneh, HALO Trust, 14 June 2021.

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.

It is too soon to say whether Somalia will meet its Article 4 deadline though it is not currently on track to do so. In 2019, SEMA informed Mine Action Review that the key challenges which could prevent Somalia from meeting its 2026 deadline, based on current capacity, are a lack of funding and the fact that Somalia has not conducted a general survey to have a comprehensive picture of remaining CMR contamination.⁹⁷ These challenges remained in 2022, when SEMA described the lack of funding as a "serious concern", which could impede Somalia's ability "to make incremental progress towards clearance".⁹⁸

The HALO Trust echoed these concerns, stating that survey is far from complete due to limited access, combined with the fact that active conflict continues in the country.⁹⁹ At the same time, 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 is dependent on prioritisation from SEMA and that support is requested from operators.¹⁰⁰ In 2020, concerns were also expressed by UNMAS who believed it unlikely that Somalia would meet its Article 4 obligations due to lack of access, continued insecurity, and the lack of available resources to conduct survey and clearance.¹⁰¹

In 2021, insecurity in Somalia continued to impede both access to some contaminated areas, and the progress of ongoing clearance operations. In some areas, inter-clan clashes broke out, forcing clearance teams to temporarily retreat to safe locations.¹⁰² UNMAS, NPA, and the HALO Trust reported instances of demining equipment being confiscated by clan militia, a vehicle being hijacked and used as a battle wagon, and a member of staff being taken hostage along with demining equipment respectively.¹⁰³ In other locations, teams could not access task sites due to disagreements among the affected community regarding the benefits that could be derived from the clearance operations. Some areas are under the control of armed opposition groups, which means that where teams do have access an escort is required.¹⁰⁴

Table 2: Five-year summary of CMR clearance

Year	Area cleared (m ²)
2021	0
2020	0
2019	0
2018	0
2017	0
Total	0

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Somalia has not reported on plans for establishing a sustainable national capacity to address residual risks posed by CMR discovered post completion (i.e. residual capacity).

97 Email from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019.

98 Presentation by Dahir Abdurahman Abdulle, SEMA, APMBIC Intersessional meetings, Geneva, 22 June 2022.

99 Email from Abdullah Alkhasawneh, HALO Trust, 14 June 2021.

100 Email from Claus Nielsen, NPA, 26 May 2021.

101 Email from Mustafa Bawar, UNMAS, 23 August 2020.

102 Email from Clemence Nyamandi, UNMAS, 17 March 2022.

103 Ibid.; and emails from Robert Iga Afedra, NPA, 12 March 2022; and Daniel Redetlinghuys, HALO Trust, 29 May 2022.

104 Email from Clemence Nyamandi, UNMAS, 17 March 2022.

SIGNATORIES

The background of the page is composed of several overlapping, angular shapes in various shades of blue, ranging from a deep navy blue to a lighter sky blue. These shapes create a dynamic, layered effect, with some shapes appearing to be in front of others, creating a sense of depth and movement. The overall aesthetic is modern and minimalist.

KEY DATA

CLUSTER MUNITION CONTAMINATION: RESIDUAL THREAT ONLY

SUBMUNITION CLEARANCE IN 2021

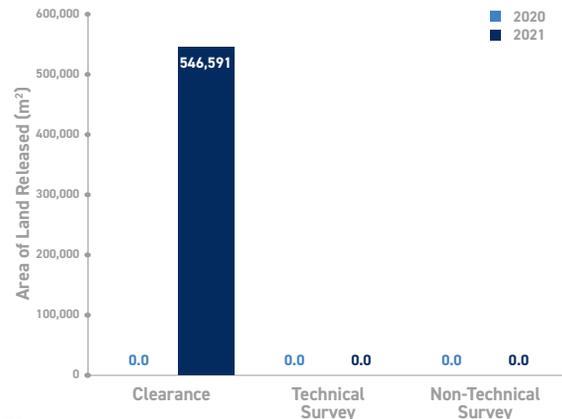
546,591 m²

SUBMUNITIONS DESTROYED IN 2021

29

INCLUDING 6 SUBMUNITIONS DESTROYED DURING EOD 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).
- Executive Commission for Demining (Comissão Executiva de Desminagem, CED)

NATIONAL OPERATORS

- Demining Brigades of the Security Unit of the President of the Republic
- Angolan Armed Forces
- National Demining Institute (INAD)

- Brigades of the Angolan Border Guard Police
- Association of Angolan Experts of Action against Landmines (APACOMINAS)

INTERNATIONAL OPERATORS

- APOPO
- The HALO Trust
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)

OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)

UNDERSTANDING OF CMR CONTAMINATION

It is likely that Angola only has a residual CMR threat. Despite discovery and destruction of 29 submunitions during mine clearance and EOD tasks in 2021, there are no reports of any suspected or confirmed CMR contamination remaining. It is believed that there is minimal CMR contamination nationwide beyond the occasional remnants of a cluster munition strike.¹ Angola has reported that 24 submunitions were found and destroyed as a result of explosive ordnance disposal (EOD) spot tasks and community call-outs in 2017–19 following a review of the data which found that previous reports had been inflated as other explosive ordnance had been logged as CMR incorrectly.² The national database does not contain any polygons pertaining to areas of CMR contamination.³

In 2021, however, a total of 29 submunitions were found and destroyed by HALO Trust in Angola. Of these, 23 submunitions were destroyed during mine clearance in Bié province and 6 during EOD call-outs and stockpile destruction tasks by the police.⁴ In November 2018, Mines Advisory Group (MAG) reported that a single Russian-made AO-1-Sch submunition was brought in for destruction by a local community member to its operations near to Kapuluta village, Luvuei commune, in Moxico province. Community liaison teams were sent to

survey the surrounding farmland for further information, but no additional CMR was found.⁵

Previously, the last reported instance of an international mine action NGO locating CMR was in August 2016, when The HALO Trust found two Alpha submunitions in Cunene province. The submunitions were reported by local residents to a HALO Trust survey team during re-survey operations.⁶ Prior to this, HALO Trust reported finding and destroying 12 submunitions in 2012. The HALO Trust has also reported that the majority of CMR destroyed over the course of its operations were the result of the disposal of old or unserviceable cluster munitions identified by HALO Trust's Weapons and Ammunition Disposal (WAD) teams in military storage areas, some of which were earmarked for destruction by the Angolan Armed Forces. Between 2005 and 2012, HALO Trust WAD teams reported destroying a total of 7,284 submunitions.⁷

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.⁸

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 newly established National Mine Action Agency (ANAM). ANAM is a government agency formerly known as the National Intersectoral Commission for Demining and Humanitarian Assistance (CNIDAH). CNIDAH received approval in April 2021 to change its legal status from a commission to a national agency.⁹ This was endorsed by a presidential decree 171/21 on 7 July 2021. The aim of this transition was to define the legal framework of the regulatory body of mine action, and to improve the coordination between the bodies that intervene in the mine action sector. The purpose of ANAM 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,¹⁰ and

is mandated to ensure the implementation of the national strategic and normative mine action framework by all mine action actors in the country.¹¹

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. There were overlaps and ambiguities as to the exact division of labour and the related roles and responsibilities between the two entities with CED reporting to the Ministry of Social Action, Family, and Women's Promotion (MASFAMU).¹² This has made it difficult for Angola to describe in detail

1 Interview with Robert Iga Afedra, Capacity Development Advisor to CNIDAH, Norwegian People's Aid (NPA), 22 February 2021.

2 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.

3 Telephone interview with Robert Iga Afedra, NPA, 22 February 2021.

4 Email from Daniel Richards, HALO Trust, 25 June 2022.

5 Email from Shadrack Njamba, Programme Operations Coordinator, MAG, 18 April 2019; and Jeanette Dijkstra, MAG, 27 April 2021.

6 A number of damaged bomb casings were also found but, according to HALO, it was unclear if the bombs had been fired at a target or if they were jettisoned after an unsuccessful mission and the bomblets scattered on the ground. The Alpha bomblet was developed in Rhodesia in 1970 and later in South Africa in the 1980s. It was produced to be incorporated into the CB470 cluster bomb, which contained 40 Alpha submunitions. Email from Gerhard Zank, HALO Trust, 2 May 2017; and Weapons Systems, "CB470", at: <http://bit.ly/2Jd01hl>.

7 Response to questionnaire by Gerhard Zank, HALO Trust, 19 March 2013.

8 Interviews with Jose Antonio, Site Manager, Cuando Cubango, HALO Trust; and with Coxe Sucama, Director, INAD, in Menongue, 24 June 2011.

9 Telephone interview with Robert Iga Afedra, NPA, 22 February 2021; and email, 28 April 2021.

10 Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report (covering 2021), Form A.

11 Email from Christelle Mestre, Programme Officer, Geneva International Centre for Humanitarian Demining (GICHD), 4 May 2022.

12 Angola National Mine Action Strategy 2020–2025, pp. 5–6.

and with any degree of accuracy the extent of land released over the years as the CED operators were not accredited by CNIDAH, nor are their activities quality assured in line with International Mine Action Standards (IMAS).¹³

According to the Geneva International Centre for Humanitarian Demining (GICHD), the transition to ANAM has strengthened Angola's oversight of mine action, which is now overseen and regulated solely by ANAM. The CED remains responsible for operational coordination of national public operators, which are predominantly involved in confirming that the land is safe for government infrastructure development projects.¹⁴ According to MAG, the restructuring from CNIDAH to ANAM took longer than expected as the appointment of staff to leadership roles took over seven months. ANAM's leadership team was finally announced in February 2022.¹⁵

Angola's mine action programme has faced critical challenges in securing financial resources in recent years. According to its latest projections and based on an estimate of a remaining mine contamination of 71km², Angola is still in deficit of approximately US\$200 million to complete its mine clearance through to the end of 2025.¹⁶ In 2021, according to Norwegian People's Aid (NPA), the Government of Angola allocated approximately US\$15.7 million to support activities of the mine action sector in 2021.¹⁷ The Belgium and Japan governments have committed funding to APOPO for 2021 operations. In its Anti-Personnel Mine Ban Convention

(APMBC) Article 5 Implementation Work Plan 2020–2025, the Angolan government has committed to clear all roads in the country through its budgetary allocations for the CED.

In 2019, a draft resource mobilisation strategy was developed and, as at July 2022, was still under review.¹⁸ According to Objective 5 of the National Mine Action Strategy 2020–2025, the resource mobilisation strategy should have been developed and approved before the end of 2020, with CNIDAH taking the lead in its development.¹⁹ In 2018, Angola participated in the APMBC individualised approach following which donor support was increased, with funding provided by Belgium, Japan, Norway, the United Kingdom, and the United States, along with private sector funding from, among others, British Petroleum (BP).²⁰

Operators continue to report smooth collaboration with the Angolan authorities. Two longstanding challenges persisted in 2021: the long and cumbersome visa process, and the need for NGOs to secure tax-exempt status.²¹ APOPO reported improvements on these two fronts as ANAM dedicated focal points and engaged with the Ministry of Interior and operators in an effort to address these challenges. As a result, APOPO managed to receive two dog handlers on a one-year visa, and benefited from some tax exemption to import equipment in 2021.²² It is hoped that ANAM's efforts will continue until these challenges are fully addressed.

ENVIRONMENTAL POLICIES AND ACTION

There are no policies related to environmental management that are specific to mine action in Angola.²³

MAG has multiple environmental policies such as leaving trees standing as much as possible, combining mechanical assets with manual demining, and recycling and using hybrid systems in the base, office, staff house, and field camps. MAG also has solar panels and cooks on gas bottles as much as possible.²⁴

NPA concluded its environmental modular standard operational procedures (SOPs) and expects to implement them fully in the first quarter of 2022. NPA also plans to develop its environmental policy in 2022.²⁵

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.²⁶ However, while the Strategy pledges that Angola's mine action programme will ensure that gender and diversity are taken into consideration in the planning, implementation and monitoring phases of all mine action projects, it does not say how this will be done and there is no mention of either issue in Angola's APMBC Article 5 Implementation Work Plan 2020–2025.

13 Email from Robert Iga Afedra, NPA (on behalf of CNIDAH), 14 July 2020.

14 Email from Christelle Mestre, GICHD, 4 May 2022.

15 Email from Jeanette Dijkstra, MAG, 22 March 2022.

16 APMBC Article 7 Report (covering 2021), Form J.

17 Email from Miroslav Pisarević, NPA, 10 March 2022.

18 Emails from Miroslav Pisarević, NPA, 21 June 2022; and Daniel Richards, Programme Officer, HALO Trust, 25 June 2022.

19 Angola National Mine Action Strategy 2020–2025, pp. 29–31.

20 Email from Robert Iga Afedra, NPA (on behalf of CNIDAH), 22 March 2021.

21 Emails from Jeanette Dijkstra, MAG, 22 March 2022; and Miroslav Pisarević, NPA, 10 March 2022.

22 Email from Manuel João Agostinho, APOPO, 14 March 2022.

23 Emails from Jeanette Dijkstra, MAG, 22 March 2022; Christelle Mestre, GICHD, 4 May 2022; Miroslav Pisarević, NPA, 10 March 2022; and Manuel João Agostinho, APOPO, 14 March 2022.

24 Email from Jeanette Dijkstra, MAG, 22 March 2022.

25 Email from Miroslav Pisarevic, NPA, 10 March 2022.

26 Email from Robert Iga Afedra, NPA (on behalf of CNIDAH), 1 April 2020.

HALO has been endeavouring to employ more women in its programme over the last five years. In March 2017, HALO launched the "100 Women in Demining" project, based in Benguela province. At that time, women accounted for just 3.6% of HALO Angola's workforce. In March 2021, HALO passed the 100 women milestone in Benguela and continued to work to improve its gender balance. Recruitment for new sections funded by the Government of Angola, for example, is focused exclusively on women. As of June 2022, HALO Angola's total workforce was roughly 60% male and 40% female. In November 2021, two women working for HALO in Angola became the first female national staff in the programme's 25-year history to complete an internationally recognised EOD training course to IMAS EOD Level III. HALO is actively working to increase the number of female staff in senior management positions.²⁷

MAG keeps records of beneficiary data that are disaggregated by gender and age for each area cleared and conducts a post-clearance impact assessment to document the impact. All community members are consulted on an equal basis. In 2021, 32% of MAG's employees were women. Women held 46% of operational positions and 1.5% of managerial positions.²⁸

NPA organises gender sensitivity training for all its staff and, whenever possible, raises gender equality with the national and provincial authorities. NPA ensures that job opportunities are accessible to women and do not contain requirements that discourage female applicants or preclude their employment. NPA Angola appointed gender and diversity focal points within its programme and prepared an implementation plan for gender equality policy. All NPA data are disaggregated by gender. In 2021, 14% of NPA's employees were women. Women held 16% of operational and 20% of managerial positions.²⁹

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,³⁰ as it has been fully reconciled with operators' data, and the previous data backlog and inflated contamination figures have been cleared.³¹ In previous years, Angola's mine action programme suffered from significant problems with information management, in particular the poor quality of the CNIDAH national database. As noted above, since 2018 an NPA Capacity Development Adviser has been embedded in CNIDAH/ANAM, and focused on establishing an up-to-date and more accurate mine contamination database, with assistance from operators.³² As part of the improvements to information management, a monthly data-sharing mechanism between CNIDAH/ANAM and operators has been in place since 2018 as part of the mine action and information management coordination meetings.³³ Operators have reported that data collection forms are consistent and enable collection of the necessary data.³⁴

Throughout 2021, database cleaning and updating took place to maintain data quality.³⁵ In 2021, ANAM introduced revised IMSMA completion forms and non-technical survey forms that included a standardised prioritisation of tasks and for the identification of confirmed hazardous area (CHA).³⁶

ANAM's information management system does not yet gather all mine action data across the country, but this issue has been discussed with the public operators and challenges to the verification and integration of historic data had yet to be mastered.³⁷ According to NPA, CED would need to report its activities using the IMSMA format, including the usage of official tasks codes, in order for ANAM to integrate CED tasks in the national database. NPA hoped this practice would begin in 2022.³⁸ According to the GICHD, ANAM should also evaluate whether an upgrade to IMSMA Core is appropriate.³⁹

PLANNING AND TASKING

Angola's National Mine Action Strategy 2020–2025 was developed by CNIDAH, in 2019, with support from GICHD. As of May 2022, the strategy had yet to be formally adopted by the Government of Angola.⁴⁰ 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.

27 Email from Daniel Richards, HALO Trust, 25 June 2022.

28 Email from Jeanette Dijkstra, MAG, 22 March 2022.

29 Email from Miroslav Pisarević, NPA, 10 March 2022.

30 Emails from Jeanette Dijkstra, MAG, 22 March 2022; and Miroslav Pisarević, NPA, 10 March 2022.

31 Email from Robert Iga Afedra, NPA (on behalf of CNIDAH), 22 March 2021; Statement by Angola on Article 5 implementation, Fourth APMBC Review Conference, Oslo, November 2019.

32 Email from Miroslav Pisarević, NPA, 10 March 2022; and APMBC Article 7 Report (covering 2021), Form J.

33 Emails from Robert Iga Afedra, NPA, 3 June 2019; Ralph Legg, HALO Trust, 30 March 2020; and Jeanette Dijkstra, MAG, 20 May 2020.

34 Emails from Manuel João Agostinho, APOPO, 22 March 2021; Miroslav Pisarević, NPA, 5 April 2021; Jeanette Dijkstra, MAG, 27 April 2021; and Rob Syfret, HALO Trust, 26 April 2021.

35 Emails from Robert Iga Afedra, NPA (on behalf of CNIDAH), 22 March 2021, and Miroslav Pisarević, NPA, 10 March 2022.

36 Email from Jeanette Dijkstra, MAG, 22 March 2022.

37 Email from Christelle Mestre, GICHD, 4 May 2022.

38 Email from Miroslav Pisarević, NPA, 10 March 2022.

39 Email from Christelle Mestre, GICHD, 4 May 2022.

40 Ibid.

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Ten chapters of national mine action standards (NMAS) were completed and fully adopted in 2021.⁴¹ Angola's NMAS are adequate and cover the main topics related to land release.⁴² 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.⁴³ These standards have been translated into Portuguese, and will be shared with the review board and eventually sent to ANAM for approval.⁴⁴

OPERATORS AND OPERATIONAL TOOLS

Four international NGOs conducted demining for humanitarian purposes in Angola in 2020: APOPO, The HALO Trust, MAG, and NPA; and one national operator: APACOMINAS. None of the operators conducted any dedicated CMR survey or clearance in 2021.

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

A total of 29 submunitions were found and destroyed by HALO Trust in Angola in 2021, of which, 23 were destroyed during the clearance of a minefield in Cuemba, Bié province, releasing an area of 546,591m². In addition, HALO disposed of a further six submunitions during EOD call-outs in Huambo and Cuanza Norte provinces. HALO still assesses that any remaining cluster munition contamination in Angola is extremely limited.⁴⁵

There was no reported survey or clearance of cluster munition-contaminated area in 2020, and no CMR were found during EOD spot tasks.

SURVEY IN 2021

There was no reported survey of cluster munition-contaminated area in 2021.

CLEARANCE IN 2021

While there was no planned clearance of cluster munition-contaminated area in 2021, 23 unexploded submunitions were found and destroyed during mine clearance in Cuemba, Bié province, during clearance of 546,591m² of mined area. In addition, six submunitions were destroyed during EOD tasks in Huambo and Cuanza Norte provinces.⁴⁶

PROGRESS TOWARDS COMPLETION

Angola is a signatory, but not yet a State Party, to the CCM. It has 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 full adherence might require a nationwide survey to be conducted for which Angola does not have the resources.⁴⁷ 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.

41 APMBC Article 7 Report (covering 2021), Form J.

42 Email from Christelle Mestre, GICHD, 4 May 2022.

43 APMBC Article 7 Report (covering 2021), Form J; and emails from Christelle Mestre, GICHD, 4 May 2022; and Miroslav Pisarević, NPA, 10 March 2022.

44 Email Miroslav Pisarević, NPA, 10 March 2022.

45 Emails from Daniel Richards, HALO Trust, 25 June and 1 July 2022.

46 Emails from Daniel Richards, HALO Trust, 25 June and 1 July 2022.

47 Telephone interview with Robert Iga Afedra, NPA, 22 February 2021.

DEMOCRATIC REPUBLIC OF CONGO

MINE
ACTION
REVIEW

CLEARING CLUSTER
MUNITION REMNANTS
2022

KEY DATA

CLUSTER MUNITION CONTAMINATION:

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

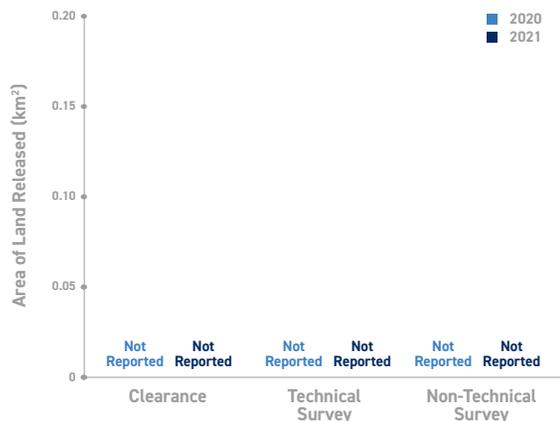
SUBMUNITION
CLEARANCE IN 2021

0 km²

SUBMUNITIONS
DESTROYED IN 2021

0

LAND RELEASE OUTPUT



RECOMMENDATIONS FOR ACTION

- The Democratic Republic of Congo (DRC) should ratify the Convention on Cluster Munitions (CCM) as a matter of priority.
- DRC 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 mine action sector developments and engage proactively with the international mine action community.
- The DRC 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 what arrangements it is making for the long-delayed survey of Aru and Dungu territories.
- The DRC should detail its plans for sustainable capacity to tackle previously unidentified hazards.

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

OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

UNDERSTANDING OF CMR CONTAMINATION

The DRC 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, recorded six confirmed hazardous areas (CHAs) containing CMR in four provinces affecting a total of 161,523m², almost double the area recorded in the previous Article 7 report submitted in 2014 (see Table 1).¹

Table 1: Cluster munition-contaminated area by province (at end 2021)²

Province	Territory	CHAs	Area (m ²)
Ituri	Aru	3	3,406
South Kivu	Shabunda	1	719
Tanganyika	Kalemie	1	37,000
Equator	Bolomba	1	120,398
Totals		6	161,523

The main change since the DRC's previous Article 7 report in 2014 was the addition of a CHA in Equator province amounting to 120,396m², representing nearly three-quarters of identified contamination. Since the previous report, DRC had also released a CHA of 3,015m² in Tshopo province and reduced its estimate of CMR contamination in Ituri from 40,750m² to 3,406m².³

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 17,590m² 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.

The DRC'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".⁴

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.⁵

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).⁶ 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.⁷ 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.⁸ The government provided US\$530,000 in funding for CCLAM's operating expenses in 2018, but has not provided funding for operations.⁹

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 Security Council Resolution 2147 (2014), humanitarian mine action was removed from MONUSCO's mandate.¹⁰

UNMAS now operates with a mandate to provide explosive ordnance disposal (EOD) services in support of MONUSCO in North Kivu, South Kivu and Tanganyika Provinces. In 2021 it had a total staff of 25: 14 international and 11 national staff who are headquartered in Goma, North Kivu, but also work from offices in Kinshasa, Beni, Bukavu (South Kivu), and Kalemie (Tanganyika).¹¹ 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 national NGO, Afrique pour la Lutte Antimines (AFRILAM).¹²

In 2021, CCLAM hosted the national Mine Action Working Group meeting on a quarterly basis, with the participation of other mine action organisations to share information on the trend and discuss planning and coordination issues.¹³

1 Voluntary CCM Article 7 Report (covering the period 1 January 2013 to 31 December 2021), Form F; 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 Email from Maître Sudi Alimasi Kimputu, CCLAM, 3 June 2019.

10 UN Security Council Resolution 2147, 28 March 2014.

11 Email from Jean-Denis Larsen, Chief of Mine Action Programme, UNMAS, 31 May 2022.

12 Email from Jean-Denis Larsen, UNMAS, 31 May 2022; and UNMAS website, updated March 2022.

13 Email from Jean-Denis Larsen, UNMAS, 31 May 2022.

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.¹⁴

CCLAM reported in 2019 that approximately 30% of operational staff in survey and clearance teams were female and only around 7% of managerial or supervisory positions were held by women. It said that local customs about the employment roles 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.¹⁵

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 14 international staff in 2021, including 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). AFRILAM's 27 staff included three women: two EOD operators and a medical officer.¹⁶

INFORMATION MANAGEMENT AND REPORTING

CCLAM took over responsibility for information management 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 is 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.¹⁷ 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.¹⁸

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.¹⁹ Norwegian People's Aid (NPA) also previously provided refresher training for CCLAM staff in use of IMSMA and the associated Geographic Information System (GIS).²⁰ 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.²¹

UNMAS maintains an internal database which is updated regularly.²²

PLANNING AND TASKING

In January 2022, DRC 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 cluster munition remnants by 2032. The strategy aims to ensure all mined areas are cleared, survey of cluster munitions and other ERW is completed rapidly, and a decentralised EOD capacity is established to tackle residual contamination.²³ The 76-page strategy sets out a detailed budget for the 10 years of the plan²⁴ but provides no details or timeline for survey or clearance of hazardous areas.

14 "Stratégie Nationale de Lutte Antimines 2018–2019", November 2017, pp. 15–16.

15 Email from Maître Sudi Alimasi Kimputu, CCLAM, 3 June 2019.

16 Email from Jean-Denis Larsen, UNMAS, 31 May 2022.

17 "Stratégie Nationale de Lutte Antimines 2018–2019", November 2017, p. 14.

18 Skype interview with Jean-Denis Larsen, NPA, 24 April 2019; and email, 24 May 2019.

19 Email from Aurelie Fabry, UNMAS, 13 April 2020.

20 Email from Jean-Denis Larsen, NPA, 24 May 2019.

21 Emails from Aurelie Fabry, UNMAS, 28 April and 7 June 2021.

22 Email from Jean-Denis Larsen, UNMAS, 31 May 2022.

23 "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.

24 Ibid., p. 63.

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 the DRC's Anti-Personnel Mine Ban Convention's Article 5 obligations by 2020, one year ahead of its extended 2021 deadline.²⁵ The strategy also set out the objective of completing procedures for ratifying the Convention on Cluster Munitions by the end of 2018.²⁶ 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.²⁷ 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. Instead of prioritising tasks, NPA adopted a province-by-province approach as a more efficient way to deal with the logistical challenges and costs of tackling tasks separated by big distances.²⁸

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

The DRC has 24 national standards developed with support from the GICHD²⁹ and the national strategy for 2018–19 called for revision of the standards and awareness raising of their content through training.³⁰ 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.³¹

OPERATORS AND OPERATIONAL TOOLS

International engagement with DR Congo's mine action programme has decreased following the closure of programmes by NPA in 2019 and TDI in February 2020. That left DanChurchAid as the only international organisation active in 2021, operating with a total staff of 65, including five internationals. Operational capacity included one manual clearance team of 16 deminers, an EOD team with nine people and five mechanical assets. DCA worked in North and South Kivu tackling mine contamination in a project funded by the United States PMWRA but did not deal with cluster munitions.³²

UNMAS deployed an IED Disposal teams consisting of two international staff based in North Kivu province but its activities did not address cluster munitions. UNMAS also contracted five multi-task teams of the national NGO, Afrique pour la Lutte Antimines (AFRILAM) in 2021. Three of these teams were engaged largely in a range of tasks supporting MONUSCO in North and South Kivu and Tanganyika provinces, the other two were assigned to supporting DRC's mine action programme in Kasai central, Kasai Oriental and Kasai Occidental. None of these teams conducted any CMR clearance.³³

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

The DRC did not report any survey or clearance of cluster munitions contamination in 2021.

The CCM Article 7 report submitted voluntarily by the DRC in May 2022 showed that DRC had released a total of 57,857m² of cluster munition-contaminated area in five provinces (Equateur, Maniema, Sud Kivu, Tanganyika, and Tshopo) between 2017 and December 2019 and destroyed 572 submunitions.³⁴

PROGRESS TOWARDS COMPLETION

The lack of timely reporting by DRC on any aspect of survey or clearance prevents a determination of progress towards completion.

As a CCM signatory, DRC 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.

25 "Stratégie Nationale de Lutte Antimines 2018–2019", November 2017, p. 4.

26 Ibid., p. 23.

27 "Stratégie Nationale de Lutte Antimines 2018–2019", November 2017, p. 5.

28 Skype interviews with Jean-Denis Larsen, NPA, 24 April 2019 and 16 May 2020; and email, 24 May 2019.

29 Statement of DRC, 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 Petri Siikanen, Country Director, DCA, 4 May 2022.

33 Email from Jean-Denis Larsen, UNMAS, 31 May 2022.

34 Article 7 Report (covering the period 1 January 2013 to 31 December 2021), Form F.

STATES NOT PARTY

The background consists of several overlapping, angular shapes in various shades of blue, ranging from a deep navy blue to a bright, light blue. The shapes are layered, creating a sense of depth and movement. The overall composition is abstract and modern.

KEY DATA

CLUSTER MUNITION CONTAMINATION: MEDIUM

ACCORDING TO NATIONAL AUTHORITY DATA

0.65 KM²

SUBMUNITION
CLEARANCE IN 2021

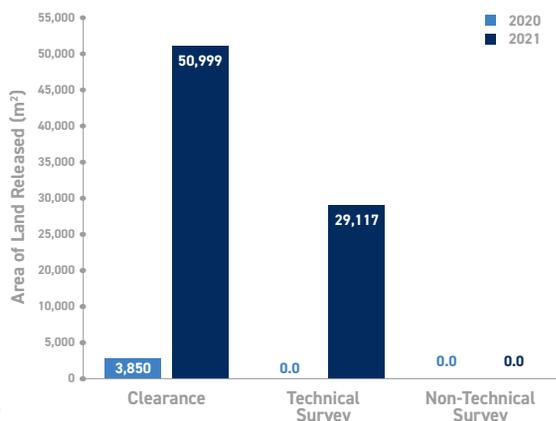
50,999 M²

SUBMUNITIONS
DESTROYED IN 2021

25

(INCLUDING 22 DESTROYED
DURING SPOT TASKS)

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

A six-week armed conflict between Armenia and Azerbaijan over the Nagorno-Karabakh region broke out in September 2020 and ended with Azerbaijan regaining control over most of its internationally recognised territories except for a part of Nagorno-Karabakh.¹ In the course of the fighting, both Armenia and Azerbaijan are reported to have used cluster munitions. Armenia's Center for Humanitarian Demining and Expertise (CHDE) reported new cluster munition-contaminated area within Armenia's jurisdiction and control as a result of the 2020 hostilities. Non-technical survey in 2021 identified new hazardous areas and a baseline non-technical survey launched in 2022 was expected to determine more precisely the extent of contamination before the end of the year.² CMR clearance output in 2021 was a significant increase on the previous year, due to the focus on new CMR contamination from the 2020 conflict.

RECOMMENDATIONS FOR ACTION

- Armenia should commit to never again use cluster munitions.
- Armenia should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Armenia 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.
- Armenia should expedite the adoption of national mine action legislation.
- Armenia should elaborate a strategic plan for mine action, including for CMR survey and clearance.
- Armenia should establish a platform for dialogue and cooperation with mine action operators and other stakeholders for information sharing and learning.

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, CHDE also conducted survey and clearance operations in 2021

INTERNATIONAL OPERATORS

- The HALO Trust

OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Development Project (UNDP)

UNDERSTANDING OF CMR CONTAMINATION

Prior to the 2020 conflict with Azerbaijan, Armenia had just one confirmed hazardous area (CHA) of CMR contamination in Kornidzor, Syunik province.³ In 2021, over 45,000m² of the area was cleared leaving an area estimated to cover almost 340,000m² at the end of the year.⁴

The CHDE reported direct evidence of new explosive ordnance (EO) contamination, including M095 cluster munitions, in Gegharkunik, Syunik, and Tavush provinces bordering Azerbaijan resulting from the six-week-long conflict in 2020. According to the CHDE, artillery, including BM-21 rocket launchers, were used to bomb Armenian settlements bordering Azerbaijan.⁵ In November 2020, Amnesty International reported a strike by Azerbaijan, possibly from a Grad rocket, that 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).

At the end of 2021, the CHDE reported a total of almost 0.65km² of CMR contamination (including the CMR contamination in Kornidzor that pre-dated the 2020 conflict), comprising nearly 0.36km² of confirmed hazardous area (CHA) and 0.29km² of suspected hazardous area (SHA) (see Table 1).⁶ The CHDE identified 16,341m² of CHA and 290,982m² of SHA involving CMR in Davit Bek from the 2020 conflict, which was added to the national Information Management System for Mine Action (IMSMA) database.⁷ A further 35,109m² was discovered and released in Davit Bek in 2021 following technical survey (5,992m² was cleared and 29,117m² was reduced).⁸ All the contaminated area discovered in Davit Bek was reported to be as a result of the 2020 conflict.⁹

A baseline non-technical survey began in 2022 to determine the extent of new CMR and other EO contamination arising from the 2020 conflict. By the middle of 2022, the baseline non-technical survey had already been completed in Syunik province.¹⁰ The baseline of EO contamination is said to be undertaken through inclusive consultation with women, girls, boys, and men.

Table 1: Cluster munition-contaminated area by province (at end 2021)¹¹

Province	CHAs	Area (m ²)	SHAs that may contain CMR	Area (m ²)
Syunik (Kornidzor)	1	339,881	0	0
Syunik (Davit Bek)	1	16,341	3	290,982
Totals	2	356,222	3	290,982

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).

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).¹² 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.¹³ In 2013, in conformity with a government decree, the CHDE began developing national mine action legislation. The CHDE began drafting the law in 2015¹⁴ with the support of the Organization for Security and Co-operation in Europe (OSCE) office in Yerevan.¹⁵ In 2019, the CHDE expected to submit the draft mine action law to the new Parliament of Armenia for discussion before the end of the year.¹⁶ 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 2022.¹⁷

1 Thomas De Waal, "Unfinished Business in the Armenia-Azerbaijan Conflict", Carnegie Europe, 11 February 2021, at: <https://bit.ly/3PFvArz>.

2 Email from Vaghinak Sargsyan, CHDE SNCO Director, 13 June 2022.

3 Email from Margaret Lazyan, Head of Mine Risk Education and Victim Assistance, CHDE, 26 July 2021.

4 Email from Vaghinak Sargsyan, 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 Email from Vaghinak Sargsyan, CHDE, 13 June 2022.

8 Ibid.

9 Email from Fiona Kilpatrick-Cooper, Head of Region – Europe (South Caucasus), HALO Trust, 18 May 2022.

10 Email from Vaghinak Sargsyan, CHDE, 13 June 2022.

11 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

12 Emails from Ruben Arakelyan, CHDE, 8 June 2015; and Margaret Lazyan, CHDE, 10 August 2020.

13 Emails from Geneva International Centre for Humanitarian Demining (GICHD), 13 July 2022; and Ani Zakaryan, Head of the Information Management, CHDE, 21 July 2022.

14 Email from Varsine Miskaryan, CHDE, 8 August 2016.

15 Email from Ruben Arakelyan, CHDE, 28 April 2017.

16 Email from Margaret Lazyan, CHDE, 19 April 2019.

17 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

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.¹⁸ The national authorities do not provide direct funding to The HALO Trust, which conducted limited CMR survey and clearance in 2021. The CHDE contracted HALO Trust for a battle area clearance (BAC) task in Kornidzor region, with the Centre providing quality assurance (QA) and quality control (QC).¹⁹

The United Nations Development Programme (UNDP) provides capacity development to the CHDE within the framework of the "Strengthening the Capacities of National Mine Action Authorities in Armenia" project. Under the same project, the Geneva International Centre for Humanitarian Demining (GICHD) plans to support the CHDE in installing IMSMA Core, conducting needs assessments, and training staff on the updated information management system, and in June 2022, the CHDE reported that the process was underway.²⁰ UNDP and the GICHD will also support the CHDE in elaborating the National Mine Action Strategy and Law on Mine Action.²¹

ENVIRONMENTAL POLICIES AND ACTION

The CHDE deploys methods and tools to avoid damaging the environment where possible.²² Armenia does not yet have a national mine action standard on environmental management, but plans to develop one.²³

The HALO Trust also seeks to minimise the environmental impact of its survey and clearance activities. 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; and it takes rubbish away with it when it leaves a task. HALO also plans clearance operations around agricultural planting and harvesting cycles.²⁴

GENDER AND DIVERSITY

The CHDE does not have a gender policy and associated implementation plan but has reported that gender has been mainstreamed in Armenia's draft national mine action strategy. During survey and community liaison activities, all groups affected by contamination are consulted, including women and children, and ethnic or minority groups. 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, the CHDE does not disaggregate mine action data by sex.²⁵

The CHDE is said to offer equal employment opportunities for both men and women. Seventeen of the fifty CHDE employees are women (32%, down from 36% in 2020), while six of sixteen managerial positions are held by women. Two of six staff in the Operations Department are women, as are two staff in the training centre and five of six staff in the Explosive Ordnance Risk Education (EORE) Group. Survey teams do not include representatives from different ethnic or minority groups.²⁶

The HALO Trust, in its limited activities in Armenia, disaggregates mine action data by age and sex. It is an equal opportunities employer, but due to the local cultural context and nature of the work, the majority of HALO staff deployed in Armenia are men.²⁷ It has a team of four people based in Armenia: two are administrative staff and both are women, and two are operational staff and both are men. When HALO Trust deploys clearance and survey teams to Armenia, they are selected from its staff in Nagorno-Karabakh. In 2021, no women were engaged in HALO's survey and clearance operations in Armenia.²⁸

18 Ibid.

19 Email from Vaghinak Sargsyan, 13 June 2022.

20 Ibid.

21 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

22 Ibid.

23 Ibid.

24 Email from Fiona Kilpatrick-Cooper, HALO Trust, 18 May 2022.

25 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

26 Ibid.

27 Email from Fiona Kilpatrick-Cooper, HALO Trust, 18 May 2022.

28 Ibid.

INFORMATION MANAGEMENT AND REPORTING

The CHDE manages the national IMSMA database.²⁹ The CHDE had been planning to install IMSMA Core in 2019, but this was delayed due to the outbreak of COVID-19 and was due to be installed in June 2022.³⁰ In June 2022, the GICHD and UNDP held an Information Management Stakeholder Workshop with the CHDE and other partners in Armenia to help identify the needs of the CHDE and other mine action stakeholders. This will feed into the design of forms and procedures for the new IMSMA Core database in Armenia.³¹ In 2020, the CHDE elaborated QA and QC forms using KoboCollect Software to improve data collection in the field.³² IMSMA Core will allow the direct entry of data into the database using Survey123.³³

PLANNING AND TASKING

The draft National Strategic Plan on Mine Action was presented for the approval to the Armenian Government in 2018. However, in early 2021, the plan was under reconsideration due to the emergence of new challenges (primarily the contamination resulting from the 2020 conflict)³⁴ and by May 2022, it was still being developed.³⁵ 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).³⁶

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 the mountains. To optimise efficient deployment of resources, clearance plans are typically drawn up on a community-by-community basis.³⁷

Armenia's annual work plan for 2021 had envisaged: BAC of 45,000m² of CMR and EO contamination in the Kornidzor area (Syunik province); technical survey and clearance of

15,000m² of battle areas in Davit Bek; and non-technical survey in Gegharkunik, Syunik, and Tavush provinces that would identify and target new contamination from the 2020 conflict with Azerbaijan.³⁸ In 2022, the CHDE started the baseline non-technical survey to determine the extent of new EO contamination arising from the 2020 conflict, and planned to clear 50,000m² of EO-contaminated area and to reduce a further 60,000m².³⁹ Priorities for clearance will be defined when the non-technical survey results are analysed.⁴⁰

The HALO Trust was planning to conduct non-technical survey in Syunik province in 2022 under an EU-funded project,⁴¹ but in June 2022 the CHDE reported it had finalised the non-technical survey in Syunik using its own staff.⁴² The CHDE indicated that in March 2022 it issued a non-technical survey task to HALO Trust for nine areas in Gegharkunik province.⁴³

Obtaining visas for Armenia is straightforward for HALO Trust employees and HALO Trust has not faced any significant difficulties in importing demining equipment. However, Memorandums of Understanding (MoUs) undergo approval from relevant ministries and the CHDE and the process can be lengthy.⁴⁴

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

The CHDE developed the Armenian National Mine Action Standards (NMAS), which were approved by the government in 2014.⁴⁵ In 2018, amendments were made to the NMAS for mine risk education, accreditation of demining organisations, and mine detection dogs (MDDs). No amendments were made to the NMAS in 2021.⁴⁶ According to the CHDE, reviews of the NMAS are conducted to ensure they are consistent with the International Mine Action Standards (IMAS) and international best practice.⁴⁷

29 Email from Ruben Arakelyan, CHDE, 19 March 2014.

30 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

31 Email from GICHD, 13 July 2022.

32 Emails from Margaret Lazyan, CHDE, 25 June 2020 and 26 April 2021.

33 Email from GICHD, 13 July 2022.

34 Emails from Margaret Lazyan, CHDE, 10 August 2020 and 26 April 2021.

35 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

36 Email from Margaret Lazyan, CHDE, 19 April 2019.

37 Email from Ruben Arakelyan, CHDE, 28 April 2017.

38 Emails from Margaret Lazyan, CHDE, 26 April 2021.

39 Emails from Vaghinak Sargsyan, CHDE, 11 May 2022; and Ani Zakaryan, CHDE, 21 July 2022.

40 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

41 Email from Fiona Kilpatrick-Cooper, HALO Trust, 18 May 2022.

42 Email from Vaghinak Sargsyan, 13 June 2022.

43 Emails from Vaghinak Sargsyan, 13 June 2022, and from Fiona Kilpatrick-Cooper, HALO Trust, 15 May 2022.

44 Email from Fiona Kilpatrick-Cooper, HALO Trust, 18 May 2022.

45 Email from Margaret Lazyan, CHDE, 19 April 2019.

46 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

47 Emails from Margaret Lazyan, CHDE, 19 April 2019 and 26 April 2021.

The CHDE has been developing standard operating procedures (SOPs) for several years.⁴⁸ SOPs on manual mine clearance, BAC, marking of hazardous areas, and medical support were all elaborated by 2018.⁴⁹ In 2020, the CHDE prepared SOPs on Information Management (IM), non-technical survey, technical survey, explosive ordnance disposal (EOD) and QM.⁵⁰ The CHDE has no strategy to address residual contamination. The only national capacity to address contaminated areas discovered following completion of clearance is within the CHDE.⁵¹

As previously mentioned, Armenia does not yet have a national mine action standard on environmental management, but plans to develop one.⁵² The HALO Trust, when conducting occasional deployments in Armenia, operates under SOPs that were updated in line with those in Nagorno-Karabakh, which are accredited by the CHDE.⁵³

OPERATORS AND OPERATIONAL TOOLS

In 2021, the CHDE deployed three non-technical survey teams, each comprising a team leader and three surveyors, compared with one non-technical survey team in 2020. Two technical survey teams were deployed by the CHDE in 2021, in contrast to 2020 when Armenia only conducted BAC and EO clearance, which was undertaken by the Foundation for Demining and Demolition (FDD), a national non-governmental organisation.⁵⁴ The CHDE had planned to add one new non-technical survey team and one or two demining teams in 2021; in practice, two non-technical survey teams were added and two technical teams. The CHDE is planning to deploy two more clearance teams.⁵⁵

The HALO Trust deployed a manual CMR team of eight deminers in Armenia between July and September 2021, and two non-technical survey teams with a total of eight personnel in October and November 2021.⁵⁶

QM is conducted in accordance with IMAS and the NMAS. QA is conducted by dedicated officers who make regular field visits to inspect cleared land.⁵⁷ QC is conducted once clearance of the land has been completed, prior to handover.⁵⁸

COVID-19 had no impact on survey or clearance operations in Armenia in 2021.⁵⁹

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

The conflict at the end of 2020 resulted in a reported increase in CMR contamination and in survey and clearance activities in Armenia. Prior to the 2020 conflict, only Kornidzor was still known to be contaminated with CMR and EO.⁶⁰ Davit Bek, which had been fully cleared and handed over to the community in 2019, was reported to be re-contaminated with ordnance, including CMR, in the 2020 conflict.⁶¹

According to data provided by the CHDE, in 2021, 80,116m² of cluster munition-contaminated area was released: 29,117m² reduced through technical survey (see Table 2), and 50,999m² through clearance (see Table 3), with the destruction of 25 submunitions (3 during clearance and 22 during EOD spot tasks). No cluster munition-contaminated area was cancelled through non-technical survey in 2021.

48 Email from Varsine Miskaryan, CHDE, 8 August 2016.

49 Email from Margaret Lazyan, CHDE, 8 August 2018.

50 Email from Margaret Lazyan, CHDE, 26 April 2021.

51 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

52 Ibid.

53 Email from Fiona Kilpatrick-Cooper, HALO Trust, 18 May 2022.

54 Email from Margaret Lazyan, CHDE, 26 April 2021.

55 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

56 Email from Fiona Kilpatrick-Cooper, HALO Trust, 18 May 2022.

57 Email from Ruben Arakelyan, CHDE, 8 June 2015.

58 Email from Margaret Lazyan, CHDE, 8 August 2018.

59 Emails from Vaghinak Sargsyan, CHDE, 11 May 2022; and Fiona Kilpatrick-Cooper, HALO Trust, 18 May 2022.

60 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

61 Email from Margaret Lazyan, CHDE, 26 April 2021.

SURVEY IN 2021

Although no cluster munition-contaminated area was cancelled through non-technical survey in 2021, non-technical survey did result in defining a total of 343,173m² of new hazardous areas in Davit Bek: 15,500m² (CHA 07), 20,350m² (CHA 08), 16,341m² (CHA 09), 3,680m² (SHA 10), 4,218m² (SHA 11) and 283,084m² (SHA 12). CHA 07 and CHA 08 were subsequently technically surveyed and released through clearance (5,992m²) and reduction (29,117m²).⁶²

Following the end of the conflict in November 2020, the CHDE conducted technical survey and EOD tasks in Syunik province and by July 2021 had destroyed more than 30 submunitions. In 2021 alone, the CHDE reduced 29,117m² of cluster munition-contaminated area through technical survey (see Table 2).

Table 2: Reduction through technical survey in 2021⁶³

Province	Task number	Area reduced (m ²)
Syunik (Davit Bek)	CHA 07	12,691
Syunik (Davit Bek)	CHA 08	16,426
Total		29,117

CLEARANCE IN 2021

The CHDE reported that a total of 50,999m² of CMR contaminated land was cleared in 2021, and three submunitions were destroyed.⁶⁴ This included 46,007m² of battle area in Syunik cleared by The HALO Trust where no cluster munition remnants were found.⁶⁵ A further 22 submunitions were discovered by the CHDE during EOD spot tasks in 2021 and destroyed by the Armenian army.⁶⁶

The 50,999m² of CMR clearance in 2021, as reported by the CHDE, was an increase on the previous year, when only 3,850m² of CMR took place. The increased clearance output in 2021 was due to Armenia addressing new CMR contamination resulting from the 2020 conflict.

Table 3: CMR clearance in 2021

Province	Operator	CHA number	Area cleared (m ²)	Submunitions destroyed
Syunik (Davit Bek)	CHDE	CHA 07	2,285	0
Syunik (Davit Bek)	CHDE	CHA 08	3,707	3
Syunik	HALO Trust	CHA 02	45,007	0
Totals			50,999	3

PROGRESS TOWARDS COMPLETION

There is no fixed date for the completion of clearance of remaining CMR contamination in Armenia and non-technical survey continues to determine the extent of new CMR and EOD contamination. The CHDE has indicated that funding is needed to accelerate progress in clearance.⁶⁷

Table 4: Five-year summary of CMR clearance

Year	Area cleared (m ²)
2021	50,999
2020	3,850
2019	0
2018	0
2017	0
Total	54,849

⁶² Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Email from Fiona Kilpatrick-Cooper, HALO Trust, 18 May 2022.

⁶⁶ Emails from Vaghinak Sargsyan, CHDE, 11 May 2022; and Ani Zakaryan, CHDE, 21 July 2022.

⁶⁷ Email from Vaghinak Sargsyan, CHDE, 11 May 2022.

KEY DATA

CLUSTER MUNITION CONTAMINATION: MEDIUM

MINE ACTION REVIEW ESTIMATE

SUBMUNITION
CLEARANCE IN 2021

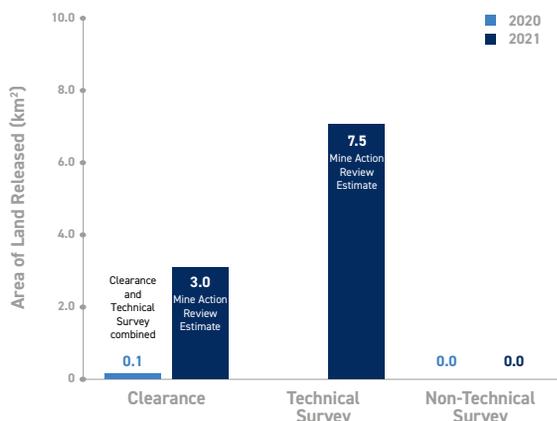
3km²

(MINE ACTION REVIEW ESTIMATE, BASED ON ANAMA'S
REPORTED TOTAL OF AREA RELEASED OF 10KM² FOR
TASK POLYGONS FOUND TO CONTAIN SUBMUNITIONS)

SUBMUNITIONS
DESTROYED IN 2021

387

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

The six-week armed conflict between Armenia and Azerbaijan that broke out in September 2020 ended with Azerbaijan regaining control over seven districts of its internationally recognised territory formally controlled by Armenia, along with 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, is underway. In 2021, the Mine Action Agency of the Republic of Azerbaijan (ANAMA, formerly the Azerbaijan National Agency for Mine Action) reported

confirming, and releasing through combined technical survey and clearance, 10.5km² of cluster munition-contaminated area in the newly regained territory, along with a small amount of existing contamination on areas already under Azerbaijan's control. The 10.5km² clearance land release reported by ANAMA to Mine Action Review was combined technical survey and clearance, and was 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 BAC tasks. Mine Action Review has therefore estimated the size of cluster munition clearance specifically as 3km² and the remaining 7.5km² as reduction through technical survey.

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.
- Azerbaijan should comply with its obligations under international human rights law to clear CMR on territory under its jurisdiction or control as soon as possible.
- 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 strive to ensure that the revised National Mine Action Standards (NMAS) are fully understood and routinely implemented by all entities conducting clearance.
- ANAMA should draft a new mine action strategy, to replace the one that expired in 2018, reflecting the significant increase in explosive ordnance (EO) contamination now under Azerbaijan's control. It should also elaborate a resource mobilisation strategy, detailing its funding needs from donors.

- Azerbaijan should systematically collect and report publicly on data on contaminated areas as well as progress in survey and clearance.
- ANAMA should consider establishing a national platform, such as a Mine Action Forum, to bring mine action relevant stakeholders, including donors, regularly to help strengthen coordination.

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
- Ministry of Defence
- Ministry of Emergency Situations
- Ministry of Internal Affairs
- Four national commercial demining companies, each with an international commercial sub-contractor:
 - Qaya partnering with Safelane Global
 - Safe Point partnering with RPS
 - Alpha Demining partnering with Altay Group
 - Azerbaijan Demining Company partnering with Piper
- One national demining NGO: International Eurasia Press Fund (IEPF)

INTERNATIONAL OPERATORS

- Turkish Armed Forces

OTHER ACTORS

- 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

The precise extent of contamination from CMR in Azerbaijan is unknown, but is not believed to be heavy. During 2021, ANAMA confirmed more than 10km² of cluster munition-contaminated-area in territory which had been previously inaccessible and which it regained control of in 2020. This was, however, based on the total size of task polygons in which submunitions were found and therefore the size of actual cluster munition contamination (i.e. the contaminated area resulting from cluster munition strikes) is likely to have been far smaller than 10km². The CMR-contaminated area identified through survey was also released in 2021, together with a small amount of legacy contamination in areas which were already under Azerbaijan's control (please see Table 2 in the section on Land Release System).¹ The 10km² of polygons which contained submunitions is roughly a quarter of the total 43km² of battle area (including all ERW) surveyed and cleared in 2021, during which a total of 8,232 items of unexploded ordnance (UXO) were found and destroyed in liberated territories. It also includes some areas which contained a combination of mines and CMR.²

With respect to a baseline of cluster munition-contaminated area, ANAMA has said that no data are yet available specifically on CMR, which are found in many former battle areas. It did, however, plan to establish a national baseline

of cluster munition-contaminated area as part of the non-technical survey.³ CMR 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 (LOC), 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 now again controls in full 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 and return the districts to Azerbaijani control.⁴

Azerbaijan also regained control of a substantial part of Nagorno-Karabakh, the rest of which is patrolled by a Russian peacekeeping force but still governed by the de-facto Nagorno-Karabakh authorities.⁵ (See the Mine Action Review *Clearing Cluster Munition Remnants* report on Nagorno-Karabakh for further information).

1 Email from Samir Poladov, Deputy Chairman of the Board, Mine Action Agency of the Republic of Azerbaijan (ANAMA), 6 June 2022.

2 Email from Samir Poladov, ANAMA, 7 July 2022.

3 Email from Samir Poladov, ANAMA, 6 June 2022.

4 See, e.g., International Crisis Group (ICG), "The Nagorno-Karabakh Conflict: A Visual Explainer", Last updated 7 May 2021, at: <https://bit.ly/3ui0ou2>.

5 ICG, "The Nagorno-Karabakh Conflict: A Visual Explainer", Last updated 7 May 2021, at: <https://bit.ly/3ui0ou2>.

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).⁶ Another Human Rights Watch report described cluster munition use by Armenia in Barda, Goranboy, and Tartar districts, including Smerch rockets containing 9N235 submunitions.⁷ 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 Qarayusuflı.⁸ The extent of CMR contamination in areas now under Azerbaijan's control is not yet known, but is not currently thought to be heavy.

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Many areas, including those formerly occupied by Armenia, are confirmed or suspected to contain ERW, both UXO and abandoned explosive ordnance (AXO). These include former military testing areas and a former shooting range.⁹ 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 1999 to plan, coordinate, manage, and monitor mine action in the country. In mid-January 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.¹⁰ As at July 2022, a draft national mine action law was expected to be approved by the end of 2022.¹¹

Prior to the 2020 conflict, ANAMA had been conducting demining operations with two national operators it was contracting – Dayag-Relief Azerbaijan (RA) and the International Eurasia Press Fund (IEPF). In March 2020, the mine action programme was restructured and RA's field personnel were incorporated within ANAMA while RA as an organisation continued to provide logistical support to ANAMA.¹² Following 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, meets twice monthly and includes Azerbaijan's most significant ministries, including the Ministry of Defence, Ministry of Interior, Ministry of Emergency Situations, and the State Border Service.¹³ ANAMA is also proposing that Azerbaijan include mine action as a new Sustainable Development Goal (SDG).¹⁴

On 31 March–1 April 2022, ANAMA and the United Nations Development Programme (UNDP) organised an international

conference on Mine Action and the Sustainable Development Goals, 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, explosive ordnance risk education, and victim assistance).¹⁵

UNDP provides capacity development to ANAMA. In 2020, the capacity development project was extended to 2023.¹⁶ In March 2021, the UNDP crisis response and UN's Central Emergency Response Fund provided US\$1 million to ANAMA to train, equip, and deploy emergency response teams to clear mines and UXO. UNDP planned to further scale up its financial and technical support to ANAMA.¹⁷ As at June 2022, UNDP was providing ANAMA with a strategic advisor, a non-technical survey advisor, an information management advisor, and with support with equipment and vehicles.¹⁸

The Geneva International Centre for Humanitarian Demining (GICHD) also supported ANAMA in 2021, in particular with respect to information management. In March 2021, the GICHD visited Azerbaijan at the request of ANAMA to conduct a needs assessment. Information management support was later conducted remotely. In addition, three ANAMA staff also attended an online regional quality management

6 Human Rights Watch (HRW), Azerbaijan: Cluster Munitions Used in Nagorno-Karabakh, 23 October 2020, at: <https://bit.ly/3bT3QXE>.

7 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>.

8 Amnesty International, "In the Line of Fire", Report, 2021, at: <https://bit.ly/3zHXp3H>, pp. 10–11.

9 ANAMA, "Azerbaijan National Agency for Mine Action 2018", p. 17.

10 "Azerbaijan establishes Mine Action Agency", APA news, 15 January 2021, at: <https://bit.ly/35MhtEu>.

11 Email from Samir Poladov, ANAMA, 7 July 2022.

12 Email from Nijat Karimov, ANAMA, 28 July 2020.

13 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.

14 Email from Samir Poladov, ANAMA, 7 July 2022.

15 Statement of the International Conference on Humanitarian Mine Action and the Sustainable Development Goals, Baku, 31 March–1 April 2022.

16 Email from Nijat Karimov, ANAMA, 21 May 2021.

17 "ANAMA and UNDP join forces to support mine action in Azerbaijan", Press release, UNDP website, 17 March 2021, at: <https://bit.ly/3hPXtrB>.

18 Email from Samir Poladov, ANAMA, 6 June 2022.

(QM) training in June 2021 and a staff member attended a non-technical survey regional training in Croatia in November 2021, both of which were conducted under the umbrella of the Eastern Europe, Caucasus and Central Asia Regional Cooperation Programme (EECCA RCP).¹⁹

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, which has a country director and two technical advisors deployed in Azerbaijan, is providing management training for 20 ANAMA demining team supervisors. The training, which began in mid-February 2022, covers survey and clearance of explosive ordnance (including CMR); operational planning, reporting, accident investigation, internal quality assurance (QA) and quality control (QC), and deployment of demining assets, including machinery and mine detection dogs (MDDs). MAG had previously been present in Azerbaijan in 2000–02, training deminers, section and team leaders, and personnel from the training department, of the non-governmental organisation (NGO) Dayag-Relief Azerbaijan (RA).²⁰

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), and the

Marshall Legacy Institute (MLI).²¹ 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.²²

In January 2022, ANAMA established a new mobile field camp for deminers in Agdam district, which it plans to use 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.²³

In its Article 7 report covering 2021 under the Anti-Personnel Mine Ban Convention (APMBC), Turkey reported the provision of training to Azerbaijan Armed Forces personnel in mine action, mine clearance, and mine detection, and mine/improvised explosive device (IED) awareness, in addition to also deploying Turkish military demining teams and machines (see section on Operators and Operational Tools).²⁴ It is unclear if Turkish personnel are also addressing CMR as part of their operations in Azerbaijan.

In 2021, the Azerbaijani government funded over 95% of the mine action programme's operating costs, with the remaining 4.3% of the total budget funded by donors. There is no separate funding specifically for cluster munition clearance.²⁵

ENVIRONMENTAL POLICIES AND ACTION

Azerbaijan's newly revised national standards (ANMAR), which cover all demining activities, include a dedicated chapter on Environmental Protection in its national standards.²⁶

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.²⁷

GENDER AND DIVERSITY

ANAMA does not have a gender and diversity policy in place. While women made up around 30% of ANAMA's total workforce, including 25% of managerial and supervisory positions at ANAMA, no women were working in an operational role as at June 2022.²⁸ ANAMA said that it encourages women to engage in a variety of roles and planned to implement a capacity building project in 2022 for female demining teams.²⁹

19 Email from GICHD, 19 April 2022.

20 MAG presentation, International Conference on Humanitarian Mine Action and the Sustainable Development Goals, Baku, 31 March–1 April 2022; and email from Olivier David, Country Director, MAG, 25 April 2022.

21 Email from Samir Poladov, ANAMA, 6 June 2022.

22 Presentation by Marshall Legacy Institute (MLI), International Conference on Humanitarian Mine Action and the Sustainable Development Goals, Baku, 31 March–1 April 2022.

23 "Azerbaijan Plans to Clear 40,000 Hectares of Liberated Land from Armenian Landmines", *Caspian News*, 30 January 2022.

24 Turkey APMBC Article 7 Report (covering 2021), Forms D and I.

25 Emails from Samir Poladov, ANAMA, 6 June and 7 July 2022.

26 Emails from Samir Poladov, ANAMA, 6 June 2022.

27 Azerbaijan National Mine Action Requirements (ANMAR), Section IV Management Systems, Chapter 9 Environmental Protection.

28 Email from Samir Poladov, ANAMA, 6 June 2022.

29 Ibid.

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. One of the goals of the UNDP-ANAMA capacity strengthening project is to introduce a gender-sensitive approach to mine action to Azerbaijan.³⁰ ANAMA is developing a strategy for the deployment of female deminers and plans to integrate gender and diversity into its forthcoming national mine action strategy. In addition, ANAMA planned to deploy a UNDP gender advisor in 2022 to support the setting up of policies and procedures on gender and diversity. Relevant risk education and victim data is disaggregated by gender and age.³¹

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, to their homelands and ensuring sustainable development of repatriated communities in a safe environment.³²

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.³³ As at June 2022, ANAMA was in the process of transitioning to IMSMA Core and had already established an Online ArcGIS Portal. Draft forms to record daily progress, non-technical survey, and hazardous areas, and for external QC were already in place. ANAMA intended to launch the new IMSMA Core system in 2022. Information management approaches will also be used by other ministries to support evidence-based decision making.³⁴

ANAMA reports that efforts are ongoing to improve the quality of data in the mine action database. 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.³⁵ ANAMA plans to generate daily progress reports once it has migrated to IMSMA Core.³⁶

All data on clearance operations, including those of the military, are reported centrally to ANAMA.³⁷

PLANNING AND TASKING

The existing national mine action strategy was for 2013–18. Its main aims were said to be to continue mine and ERW clearance in support of government development projects and to provide safe conditions for the local population in affected regions.³⁸ The strategy expired at the end of 2018 and had not been replaced as of writing. In May 2021, ANAMA reported that a new strategy was being developed with a UNDP Chief Technical Advisor contracted and deployed to Azerbaijan to contribute to and speed up the process.³⁹ As at June 2022, elaboration of the new strategy was ongoing.⁴⁰

ANAMA develops annual work plans which are approved by the Prime Minister. Priority setting comes from the Cabinet of Ministers, as the highest level executive body in the country. Priorities are set in accordance with rehabilitation and reconstruction plans in the regained territories.⁴¹

30 UNDP, "Review & Recommendation to Azerbaijan National Agency for Mine Action (ANAMA) in Support of its Transformation into International Centre for Demining assessment 2018", 17 July 2018.

31 Email from Samir Poladov, ANAMA, 6 June 2022.

32 Ibid.

33 Presentation by ANAMA, International Conference on Humanitarian Mine Action and the Sustainable Development Goals, Baku, 31 March–1 April 2022.

34 Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022; and email from Samir Poladov, ANAMA, 6 June 2022.

35 Emails from Nijat Karimov, ANAMA, 21 May 2021; and Samir Poladov, ANAMA, 6 June 2022.

36 Email from Samir Poladov, ANAMA, 6 June 2022.

37 Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.

38 Email from Sabina Sarkarova, ANAMA 2 May 2018.

39 Email from Nijat Karimov, ANAMA, 21 May 2021.

40 Email from Samir Poladov, ANAMA, 6 June 2022.

41 Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022; presentation by ANAMA, International Conference on Humanitarian Mine Action and the Sustainable Development Goals, Baku, 31 March–1 April 2022; and email from Samir Poladov, ANAMA, 6 June 2022.

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Azerbaijan has its own National Mine Action Standards (NMAS), known as the Azerbaijan National Mine Action Requirements (ANMAR), which were adopted in 2001 and subsequently revised in 2003, 2004, and 2010.⁴² In 2021, all chapters of the ANMAR were fully revised in line with IMAS.⁴³ The draft of the revised standards has been provided to all operators,⁴⁴ and ANAMA expected the revised standards to be formally approved in 2022. The revised ANMAR includes a chapter on battle area clearance (BAC), but not specifically on cluster munition clearance.⁴⁵ ANAMA plans to train operators on the new standards.⁴⁶

It is important that all entities conducting clearance apply the latest national standards and update their standing operating procedures (SOPs) accordingly, and that ANAMA monitors to ensure the new standards are being implemented across the board.

In 2021, ANAMA did not disaggregate cluster munition tasks from other BAC tasks, prior to tasking polygons for clearance. Land release data for 2021 reported by ANAMA was therefore based on the polygons in which submunitions were found,⁴⁷ rather than technical survey 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 it does not have personnel dedicated to CMR operations. ANAMA has undergone a significant restructuring following the conflict with Armenia in 2020, with the total number of ANAMA employees having risen from 500 employees in 2020 to between 1,200 and 1,500 employees in 2021.⁴⁸ 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 instead has been encouraging the expansion of other operator capacities, including a significant commercial base; and has been envisaging to strengthen its role as the national mine action centre.⁴⁹

As at July 2022, ANAMA was operating with 762 deminers, 24 machines, and 30 MDDs, in addition to deploying other technical tools such as scanners, ground penetrating radar, and drones.⁵⁰ Capacity in mid 2022 was a significant increase on 2020, when ANAMA had a total capacity of 300 deminers, 6 machines, and 40 MDDs.⁵¹ ANAMA and the Ministry of Defence conduct both technical survey and clearance, using MDDs and machines as well as demining personnel.⁵² ANAMA planned to further increase non-technical survey, technical survey, and clearance capacity in 2022, including with respect to CMR operations.⁵³

The Ministry of Defence established a humanitarian demining battalion, and the Ministry of Emergency Situations and Ministry of Internal Affairs also conduct clearance of explosive ordnance in Azerbaijan.⁵⁴ As at March 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.⁵⁵ In addition, as at June 2022, there was one national NGO conducting demining, IEPF. A second national NGO, Dayag-Relief (RA), was conducting explosive ordnance risk education and was in the process of being trained to also conduct demining.⁵⁶ 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 QA for operators and issues hand-over certificates after QA.⁵⁷

The Turkish Armed Forces are also conducting mine and ERW clearance in Azerbaijan. According to Turkey, eight military demining teams have been conducting demining operations in Azerbaijan since December 2020, to support the mine clearance activities conducted by Azerbaijan. In addition, six demining machines (MEMATT-I) manufactured in Turkey were sent to Azerbaijan in 2021 and Turkey plans to complete the deployment of 20 demining machines (MEMATT-II) to Azerbaijan in the coming years.⁵⁸ ANAMA expected to have a total of 24 of its own machines by the end of 2022.⁵⁹

42 Email from Tural Mammadov, ANAMA, 19 October 2016.

43 Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.

44 Email from Samir Poladov, ANAMA, 6 June 2022.

45 Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022; and email from Samir Poladov, ANAMA, 7 July 2022.

46 Email from Samir Poladov, ANAMA, 7 July 2022.

47 Ibid.

48 "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.

49 Email from Guy Rhodes, Chief Technical Advisor, UNDP, 23 June 2021.

50 Email from Samir Poladov, ANAMA, 7 July 2022.

51 Emails from Nijat Karimov, ANAMA, 21 May and 23 July 2021.

52 Email from Samir Poladov, ANAMA, 7 July 2022.

53 Email from Samir Poladov, ANAMA, 6 June 2022.

54 Email from Samir Poladov, ANAMA, 7 July 2022. "Over 700 mines, munitions defused in liberated lands in April", Azernews, 15 April 2022, at: <https://bit.ly/3xfbg1b>; and "Army's engineer-sapper units demine over 2,300 ha of liberated lands in May", Azernews, 1 June 2022, at: <https://bit.ly/3xkjmFG>.

55 Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.

56 Interview with Samir Poladov, ANAMA, and Mark Buswell, UNDP, in Geneva, 23 June 2022.

57 Email from Samir Poladov, ANAMA, 7 July 2022.

58 Turkey APMBC Article 7 Report (covering 2021), Forms D and I.

59 Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.

Azerbaijan is using Remote Aerial Minefield Survey (RAMS) to assess suspected areas and collect information on emplaced mines, and other information, such as the location of trenches and military positions.⁶⁰ ANAMA uses RAMS for non-technical survey in non-populated areas.⁶¹ According to an online media source, 18,000 hectares (18km²) of land in Zangilan, Fuzuli, Jabrayil, Tartar and Qubadli regions were analysed last year through artificial intelligence.⁶²

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, QC was conducted on 10% of land, but this has been reduced to 5%, while frequent site visits have been maintained.⁶³

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

A total of over 10.5km² was released through technical survey and cleared in 2021, with the destruction of 387 submunitions, 207 other UXO, and 11 anti-personnel mines, including items of EO destroyed during spot tasks. No cluster munition-contaminated area was cancelled through non-technical survey in 2021.

The 10.5km² released was through technical survey and clearance combined, of which Mine Action Review has estimated 3km² was cleared and 7.5km² was reduced through technical survey. It corresponds to the total size of task sites in which submunitions were found. Therefore the size of actual cluster munition contamination (i.e. the contaminated area resulting from cluster munition strikes) is likely to have been far smaller than 10km² reported. The 10km² represents just under a quarter of the 43km² of total battle area (containing all types of ERW) identified and cleared in 2021, during which a total of 8,232 items of UXO were destroyed.⁶⁴

SURVEY IN 2021

ANAMA confirmed more than 10.51km² of polygons containing submunitions through technical survey in 2021 (see Table 1),⁶⁵ all of which was located in areas previously under the control of Armenia or Nagorno-Karabakh, and inaccessible to Azerbaijan, until it regained control of the territory in 2020. Cluster munition-affected areas were mostly in locations closer to the former LOC, including in larger cities such as Barda, Tartar, Yevlakh, and Beylagan.⁶⁶ The 10.5km² is the total size of task polygons found to contain submunitions, therefore significant portions of polygons were likely to have contained ERW other than submunitions and the actual size of the cluster munition-contaminated area will have been far smaller than 10km².

Mine Action Review has estimated that of the 10.5km² of area released through technical survey and clearance combined (see Table 2), 7.5km² was reduced through technical survey and the remainder through clearance.

No cluster munition-contaminated area was cancelled through non-technical survey in 2021.⁶⁷

Table 1: Cluster munition-contaminated area confirmed through technical survey in 2021⁶⁸

District	Operator	Total size of polygons found to contain submunitions (m ²)
Agdam	ANAMA	5,207,936
Fuzuli	ANAMA	2,961,348
Jabrayil	ANAMA	1,588,914
Khojavend	ANAMA	188,903
Shusha	ANAMA	204,150
Total		10,151,251

60 Ibid.

61 Email from Samir Poladov, ANAMA, 7 July 2022.

62 "Over 700 mines, munitions defused in liberated lands in April", *Azernews*, 15 April 2022.

63 Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.

64 Email from Samir Poladov, ANAMA, 7 July 2022.

65 Email from Nijat Karimov, ANAMA, 23 July 2021.

66 Email from Samir Poladov, ANAMA, 7 July 2022.

67 Email from Nijat Karimov, ANAMA, 23 July 2021.

68 Email from Samir Poladov, ANAMA, 6 June 2022.

CLEARANCE IN 2021

A combined total of more than 10.5km² was released through both technical survey and clearance in 2021 (see Table 2). In total 387 submunitions, 207 other UXO, and 11 anti-personnel mines were destroyed, some during spot tasks.⁶⁹ As the 10.5km² reported by ANAMA to Mine Action Review was combined land release through technical survey and clearance, Mine Action Review has estimated that 3km² was clearance and the remainder reduction through technical survey. Furthermore, the 10.5km² 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.

The vast majority of the clearance was conducted in areas which Azerbaijan regained control of in 2020 and which it confirmed as contaminated through technical survey in 2021.

ANAMA said that the clearance was mainly surface and immediate subsurface. The types of submunitions found and destroyed were 9N235, 9M525, TAB1M (RBK50), ShOAB 0.5.⁷⁰

CMR clearance output in 2021, estimated by Mine Action Review at 3km², was a significant increase on 2020, during which a little over 0.10km² of cluster munition-contaminated area was released through combined survey and clearance.⁷¹ The increase was due the start of large-scale demining operations, following the 2020 conflict and Azerbaijan's access to regained territory.

ANAMA reported that COVID-19 had very little impact on clearance operations in 2021, due to the strict rules and vaccinations.⁷²

Table 2: Combined technical survey and clearance of tasks containing submunitions in 2021⁷³

District	Operator	No. of task polygons	Area cleared (m ²)	Submunitions destroyed*	AP mines destroyed	Other UXO destroyed*
Agdam**	ANAMA	5	5,207,936	167	2	10
Barda	ANAMA	4	2,000	4	0	0
Beylagan	ANAMA	2	150,002	29	0	0
Fuzuli**	ANAMA	14	3,165,348	120	5	101
Goranboy	ANAMA	2	4,100	2	0	5
Jabrayil**	ANAMA	4	1,588,914	37	2	66
Khojavend**	ANAMA	1	188,903	2	0	0
Shusha**	ANAMA	4	206,960	8	2	24
Tartar	ANAMA	1	700	1	0	0
Yevlakh	ANAMA	1	1,000	17	0	1
Totals		38	10,515,863	387	11	207

AP = Anti-personnel * Figures include items destroyed during technical survey.

** Previously inaccessible territory over which Azerbaijan regained control in 2020.

PROGRESS TOWARDS COMPLETION

No target date has been set for the completion of CMR clearance in Azerbaijan, as the extent of remaining CMR contamination is unknown.⁷⁴

Azerbaijan has called for support for its mine action efforts. According to its statement at the APMBC Intersessional meetings in June 2022, ANAMA has identified the following needs: 1) data and technology, including for aerial survey; 2) scaling up RAMS capacity as a method for gathering data; 3) support for the institutional capacity building of ANAMA; 4) increasing ANAMA's mechanical demining capacities; 5) further developing its MDD training/advisory capacity; and 6) establishing and supporting female demining teams.⁷⁵

Previously, in May 2019, Azerbaijan had stated that it would only accede to the CCM once all of its territories are liberated from occupation by Armenia and all internally displaced persons and refugees return to their lands.⁷⁶

69 Ibid.

70 Email from Samir Poladov, ANAMA, 13 July 2022.

71 Email from Nijat Karimov, ANAMA, 23 July 2021.

72 Email from Samir Poladov, ANAMA, 6 June 2022.

73 Emails from Samir Poladov, ANAMA, 6 June 2022 and 21 July 2022.

74 Ibid.

75 Statement of Azerbaijan, APMBC Intersessional meetings, 20–22 June 2022.

76 Email from Sabina Sarkarova, ANAMA, 21 May 2019.

KEY DATA

CLUSTER MUNITION CONTAMINATION: HEAVY

NATIONAL ESTIMATE

745 KM²

SUBMUNITION
CLEARANCE IN 2021

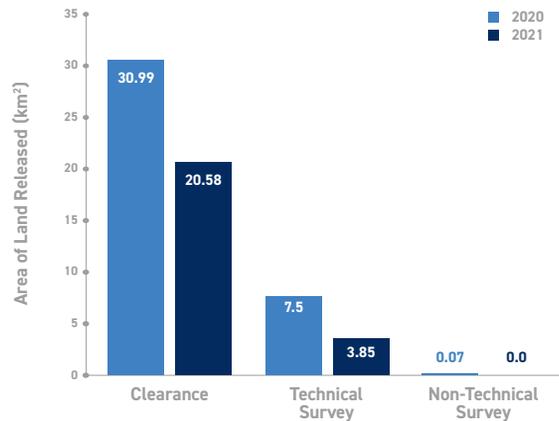
20.58 KM²

SUBMUNITIONS
DESTROYED IN 2021

4,268

(INCLUDING 2,375 THROUGH
EOD 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.
- Cambodia should more accurately establish the extent of CMR contamination, through further systematic and comprehensive evidence-based survey of suspected hazardous areas (SHAs) generated by the national baseline survey (BLS).
- 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.
- The CMAA should work with operators to develop criteria for cancellation of areas identified by CMRS as having no evidence of contamination.
- The CMAA should improve CMR planning and prioritisation guidelines and implement a more targeted systematic clearance prioritisation process for confirmed hazardous areas (CHAs).
- The CMAA should work with operators to eliminate persistent discrepancies in operating results.

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)

UNDERSTANDING OF CMR CONTAMINATION

Cambodia has very extensive CMR contamination but is still trying to reach an accurate determination of the extent. Estimates of total contamination have fluctuated in recent years but at the end of 2021, the CMAA said Cambodia had 2,364 CMR polygons spread across 18 provinces and covering 698.7km² (see Table 1), a small (6%) dip from the 744km² reported a year earlier.¹ The CMAA and its implementing partners believe the total will be significantly reduced through technical and non-technical survey.²

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.³ Assessment of the resulting contamination, however, remains a work in progress.⁴

Estimates of the extent are complicated by the evolution of CMR survey methodologies. CMR contamination data is derived from a baseline survey of explosive ordnance conducted between 2009 and 2020. Until the adoption of cluster munition remnant survey (CMRS) and cluster munition technical survey rolled out after 2015, initial results were based on a mine survey methodology that produced

inflated polygons that included large amounts of land with no CMR but also missed areas of CMR contamination. Continuing survey and resurvey of some BLS polygons applying technical survey methods is producing more accurate, evidence-based data for the national database.⁵

In the CMAA's latest estimate, eight eastern provinces⁶ account for 1,745 polygons, nearly three-quarters of the total, and (437km²) 63% of total CMR-affected area (9% less than the 2020 estimate).⁷ 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.⁸ 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 province was nearly 40% lower than the 60km² reported a year earlier (see Table 1).⁹ A further 619 polygons affecting an estimated 261km² are located in the 10 other provinces located further from the border in the centre, south, and west of Cambodia. These 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 dedicated technical survey.¹⁰

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Cambodia has extensive contamination by other explosive remnants of war. This consists mainly of anti-personnel landmines which it estimated to cover 715km² at the end of 2021.¹¹ The Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request submitted in 2019 estimated contamination by other unexploded ordnance (UXO) affected another 468km², but Cambodia's latest APMBC Article 7 report showed the estimate had since fallen to 333km².¹²

1 Email from Ros Sophal, Database Unit Manager, on behalf of Prum Sophakmonkol, Director, CMAA, 10 May 2022.

2 CMAA, National Mine Action Strategy 2018–2025, p. 9.

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 The eight eastern provinces are: Kampong Cham, Kratie, Mondulkiri, Prey Veng, Rattanakiri, Stung Treng, Svay Rieng and Tbung Khmum.

7 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.

8 Email from Portia Stratton, NPA, 19 April 2022.

9 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.

10 Email from Portia Stratton, NPA, 19 April 2022.

11 APMBC Article 7 Report (covering 2021), pp. 4–5.

12 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 6; and APMBC Article 7 Report (covering 2021), Annex B.

Table 1: Cluster munition-contaminated area (at end 2021)¹³

Province	BLS polygons	Area (m ²)	Total area at end 2021 (m ²)
Battambang	1	26,872	26,872
Kampong Cham	211	42,146,965	46,451,999
Kampong Chhnang	19	2,039,894	2,046,122
Kampong Speu	85	12,366,578	12,366,578
Kampong Thom	340	58,718,840	62,612,902
Kampot	2	103,392	103,392
Kandal	58	5,494,016	5,511,202
Kratie	256	77,106,486	83,538,685
Mondulkiri	74	27,209,769	27,412,322
Phnom Penh	17	1,505,640	1,512,696
Preah Sihanouk	14	2,984,350	2,984,350
Preah Vihear	74	176,452,684	177,087,266
Prey Veng	291	48,946,921	50,135,371
Rattanakiri	338	43,306,969	60,270,478
Stung Treng	179	124,474,717	127,134,100
Svay Rieng	216	45,133,159	49,825,559
Takeo	9	1,675,366	1,973,835
Tbung Khmum	180	29,002,751	33,360,645
Totals	2,364	698,695,369	744,354,374

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, Prum Sophakmonkol, manages CMAA's planning and operations.¹⁴ The CMAA has noticeably strengthened in recent years, and its roles and responsibilities have become more clearly defined.¹⁵ CMAC, which was established in 1992, had previously been responsible for regulating and coordinating the sector in addition to undertaking clearance. Since 2000, CMAC's activities have been limited to conducting demining,

risk education, and training.¹⁶ CMAC, which conducts both humanitarian and commercial survey and clearance, is Cambodia's largest mine action operator.¹⁷

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.¹⁸ MAPUs meet regularly with all mine action operators to plan annual mine action activities.¹⁹

13 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022. Data represent the total of contamination estimates previously disaggregated by CMAA as CHAs and SHAs.

14 CMAA, "Legal framework and mandate", at: <http://bit.ly/2W7r3dJ>.

15 Interviews with Su Yeon Yang, Project Coordination Officer, and Tong Try, UNDP, 23 April 2019; and Rebecca Letven, Programme Manager, MAG, Phnom Penh, 25 April 2019.

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 Vezić, Programme Manager, NPA, 5 May 2020.

The Cambodian government established a Technical Working Group on Mine Action (TWG-MA) as a consultative mechanism between the government and implementing partners.²⁰ It meets on a bi-annual basis and is attended by the CMAA, relevant ministries, operators, and donors.²¹ TWG meetings were suspended in 2020 due to the COVID-19 pandemic²² but resumed online in 2021 and were scheduled to be held in-person in 2022.²³ 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.²⁴ The CMAA set up a separate TRG for the survey and clearance of CMR in 2020 to share best practice among operators and address challenges. It met first in October 2020 and was due to meet twice a year but also did not meet in 2021 due to COVID-19 and was similarly due to resume meetings in 2022.²⁵

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.²⁶ The CMAA is open to the trialling and use of innovative survey and clearance methods and tools to improve efficiency.²⁷

The mine action sector receives technical support from a range of international organisations. The Geneva International Centre for Humanitarian Demining (GICHD)

supported the upgrading of the CMAA's information management system as well as gender mainstreaming and the development of Cambodian national mine action standards.²⁸ NPA, as part of a United Kingdom-funded partnership that includes MAG and The HALO Trust, conducts capacity development activities in support of the CMAA on gender equity and mainstreaming, information management, knowledge management, planning and prioritisation, quality management (QM), revision and development of the Cambodian Mine Action Standards, and strategic planning.²⁹

The Cambodian government contributes funding for clearance and management of the sector.³⁰ This support includes covering the expenses of the CMAA and providing funds to support planning and prioritisation, quality assurance/quality control (QA/QC), database management, Cambodia mine/ERW victim information system (CMVIS), and risk education.³¹ The cost of the database unit is, however, shared by NPA and UNDP.³²

The Cambodian government also provides a 10% in-kind contribution to any new donor funding.³³ The Cambodian government has reported contributing just under 30% of the total funding to the mine action sector (US\$99.49 million of US\$340.2 million) in 2010–18.³⁴ Cambodia funds mine and ERW survey and clearance by CMAC and the National Centre for Peacekeeping Forces Management, Mines and Explosive Remnants of War Clearance (NPMEC).³⁵ Local authorities coordinate and provide security support to survey and clearance operations on the ground.³⁶ Cambodia has estimated it will need almost \$119 million for CMR clearance in 2020–25.³⁷

ENVIRONMENTAL POLICIES AND ACTION

In 2021, Cambodia introduced a national mine action standard on environmental management (CMAS 20), and discussions continue on further amendments or additions to the standards. As of June 2022, the CMAS was being translated from Khmer into English. In the meantime, most operators reported following internal environmental policies and SOPs. APOPO updated its in-house environment policy in 2020, which has three main chapters on "Know", "Protect", and "Act", with recommendations carried over into an SOP on environment.³⁸ MAG said it followed the IMAS on environmental management and protection and had its own SOPs to minimise environmental damage.³⁹

20 CMAA, National Mine Action Strategy 2018–2025, p. 24; and email from Tong Try, National Mine Action Adviser, UNDP, 18 June 2019.

21 Emails from Prum Sophakmonkol, CMAA, 1 July 2020; Oum Phumro, CMAC, 9 June 2021; Rebecca Letven, MAG, 7 April 2020; and Zlatko Vezilic, NPA, 5 May 2020.

22 Email from Matthew Hovell, Head of Region SE Asia, HALO, 9 April 2021.

23 Email from HALO Trust, 25 March 2022; phone interview with Portia Stratton, NPA, 13 May 2022.

24 CMAA, National Mine Action Strategy 2018–2025, p. 24; and emails from Tong Try, UNDP, 18 June 2019 and 27 July 2021.

25 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 6 September 2020 and 14 May 2021; Alexey Kruk, Country Director, MAG, 6 May 2022 and phone interview with Portia Stratton, NPA, 13 May 2022.

26 Emails from Prum Sophakmonkol, CMAA, 11 September 2019; Rebecca Letven, MAG, 7 April 2020; and Lasha Lomidze, Programme Manager, HALO Trust, 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 Trust, 10 April 2019

28 Email from GICHD, 1 July 2020.

29 Email from Portia Stratton, NPA, 21 April 2021.

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, 6 September 2020.

34 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 6.

35 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.

36 Ibid.

37 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 55.

38 Email from Michael Heiman, APOPO, 1 April 2022.

39 Email from Alexey Kruk, MAG, 6 May 2022.

GENDER AND DIVERSITY

The CMAA has developed 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, approved at the end of 2021 and covering the years 2021–25, sets out three strategies building on the earlier plans. These include: 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.⁴⁰

The latest National Mine Action Strategy three-year Implementation Plan (2021–23) sets out activities in support of these goals.⁴¹ NPA, as part of its capacity development, is supporting the CMAA with training on gender mainstreaming in mine action, on implementation of the GMMAP and the development of associated guidelines, and on how to use gender- and age-disaggregated data in planning and prioritisation.⁴² GMMAP guidelines require 26 forms to collect data fully disaggregated by sex, age, and disability (SADDD).⁴³

GICHD's Gender and Mine Action Programme continues to support CMAA on the development and implementation of the GMMAP, guidelines and CMAS on gender mainstreaming, as well as training for CMAA staff, MAPUs, and operators, under the framework of a joint capacity development action plan.⁴⁴

A CMAA Gender Mainstreaming Team (GMT) was established to coordinate with the TRG 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 risk education (MRE) and victim assistance (VA).⁴⁵ Of the CMAA's 216 employees in 2021, (20%) were female, with women in 12 of 49 (24%) managerial level positions and 28 of the 104 (27%) office staff but only four of 63 field positions (6%).⁴⁶

As at April 2021, women made up 30% of Cambodian Self Help Demining (CSHD)'s workforce, with women in 5% of managerial/supervisory roles and 33% of operational positions.⁴⁷ APOPO finished the year with a similar proportion of women employees who accounted for 23 of its 72 staff, but they also made up more than one-third of the staff holding managerial positions and nearly half of its operations.⁴⁸

MAG started developing an action plan to promote gender and inclusion to follow up the findings of an assessment conducted in 2021. It operates mixed gender community liaison teams gathering information on the location of CMR and doing pre-clearance assessment of their impact. Women made up 37% of MAG's 525-strong team in Cambodia at the end of 2021, including 40% of its deminers and a majority (61%) of its medics. Women held 25 of the 93 staff in managerial or supervisor positions, including the heads of finance, human resources, and procurement.⁴⁹

Women were less than half (45%) of NPA's total employees in Cambodia in 2021, but close to two-thirds (64%) of its operations personnel, including its operations supervisor and an operations officer. It said it recruited local staff from different ethnic communities to ensure teams could communicate effectively with minorities. Its main office staff included female managers for its support service department and finance.⁵⁰

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.⁵¹ The DBU has taken a range of actions in the past two years to increase the accuracy of data and the efficiency of information management, working closely with international partners. The CMAA has used the Information Management System for Mine Action New Generation (IMSMA-NG) since 2014 and in 2020 started the process of upgrading the system to IMSMA Core, working with the GICHD.

A Virtual Private Network set up by the DBU in 2018 enables operators to submit daily operating data directly to the IMSMA database.⁵² The CMAA has also worked closely with the GICHD on the development of an application for daily data collection, a web application for QA/QC, and a dashboard to view the output summary in order to assist planning and decision making, to allow for mobile data collection in the field and allow MAPUs and QMTs to enter data online, and to verify the data submitted by operators.⁵³

40 Gender Mainstreaming in Mine Action Plan 2021–25, December 2021, pp. 6–7.

41 CMAA, Three-Year Implementation Plan 2018–2020, Phnom Penh, undated, but 2018, p. 14.

42 DFID Capacity Development Report, Activity Detail Extract, 18 September 2018.

43 Emails from Portia Stratton, NPA, 21 April 2021; and Tong Try, UNDP, 27 July 2021.

44 Email from GICHD, 20 July 2022.

45 CMAA, National Mine Action Strategy 2018–2025, p. 22; and email from Tong Try, UNDP, 27 July 2021.

46 WhatsApp message from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 1 June 2022.

47 Email from Chhun Bora, Training and Monitor Officer, CSHD, 19 April 2021.

48 Email from Michael Heiman, Regional Manager, APOPO, 1 April 2022.

49 Emails from Alexey Kruk, MAG, 29 March and 28 May 2021 and 6 May 2022.

50 Email from Portia Stratton, NPA, 19 April 2022.

51 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.

52 Email from Rebecca Letven, MAG, 9 May 2019; and interview with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2019.

53 Emails from Prum Sophakmonkol, CMAA, 1 July 2020; and Ros Sophal, CMAA, 16 August 2021; and interview with Ros Sophal, CMAA, 30 June 2021.

The CMAA has introduced a new reporting form following endorsement of the national standard on CMRS in November 2018. The new Cluster Munition Technical Survey (CMTS) reporting form, in conjunction with the standard, has improved both the effectiveness of the CMRS and the quality of reporting of survey results to the national database as it enables operators to submit the actual CHA after completing technical survey, which has improved the quality of clearance work plans.⁵⁴

The CMAA continued to hold regular 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 line with COVID-19 regulations but were due to resume in-person in 2022. The CMAA database unit said it also had regular meetings with operators once or twice a month to sort out any data issues.⁵⁵ Despite the increased contacts between CMAA and operators on data, operating results continued to show significant discrepancies.

PLANNING AND TASKING

Cambodia's National Mine Action Strategy 2018–2025 was officially launched in May 2018 with eight goals for clearance of mines, CMR, and other ERW, setting the direction for the mine action sector in Cambodia. It includes targets for tackling CMR contamination as the second of its eight goals. It called for "release of prioritised cluster munition-contaminated areas of 43.4km² out of a total 130.2km² by 2025" and specified two broad CMR-related objectives:⁵⁶

- Plan and prioritise CMR-contaminated areas to be released; and
- Conduct survey and release confirmed areas of CMR contamination, develop national standards for survey and clearance, implement the cluster munition remnant survey (CMRS) methodology and increase survey and clearance capacity.

The accompanying Three-Year Implementation Plan 2018–20 has now been replaced by a new Implementation Plan 2021–23, which sets out activities and indicators to implement the strategy.⁵⁷

The CMAA compiles the annual national clearance work plan for mines and CMR, which comprises all the provincial clearance work plans. MAPUs are responsible for developing their own work plans in accordance with the planning and prioritisation guidelines. The PMACs approve the MAPU's work plans, which are then endorsed by the CMAA. The

MAPUs use the provincial work plan to monitor clearance performance and report progress to the PMAC and the CMAA.⁵⁸ 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 coordinating at the provincial level to develop a clearance list, again, using agreed criteria.⁵⁹

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. Task prioritisation begins with the MAPU as part of the annual work plan development process. Although the exact prioritisation criteria are not as well defined for CMR clearance as they are for mine clearance, the process at present typically works as follows: consultation with village leaders then a commune workshop then SHA "reconnaissance" then SHA prioritisation then a district workshop then a provincial workshop and then work plan finalisation.⁶⁰ 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.⁶¹

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Mine action is conducted according to Cambodian Mine Action Standards (CMAS), which are broadly consistent with the International Mine Action Standards (IMAS).⁶²

54 Email from Portia Stratton, NPA, 21 April 2021.

55 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.

56 CMAA, National Mine Action Strategy 2018–2025, pp. 11–12.

57 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.

58 APMBBC Article 5 deadline Extension Request, 27 March 2019, p. 5.

59 Ibid.; and interview with Prum Sophakmonkol, CMAA, Geneva, 11 February 2020.

60 Emails from Rebecca Letven, MAG, 7 April and 4 September 2020.

61 Email from Zlatko Vezilic, NPA, 4 April 2019.

62 Emails from Rebecca Letven, MAG, 7 April 2020; and Zlatko Vezilic, NPA, 19 March 2020.

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.⁶³ CMAS-16 is largely based on the experience of other programmes in the region implementing the CMRS method, which combines non-technical and technical survey.⁶⁴ However, the CMAA and operators continue to debate criteria for releasing areas of BLS polygons not confirmed as hazardous by technical survey.⁶⁵ Initial discussions on land release and CMAS 16 took place in a TRG meeting held in Rattanakiri in October 2020 and agreed that further work was needed to amend the standard over the course of 2021.⁶⁶ No further discussion took place in 2021 but CMAA planned to hold one or two TRG meetings in 2022 providing the possibility for follow-up discussion.⁶⁷

Since 2019, the CMAA, with support from NPA with FCDO funding and in consultation with other mine clearance operators, has been developing a number of new standards. These included new standards on animal detection, mechanical demining, information management, and the environment were elaborated in 2019.⁶⁸ As at June 2022, the CMAA had approved new standards for information management and the environment. The CMAS chapters on mechanical clearance and on animal detection systems were finalised and awaiting approval by the CMAA. In addition, the CMAS on explosive ordnance risk education (EORE) has also been revised and updated to bring it in line with IMAS.⁶⁹

OPERATORS AND OPERATIONAL TOOLS

Survey and clearance of CMR in 2021 was conducted by two national operators (CMAC, the biggest operator in Cambodia, and CSHD, the smallest), and three international operators (APOPO, MAG, and NPA). The total number of clearance personnel declined from 287 in 2020 to 257 in 2021 but the programme added animal detection capacity and two more mechanical assets.

Table 2: Operational clearance capacities deployed in 2021⁷⁰

Operator	Manual clearance teams	Total deminers*	Animal detection capacity (dogs and handlers)	Mechanical assets/machines**	Comments
APOPO (in partnership with CMAC)	1	4	APOPO, in partnership with CMAC, had 4 TSDs using SMART systems, used for CMRS in Preah Vihear province (Jan–Aug 2021)	0	
CMAC	4 BAT; 4 BAC-TS; 5 BAC-FC; and 4 BAC-MTT	153	2 teams, totalling 4 explosive detection dogs (EDDs), 4 handlers	N/A	
CSHD	1	12	0	0	
MAG Cambodia	10 teams (BAC1, 2, 3, 4, 5, 7, 8, 11, 12, 13)	83	None	1	Mechanical assets include 1 drone and 7 machines for vegetation removal
NPA	3	15	6 dogs and 6 dog handlers	0	1 MTT conducts EOD and battle area clearance
Totals		267	14 dogs	1	

* Excluding team leaders, medics, drivers. ** Excluding vegetation cutters and sifters EOD = Explosive ordnance disposal

APOPO had previously only undertaken anti-personnel mine operations in Cambodia, but in November 2020 it began CMRS operations in partnership with CMAC in the east of Preah Vihear province. APOPO uses technical survey dog (TSD) teams on cluster munition-contaminated areas to reduce areas found not to contain CMR and identify the perimeters of CHAs. These are then cleared by APOPO's manual clearance operators.⁷¹

63 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 6 September 2020; and Portia Stratton, NPA, 4 September 2020.

64 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.

65 Online interview with Tony Fernandes, Technical Operations Manager, MAG, 16 May 2022; and email from Sron Samrithea, Deputy Programme Manager, NPA, 5 July 2022.

66 Emails from Portia Stratton, NPA, 21 April 2021; and Alexey Kruk, MAG, 29 March 2021.

67 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022; Portia Stratton, NPA, 19 April 2022 and online interview with Tony Fernandes, MAG, 16 May 2022.

68 Emails from Zlatko Vezilic, NPA, 5 May 2020; and Lasha Lomidze, HALO Trust, 15 May 2020.

69 Emails from Sron Samrithea, NPA, 5 and 11 July 2022.

70 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022; Michael Heiman, Regional Manager, APOPO, 1 April 2022; Alexey Kruk, MAG, 6 May 2022; and Portia Stratton, NPA, 19 April 2022.

71 Emails from Michael Heiman, APOPO, 4 May 2020; 22 March, 8 June, and 28 July 2021; and 1 April 2022.

APOPO started CMRS operations as the second phase of a GICHD SMART TSD Evaluation Project, having been deployed for 18 months in mined areas in Preah Vihear. The methodology employs long-range search dogs carrying the Swiss Mine Action Reduction Tool (SMART), an electronic track and trace systems carried in a harness, which allows remote monitoring and generates IMSMA compatible data.⁷² The pilot project in November-December 2020 found that TSDs achieved productivity of 2,136m² a day.⁷³ Based on the promising productivity and cost-efficiency gains seen during the project, APOPO continued operating one survey team with six personnel and four TSD units in partnership with CMAC in January through August 2021. APOPO and MAG started a TSD deployment in Rattanakiri province in the third quarter of 2021, training a team of four handlers and five dogs. The teams became operational in February 2022.⁷⁴

CMAA data showed that CMAC operated with 17 survey and clearance teams comprising 153 personnel in 2021.⁷⁵ This was much the same capacity as the previous year when CMAC reported working with 14 non-technical survey teams, totalling 70 survey personnel and 4 technical survey teams totalling 20 personnel.⁷⁶ MAG increased the number of non-technical survey teams from two to three in 2021, totalling six survey personnel and also operated three technical survey teams (including two new teams from Q3), totalling thirty survey personnel.⁷⁷ NPA had three survey teams (also referred to in Table 2), totalling 15 survey personnel, who conduct survey, clearance, and explosive ordnance disposal (EOD) as required.⁷⁸

CMAC and NPA continued a partnership that started in 2014 under which CMAC's Demining Unit 5 conducts survey

and clearance mentored and monitored by NPA. Its initial objective—to complete the baseline survey—was achieved by the end of 2020. The partnership subsequently focused on building DU5's capacity to conduct CMRS in targeted provinces in north-eastern Cambodia. CMAC has also had one EOD team based in Takeo province (mainly working around Takeo and Kandal provinces around Phnom Penh, but sometimes further afield).⁷⁹

MAG has its main operations in western Cambodia focused on minefield survey and clearance but also has an operations base in Rattanakiri province concentrating on CMR survey and clearance. 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 trial advanced detection systems for CMR survey and clearance, provided by the US Humanitarian Demining Research and Development programme, and uses drones to conduct non-technical survey, task planning, and post-impact monitoring.⁸⁰

NPA operated with the same survey and clearance capacity in 2021 as in the previous year. This consisted of a total of 29 operations personnel, including three multi-task teams with eight searchers assigned to non-technical survey and CMRS but also conducting EOD spot tasks as required and three multi-task teams with a total of 15 people, similarly able to conduct non-technical survey, battle area clearance, and EOD. NPA additionally had three animal detection system teams with six handlers and six explosive detection dogs.⁸¹ NPA deploys drones for aerial mapping of both technical survey and battle area clearance (BAC) tasks.⁸²

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

The CMAA reported release of a total of 24.43km² through survey and clearance in 2021, less than half the 58.56km² it recorded the previous year. Clearance accounted for almost 20.6km² of the total but survey operations in 2021 confirmed more hazardous area than operators released.⁸³

The CMAA also reported a sharp fall in the number of CMR destroyed from 8,181 in 2020 to a total of 4,268 in 2021, of which 1,893 was attributed to technical survey and clearance and 2,375 to EOD spot tasks.⁸⁴

SURVEY IN 2021

CMAC, MAG, and NPA surveyed a total of nearly 30km² in 2021 (see Table 3), an increase of one third of the previous year. In the process, they confirmed almost 28km² as hazardous area, 35% more than the area confirmed in 2020 but also more than the amount of land released in 2021.

72 GICHD, "Field Trials of the SMART System and Technical Survey Dogs in Cambodia, Final Report", December 2021, pp. 6-7.

73 Ibid., pp. 40-41. The dogs worked four hours a day in the morning while in the afternoon their handlers continued manual survey. A team of four dogs and four handlers on average cleared around twelve survey boxes a day, of which nine to ten boxes were surveyed by the dogs and the remaining two to three by the handlers.

74 Email from Michael Heiman, APOPO, 1 April 2022; and online interview with Tony Fernandes, MAG, 16 May 2022.

75 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.

76 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021; and Oum Phumro, CMAC, 9 June 2021.

77 Emails from Alexey Kruk, MAG, 29 March 2021 and 16 May 2022.

78 Emails from Portia Stratton, NPA, 21 April 2021 and 19 April 2022.

79 Emails from Rune Dale-Andresen, NPA, 29 September 2020; and Oum Phumro, CMAC, 9 June 2021.

80 Emails from Rebecca Letven, MAG, 9 May 2019 and 4 September 2020; and Alexey Kruk, MAG, 29 March 2021.

81 Emails from Portia Stratton, NPA, 19 April 2022 and from Sorn Samrithea, NPA 5 July 2022.

82 Email from Zlatko Vezilic, NPA, 4 April 2019.

83 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.

84 Ibid.

The CMAA recorded declines in all areas of land release but data suffered some inconsistencies with results reported by operators. The CMAA said no land was cancelled through non-technical survey in 2021 but operators reported cancelling 2.16km². MAG, which did not cancel any area in 2020 said it cancelled 0.61km² in 2021⁸⁵ and NPA said it cancelled 1.69km² in 2021, up from 0.07km² the previous year.⁸⁶ Persistently low levels of cancellation underscore the need for further discussion of national standards and criteria for cancellation. Current CMAS do not permit operators to cancel areas of polygons in which CMRS/CMTS has found no evidence of contamination.⁸⁷

The amount of area reduced through technical survey also fell by almost half in 2021, according to official data, dropping to 3.85km² from 7.5km² the previous year.⁸⁸ MAG confirmed it did not reduce any area in 2021 but NPA reported reducing almost 2.5km² in 2021 and said CMAC's Demining Unit 5 reduced 13.07km² through technical survey in 2021, which would raise the total reduced area for the year to nearly 16km².⁸⁹

Table 3: Cluster munition-contaminated area confirmed through technical survey in 2021 (CMAA data)⁹⁰

Operator	Area surveyed (m ²)	Area confirmed (m ²)
CMAC	25,385,444	23,845,164
MAG	2,858,364	2,858,364
NPA	1,210,976	1,210,976
Totals	29,454,784	27,914,504

Table 4: Cluster munition-contaminated area reduced through technical survey in 2021 (CMAA data)⁹¹

Operator	Area reduced through TS (m ²)
CMAC	3,251,782
NPA	598,339
Total	3,850,121

CLEARANCE IN 2021

Official data shows clearance of 20.58km² of cluster munition-contaminated area in 2021 (see Table 5), 33% less than the previous year and the lowest figure recorded in at least the last six years (see Table 6). Official data shows the biggest single factor in the downturn was that clearance by CMAC dropped by more than half to 12.69km² in 2021 from 26.16km² the previous year. The CMAA also recorded a slight drop in NPA's results to 0.57km² in 2021 from 1.11km² in 2020. Significant inconsistencies between official data and results reported by operators, however, suggest those figures may be subject to later revision.

NPA reported that the operations by CMAC's Demining Unit 5, which are mentored by NPA, cleared 16,573,882m² in 2021.⁹² MAG and NPA both reported higher levels of clearance in 2021 than the amount reported by the CMAA. MAG said it cleared 5,022,936m² in Rattanakiri province in 2021, 44% more than the previous year, and destroyed 942 submunitions. NPA reported that its teams cleared 1,033,778m² and destroyed 224 submunitions.⁹³

APOPO, working with the GICHD, conducted a two-month trial using technical survey dogs in CMRS in November and December 2020. In 2021, APOPO continued operating in Chaeb district of Preah Vihear province working for a period of eight months from January to August with a six-strong team, including four handlers with four dogs. In that time, the team surveyed 23 areas covering 3.4km², finding 328 submunitions and 98 other UXO. The CHAs the team created were subsequently cleared by CMAC manual teams.⁹⁴

85 Email from Alexey Kruk, MAG, 16 May 2022.

86 Email from Portia Stratton, NPA, 19 April 2022.

87 Emails from Tony Fernandes, MAG, 20 May 2022; and from Sron Samrithea, NPA, 5 July 2022.

88 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.

89 Emails from Tony Fernandes, MAG, 22 May 2022, Portia Stratton, NPA, 19 April 2022 and from Sron Samrithea, NPA, and Daniel Dobb, Operations Manager, NPA, 5 July 2022.

90 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022. MAG said it surveyed an area of 13.39km² and confirmed a total of 16.15km² as CMR-affected. The addition of fade-out boxes to the area physically surveyed accounted for the higher amount of area confirmed. Email from Tony Fernandes, MAG, 20 May 2022. NPA reported surveying an area of 4.07km² and confirming 3km². Email from Portia Stratton, NPA, 19 April 2022.

91 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.

92 Email from Sron Samrithea and Daniel Dobb, NPA, 5 July 2022.

93 Emails from Tony Fernandes, MAG, 22 May 2022; and Portia Stratton, NPA, 19 April 2022.

94 Email from Michael Heiman, APOPO, 1 April 2022.

Table 5: CMR clearance in 2021 (CMAA data)⁹⁵

Operator	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
CMAC	12,688,467	1,397	3,765
CSDH	807,437	23	41
MAG	4,001,699	406	804
NPA	566,023	67	84
NPMEC	2,513,769	0	1,804
EOD spot tasks (various operators)	0	2,375	N/A
Totals	20,577,395	4,268	6,498

N/A = Not applicable

PROGRESS TOWARDS COMPLETION

Cambodia gives priority to clearing anti-personnel mines but has committed in its National Mine Action Strategy to tackling 80% of its known CMR contamination by 2025. The remaining 20% would be considered as residual. At the time the strategy was released, that meant releasing 499km² or 62km² every year. The strategy expected to release 30% of this through cancellation and land reclamation and the remaining 70%, or 44km², through technical survey and clearance.⁹⁶ By the end of 2021, the 80% target meant releasing 559km² as a result of previously unrecorded CMR contamination that continues to be added to the database. To meet that target, Cambodia would have to release at least 140km² each year from 2022 to 2025, six times the amount of land released in 2021, and more than that if operators continue to identify more unrecorded hazardous areas.

Table 6: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2021	20.58
2020	30.99
2019	25.23
2018	39.60
2017	23.50
Total	139.90

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. By the end of 2022, Cambodia planned to have developed a comprehensive strategy for dealing with residual threats, developed a legal and institutional framework and put in place a regulatory and operational framework, including planning and prioritisation procedures and arrangements for sustained information management. By 2025, Cambodia aimed to have prepared the capacity for residual threat management and developed resource mobilisation strategies.⁹⁷

Cambodia's 2019 APMB Article 5 deadline extension request said it is likely that the Royal Cambodian Army will be tasked with addressing explosive threats after 2025.⁹⁸ In February 2021, the CMAA and the GICHD began interviewing national and international operators and other relevant stakeholders, to discuss the topic of institutional and operational frameworks and capacity for addressing residual threat.⁹⁹

⁹⁵ Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022. MAG reported clearing 5.02km² and destroying 946 CMR as well as 136 other UXO. Email from Alexey Kruk, MAG, 16 May 2022. NPA reported an increase in its clearance from 0.95km² in 2020 to 1.03km² in 2021, when it recorded destroying 958 submunitions. Email from Portia Stratton, NPA, 19 April 2022.

⁹⁶ National Mine Action Strategy 2018–2025, pp. 9–10.

⁹⁷ *Ibid.*, p. 16.

⁹⁸ APMB Article 5 deadline Extension Request, Additional Information, undated but August 2019, p. 5.

⁹⁹ Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.

KEY DATA

**CLUSTER MUNITION
CONTAMINATION:**

**BELIEVED TO BE
ONLY RESIDUAL**

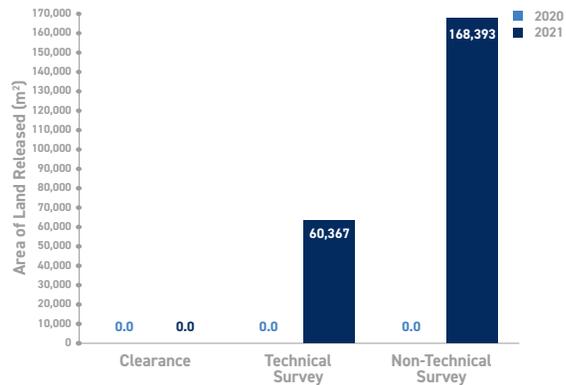
SUBMUNITION
CLEARANCE IN 2021

0
M²

SUBMUNITIONS
DESTROYED IN 2021

2

LAND RELEASE OUTPUT



RECOMMENDATIONS FOR ACTION

- Georgia should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- State Military Scientific Technical Centre (DELTA)
- Humanitarian Demining Control Division (HDCD)

NATIONAL OPERATORS

- Engineering Brigade of the Ministry of Defence (MoD)
- Georgian State Security Service (SSS) EOD team

INTERNATIONAL OPERATORS

- The HALO Trust

OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)

UNDERSTANDING OF CMR CONTAMINATION

Georgia is believed to be free of cluster munition remnants (CMR), with the possible exception of South Ossetia, which is occupied by Russia and inaccessible to both the Georgian authorities and international non-governmental organisation (NGO) demining operators.¹

CMR contamination in Georgia resulted from the conflict over South Ossetia in August 2008, in which both Georgian and Russian forces used cluster munitions. After the end of the conflict and through to December 2009, The HALO Trust cleared some 37km² of submunitions and other explosive remnants of war (ERW) in Georgian-controlled territory.² This included more than 13,000 M095 submunitions in the Upper Kodori Gorge on the Abkhaz side of the Administrative Boundary Line and 1,800

¹ Emails from Oleg Gochashvili, Head of Division, DELTA, 12 May 2020 and 31 May 2022; and Michael Montafi, Partnerships and Programme Support Manager, HALO Trust, 17 May 2022.

² Explosive Remnants of War Coordination Centre, "Explosive Remnants of War Coordination Centre (ERWCC) in Facts and Figures", November 2009, p. 17.

submunitions in Tbilisi Administered Territory (TAT). HALO also found and destroyed almost 600 ShOAB-0.5 submunitions in the aftermath of the 1992–93 conflict in Abkhazia.³ In May 2010, Norwegian People's Aid (NPA) completed clearance of its tasked areas.⁴

In 2019–20, a total of six submunitions were found and destroyed during spot tasks.⁵ Between September 2021 and March 2022, a State Security Service explosive ordnance disposal (EOD) team destroyed two submunitions during call-outs. These were located in TAT, in the region of Shida Kartli, at v. Brotsleti, and v. Megvrekisi – an area affected by ERW from the August 2008 Russia-Georgia conflict. The area where the two submunitions were found was originally cleared between 2008 and 2010. As such, DELTA considers their discovery to be part of a residual threat.⁶

Due to the extent of previous contamination, it is possible that a wider residual CMR threat remains. However, The HALO Trust reports that it has found no items in the TAT since 2017 or in Abkhazia since 2018⁷ and DELTA agrees that the TAT may be considered free of CMR.⁸

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Georgia remains contaminated by other unexploded ordnance (UXO), likely in South Ossetia and also within Georgia in former firing ranges, and by anti-vehicle and anti-personnel mines (see Mine Action Review's *Clearing the Mines* report on Georgia for further information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Georgia's national mine action centre is the Humanitarian Demining Control Division (HDCD), renamed after a reorganisation in January 2019. The HDCD sits under the State Military Scientific Technical Centre, known as DELTA, within the Ministry of Defence (MoD).⁹ The primary task of the HDCD is to coordinate mine action in Georgia. The Georgian Government funds the running costs of the HDCD as well as the Engineering Brigade, which conducts some survey and battle area clearance (BAC).¹⁰

The national authority has received capacity development support from HALO Trust and the Geneva International Centre for Humanitarian Demining (GICHD). The HALO Trust has provided training on international mine action standards (IMAS), geographic information systems (GIS), clearance and survey techniques, and, in 2018, donated a mine action vehicle to the HDCD.¹¹ HALO continues to liaise on a quarterly basis and share all relevant information with the HDCD.¹²

The GICHD has provided training for HDCD staff on the Information Management System for Mine Action (IMSMA) Core database, ammunition storage, and technical survey.¹³ In 2020, one HDCD staff member conducted an online course on IMAS and Compliance organised by the GICHD.¹⁴ In 2021, two members of DELTA/HDCD staff attended three trainings organised by the GICHD, which covered the management of mine action programmes, operational efficiency, quality management, and operations analysis.¹⁵

In 2021, one DELTA/HDCD specialist participated in EOD training provided by the Combat Engineer Battalion of the Georgia Ministry of Defence and the US company, Golden West.¹⁶

Georgia continues to promote mine action through international and regional co-operation. In November 2021, a regional conference "Towards a Landmine Free South Caucasus", organised by LINKS Europe in cooperation with DELTA, took place in Tbilisi. The event was attended by government officials, diplomats, and members of civil society organisations from Armenia, Azerbaijan, and Georgia.¹⁷ A further meeting was planned for the middle of 2022 to promote further regional progress in mine action.¹⁸

3 Email from Michael Montañ, HALO Trust, 17 May 2022.

4 Email from Jonathon Guthrie, Programme Manager, NPA, 27 May 2010.

5 Emails from Oleg Gochashvili, DELTA, 12 May 2020 and 28 May 2021.

6 Emails from Oleg Gochashvili, DELTA, 31 May and 13 and 22 June 2022.

7 Email from Michael Montañ, HALO Trust, 17 May 2022.

8 Email from Oleg Gochashvili, DELTA, 31 May 2022.

9 Emails from Oleg Gochashvili, DELTA, 20 June 2016, 28 March 2019, and 10 June 2019; and Matthew Walker, Programme Officer, HALO Trust, 8 April 2019; Decree 897 issued by the Minister of Defence, 30 December 2010; and Convention on Certain Conventional Weapons (CCW) Protocol V Article 10 Report (covering 21 March 2017 to 31 March 2018), Form A.

10 Emails from Oleg Gochashvili, DELTA, 12 May 2020 and 31 May 2022.

11 Emails from Matthew Walker, 8 April 2019; Michael Montañ, HALO Trust, 8 May 2020; and Oleg Gochashvili, DELTA, 10 June 2019.

12 Email from Michael Montañ, HALO Trust, 17 May 2022.

13 Email from Oleg Gochashvili, DELTA, 12 May 2020.

14 Email from Oleg Gochashvili, DELTA, 28 April 2021.

15 Email from Oleg Gochashvili, DELTA, 31 May 2022.

16 CCW Protocol V Article 10 Report (covering 2021), Form A.

17 "Georgia supports efforts to clear the South Caucasus from all landmines and unexploded ordnance", *commonsplace.eu*, 7 November 2021, at: <https://bit.ly/3zDRWxn>.

18 Email from Oleg Gochashvili, DELTA, 31 May 2022.

ENVIRONMENTAL POLICIES AND ACTION

Georgia's draft National Mine Action Standards contain a standard on environmental management and policy.¹⁹

HALO Trust has strict environmental Standard Operating Procedures (SOPs), which aim to leave the environment in a state similar to or, where possible, better than it was before demining operations, and in a state that permits intended land use once operations are complete.²⁰

GENDER AND DIVERSITY

DELTA and The HALO Trust each have gender and diversity policies in place. There is equal access to employment for qualified women and men in survey and clearance teams in Georgia, including for managerial level/supervisory positions although proportionately the number of women remains low. Among the HDCD's staff in 2020 and 2021, one of seven members—the GIS/IMSMA specialist—was a woman. While no women were employed by HDCD in operational roles or in managerial/supervisory positions in this period, 1% of military personnel within the EOD Company of Combat Engineer Battalion were women in 2021.²¹

HALO Trust supports use of mixed-gender teams to conduct survey, which allows for greater engagement with women and children.²² In 2021, HALO continued to collaborate with local women's organisations to increase the visibility of its work to women. The HALO Abkhazia programme was able to partner with UN Women in Abkhazia to distribute information about ending violence against women, including how to access UN Women-supported local shelter hotlines.²³

HALO Trust's EOD teams in Abkhazia are mixed ethnic Georgian and ethnic Abkhaz and comprise both men and women.²⁴ As at May 2022, women made up 28% of HALO Trust staff in Abkhazia, with 15% of managerial and supervisory positions occupied by women and 28% of operational positions occupied by women. There is also a female member of staff based in Tbilisi, dedicated to the administration of the Georgia programme (HALO's only member of staff outside of Abkhazia). This slight decrease, from 36% of staff in the Abkhazia programme being women in 2020 to 28% in 2022, reflects a downsizing of the programme in 2021, when HALO reduced the number of BAC teams deployed to Primorsky, following completion of a large grant from the European Union.²⁵

INFORMATION MANAGEMENT AND REPORTING

The HDCD uses the IMSMA database and, according to The HALO Trust, the data are accurate and systematically updated. The database is administered by a certified specialist, trained by the GICHD, who receives regular refresher training in the latest procedures.²⁶ The data in the national information management system are accessible to the HALO Trust.²⁷ HALO uses its own IMSMA-compatible data collection forms that DELTA has approved, while the HDCD quality assurance/quality control (QA/QC) team also has its own forms.²⁸

Georgia outlines how various government agencies, in particular the Defence Forces and the EOD team of the Georgian State Security Service, assist in reporting contamination discovered through their established networks and in response to information from local residents. The HDCD regularly collects, analyses, documents, and stores information on areas contaminated by mines or ERW. The HDCD compiles and regularly updates digital and printed maps of contaminated and cleared areas within and through the national IMSMA database. Finally, Georgia reports that cooperation on data exchange between all relevant ministries, national agencies, and foreign organisations is ongoing and is successful.²⁹

19 Ibid.

20 Email from Michael Montafi, HALO Trust, 17 May 2022.

21 Emails from Oleg Gochashvili, DELTA, 28 April 2021 and 31 May 2022.

22 Email from Matthew Walker, HALO Trust, 8 April 2019.

23 Email from Michael Montafi, HALO Trust, 17 May 2022.

24 Email from Michael Montafi, HALO Trust, 8 May 2020.

25 Emails from Michael Montafi, HALO Trust, 30 May 2021, 17 May 2022, and 7 and 10 June 2022.

26 Email from Michael Montafi, HALO Trust, 17 May 2022.

27 Email from Matthew Walker, HALO Trust, 8 April 2019.

28 Emails from Oleg Gochashvili, DELTA, 28 March 2019; and Michael Montafi, HALO Trust, 8 May 2020.

29 CCW Protocol V Article 10 Report (covering 2021), Form B.

PLANNING AND TASKING

Georgia has a national mine action strategy. Its main aims and targets are focused on clearing the remaining mined areas (unless they are deemed to have military utility) and other areas contaminated with ERW.³⁰ Implementation of Georgia's 2021 annual mine action plan was compromised by COVID-19 restrictions, poor funding of humanitarian demining operators, and national staffing challenges. However, Georgia has a mine action plan in place for 2022. DELTA prioritises clearance in areas of high risk to the population, as well as land used for livestock and other agriculture, along with roads, border security, and other key infrastructure. In addition, Georgia has long-term plans for survey and clearance of mines and UXOs at commercial sites to support the country's socio-economic development.³¹

HALO uses an internal prioritisation matrix to grade tasks and collaborates with the national mine action authorities to determine annual operational planning and task priority.³²

Due to shortfalls of funding, The HALO Trust did not conduct any survey or clearance activities in the TAT in 2021 or the previous year, and maintained only a residual presence in the TAT, with one Programme Administrator in place to support procurement and transfer of supplies and equipment required by the HALO programme in Abkhazia. HALO also maintains an International Donor Liaison Officer, attached to the programmes in both the TAT and Abkhazia. This arrangement is anticipated to continue regardless of whether HALO has active projects in TAT, as long as operations continue in Abkhazia.³³

In 2020, HALO secured three-year funding for its EOD work in Abkhazia and will maintain this capacity until at least 2023.³⁴ In Abkhazia, HALO's BAC operations continued in Primorsky alongside responding to EOD call-outs. During 2021, HALO responded to 162 civilian call-outs and 9 call-outs from the *de facto* Abkhaz military, resulting in the destruction of 372 items of UXO. In addition, HALO EOD teams conducted 83 village visits in the conflict-affected regions of Abkhazia, resulting in an additional 31 items of UXO being destroyed.³⁵

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

As at June 2022, Georgia's National Mine Action Standards and National Technical Standards Guidelines were drafted and awaiting approval by the GICHD IMAS department. Once approved they were due to be translated into Georgian and then sent to Parliament for approval.³⁶

The International Ammunition Technical Guidelines (IATG) have been translated to Georgian but the translation of the IMAS remains ongoing.³⁷ HALO expected Georgia's non-technical survey guidelines to be finalised in the course of 2021.³⁸ However, as at May 2022, HALO reported they were not aware of any further progress or planned finalisation date.³⁹

In 2020, HALO was in the process of updating its SOPs for clearance of four minefield tasks in Abkhazia, stated to take place in June–December 2021.⁴⁰ In 2021, HALO added a new SOP for conducting subsurface BAC at Primorsky in Abkhazia.⁴¹

OPERATORS AND OPERATIONAL TOOLS

DELTA retains a small demining and EOD capacity in the TAT. In 2020, all clearance activities were suspended there due to the COVID-19 pandemic but the Georgian State Security Service EOD team continued to respond to call-outs.⁴² In 2021, DELTA reported that operational capacity improved, as the impact of COVID-19 decreased.⁴³ In Abkhazia, the emergency services (EMERCOM) have a small EOD capacity, though HALO Trust is generally relied upon to deal with all items of UXO.⁴⁴

30 Email from Oleg Gochashvili, DELTA, 28 March 2019.

31 Email from Oleg Gochashvili, DELTA, 31 May 2022.

32 Emails from Michael Montañ, HALO Trust, 30 April 2021 and 17 May 2022.

33 Email from Michael Montañ, HALO Trust, 17 May 2022.

34 Email from Michael Montañ, HALO Trust, 30 April 2021.

35 Email from Michael Montañ, HALO Trust, 17 May 2022.

36 Email from Oleg Gochashvili, DELTA, 31 May 2022.

37 Emails from Oleg Gochashvili, DELTA, 28 April 2021 and 31 May 2022.

38 Email from Michael Montañ, HALO Trust, 30 April 2021.

39 Email from Michael Montañ, HALO Trust, 17 May 2022.

40 Email from Michael Montañ, HALO Trust, 30 April 2021.

41 Email from Michael Montañ, HALO Trust, 17 May 2022.

42 Email from Oleg Gochashvili, DELTA, 28 April 2021.

43 Email from Oleg Gochashvili, DELTA, 31 May 2022.

44 Emails from Oleg Gochashvili, DELTA, 28 March 2019 and 12 May 2020; and Matthew Walker, HALO Trust, 8 April 2019.

The HALO Trust, which is the only international operator working in the country, conducts survey and both BAC and mine clearance in Abkhazia.⁴⁵ In 2020, HALO deployed two four-strong EOD teams and two four-strong mechanical and mechanical support teams, along with 53 personnel across 6 teams for BAC.⁴⁶

In 2021, The HALO Trust deployed one mine clearance team in the region of Abkhazia and two mechanical assets to assist with UXO clearance at Primorsky.⁴⁷ HALO secured three-year funding for its EOD work in Abkhazia and will maintain this capacity until at least 2023.⁴⁸

HALO's operations in TAT remained suspended in 2021 due to lack of donor funding. However, new donors have been engaged and the programme anticipates funding for non-technical survey of mined areas (in Kadoeti and Khojali) in 2022.⁴⁹

In the TAT, quality management (QM) is conducted by DELTA. In Abkhazia, The HALO Trust is responsible for its own QM.⁵⁰

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

No area clearance of CMR took place in Georgia in 2021 or in the two years previously.⁵¹ Between September 2021 and March 2022, the State Security Service EOD team destroyed two submunitions during call-outs.⁵² In 2020, they destroyed five submunitions during EOD spot tasks, which were found to be residual contamination and not evidence of a broader problem.⁵³

In 2021, the HDCD and the E.O.D. Company conducted survey in two areas of the Samegrelo Zemo-Svaneti region: at v. Kulevi in March to April 2021, and at a former Coast Guard Base (MIA of Georgia), near Poti harbour, in October 2021 to March 2022. At v. Kulevi, survey showed no mines were present and technical survey was conducted to establish the possible presence of UXO/AXO. None was recovered and the area has been recognised as clear. At the former Coast Guard Base, near Poti harbour, survey and QA/QC were conducted to identify the possible presence of UXO/AXO. There too, none was recovered and the area has also been recognised as clear.⁵⁴

It is believed that, with the possible exception of South Ossetia, Georgia is now free from CMR. Georgia has reported that, in the areas cleared by The HALO Trust in Abkhazia which are currently outside its control, external QA/QC could not be completed. Georgia, therefore, cannot confirm whether this land is free of contamination.⁵⁵

Georgia has also highlighted that funding and resources continue to be a significant challenge for national mine action, with only one international humanitarian organisation operating in-country (The HALO Trust), and limited resources available to the State's EOD Company, which conducts humanitarian operations, under the Ministry of Defence.⁵⁶

In particular, Georgia describes how the HDCD lacks certain equipment and requires expert subject matter assistance regarding the creation and implementation of national mine action standards and national technical standards and guidelines, the elaboration of standard operating procedures (SOPs) as well as staff training on EOD Levels 1, 2, and 3; technical and non-technical survey; the management of mine action; and IMSMA database management. Additionally, HDCD requires further technical and financial support to conduct the planned general mine action assessment, including support of QA/QC on cleared areas.⁵⁷

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

The engineering brigade of the MoD has been trained to conduct EOD, demining, and BAC by the North Atlantic Treaty Organization (NATO) Partnership for Peace and has the capacity to deal with any residual contamination.⁵⁸ However, Georgia expresses concern that capacity to tackle any residual contamination is limited.⁵⁹

45 Email from Irakli Chitanava, HALO Trust, 2 May 2017.

46 Email from Sian McGee, Field Officer, HALO Trust, 19 May 2021; HALO deployed four BAC teams from January to May 2021 then increased to six teams from June to December.

47 Email from Michael Montafi, HALO Trust, 17 May 2022.

48 Email from Michael Montafi, HALO Trust, 30 April 2021.

49 Email from Michael Montafi, HALO Trust, 17 May 2022.

50 Email from Oleg Gochashvili, DELTA, 28 March 2019.

51 Emails from Michael Montafi, HALO Trust, 17 May 2022; and Oleg Gochashvili, DELTA, 28 May 2021 and 31 May 2022.

52 Email from Oleg Gochashvili, DELTA, 31 May 2022.

53 Email from Oleg Gochashvili, DELTA, 28 May 2021.

54 Email from Oleg Gochashvili, DELTA, 13 June 2022.

55 Emails from Oleg Gochashvili, DELTA, 28 May 2021 and 31 May 2022.

56 Email from Oleg Gochashvili, DELTA, 31 May 2022.

57 CCW Protocol V Article 10 Report (covering 2021), Form E.

58 Emails from Oleg Gochashvili, DELTA, 28 April 2021; and Michael Montafi, HALO Trust, 30 April 2021.

59 Email from Oleg Gochashvili, DELTA, 31 May 2022.

KEY DATA

CLUSTER MUNITION CONTAMINATION: NOT KNOWN

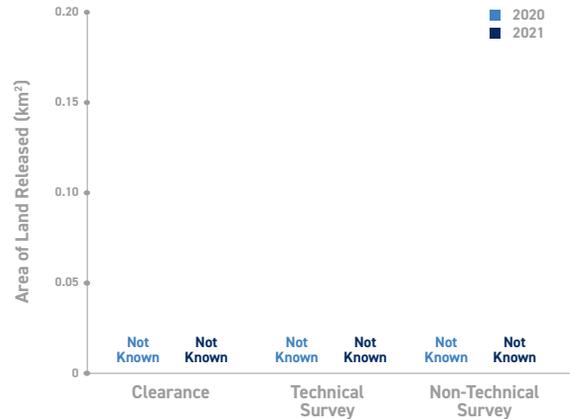
SUBMUNITION CLEARANCE IN 2021

NOT KNOWN

SUBMUNITIONS DESTROYED IN 2021

NOT KNOWN

LAND RELEASE OUTPUT



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
- Petroleum Engineering and Development Company (PEDEC)
- 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 extent of CMR contamination in Iran is not known. Some contamination is believed to remain from the Iran-Iraq war in 1980–88,¹ 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.² 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. 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 1988.³ Air Force explosive ordnance disposal (EOD) teams cleared many unexploded submunitions after attacks but contamination remains around Mah-Shahr and the port of Bandar Imam Khomeini, according to a retired Iranian Air Force colonel.⁴

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. IRMAC is responsible for planning, data, managing survey, procurement, and the accreditation of demining operators. It also sets standards, provides training for clearance operators, concludes contracts with demining operators, and ensures quality assurance (QA) and quality control (QC) of their operations. It coordinates 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, and manages international relations.⁵

IRMAC is said to have a branch in every affected province. Available demining assets, such as mechanical assets, vary from province to province.

In March 2019, Iran hosted a three-day international roundtable on “humanitarian mine action: challenges and best practices”, attended by representatives from other states, national and international demining organisations, the International Committee of the Red Cross (ICRC), and the United Nations Mine Action Service (UNMAS). The aim of the roundtable was to share knowledge and experience on mine action, challenges, and best practices.⁶

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.⁷

Iran is believed to have dedicated significant resources and effort to clearing areas on its territory contaminated by mines, CMR, and other explosive remnants of war (ERW), but the results of survey and clearance have not been made publicly available.

ENVIRONMENTAL POLICIES AND ACTION

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 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.

INFORMATION MANAGEMENT AND REPORTING

IRMAC actively maintains a national mine action database but it is not known to what extent it is comprehensive, up-to-date, and able to disaggregate CMR contamination and clearance output from that of other explosive ordnance.

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.⁸

1 Statement by Gholamhossein Dehghani, Ministry of Foreign Affairs of Iran, CCM Second Meeting of States Parties, Beirut, 13 September 2011.

2 Iran Cluster Munition Ban Policy, Landmine and Cluster Munition Monitor, 4 September 2020, at: <http://bit.ly/3uRJDQb>.

3 *Cluster Munition Monitor 2015*, p. 34.

4 Interview with Air Force Colonel (ret.) Ali Alizadeh, Tehran, 8 February 2014.

5 IRMAC PowerPoint Presentation, Tehran, 9 February 2014; and IRMAC, “Presentation of IRMAC”.

6 “Tehran hosts international roundtable on humanitarian mine action”, *Mehr news agency*, 12 March 2019, at: <http://bit.ly/2Z4LsIE>; and ICRC, “International roundtable on “humanitarian mine action: challenges and best practices”, 15 March 2019, at: <http://bit.ly/2QH3cR6>.

7 “1st International Humanitarian Demining Training Center opens in Tehran”, *Mehr News Agency*, 12 November 2019, available at: <http://bit.ly/2C7wRzG>.

8 IRMAC PowerPoint presentation, available at: <http://bit.ly/38ALojt>; and presentation by Mr Pourbagher, Deputy Director of IRMAC, National Directors Meeting, Geneva, 12 February 2020.

The National Iranian Oil Company (NIOC) also maintains a mine action database recording the results of its own clearance contracts.⁹

LAND RELEASE SYSTEM

OPERATORS AND OPERATIONAL TOOLS

As of writing, no information was available on Iran's current survey and clearance capacity.

IRMAC combines the roles of regulator and operator, with demining teams and support staff deployed in the five affected provinces. In Kurdistan province, IRMAC is conducting verification, mainly through mechanical clearance. IRMAC also responds to calls from the local community reporting items of explosive ordnance.¹⁰

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 2019.¹¹ No information was available as to whether the Army or Revolutionary Guard Corps currently conduct clearance activities.

Commercial operators include AOM, Immen Sazan Omran Pars International, Immen Zamin Espadana, and Solh Afarinan-e Bedoun-e Marz (SABM). Three other companies, Imen Gostaran Mohit (IGM), Moshaver Omran Iran, and ZPP International, undertake QA/QC.¹² In 2017, SafeLane Global completed a 16-month project on behalf of the Southern Oil Company in Sindibad. It had been tasked with clearing 8km² of land adjacent to the Iranian border, although it was believed that this concerned mined area.¹³ No information was available on which commercial operators are currently active in mine action in Iran.

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.¹⁴

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.

There is no available information on quality management procedures. In the past, very high levels of casualties were recorded during demining in Iran. IRMAC reported that since its establishment, in 2005, 200 deminers have been killed or injured during clearance of mines and ERW, which equates to one accident for every 15,000 mines or ERW detected.¹⁵

According to a 2020 presentation by IRMAC, more than 2 million mines and over 1 million items of ERW have been destroyed since the start of its national programme.¹⁶

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

No data were available on CMR survey or clearance in 2021.

In 2020, 18 submunitions were discovered during ERW clearance of some 7km² in a commercial clearance project in Khuzestan province in the south-west of Iran.¹⁷ As part of the project, the Pasargad Energy Development Company (PEDC) subcontracts a demining operator and QA/QC for the work.¹⁸

9 "Iran", Landmine and Cluster Monitor, at: <https://bit.ly/2Qp4S5P>.

10 Information provided by Reza Amaninasab, Director, Ambassadors for development without borders, September 2019.

11 Information provided by Reza Amaninasab, Ambassadors for development without borders, September 2019.

12 Ibid.

13 SafeLane Global, "UXO, landmine & battle area clearance", accessed 15 June 2022 at: <https://bit.ly/3tBZtcf>.

14 Information provided by mine action expert on condition of anonymity.

15 IRMAC PowerPoint presentation, available at: <http://bit.ly/38ALojt>; and presentation by Mr Pourbagher, Deputy Director, IRMAC, National Directors Meeting, Geneva, 12 February 2020.

16 Ibid.

17 Information provided by Reza Amaninasab, Ambassadors for development without borders, August 2020.

18 Information provided by Reza Amaninasab, Ambassadors for development without borders, September 2020.

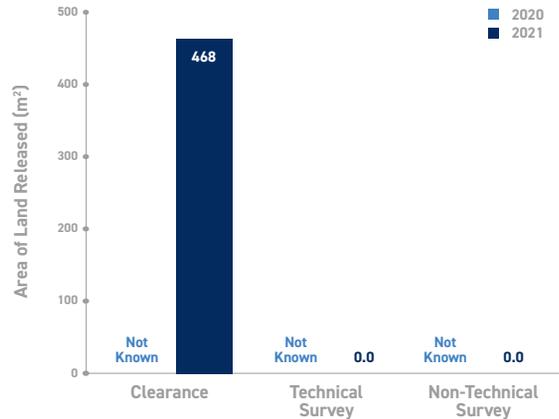
KEY DATA

CLUSTER MUNITION
CONTAMINATION: UNKNOWNSUBMUNITION
CLEARANCE IN 2021**468M²**

RUBBLE PILE CLEARANCE

SUBMUNITIONS
DESTROYED IN 2021**22**

LAND RELEASE OUTPUT



RECOMMENDATIONS FOR ACTION

- Libya should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Libya 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.
- Libya should enact mine action legislation, establish an interministerial national mine action authority, and adopt a national mine action strategy.
- Libya should expedite the capacity building and accreditation of mine clearance operators.
- Libya should conduct a baseline survey to identify the extent of CMR contamination and begin systematic clearance based primarily on humanitarian priorities.
- Libya should mainstream gender and diversity in its national mine action programme.
- Libya should update its national mine action standards (NMAS) in light of the prevailing context and nature of its mine action activities.
- Libya should ease bureaucratic hurdles to efficient importation of mine action equipment and granting of visas for international staff.
- The Libyan Mine Action Centre (LibMAC) should finalise the migration to the Information Management System for Mine Action (IMSMA) Core as soon as possible, and improve the data flow to allow for a more efficient tasking.

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- The Libyan Mine Action Centre (LibMAC)

NATIONAL OPERATORS

- Free Field Foundation (3F) - accredited
- The Safe Trust Non-governmental organisation (NGO): (Al-Thiqa al-Amena) - accredited
- The Communication NGO (Al-Tawasol) (accredited)
- Libyan Peace Organisation (accredited for non-technical survey)

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
- Humanity and Inclusion (HI)

OTHER ACTORS

- The United Nations Mine Action Service (UNMAS)

UNDERSTANDING OF CMR CONTAMINATION

CMR contamination in Libya is largely the consequence of armed conflict in 2011 and renewed conflict since 2014. 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, including MAT-120 mortar projectiles, RBK-250 PTAB-2.5M cluster bombs, and Dual-Purpose Improved Conventional Munitions (DPICMs) delivered remotely by rockets.¹ In early 2015, fighting between Libya's rival armed groups saw reported 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.²

In July 2019, LibMAC that it had found evidence of RBK-250-275 cluster bomb use in three areas: Al-Hira Bridge (Al-Sawani); the Bir al-Ghanam area south-west of Tripoli (Nafusa Mountains); and Aziziya (south of Tripoli).³ The same year, Humanity and Inclusion (HI) reported three areas of CMR contamination on the basis of its own operations. One cluster munition-contaminated area was confirmed in 2017, through non-technical survey 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.⁴ Additional contamination by CMR occurred as a result of kick-outs from ammunition storage areas bombed by North Atlantic Treaty Organization (NATO) forces in 2011.⁵

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.⁶ On 15 and 16 August 2019, aircraft of forces affiliated with the LNA dropped cluster munitions on Zuwarah International Airport, according to the UN Panel of Experts report of December 2019.⁷ Human Rights Watch 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, as well as evidence that high-explosive air-dropped bombs were also used in the attack. The area was not known to be contaminated by cluster munitions before the attack.⁸ There have been no further reports of the use of cluster munitions in Libya since.

According to DCA, the current CMR baseline is not accurate due to the lack of resources to conduct a widescale survey, and the need to focus on priority areas.⁹ The HALO Trust 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. Despite the reports referred to above, The HALO Trust found no evidence of cluster munitions during survey following the 2019 conflict in Tripoli.¹⁰

None of the operators reported discovering previously unknown areas of CMR contamination in Libya in 2021.

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Libya is also contaminated by other unexploded ordnance (UXO); 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 improvised explosive devices (IEDs).¹¹ According to the United Nations Mine Action Service (UNMAS), ongoing conflict has resulted in significant explosive remnants of war (ERW) contamination in cities across Libya.¹²

1 Cluster Munition Monitor, "Libya: Cluster Munition Ban Policy", Last updated 27 July 2019, at: <http://bit.ly/2YAbvgi>.

2 Human Rights Watch, "Libya: Evidence of new cluster bomb use", 15 March 2015.

3 Email from Col. Adel Elatwi, Chief of Operations, on behalf of Brig. Turjoman, LibMAC, 4 July 2019.

4 Email from Catherine Smith, Head of Mission, HI, 12 March 2019.

5 Cluster Munition Monitor, "Libya: Cluster Munition Ban Policy", Last updated 27 July 2019.

6 Ibid.; 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 Ibid.

9 Email from Graeme Ogilvie, Programme Manager, DCA, 1 April 2022.

10 Email from Zita Andrassy, Programme Officer Libya, HALO Trust, 27 February 2022.

11 "Lives and Limbs Shattered by Libya Mines", *Asharq Al-Awsat*, 5 April 2018.

12 UNMAS, "Programmes: Libya", accessed 16 May 2019, at: <http://bit.ly/2WMTzTk>.

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 subsequently faced 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, albeit with frequent interruptions. This culminated in the election of an interim government following the UN-sponsored five-day Geneva talks in February 2021 with a roadmap leading to national elections in December 2021. As of writing, however, no elections had been held.¹³

LibMAC was mandated by the Minister of Defence to coordinate mine action in December 2011.¹⁴ Operating under the UN-backed GNA, LibMAC’s headquarters are in Tripoli, in the west of the country, and it also has offices in Benghazi¹⁵ and Misrata.¹⁶ According to the UN Humanitarian Response Plan (HRP) of 2021, Libyan national capacity to mitigate the risks of explosive hazards remains insufficient to address the growing threat to the population. While the necessary managerial and coordination capacity is in place, governmental and non-governmental actors lack enough qualified personnel, equipment, and technical expertise to meet the demand for survey and clearance.¹⁷

Enhancing Human Security (ITF) started its capacity-building project in Libya since January 2014. It paid the salaries of 21

LibMAC employees in 2021, and covered the day-to-day costs of LibMAC.¹⁸

The HALO Trust trained and accredited two technical survey teams and one explosive ordnance disposal (EOD) team in 2021. It also provided EOD Level 3 training to several NGOs.¹⁹

UNMAS, which is an integral part of the UN Support Mission in Libya (UNSMIL), has largely been operating from Tunis since November 2014.²⁰ UNMAS returned with international personnel to Libya in 2018, and since then has maintained permanent presence of critical operational and technical staff.²¹ UNMAS prioritises the capacity enhancement of Libyan mine action actors, supports LibMAC in accreditation processes for mine action organisations, and facilitates coordination with international stakeholders and implementing partners.²² 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 and the inter-sectoral coordination group.²³ UNMAS and LibMAC chair monthly mine action sub-cluster working groups, with participation from mine action stakeholders and donor states.²⁴

The UNMAS mine action programme sought a budget of US\$2.58 million for the mine action sector in Libya, but, as at June 2022, the protection sector, including mine action, was facing a shortfall of 50% in funding.²⁵

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.²⁶

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.²⁷ Gender mainstreaming and mainstreaming of marginalised groups form part of the programme’s core policies. DCA also employs all-women teams, including three explosive ordnance risk education (EORE) and two multi-task teams, 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. In 2021, 39% of DCA’s employees were women. The numbers were even higher for women in operational positions (40%) and in managerial positions (55%).²⁸

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 2021. Women made up 31% of DRC total employees in 2021, 27% of operational, and 40% of managerial staff.²⁹

13 “Libya elections: Presidential poll postponed”, *BBC News*, 23 December 2021, at: <https://bbc.in/39ohwez>.

14 LibMAC website, accessed 20 March 2020, at: <http://bit.ly/2JqVr0S>.

15 Email from Jakob Donatz, Associate Programme Officer, UNMAS, 21 June 2018.

16 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.

17 OCHA, *Libya Humanitarian Response Plan*, January 2021, p. 74–75, at: <https://bit.ly/3F9eCWU>.

18 ITF, “Annual Report 2021”, pp. 107108, at: <https://bit.ly/3FeE39S>.

19 Email from Zita Andrassy, HALO Trust, 27 February 2022.

20 23 UNMAS, “Programmes: Libya”, accessed 14 May 2022, at: <http://bit.ly/31tU1tB>.

21 Email from Samir Becirovic, UNMAS, 2 March 2022.

22 UNMAS, “Programmes: Libya”, accessed 14 May 2022.

23 Email from Samir Becirovic, UNMAS, 2 March 2022.

24 Email from Samir Becirovic, UNMAS, 10 June 2022.

25 Email from Samir Becirovic, UNMAS, 2 March 2022; and the humanitarian dashboard for Libya 2022, last updated 26 June 2022, at: <https://bit.ly/3HQFQ66>.

26 Email from Col. Adel Elatwi, LibMAC, 22 April 2021.

27 Email from Graeme Ogilvie, DCA, 20 April 2021.

28 Email from Graeme Ogilvie, DCA, 1 April 2022.

29 Email from Alessandro Di Giusto, DRC, 7 March 2022.

The HALO Trust'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 Geneva International Centre for Humanitarian Demining (GICHD) after their recruitment. HALO, however, reported difficulty in hiring women for operational roles. Of a total of 77 national staff in 2021, 10 (13%) were women, of which, four were in managerial positions and one in an operational position.³⁰

INFORMATION MANAGEMENT AND REPORTING

LibMAC receives technical support for the Information Management System for Mine Action (IMSMA) from the GICHD and UNMAS. With support from the GICHD, LibMAC planned to transition from IMSMA New Generation (NG) to IMSMA Core in 2020.³¹ As at February 2022, HALO reported that the data transition was almost complete, and was planning to take part in a workshop organised by LibMAC in Tunis to finalise the data flow process.³²

IMSMA is accessible to clearance organisations and data collection forms are reported to be consistent and enable collection of necessary data,³³ although DRC reported that the system requires updated information, capacity building for operator staff, and easier access.³⁴ Operators have internal quality control systems prior to submitting data to LibMAC for further quality control. HALO Trust reported that the LibMAC regularly updates the IMSMA database to a high standard.³⁵

The IMSMA NG relies on manual data extraction, which can result in a delay between the time information is received and when it is acted upon. This is hoped to be resolved once the transition to IMSMA Core is completed.³⁶

LibMAC reports that it checks the quality of the reports, sometimes requesting modification of or elaboration on some of the information reported. The HALO Trust noted that task site visits and feedback from LibMAC were useful to strengthen the quality of the data it has submitted. The revision of data flow mechanisms should enable operators to provide more precise inputs and to increase the standard and quality of data.³⁷

PLANNING AND TASKING

There is no national mine action strategy for Libya.³⁸ LibMAC does, however, have a national short-term operational plan.³⁹ LibMAC prioritises survey and clearance operations based on humanitarian, security, and development indicators,⁴⁰ 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 resources, and that more capacity building and funding is required to allow the Centre to become more effective.⁴¹ According to DRC, LibMAC issues clearance and survey task dossiers in a timely fashion and prioritises tasks according to the urgency of the need.⁴²

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, linking humanitarian action to development projects and contributing to stability and peace.⁴³ 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 the 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.⁴⁴

30 Email from Zita Andrassy, HALO Trust, 27 February 2022.

31 Email from Nicholas Torbet, HALO Trust, 14 April 2020.

32 Emails from Zita Andrassy, HALO Trust, 27 February and 19 June 2022.

33 Email from Catherine Smith, HI, 12 March 2019.

34 Email from Alessandro Di Giusto, DRC, 7 March 2022.

35 Emails from Lucy Reeve, HALO Trust, 23 April 2021; and Zita Andrassy, HALO Trust, 27 February 2022.

36 Emails from Zita Andrassy, HALO Trust, 27 February and 19 June 2022.

37 Ibid.

38 Email from Col. Adel Elatwi, LibMAC, 22 April 2021.

39 Ibid.

40 Ibid.

41 Email from Graeme Ogilvie, DCA, 1 April 2022.

42 Email from Alessandro Di Giusto, DRC, 7 March 2022.

43 Email from Graeme Ogilvie, DCA, 1 April 2022.

44 Email from Graeme Ogilvie, DCA, 20 April 2021.

HALO Trust responds to the tasks as issued by LibMAC.⁴⁵ HALO's prioritisation criteria for non-technical survey 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 and clearance, HALO's criteria are: access, land use, number of beneficiaries, and direct evidence of contamination.⁴⁶

While the above considerations are integrated in the assessment of contamination impact, survey, and community liaison activities, both DRC and HALO reported that final decisions on task prioritisation are owned by the LibMAC, which ultimately issues task orders based on its set of criteria, plans, and engagement with local authorities.⁴⁷

Since 2020, HALO developed a Tripoli ERW Hazard Mapping and Information Management Project, which used open-source data collation and geolocation techniques to map potential ERW contamination along the Tripoli frontlines. The online data collection portal, linked to a live database that was shared with LibMAC and other stakeholders, was used to track historical data starting from April 2019.⁴⁸ While the project ended in January 2021, HALO continues to take internal efforts to keep track of the accidents happening in Tripoli.⁴⁹

ENVIRONMENTAL POLICIES AND ACTION

Libya does not have an NMAS or a policy on environmental management.⁵⁰

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 considers that the removal of ERW from farmland and topsoil that could be used in food production in itself contributes significantly to environmental preservation. This is because ERW leaks nitrates into the soil and depletes its ability to absorb methane. Removal of ERW also prevents overcultivation of land. DCA assesses that the potential damage caused by uncleared ERW leaking toxins into the soil largely outweighs the damage resulting from their demolition.⁵¹

DRC does not have an environmental management system, but one was planned for 2022. DRC takes into account "do-not-harm" elements in consideration of environmental impact and policy when planning its operations.⁵²

The HALO Trust does not have an environmental management system, but since January 2022 it has employed a global environment advisor to support progress in this regard. HALO's work in Libya is focused on urban clearance and therefore has little impact on biodiversity and vegetation. Environmental considerations in the HALO Libya programme in the future will focus on effective use of resources, especially fossil fuels, and effective waste management. As mitigation measures, HALO provides bins and reusable water bottles to reduce litter and minimise plastic waste.⁵³

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.⁵⁴ According to international clearance operators, the NMAS are aligned to the International Mine Action Standards (IMAS), reproducing it word-for-word in many parts.⁵⁵ Further, while the Arabic version of the LibMAS is largely accurate, the English version misstates the issue of liability after land release.⁵⁶ The LibMAS have not been updated since being first approved in 2017.

LibMAC and The HALO Trust 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.⁵⁷

45 Email from Zita Andrassy, HALO Trust, 27 February 2022.

46 Emails from Lucy Reeve, HALO Trust, 23 April 2021; and Zita Andrassy, HALO Trust, 27 February 2022.

47 Emails from Alessandro Di Giusto, DRC, 7 March 2022; and Zita Andrassy, HALO Trust, 27 February 2022.

48 Email from Nicholas Torbet, HALO Trust, 14 April 2020.

49 Email from Zita Andrassy, HALO Trust, 27 February 2022.

50 Emails from Graeme Ogilvie, DCA, 1 April 2022; Alessandro Di Giusto, DRC, 7 March 2022; and Zita Andrassy, HALO Trust, 27 February 2022.

51 Email from Graeme Ogilvie, DCA, 1 April 2022.

52 Email from Alessandro Di Giusto, DRC, 7 March 2022.

53 Email from Zita Andrassy, HALO Trust, 27 February 2022.

54 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>.

55 Emails from Catherine Smith, HI, 12 March 2019; and Nicholas Torbet, HALO Trust, 14 April 2020.

56 Email from Graeme Ogilvie, DCA, 1 April 2022.

57 Emails from Zita Andrassy, HALO Trust, 27 February and 19 June 2022.

OPERATORS AND OPERATIONAL TOOLS

Table 1: Operational survey capacities deployed in 2021

Operator	NTS teams	Total NTS personnel	TS teams	Total TS personnel	Comment
3F ⁵⁸	2	6	0	0	
Libya Peace Organization ⁵⁹	2	6	0	0	
HALO Trust ⁶⁰	5	20	0	0	Reduced to 3 teams/12 personnel by the end of 2021
DCA ⁶¹	4	40	4	40	Multi-task teams (conducting both TS and clearance – also reported in Table 2)
DRC ⁶²	2	6	0	0	
Totals	15	78	4	40	

NTS = Non-technical survey TS = Technical survey

Table 2: Operational clearance capacities deployed in 2021⁶³

Operator	Manual clearance teams	Total deminers*	Dog teams(dogs and handlers)	Mechanical assets/machines
DCA		4	40	0
HALO Trust		2	12	0
Totals	6	52	0	9

* 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.⁶⁴ Military engineers reportedly lack mine detectors and are working with basic tools.⁶⁵ The NSA is mandated to conduct EOD in civilian areas.⁶⁶ These institutions liaise with LibMAC but are not tasked or accredited by them, nor do they provide clearance reports to the Centre.⁶⁷

The national operator, Free Field Foundation (3F), continued to be operational in 2021, working with both DRC and UNMAS,⁶⁸ and is accredited to conduct clearance and EOD tasks.⁶⁹ In 2020, LibMAC reported having accredited two additional local operators: The Safety Trust NGO (*Al-Thiqa al-Amna*) and the Communication NGO (*Al-Tawasol*).⁷⁰ Another national operator, the Libyan Peace Organisation, was present in Libya in 2022, and is accredited for non-technical survey.⁷¹

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.⁷² Now in its twelfth year of working in Libya, DCA currently has offices in Benghazi, Misrata, Sirte, and Tripoli, and is accredited to conduct clearance and EOD tasks.⁷³ In 2021, DCA main clearance operations were in the south and western Tripoli, Sirte, and Benghazi. There was a significant uplift in the number of survey and clearance personnel deployed by DCA in 2021 due to increased funding. A further increase was expected in 2022 as more funds have been secured from the European Union (EU), the United Kingdom (UK), and the Danish Ministry of Foreign Affairs (MoFA).⁷⁴

58 Email from Col. Adel Elatwi, LibMAC, 22 April 2021. The data might not be up to date as at May 2022.

59 Ibid.

60 Email from Zita Andrassy, HALO Trust, 27 February 2022.

61 Email from Graeme Ogilvie, DCA, 1 April 2022.

62 Email from Alessandro Di Giusto, DRC, 7 March 2022.

63 Emails from Graeme Ogilvie, DCA, 1 April 2022; and Zita Andrassy, HALO Trust, 27 February 2022.

64 Interview with Brig. Turjoman, LibMAC, in Geneva, 10 January 2017.

65 "Mines still claim legs and lives in Libya's Benghazi, months after war ceased", *Reuters*, 21 January 2018.

66 Email from Diek Engelbrecht, UNMAS Libya, 20 July 2013.

67 Email from Col. Adel Elatwi, LibMAC, 22 April 2021.

68 Emails from Alessandro Di Giusto, DRC, 7 March 2022; and Samir Becirovic, UNMAS, 2 March 2022.

69 Email from Graeme Ogilvie, DCA, 1 April 2022.

70 Email from Col. Adel Elatwi, LibMAC, 22 April 2021.

71 Email from Samir Becirovic, UNMAS, 10 June 2022.

72 DCA website, accessed 3 May 2021, at: <http://bit.ly/2vYatmb>.

73 Email from Graeme Ogilvie, DCA, 1 April 2022.

74 Ibid.

DRC set up in Libya since 2017 and has three offices in Benghazi, Sabha, and Tripoli. Its offices in Misrata and Zwara were closed at the end of 2020, and its Sabha office closed on 31 December 2021, resulting in the reduction of the number of EOD, non-technical survey, and EORE teams. DRC will establish a new EOD team in Tripoli in 2022. In 2021, DRC performed EOD, non-technical survey, and EORE operations in Benghazi, and expected to conduct EOD and EORE activities in Tripoli in 2022. DRC continued to partner with 3F and is planning to invest in the partnership capacity with support to other national and local operators in the coming years.⁷⁵

The HALO Trust has been present in Libya since November 2018, and has offices in Misrata, Sirte, and Tripoli. HALO first deployed survey personnel in Tripoli in July 2020 following the cessation of fighting in southern Tripoli in the summer of that year. HALO was able to use data gathered during an information management project that mapped reports of conflict events, to prioritise areas for survey. HALO accredited one EOD team in Tripoli, but due to all international staff having to leave Libya during a period of visa blockade, the team was not deployed. HALO's clearance teams in Sirte were supported by a DCA EOD team.⁷⁶

In 2021, HALO trained and accredited two teams to conduct technical survey, in addition to one EOD team. HALO conducted non-technical and technical survey and EOD operations in Tripoli; non-technical survey and mechanical clearance in Sirte; and delivered an EOD Level 3 training course to several NGOs, including the local NGOs, Tawasul, Safety Trust, and the Libyan Peace Organisation, the first training of its kind to take place in Libya.⁷⁷

The HALO Trust's output in 2021 saw a decrease in non-technical survey, but a growth in technical survey capacity. This was to pivot towards clearance of hazards. Going forward, HALO Trust was planning to deploy one non-technical survey team in Sirte in 2022.⁷⁸

In 2021, HALO Trust introduced tripwire clearance drills to the sector in Tripoli, and continued to pioneer mechanical clearance of rubble piles in Sirte. In both locations, HALO

pioneered the use of the differential global positioning system (DGPS) to increase the precision of geodata. As of writing, HALO was also trialling Libya's first hybrid thermal lance.⁷⁹

Humanitarian access to Libya for survey and clearance operations remains challenging for all operators. DCA, DRC and HALO experienced delays in the granting of multiple-entry visas, which led in the case of HALO Trust to suspension of its operations between August and October 2021.⁸⁰ Other administrative procedures such as importing equipment often lead to delays. HALO Trust, for example, saw its detectors held at customs for over six months.⁸¹

In Libya, the provision of security is highly localised; tribe-affiliated armed groups, with oftentimes shifting allegiances, control cities and towns down to neighbourhood level. This in turn requires humanitarian actors to have a good knowledge of armed group dynamics on the one hand while liaising with many interlocutors on the other. The risk of arbitrary detention of national staff is high, either due to tribal background or due to suspected affiliation with opposing armed groups.⁸² The prevalent insecurity and shifting frontlines throughout 2021 has caused operational delays and limited access to certain locations.

According to HALO, non-technical survey in Ain Zara (Tripoli area) was difficult due to tensions in the vicinity. Sirte was entirely off-limits for international staff in 2021, and operations in Sirte were suspended between June and October 2021 due to the establishment of a new frontline in Abu Grain (west of Sirte), and the presence of fighters in and around Sirte.⁸³ Operators reported varying levels of disruption by the COVID-19 pandemic in 2021, ranging from minor impact for HALO and DCA, despite some positive cases among staff, to major impact in the case of DRC, leading to teams to stand down for several periods.⁸⁴

In 2021, LibMAC personnel opened 87 tasks mostly for EORE, EOD, and non-technical survey activities performed by international and national NGOs in Tripoli, Sirte, Tawargha and Benghazi. In addition, LibMAC personnel conducted 68 quality control (QC) and quality assurance (QA) missions.⁸⁵

75 Email from Alessandro Di Giusto, DRC, 7 March 2022.

76 Email from Zita Andrassy, HALO Trust, 27 February 2022.

77 Ibid.

78 Ibid.

79 The hybrid thermal lance is a tool for semi-remotely low-ordering, or high-ordering if desired, explosive ordnance. It does not require any explosive compounds and uses compounds that can be easily airfreighted or locally sourced. Email from Zita Andrassy, HALO Trust, 19 June 2022.

80 Emails from Graeme Ogilvie, DCA, 1 April 2022; Alessandro Di Giusto, DRC, 7 March 2022; and Zita Andrassy, HALO Trust, 27 February 2022.

81 Email from Zita Andrassy, HALO Trust, 27 February 2022.

82 Email from Nicholas Torbet, HALO Trust, 14 April 2020.

83 Email from Zita Andrassy, HALO Trust, 27 February 2022.

84 Emails from Alessandro Di Giusto, DRC, 7 March 2022; Zita Andrassy, HALO Trust, 27 February 2022; and Graeme Ogilvie, DCA, 1 April 2022.

85 ITF, "Annual Report 2021", at: <https://bit.ly/3FeE39S>, p. 107.

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

A total of 468m² of cluster munition-contaminated area was cleared by HALO Trust in Libya in 2021. This concerned rubble piles in Sirte that had been untouched since the fight against the Islamic State⁸⁶ in 2015–16.

UNMAS reports that 13,988 explosive items were removed or destroyed by EOD spot task and BAC teams in 2021.⁸⁷ It is not known how many of the EOs, if at all, are CMR.

SURVEY IN 2021

According to UNMAS, 514km² of land have been non-technically surveyed in 2021.⁸⁸ It is not clear what proportion, if at all, of the surveyed area was for CMR contaminated land.⁸⁹ CMR survey was not reported by any of the international operators active in Libya in 2021.

CLEARANCE IN 2021

In 2021, The HALO Trust mechanically cleared a total area of 468m² in Sirte and Jeeza. DCA destroyed 22 submunitions and 10 other items of UXO from processing the rubble piles.⁹⁰

Table 3: CMR clearance by HALO Trust in 2021⁹¹

District	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
Sirte, Jeeza	468	22	10
Totals	468	22	10

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.⁹² Security conditions continued to pose a challenge to mine action in Libya. Libya needs a major shift to move mine clearance from an ad-hoc response to a systematic development tool. Part of this process involves the strengthening of LibMAC as a mine action coordination entity in Libya, and continued efforts to capacity build and enhance its resources.

⁸⁶ Email from Zita Andrassy, HALO Trust, 27 February 2022.

⁸⁷ Email from Samir Becirovic, UNMAS, 2 March 2022.

⁸⁸ Ibid.

⁸⁹ Ibid.

⁹⁰ Email from Zita Andrassy, HALO Trust, 27 February 2022.

⁹¹ Ibid.

⁹² PowerPoint presentation by Brig. Turjoman, LibMAC, UN National Programme Directors' Meeting, Geneva, 8 February 2017.

KEY DATA

CLUSTER MUNITION
CONTAMINATION: LIGHT

LESS THAN **1** KM²

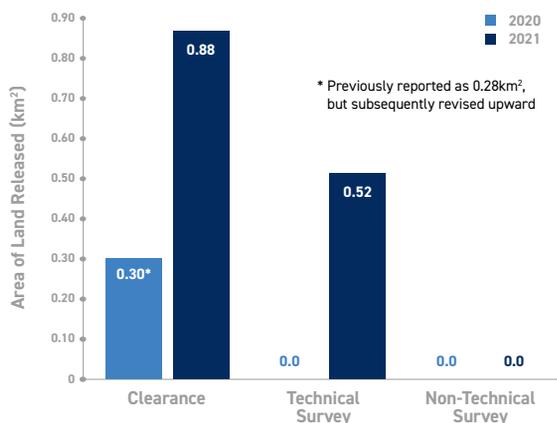
SUBMUNITION
CLEARANCE IN 2021

0.88 KM²

SUBMUNITIONS
DESTROYED IN 2021

28

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)

NATIONAL AND INTERNATIONAL OPERATORS

- In 2021, 11 companies/organisations (6 from Serbia and 5 from Bosnia and Herzegovina), were accredited for demining, but only four conducted clearance of CMR:
 - NGO Stop Mines
 - Millennium Team Ltd.
 - Nucleus Team Ltd.
 - Saturnia Ltd.

OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)

UNDERSTANDING OF CMR CONTAMINATION

At the end of 2021, Serbia had a total of almost 1km² of cluster munition-contaminated area, comprising one area confirmed to contain CMR covering more than 0.28km² and two areas suspected to contain CMR covering almost 0.72km² (see Table 1).¹ This is a decrease compared to the total of nearly 2.1km² of CMR contaminated areas (seven confirmed areas covering more than 0.71km² and three suspected areas covering over 1.38km²) as at the end of 2020,² which is the result of release through clearance and technical survey of CMR-contaminated area in 2021, as well as a slight reduction in the amount of CMR-contaminated area in Užice municipality following an “explosive remnants of war (ERW) risk reduction project”, which included part of a CMR task.³

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 1999.⁴

Table 1: Cluster munition-contaminated area by municipality (at end 2021)⁵

Municipality	Village	CHAs	Area (m ²)	SHAs	Area (m ²)
Bujanovac	Borovac	1	281,169	0	0
Tutin	Istočni Mojstir	0	0	1	*131,900
Užice	Bioska	0	0	1	**584,567
Totals		1	281,169	2	716,467

CHAs = confirmed hazardous areas SHAs = suspected hazardous areas

* New task added to the database following survey by NGO Stop Mines, during which a submunition was found.

** Previously recorded contamination totalling 585,268m² was reduced to 584,567m², as a result of completion of an ERW risk reduction project, which also included 701m² of this SHA.

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, Kuršumljija, Niš City-municipality of Crveni Krst, Niš City-municipality of Medijana, Preševo, Raška, Sjenica, Sopot, Stara Pazova, Tutin, and Vladimirci.⁶ 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 mines⁷ (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).⁸ The NMAA is responsible for developing standard operating procedures (SOPs); accrediting demining operators; and supervising the work of SMAC.⁹

1 Email from Slađana Košutić, Senior Advisor for Planning, International Cooperation and European Integrations, Serbian Mine Action Centre (SMAC), 25 March 2022; and Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request (2022), pp. 28–29.

2 Email from Slađana Košutić, SMAC, 26 March 2021.

3 Email from Slađana Košutić, SMAC, 25 March 2022.

4 Emails from Slađana Košutić, SMAC, 11 May 2021 and 25 March 2022.

5 Emails from Slađana Košutić, SMAC, 25 March and 3 June 2022.

6 SMAC, "Mine Situation", accessed 15 April 2022, at: <http://bit.ly/1Nom1V7>.

7 APMBC Article 5 deadline Extension Request (2022), p. 6.

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.

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.¹⁰ 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.¹¹

A new director of SMAC was appointed by the Serbian government in July 2019.¹² As at March 2022, nine people were employed at SMAC – the Director, two assistant directors, and six other employees.¹³

In November 2020, representatives from the Geneva International Centre for Humanitarian Demining (GICHD) visited SMAC. It was jointly concluded that the GICHD could usefully provide support to SMAC for the development of national mine action standards, through the provision of training and assistance with information management.¹⁴

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 2021, Serbia reported that around €320,000 per annum was allocated from the national state budget for the work of SMAC,¹⁵ an increase on the €270,000 provided in 2020.¹⁶ In addition, the UXO disposal work of the Sector for Emergency Situations of the Ministry of Interior is also State funded.¹⁷

National funding for survey and clearance remained at €260,000 for 2021 – as 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. In addition to the €1,040,000 of total national funding pledged for 2022–25, Serbia estimated it will also need to secure an additional €2 million from international donors.¹⁸

None of the national funding for survey and clearance in 2021 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).¹⁹ However, SMAC said that certain Ministries or public companies with a particular interest in certain areas being cleared may provide funding for CMR clearance operations – such as previous clearance projects in Niš funded by the Airports of Serbia Ltd.²⁰

In March 2020, SMAC and the Serbian Ministry of Defence (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 will reportedly be on the training of personnel in ERW demolition operations, including in CMR clearance.²¹

In late 2019, the Serbian government approved funds for the establishment of a training centre within SMAC. The training centre became operational in 2020. Together with experts from the Ministry of Interior, SMAC will provide different training modules, including on ERW recognition, IMAS, medical aspects, and risk reduction.²² A train the trainers course for EOD levels 1 and 2 was held on 25 October–19 November 2021 at the training centre, in a cooperation between SMAC and the MoD, with financial support from the European Union (EU) delegation in Belgrade. The training involved both SMAC and MoD staff.²³

In 2021, the United States (US) Department of State donated two terrain vehicles, a number of detectors and "multifunctional devices", and personal protective equipment to SMAC, through ITF.²⁴

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,

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 Article 5 deadline Extension (2022) Request, p. 19.

11 APMBC Article 5 deadline Extension Request (2022), p. 20.

12 Email from Slađana Košutić, SMAC, 23 April 2020.

13 Email from Slađana Košutić, SMAC, 25 March 2022.

14 Statement of Serbia on International Cooperation and Assistance, APMBC 19th Meeting of States Parties (virtual meeting), 15–19 November 2021.

15 Email from Slađana Košutić, SMAC, 25 March 2022.

16 Article 7 Report (covering 2019), Section 4; and email from Slađana Košutić, SMAC, 26 March 2021.

17 SMAC, "Mine situation", accessed 8 May 2019, at: <http://bit.ly/1Nom1V7>.

18 Statement of Serbia on Clearance, APMBC 19th Meeting of States Parties (virtual meeting), 15–19 November 2021; and Article 5 deadline Extension Request (2022), pp. 8 and 34.

19 Email from Slađana Košutić, SMAC, 25 March 2022.

20 Ibid.

21 Article 7 Report (covering 2020), Form H; and email from Slađana Košutić, SMAC, 11 May 2021.

22 Emails from Slađana Košutić, SMAC, 23 April 2020 and 26 March 2021.

23 Statement of Serbia on International Cooperation and Assistance, APMBC 19th Meeting of States Parties (virtual meeting), 15–19 November 2021; APMBC Article 5 deadline Extension Request (2022), p. 21; and email from Slađana Košutić, SMAC, 25 March 2022.

24 APMBC Article 5 deadline Extension Request (2022), p. 18.

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.²⁵

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.²⁶

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, and SMAC cooperates closely with the local authorities and other relevant stakeholders in this regard. SMAC also ensures ethnic or minority groups are consulted.²⁷

Serbia reports there is equal access to employment for qualified women and men in survey and clearance operations.²⁸

At SMAC, four of the nine employees (just over 44%) are women, with two of the women (22% of total employees) holding managerial/supervisory level positions and two (22% of total employees) in operations positions.²⁹

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 the Information Management System for Mine Action (IMSMA).³⁰ In 28 June–2 July 2021, representatives from the GICHD visited SMAC to assess SMAC's information management capabilities and needs, as well as to offer detailed recommendations to SMAC to advance its information management processes and systems.³¹ As at March 2022, SMAC was in the final stage of completing an administrative procedure which will enable the GICHD to support SMAC to implement IMSMA Core.³²

PLANNING AND TASKING

The Government of Serbia adopts SMAC's annual work plans.³³ SMAC's 2022 work plan included one CMR clearance project in Bujanovac municipality totalling 281,169m² and one technical survey project in Tutin municipality totalling 131,900m². The projects will be funded by the United States and the Republic of Korea, through ITF.³⁴

Serbia prioritises the release of areas which 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.³⁵ 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.³⁶

25 Email from Slađana Košutić, SMAC, 25 March 2022.

26 Article 5 deadline Extension Request (2022), p. 20.

27 Emails from Slađana Košutić, SMAC, 23 April 2020 and 26 March 2021.

28 Email from Slađana Košutić, SMAC, 23 April 2020.

29 Email from Slađana Košutić, SMAC, 25 March 2022.

30 Email from Slađana Košutić, SMAC, 23 April 2020.

31 Statement of Serbia on International Cooperation and Assistance, APMBC 19th Meeting of States Parties (virtual meeting), 15–19 November 2021; and email from Slađana Košutić, SMAC, 25 March 2022.

32 Email from Slađana Košutić, SMAC, 25 March 2022.

33 APMBC Article 5 deadline Extension Request (2022), pp. 18 and 21.

34 Email from Slađana Košutić, SMAC, 25 March 2022.

35 Email from Slađana Košutić, SMAC, 26 March 2019.

36 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.³⁷

Serbia is planning to adopt a new decree on protection against ERW. The draft decree, developed by SMAC and the Ministry of Interior, foresees the development of national mine action standards (NMAS); formally introduces the concept of land release, which was not defined in the former decree; aims to improve the accreditation, monitoring, and evaluation process; and prohibits the previous practice of independent ammunition technicians being hired by infrastructure companies (which will instead be done through tasking and coordination from SMAC).³⁸ As at May 2022, the Decree was in the final stages of being adopted by the government.³⁹

Under new directorship in late 2015, SMAC reassessed its land release methodology in order to prioritise full clearance over technical survey of hazardous areas.⁴⁰ This does not correspond to international best practice and is an inefficient use of scarce clearance assets. In February 2016, a new director of 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.⁴¹

As at March 2022, 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.⁴²

On 4–8 July 2021, as part of a study conducted by the GICHD on difficult terrain in mine action, which focuses on countries in the Balkans, the GICHD and SMAC jointly visited areas of "difficult terrain". The primary objective of the study is to support national authorities in their efforts to address explosive hazards and return land to safe and productive use.⁴³

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.⁴⁴

The Ministry of Interior issues accreditation to mine action operators that is valid for one year. In 2021, 11 companies/organisations (six from Serbia and five from Bosnia and Herzegovina (BiH)), were accredited for demining,⁴⁵ but only four organisations conducted clearance of CMR (see Table 2).⁴⁶

Table 2: Operational CMR clearance capacities deployed in 2021⁴⁷

Operator	Manual teams	Total deminers*	Dogs and handlers	Machines**
NGO Stop Mines	3	25	0	0
Millennium Team Ltd.	2	16	0	0
Nucleus Team Ltd.	1	4	0	0
Saturnia Ltd.	1	7	0	0
Totals	7	52	0	0

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

Table 2 represents an increase in clearance capacity in 2021 compared to the previous year.

NGO Stop Mines also conducted technical survey in 2021, with two technical survey teams totalling 19 personnel.⁴⁸

37 SMAC, "Mine Situation", accessed 15 April 2022, at: <http://bit.ly/1Nom1V7>; and APMBC Article 7 Report (covering 2019), Section 4.

38 Article 7 Report (covering 2020), Form D; and emails from Slađana Košutić, SMAC, 26 March and 26 July 2021.

39 Article 5 deadline Extension Request (2022), p. 20.

40 Interview with Jovica Simonović, SMAC, in Geneva, 18 February 2016.

41 Ibid.

42 APMBC Article 5 deadline Extension Request (2018), p. 30; and email from Slađana Košutić, SMAC, 25 March 2022.

43 Statement of Serbia on International Cooperation and Assistance, APMBC 19th Meeting of States Parties (virtual meeting), 15–19 November 2021; and email from Slađana Košutić, SMAC, 25 March 2022.

44 APMBC Article 5 deadline Extension Request (2018), p. 18.

45 Article 5 deadline Extension Request (2022), p. 33.

46 Email from Slađana Košutić, SMAC, 25 March 2022.

47 Ibid.

48 Ibid.

An 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.⁴⁹

In 2021, SMAC representatives attended a global non-technical survey course organised by the GICHD in Switzerland in August;⁵⁰ a regional technical survey course organised by the GICHD in partnership with Norwegian People's Aid (NPA) in BiH in September; a regional quality management course organised by the GICHD in cooperation with SMAC in Serbia in November–December; and an online IMSMA training course organised by the GICHD in December.⁵¹

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

A total of more than 1.39km² of CMR-contaminated area was released in 2021: nearly 0.52km² reduced through technical survey and nearly 0.88km² through clearance, during which a total of 28 submunitions and 392 items of UXO were destroyed.⁵²

SURVEY IN 2021

A total of 515,000m² of CMR-contaminated area was reduced through technical survey by NGO Stop Mines in 2021, in the village of Istočni Mojstir, in Tutin municipality.⁵³ No land was reduced through technical survey in 2020.

No CMR-contaminated area was cancelled through non-technical survey in 2021 or 2020.⁵⁴

CLEARANCE IN 2021

A total of 877,738m² of CMR-contaminated area was cleared in 2021, during which 28 submunitions and 392 items of other UXO were destroyed (see Table 3).⁵⁵ Clearance output in 2021 was nearly three times that of 2020, when 297,660m² of CMR-contaminated area was cleared (revised upwards from the 284,855m² clearance output previously reported for 2020, which excluded a 12,805m² clearance task that had been completed, but not reported).⁵⁶ Clearance operations in 2020, which were suspended due to lack of available deminers as a result of COVID-19, were resumed and completed in 2021.

Table 3: CMR clearance by municipality in 2021⁵⁷

Municipality	Village	Operator	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
Bujanovac	Borovac	NGO IN Demining	101,968	1	0
Bujanovac	Borovac	NGO IN Demining	108,961	1	1
Niš	Crveni krst (Niš Airport)	Millennium Team Ltd.	84,750	0	1
Niš	Crveni krst (Niš Airport)	Nucleus Team Ltd.	10,179	0	0
Niš	Crveni krst (Niš Airport)	Millennium Team Ltd.	69,540	0	390
Sjenica	Vapa	NGO IN Demining	338,416	26	0
Sjenica	Čedovo	Saturnia Ltd.	89,450	0	0
Sjenica	Čedovo	Saturnia Ltd.	74,474	0	0
Totals			877,738	28	392

49 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.

50 Statement of Serbia on International Cooperation and Assistance, APMBC 19th Meeting of States Parties (virtual meeting), 15–19 November 2021; and APMBC Article 5 deadline Extension Request (2022), p. 20.

51 APMBC Article 5 deadline Extension Request (2022), p. 20; and email from Slađana Košutić, SMAC, 25 March 2022.

52 Email from Slađana Košutić, SMAC, 26 March 2021.

53 Email from Slađana Košutić, SMAC, 25 March 2022.

54 Email from Slađana Košutić, SMAC, 26 March 2021.

55 Email from Slađana Košutić, SMAC, 25 March 2022.

56 Emails from Slađana Košutić, SMAC, 26 March 2021 and 3 June 2022.

57 Email from Slađana Košutić, SMAC, 25 March 2022.

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 2021.⁵⁸ SMAC also does not possess data on explosive ordnance contamination of military areas in Serbia.⁵⁹

Five of the eight clearance project tasks in 2021, totalling 328,393m², proved not to contain any cluster munition remnants.⁶⁰

Included in 2021 clearance output were three cluster munition-contaminated areas in the municipality of Niš, totalling over 0.16km², which had not been previously included in SMAC's database of CMR contamination. The three areas were previously owned by the MoD (near to Niš civilian airport), and were transferred to civilian ownership under the Airports of Serbia Niš. SMAC developed clearance projects and completed clearance of these three CMR projects in 2021.⁶¹

PROGRESS TOWARDS COMPLETION

A total of 1.5km² has been cleared in the last five years (see Table 4). Clearance output has steadily increased over the last three years.

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.⁶² Progress in CMR clearance is said to be contingent on funding. Serbia has said that depending on the availability of funding and the global health situation caused by COVID-19, CMR clearance in the country could be finished within a year or so.⁶³

However, SMAC said it had 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.⁶⁴ The compounds were targeted during the NATO strikes,⁶⁵ 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 over 2.92km² was cleared of ERW in 2021, with the destruction of 1,330 items of UXO.⁶⁶

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."⁶⁷

Table 4: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2021	*0.88
2020	**0.30
2019	***0.14
2018	0.00
2017	0.18
Total	1.50

* Includes CMR clearance suspended in 2020 due to lack of deminers as a result of COVID-19 and which were completed in 2021. Excludes area reduced through technical survey.⁶⁸

** Previously reported as 0.28km², but subsequently revised upwards, as the earlier figure excluded a 12,805m² clearance task that had been completed, but not reported.

*** Previously reported as 0.12km², but subsequently revised upwards, as excluded a 22,280m² clearance task that had been completed, but not reported.

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.⁶⁹

58 Ibid.

59 Email from Slađana Košutić, SMAC, 11 May 2021.

60 Email from Slađana Košutić, SMAC, 26 March 2021.

61 Emails from Slađana Košutić, SMAC, 26 March 2021; and 25 March and 3 June 2022.

62 Ibid., pp. 37–38.

63 Email from Slađana Košutić, SMAC, 25 March 2022.

64 Ibid.

65 Email from Slađana Košutić, SMAC, 3 June 2022.

66 Email from Slađana Košutić, SMAC, 25 March 2022.

67 APMBC Article 5 deadline Extension Request (2022), p. 9.

68 APMBC Article 5 deadline Extension Request (2022), p. 14.

69 Email from Slađana Košutić, SMAC, 23 April 2020.

KEY DATA

CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

6.1 km²

SUBMUNITION CLEARANCE IN 2021

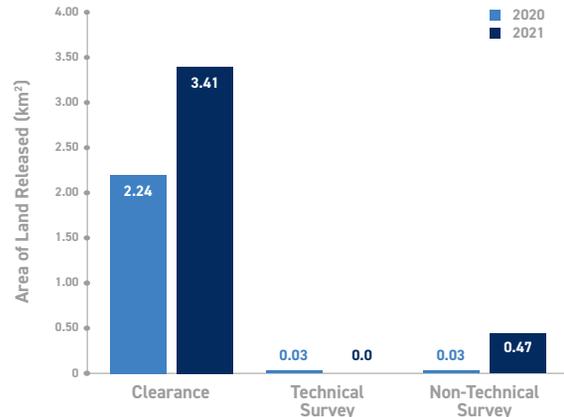
3.41 km²

SUBMUNITIONS DESTROYED IN 2021

2,922

(INCLUDING 71 DESTROYED DURING SPOT TASKS)

LAND RELEASE OUTPUT



RECOMMENDATIONS FOR ACTION

- South Sudan should accede to the Convention on Cluster Munitions (CCM) in line with the decision taken by the Council of Ministers announced in September 2017.
- South 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.
- South Sudan should increase its financial support for mine action operations. Greater assistance from the government and international partners should be provided to the National Mine Action Authority (NMAA) to strengthen its capacity to develop and implement effective policies to address explosive ordnance.
- South Sudan should develop its resource mobilisation strategy and initiate dialogue with development partners on long-term support for mine action, including to address CMR.
- South Sudan should ensure that the voluntary Article 7 reports it submits contain data consistent with the International Mine Action Standards (IMAS), which is disaggregated by suspected hazardous areas and confirmed hazardous areas and their relative size, and that the release of areas is reported in accordance with the methodology employed.

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-MA) (previously Danish Demining Group (DDG))
- G4S Ordnance Management (G4S)
- Mines Advisory Group (MAG)
- The Development Initiative (TDI)
- SafeLane Global

OTHER ACTORS

- UN Mine Action Service (UNMAS)

UNDERSTANDING OF CMR CONTAMINATION

At the end of 2021, South Sudan had 130 hazardous areas covering a total size estimated at just under 6.1km² contaminated with CMR, of which 5.3km² was confirmed hazardous area (CHA) and 0.8km² was suspected hazardous area (SHA).¹ Eight of South Sudan's ten states have areas suspected to contain CMR (see Table 1), with Central and Eastern Equatoria remaining the most contaminated. This is an increase from the 5.8km² across 128 hazardous areas confirmed or suspected to be contaminated with CMR at the end of 2020.² The increase in the contamination estimate from 2020 to 2021 cannot be explained by land release and newly added contamination data.

In 2017, the United Nations Mine Action Service (UNMAS) initiated a review of the national Information Management System for Mine Action (IMSMA) database and subsequently initiated targeted re-survey aimed at better defining the estimated size of SHAs. Re-survey of SHAs is now part of the process whenever clearance teams are tasked to clear cluster munition-contaminated area.³

South Sudan's national mine action programme has greatly improved the accuracy of estimates of contamination in recent years. The total estimate of mine, CMR, and other explosive remnants of war (ERW) contamination remaining in the country decreased from nearly 89km² at the end of 2017 to just over 18km² at the end of 2021.⁴ Despite continued land release, however, CMR contamination has increased over that period as a review of existing records in the database and re-survey resulted in three main changes that have proved especially significant with regard to CMR contamination: a number of existing 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 better reflect the actual extent of contamination; and previously unrecorded areas containing CMR were added to the database.⁵

While it is understood that there are 130 hazardous areas across South Sudan, historically the size of cluster munition strike sites has been underestimated with analysis of previous clearance suggesting that the average task size is around 70,000m² (often reflecting multiple, overlapping strikes). It is likely therefore that the current projection of CMR contamination underestimates the scale of the problem.⁶ It is also thought that, as refugees start to return, they will encounter previously unrecorded submunitions as the areas with the highest levels of contamination, especially in Central and Eastern Equatoria, are sparsely populated.⁷ There also continue to be hazardous areas which are located in remote or sparsely populated areas and where information on contamination is difficult to verify via non-technical survey.⁸

In 2021, a total of 933,706m² of previously unrecorded CMR contamination was added to South Sudan's mine action information management database.⁹

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 air dropped cluster munitions over southern Sudan.

Table 1: Cluster munition-contaminated area by state (at end 2021)¹⁰

State	CHAs	Area (m ²)	SHAs	Area (m ²)	Total CHAs/SHAs	Total area (m ²)
Central Equatoria	44	2,162,470	2	475,887	46	2,638,357
Eastern Equatoria	55	2,434,271	1	5,748	56	2,440,019
Jonglei	6	305,458	3	148,349	9	453,807
Lakes	1	58,040	0	0	1	58,040
Upper Nile	3	95,098	0	0	3	95,098
Warrap	1	19,745	0	0	1	19,745
Western Bahr El Ghazal	1	36,502	0	0	1	36,502
Western Equatoria	12	179,744	1	175,698	13	355,442
Totals	123	5,291,328	7	805,682	130	6,097,010

1 Email from Fran O'Grady, Chief of Mine Action, United Nations Mission in South Sudan (UNMISS), 9 March 2022.

2 Email from Richard Boulter, Senior Programme Manager, UN Mine Action Service (UNMAS), 11 April 2021.

3 Email from Fran O'Grady, UNMISS, 9 March 2022.

4 Email from Ayaka Amano, UNMAS, 2 May 2019; UNMAS, South Sudan IMSMA Monthly Report, March 2004 to December 2021, at: <https://bit.ly/34nv9VK>.

5 Email from Ayaka Amano, UNMAS, 2 May 2019.

6 Voluntary Article 7 Report (covering 2020), Form A.

7 Email from Brendan Ramshaw, Operations Manager, DCA, 22 April 2021.

8 Email from Lisa Mueller-Dormann, Programme Officer/Co-coordinator Mine Action Sub-cluster, MAG, 22 March 2022.

9 Email from Fran O'Grady, UNMISS, 9 March 2022.

10 Email from Fran O'Grady, UNMISS, 9 March 2022. This differs slightly from the reporting in South Sudan's Voluntary Article 7 Report (covering 2021), Form F, which gives an overall contaminated area of 6,069,770m² and does not disaggregate by CHA and SHA.

11 "South Sudan De-Mining Authority", undated, at: <http://bit.ly/2Y5Eb4o>.

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 2021* 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.¹¹ There is no national mine action legislation in place.¹²

In 2011, UN Security Council Resolution 1996 tasked UNMAS with supporting South Sudan in demining and strengthening the capacity of the NMAA. UNMAS and the NMAA have been overseeing mine action across the country through UNMAS's main office in Juba, and sub-offices in Bentiu, Bor, Malakal, and Wau. Together, 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.¹³

It is planned that the NMAA will assume full responsibility for all mine action activities throughout the country in the next four years. However, according to UNMAS, the NMAA continued to face serious financial and technical limitations preventing it from doing so effectively and accordingly, UNMAS continued with support to the NMAA during 2021.¹⁴

NMAA staff were trained in quality management and field monitoring, as well as with planning field operations. In addition, an NMAA mobile explosive ordnance disposal (EOD) team was trained and mentored in response to unexploded ordnance (UXO) spot tasks and basic reporting.¹⁵ In 2021, UNMAS reported that a resource mobilisation strategy was under development and, as at March 2022, this was still in progress.¹⁶

In 2021, UNMAS and Mines Advisory Group (MAG) were the co-coordinators of the mine action sub-cluster.¹⁷ The sub-cluster coordinates with the national- and state-level Inter-Cluster Working Groups. This enables information to be shared on mines and unexploded ordnance (UXO); for UN agencies and non-governmental organisations (NGOs) to inform mine action actors about their own priority locations for clearance; and for information to be integrated into the annual Humanitarian Needs Overview and Humanitarian Response Plan.¹⁸ The sub-cluster meets at least once per quarter and holds ad hoc meetings as necessary; in 2021, six meetings were held.¹⁹

In 2021, the Government of South Sudan funded the costs of NMAA staff salaries and its sub-offices across the country, in Wau and Yei, although, as at March 2022, use of the Yei office continued to be suspended due to the security situation. The NMAA did not, however, provide any funding for survey or clearance. The government's total support was reported as below US\$100,000 for the year.²⁰

In South Sudan's revised 2020 Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request, completing all mine clearance by July 2026 was estimated to cost US\$148 million.²¹ In 2021, South Sudan received just over US\$6.4 million for mine action from external sources which is a dramatic decrease from the more than US\$40 million received in 2020.²² The NMAA has requested international funding and technical support in 2022–24 for CMR clearance and for training on residual capacity.²³

ENVIRONMENTAL POLICIES AND ACTION

South Sudan has an National Technical Standards & Guidelines (NTSG) on Health & Safety, Social & Environment (HSSE), which was introduced in 2018 and is in line with IMAS 07.13 on Environmental Management in Mine Action.²⁴ Implementing partners in South Sudan establish their own standard operating procedures (SOPs) and policies based on the NTSGs to safeguard the environment. It is a requirement that when survey and clearance operations are completed the area should be restored in accordance with the wishes of the local community, as 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.²⁵

12 Email from Ayaka Amano, UNMAS, 2 May 2019.

13 UNMAS, "Mine Action Portfolio 2019".

14 Email from Fran O'Grady, UNMISS, 9 March 2022.

15 Email from Fran O'Grady, UNMISS, 9 March 2022.

16 Ibid.

17 Email from Lisa Mueller-Dormann, MAG, 9 May 2021.

18 UNMAS, "Mine Action Portfolio 2019".

19 Email from Fran O'Grady, UNMISS, 9 March 2022.

20 Ibid.

21 Revised 2020 Article 5 deadline extension request, p. 75.

22 UNMAS, "Mine Action Portfolio 2019", pp. 20–21; and emails from Richard Boulter, UNMAS, 11 April 2021; and Fran O'Grady, UNMISS, 9 March 2022.

23 Voluntary Article 7 Report (covering 2020), Form I.

24 Ibid.

25 Article 7 Report (covering 2021), Form B.

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.²⁶ UNMAS reported that the programme was also implementing the UN Gender Guidelines for Mine Action, monitored by a gender focal point, who also encourages the 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.²⁷

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.²⁸ All teams are reportedly gender balanced in composition and trained to be inclusive, for example by ensuring outreach through non-technical survey and risk education is done separately for different age and gender groups, and taking local cultural practices into consideration.²⁹ At the same time, UNMAS reported that task prioritisation was predominantly dependent on security and that resources were concentrated on tasks within limited geographical areas rather than on the basis of gender needs.³⁰ Ethnic identity is taken into account within survey and clearance teams to ensure safe access and acceptance by the respective local communities.³¹

In 2019–20, UNMAS was providing workshops for the NMAA and mine action partners on gender equality, gender-based violence (GBV), and gender mainstreaming programming in mine action

with the aim of GBV prevention practices being mainstreamed in mine action and there being equal opportunity in decision making regardless of gender.³² As at May 2022, it was not known if these had yet happened. Implementation had been delayed due to COVID-19 and related restrictions.

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.³³ As part of its initiatives to recruit female deminers, UNMAS's implementing partner, SafeLane Global, conducted a basic demining training course in the first quarter of 2021 where 20% of the candidates were female.³⁴ In 2021, 12% of staff in operational roles were women (or if international operators are included this rose to 14%), while 16% of staff in managerial or supervisory positions were women.³⁵

All of the community liaison teams within MAG are mixed gender and the organisation reports that it consults with all affected community members, including women and children. MAG also holds women-only focus groups to ensure that their voices are heard. MAG also aims to recruit team members from the more than 60 ethnic groups within South Sudan and tries to ensure that at least one team member speaks the local language of the planned area of deployment. As at March 2022, three women held managerial positions within MAG and 35% of survey and clearance team members were women. MAG has ring-fenced training opportunities for women to improve their likelihood of securing leadership roles. In 2021, the first woman was awarded an EOD Level 2 qualification and received accreditation from UNMAS with more opportunities for women to be made available in late 2022 and early 2023.³⁶

INFORMATION MANAGEMENT AND REPORTING

A comprehensive review of all data in South Sudan's IMSMA database began in 2018, along with re-survey of recorded SHAs and CHAs whose size was thought to be exaggerated or location misrecorded. Through the database review it was 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 ongoing database review has, though, resulted in significant gains in the understanding of mine and ERW contamination. UNMAS informed Mine Action Review that, wherever possible, the database disaggregates mined areas, CMR-contaminated areas, and other ERW-contaminated areas, including spot tasks.³⁷

As previously mentioned, a review of existing records in the database and re-survey resulted in three main changes that have proved especially significant with regard to CMR contamination: a number of existing task records had been wrongly recorded and were re-classified as CMR-contaminated areas; several overly conservative estimates of the size of existing CHAs in the database were increased to better reflect the actual extent of contamination; and previously unrecorded areas containing CMR were added to the database.³⁸

26 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.

27 Emails from Ayaka Amano, UNMAS, 2 May 2019; and Fran O'Grady, UNMISS, 9 March 2022.

28 Email from Ayaka Amano, UNMAS, 2 May 2019.

29 Ibid.

30 Ibid.

31 Email from Richard Boulter, UNMAS, 8 July 2020.

32 UNMAS "Mine Action Portfolio 2019".

33 Email from Ayaka Amano, UNMAS, 2 May 2019.

34 Email from Richard Boulter, UNMAS, 11 June 2021.

35 Email from Fran O'Grady, UNMISS, 9 March 2022.

36 Email from Lisa Mueller-Dormann, MAG, 22 March 2022.

37 Email from Ayaka Amano, UNMAS, 2 May 2019; and 2020 Article 5 deadline extension request, p. 9.

38 Email from Ayaka Amano, UNMAS, 2 May 2019.

In 2021, South Sudan was supported by the Geneva International Centre for Humanitarian Demining (GICHD) to upgrade its IMSMA database to IMSMA Core. All relevant reports, including external quality assurance (EQA), hazard/completion, and incident/accident reports were successfully transferred.³⁹

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 third voluntary Article 7 report in April 2022.

PLANNING AND TASKING

South Sudan's most recent National Mine Action Strategy 2018–2022, developed with support from the GICHD and using funding from Japan, was officially launched in September 2018.⁴⁰

According to UNMAS, the strategy has three strategic goals with related targets:⁴¹

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 South Sudan's national strategy was conducted in January 2020 supported by the GICHD.

National and international stakeholders were brought together in Juba to determine progress, discuss challenges, and identify the best way forward.⁴² The results of the review were considered when elaborating the operational clearance plan for 2020–21 by adopting a pragmatic approach to prioritisation and focusing on efficient deployment of resources. The operational focus for 2021–22 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.⁴³

In its revised 2020 APMB Article 5 deadline extension request South Sudan presents a work plan through to 2026, disaggregated by region. South Sudan estimates that the clearance requirement for CMR and for other battle area clearance (BAC) is 168 tasks covering just under 7.7km². CMR clearance teams using manual clearance drills are expected to clear 1,000m² per team per day, equating to 176,000m² per year, while mechanically supported teams are expected to clear 2,000m² per day or 352,000m² per team per year. This calculation includes the assumption that one month of productivity each year will be lost due to factors such as COVID-19, insecurity, and travel time.⁴⁴

Table 2: Planned clearance of CMR- and UXO-contaminated area (2021–25)⁴⁵

Year	No. of teams	Area cleared (m ²)	Area remaining (m ²)	Tasks remaining
2021	8 manual 2 mechanical	1,232,000 manual 616,000 mechanical	5,839,872	123
2022	7 manual 2 mechanical	1,078,000 manual 616,000 mechanical	4,145,872	81
2023	7 manual 2 mechanical	1,078,000 manual 616,000 mechanical	1,829,471	44
2024	7 manual 2 mechanical	1,078,000 manual 616,000 mechanical	245,471	7
2025	7 manual	792,000 manual	0	0

According to its revised 2020 APMB Article 5 deadline extension request, South Sudan intends to address all explosive contamination by its new deadline of 2026. To that end, aside from those tasks where specific humanitarian interventions are planned, the intention is to be pragmatic in the sequencing of tasks with a view to optimising all clearance efforts.⁴⁶

³⁹ Emails from Fran O'Grady, UNMISS, 9 March 2022; and Sasha Logie, Country Focal Point, GICHD, 21 April 2022.

⁴⁰ Email from Ayaka Amano, UNMAS, 2 May 2019.

⁴¹ Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018; and Richard Boulter, UNMAS, 6 June 2018.

⁴² Email from GICHD, 29 June 2021.

⁴³ Email from Fran O'Grady, UNMISS, 9 March 2022.

⁴⁴ Revised 2020 Article 5 deadline Extension Request, p. 74.

⁴⁵ Ibid.

⁴⁶ Ibid., p. 75.

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

South Sudan's National Technical Standards and Guidelines (NTSGs), which outline the technical requirements expected of all demining operators working in South Sudan, are adapted from the International Mine Action Standards (IMAS). The NTSGs are annually reviewed and revised by UNMAS and the implementing partners and then approved by the NMAA.⁴⁷ These standards and guidelines also contain provisions specific to CMR survey and clearance.⁴⁸ In 2021, revisions were made to a number of NTSGs, including survey, land release, quality management, accreditation of mine action organisations, and manual mine clearance.⁴⁹

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. MAG reported that areas were often recorded based on the minimum amount of clearance that would be required to comply with the NTSGs, which require a 50 metre fade-out. In MAG's experience, however, the actual CMR-contaminated area has often proved to be significantly larger, making it difficult to accurately plan for the time and resources needed to address each task.

MAG begins CMR clearance with the expectation that the task area will reach at least 60,000m² and at times has encountered CMR tasks that had to be expanded by more than 100,000m² compared to the original estimate. It further reported 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.⁵⁰ 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.⁵¹

UNMAS 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.⁵² In 2021, the external quality assurance reporting was transferred onto IMSMA Core. In addition, the minimum frequency for the organisational senior management internal quality assurance visits to each team was set in the NTSG at one per month and a standardised scoring matrix was introduced for the EOD written examination.⁵³

OPERATORS AND OPERATIONAL TOOLS

UNMAS reported that 22 teams from three international demining non-governmental organisations (MAG, Danish Refugee Council - Mine Action (DRC-MA), and Danish Church Aid (DCA)), and two commercial companies (G4S Ordnance Management, (G4S); and The Development Initiative, (TDI)) conducted CMR survey and clearance tasks in 2021. It estimated the number of operational personnel involved in CMR survey and clearance at 290 during the year (see Table 3). There were no major changes in capacity from 2020 to 2021 and in 2022 it expected an increase in mechanical ground preparation capacity (one MW-240 and one MW-50) in support of CMR clearance.⁵⁴

Table 3: Operational clearance capacities deployed in 2021⁵⁵

Operator	Manual teams	Total personnel	Mechanical assets	Comments
G4S QRT	4	28 (7 x 4)	0	Provided emergency response while working on CMR clearance for 6 months.
G4S MTT	6	114 (19 x 6)	0	All teams worked only on CMR clearance for 9 months.
SafeLane Global	2	36 (18 x 2)	0	Two teams conducted CMR clearance for 8 months.
TDI	2	16 (8 x 2)	0	Two teams conducted CMR clearance for 11 months.
MAG	5 (decreasing to 4 from Sept 2021)	50 (decreasing to 40 from Sept 2021)	2	MAG focused on CMR clearance during the year.
DRC-MA	3	36 (12 x 3)	0	DRC-MA conducted CMR clearance with 3 teams.
DCA	1	12	0	DCA had 1 team on a CMR clearance task for 3 months.
Totals	23 (22)	292 (282)	2	

MTT = Multi-Task teams QRT = Quick Response Teams

⁴⁷ Article 7 Report (covering 2019), Form 4.

⁴⁸ Email from Robert Thompson, UNMAS, 21 April 2016; and responses to questionnaire, 30 March 2015; and email from Augustino Seja, NPA, 11 May 2015.

⁴⁹ Email from Fran O'Grady, UNMISS, 9 March 2022.

⁵⁰ Email from Katie Shaw, MAG, 26 April 2019.

⁵¹ Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.

⁵² Email from Ayaka Amano, UNMAS, 2 May 2019.

⁵³ Email from Fran O'Grady, UNMISS, 9 March 2022.

⁵⁴ Ibid.

⁵⁵ Emails from Fran O'Grady, UNMISS, 9 March 2022; and Lisa Mueller-Dormann, MAG, 22 March 2022.

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

A total of a nearly 3.9km² of CMR-contaminated area was released through survey and clearance in 2021. Of this, 0.47km² was cancelled through non-technical survey and 3.41km² was cleared with no area reduced through technical survey.

SURVEY IN 2021

In 2021, a total of 466,954m² was cancelled through non-technical survey in Central Equatoria, Eastern Equatoria, and Western Bahr el Ghazal (see Table 4).⁵⁶ This is a massive increase from the 30,971m² of suspected CMR contamination cancelled through non-technical survey in Eastern Equatoria and Western Equatoria in 2020.⁵⁷

No area was reduced through technical survey in 2021.⁵⁸ This compares to the 32,238m² reduced through technical survey in Central Equatoria, Eastern Equatoria, and Warrap in 2020.⁵⁹

Table 4: Cancellation through non-technical survey in 2021⁶⁰

State	Operator	Area cancelled (m ²)
Central Equatoria	G4S	6,013
Central Equatoria	MAG	14,847
Eastern Equatoria	DRC-MA	8,912
Eastern Equatoria	G4S	434,746
Eastern Equatoria	MAG	3
Western Bahr el Ghazal	G4S	2,433
Total		466,954

CLEARANCE IN 2021

In 2021, a total of just over 3.4km² of CMR-contaminated area was cleared with 2,851 submunitions destroyed (see Table 5).⁶¹ This is an increase from the just over 2.2km² of CMR-contaminated area that was cleared in 2020 with 1,813 submunitions destroyed.⁶²

Table 5: CMR clearance in 2021⁶³

State	Operator	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
Central Equatoria	DRC-MA	219,944	111	3
Central Equatoria	G4S	172,307	182	5
Central Equatoria	MAG	317,870	167	11
Central Equatoria	TDI	151,750	134	96
Eastern Equatoria	DCA	8,052	0	0
Eastern Equatoria	DRC-MA	290,560	304	1
Eastern Equatoria	G4S	662,411	634	5
Eastern Equatoria	MAG	698,136	921	24
Upper Nile	G4S	251,953	109	4
Western Bahr El Ghazal	G4S	123,554	8	0
Western Equatoria	MAG	78,628	25	0
Western Equatoria	G4S	437,919	256	4
Totals		3,413,084	2,851	153

⁵⁶ Ibid.

⁵⁷ Emails from Richard Boulter, UNMAS, 11 April 2021; and Lisa Mueller-Dormann, MAG, 9 May 2021. This differs from the 63,209m² reported as cancelled through NTS in South Sudan's voluntary Article 7 report where no area was reported as reduced through TS.

⁵⁸ Email from Fran O'Grady, UNMISS, 9 March 2022.

⁵⁹ Email from Richard Boulter, UNMAS, 11 April 2021.

⁶⁰ Email from Fran O'Grady, UNMISS, 9 March 2022; and Voluntary Article 7 Report (covering 2021), Form F.

⁶¹ Email from Fran O'Grady, UNMISS, 9 March 2022.

⁶² Voluntary Article 7 Report (covering 2019), Form F; and emails from Richard Boulter, UNMAS, 11 April 2021; and Lisa Mueller-Dormann, MAG, 9 May 2021.

⁶³ Email from Fran O'Grady, UNMISS, 9 March 2022. This differs from the reporting provided by MAG where in Central Equatoria they cleared 375,538m² and destroyed 498 submunitions and 9 other items of UXO; in Eastern Equatoria they cleared 651,408m² and destroyed 905 submunitions and 21 other UXO; and in Western Equatoria they cleared 152,542m² and destroyed 56 submunitions. In its Voluntary Article 7 Report (covering 2021), Form F South Sudan provides clearance figures for 2011–21, but does not disaggregate by year.

In addition, 71 submunitions were destroyed during EOD spot tasks.⁶⁴

MAG reported that two tasks were cleared totalling 20,594m² that were classified as a hazardous area because CMR were destroyed as a spot task, and no further submunitions were found.⁶⁵ UNMAS implementing partners cleared one reported cluster munition site covering an area of 351,651m² which proved to contain no CMR.⁶⁶

UNMAS and MAG reported that the primary reason for the increase in overall land release from 2020 to 2021 was due to the negative impact that COVID-19 restrictions had on clearance operations in 2020, which meant that only five months of the year were operational.⁶⁷

PROGRESS TOWARDS COMPLETION

South Sudan is not yet a State Party to the CCM and therefore does not have a specific clearance deadline under Article 4. Nonetheless, South Sudan has obligations under international human rights law to clear CMR as soon as possible.

South Sudan has announced its intention to accede to the CCM, which is also a specific objective in the National Mine Action Strategic Plan 2018–2022.⁶⁸ In May 2019, UNMAS reported that documents relating to South Sudan's accession to the Convention were under review by the national parliament.⁶⁹ As at May 2022, the legislation was still before parliament for adoption.⁷⁰ According to UNMAS, in this time the Government of South Sudan has been focused on establishing its infrastructure and limited routine parliamentary business has taken place.⁷¹

Previously, primarily due to the ongoing conflict, it was impossible to predict when South Sudan might complete clearance of CMR, or even assess the true extent of contamination.⁷² However, with improvements in the security situation, progress in release of CMR-contaminated areas, and a comprehensive database review, the situation has begun to look far more positive.

According to South Sudan's revised 2020 APMB Article 5 deadline extension request, clearance of all CMR-contaminated areas is expected by July 2026 along with completion of mine clearance. In addition, the extension request clearly sets out the primary assumptions and risk factors in the implementation of land release targets, which are contingent on the present level of funding being maintained and having access to contaminated areas, with an end to fighting in the country.⁷³

Logistical challenges will also need to be overcome due to the poor state of South Sudan's infrastructure and the effects of the seasonal rains, which mean that clearance in much of the country is only possible for eight months of the year

given widespread flooding. Furthermore, the methodology previously used to clear roads was flawed as several mines have recently been discovered on roads that had been declared safe, resulting in the need for re-clearance. This has diverted resources from clearance of CMR.⁷⁴

In 2021, South Sudan needed to release 1.09km² of CMR and other UXO-contaminated area to meet its target for the year.⁷⁵ As nearly 3.9km² of CMR-contaminated area alone was released through survey and clearance South Sudan has easily exceeded this target with the total area released including other UXO contamination at just under 4.6km².⁷⁶ According to UNMAS, if the current battle area clearance capacity can be sustained to July 2026 then South Sudan will be able to complete clearance of CMR contamination by this date.

The daily clearance rate increased in 2021 with the introduction of large teams of 15 deminers with three or more large-loop metal detectors per team. However, the security situation remains a significant challenge in South Sudan with sporadic fighting across the country continuing in 2021. In addition, South Sudan experienced its worst flooding on record during the year, with clearance in the Jonglei and Upper Nile regions affected.⁷⁷

64 Ibid.

65 Email from Lisa Mueller-Dormann, MAG, 22 March 2022.

66 Email from Fran O'Grady, UNMISS, 9 March 2022.

67 Emails from Fran O'Grady, UNMISS, 9 March 2022; and Lisa Mueller-Dormann, MAG, 22 March 2022.

68 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.

69 Email from Ayaka Amano, UNMAS, 2 May 2019. On 5 September 2017, at the CCM 7th Meeting of States Parties, South Sudan announced its intention to accede to the Convention, stating that its Council of Ministers had taken a decision unanimously on 25 August 2017 to "fully accede" and comply with the CCM. Statement of South Sudan, CCM Seventh Meeting of States Parties, Geneva, 5 September 2017.

70 Email from Zehrudin Sukanovic, Head of Project Unit/Chief of Operations, UNMAS, 31 May 2022.

71 Email from Richard Boulter, UNMAS, 11 April 2021.

72 Email from Ayaka Amano, UNMAS, 2 May 2019.

73 Email from Richard Boulter, UNMAS, 11 April 2021.

74 Revised 2020 Article 5 deadline Extension Request, pp. 46–48.

75 Ibid., p. 74.

76 Email from Fran O'Grady, UNMISS, 9 March 2022; and UNMAS South Sudan, IMSMA monthly report, March 2004 to December 2021, at: <https://bit.ly/3PpGCue>.

77 Email from Fran O'Grady, UNMISS, 9 March 2022; and UNHCR, "UNHCR warns of dire impact from floods in South Sudan as new wet season looms", 29 March 2022, at: <https://bit.ly/3lVXhz>.

KEY DATA

CLUSTER MUNITION CONTAMINATION: LIGHT

PARTIAL ESTIMATE

0.14 KM²

SUBMUNITION CLEARANCE IN 2021

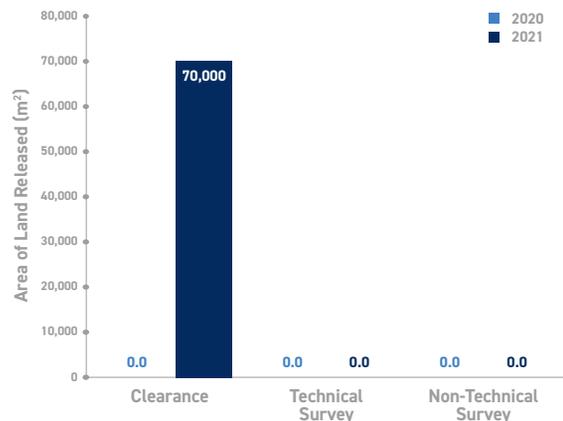
70,000 M²

SUBMUNITIONS DESTROYED IN 2021

38

(INCLUDING 4 IN EOD SPOT TASKS)

LAND RELEASE OUTPUT



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 suspected CMR contamination as soon as possible and should elaborate a work plan with how this will be achieved.

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

INTERNATIONAL OPERATORS

- SafeLane Global (SLG)
- Danish Refugee Council/DDG (accredited in 2021 but as of writing not yet operational)

OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

UNDERSTANDING OF CMR CONTAMINATION

At the end of 2021, Sudan had five hazardous areas covering an estimated 0.14km², of which two were very small confirmed hazardous areas (CHAs) and three were suspected hazardous areas (SHAs) covering most of the total area (see Table 1).¹ This is only a partial national picture of the extent of contamination, however, as two other SHAs believed to contain unexploded submunitions—in South Kordofan and West Kordofan states—are in areas not under government control.² Two hazardous areas totalling 5,820m² in Blue

Nile state became accessible in 2021 and were added to the national information management database.³ In addition, SafeLane Global surveyed an area at Ulu airstrip in Blue Nile state and cleared approximately 70,000m² between December 2020 and late January 2021, which was a partial clearance of a submunition strike.⁴ Full clearance did not take place as SafeLane Global's contract ended. Discovery of CHAs and SHAs and clearance of contaminated land in Blue Nile state continued in 2022.⁵

Table 1: Cluster munition-contaminated area by state (at end 2021)⁶

State	CHAs	Area (m ²)	SHAs	Area (m ²)	Total SHA/CHA	Total area (m ²)
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
Totals	2	5,820	3	136,580	5	142,400

N/K = Not known

In 2017, the Sudan National Mine Action Centre (NMAC), which assumed full national ownership for implementing mine action activities upon the United Nations Mine Action Office's (UNMAO's) closure in June 2011, reported that of the nine open areas reported by UNMAO in 2011, seven were cleared in 2011–13.⁷ In March 2018, NMAC informed Mine Action Review that the size of the seven areas cleared during this period totalled 15,318m² and that 13 PM-1 submunitions were found and destroyed during clearance.⁸ 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.⁹

In the 1990s, Sudanese government forces are believed to have sporadically air dropped cluster munitions in its civil war 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-1; 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.¹⁰

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). The 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.¹¹ The Sudanese Armed Forces Engineers destroyed the items in February 2018 and no further CMR were reported or identified.¹²

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Sudan also has a significant problem with anti-personnel mines, anti-vehicle mines, and 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).

1 Email from Hatim Khamis Rahama, Technical Advisor, Sudan National Mine Action Centre (NMAC), 12 May 2022.

2 Email from Hatim Khamis Rahama, NMAC, 1 May 2019; and interview in Geneva, 24 May 2019.

3 Email from Hatim Khamis Rahama, NMAC, 12 May 2022.

4 Email from Aimal Sah, Senior Operations and QM Advisor, UNMAS, 19 June 2021.

5 Email from Hatim Khamis Rahama, NMAC, 23 June 2022.

6 Ibid.

7 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.

8 Email from Hatim Khamis Rahama, NMAC, 3 March 2018.

9 Emails from Hatim Khamis Rahama, NMAC, 1 May 2019 and 14 June 2018.

10 See Cluster Munition Monitor, "Country Profile: Sudan: Cluster Munition Ban Policy", updated 23 August 2014.

11 Email from Dandan Xu, Associate Programme Management Officer, UNMAS, 12 July 2017.

12 Email from Colin Williams, Deputy Programme Manager, Ordnance Disposal Office (ODO), UNAMID, 1 June 2018.

Since South Sudan's independence, new conflicts in Abyei and in Blue Nile and South Kordofan states have resulted in increased UXO contamination in Sudan.¹³ The extent of mine and explosive remnants of war (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.¹⁴

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Sudanese National Mine Action Authority (NMAA) and NMAC manage Sudan's mine action programme. Upon the independence of South Sudan, NMAC assumed full ownership of national mine action, with responsibility for coordinating and supervising the implementation of all mine action activities, including quality assurance (QA), accreditation, and certification of clearance operators.

After starting an emergency programme in 2002, UNMAS re-established activities in Sudan in 2015, following an invitation from the Sudanese Government, in an advisory and support capacity.¹⁵ As part of its mandate, UNMAS provides organisational and individual capacity development to NMAC.¹⁶ In 2021, UNMAS delivered training in quality management, operations management, and survey to the national authority. In addition, basic demining training was delivered to 28 female deminers; Explosive Ordnance Disposal (EOD) Level 1 training to 21 ex-combatants from one of the armed opposition groups; EOD Level 2 training to 20 personnel from the mine action operators; and team leadership training to 20 leaders of demining teams. In 2022, UNMAS planned to deliver training on land release, online data collection, and quality management, among other issues.¹⁷

In 2021, the Geneva International Centre for Humanitarian Demining (GICHD) provided remote support to the implementation of 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 explosive ordnance risk education with an additional IMSMA Core training planned for June.¹⁸

The government of Sudan has maintained a consistent level of national financial contribution to mine action in local currency, but due to the devaluation of the local currency against the US dollar, this has fallen from \$2 million worth of funding in local currency in 2019 and 2020 to only \$500,000 in 2021 and 2022. Sudan expects national funding to be maintained and potentially to increase as the political and economic situation improves in the country.¹⁹

Sudan has calculated that it requires \$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. To date, international donors have been funding the mine action programme through UNMAS and the amount that has 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 are pledged for 2022. Sudan and UNMAS have been working on resource mobilisation and have expanded the donor pool.²⁰

In Sudan, not including Jebel Merra and Abyei, UNMAS and NMAC lead mine action sub-cluster meetings to coordinate progress, tackle challenges, and support Article 5 implementation in Sudan. All relevant implementing partners, non-governmental organisations (NGOs), UN agencies, and government authorities participate. During these meetings mine action projects for the annual Humanitarian Response Plan (HRP) are developed and prioritised through a consultative process.²¹ In addition, NMAC ordinarily holds a Country Coordination Forum with all stakeholders twice a year, though only one took place in 2021 due to the political and security situation.²²

ENVIRONMENTAL POLICIES AND ACTION

Sudan reported that it has a policy on environmental management which includes information on how mine action operators should minimise potential harm from demining activities.²³ There is also a dedicated NMAC on environmental management and an environmental impact assessment is now part of the standard, which was due to be implemented in the course of 2022.²⁴

13 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", *All Africa*, 10 August 2013; and UN, "UNMAS Annual Report 2012", New York, August 2013, p. 10.

14 UNMAS, "2019 Portfolio of Mine Action Projects, Sudan".

15 UNMAS, "Sudan (excluding Darfur)", Updated March 2019, at: <http://bit.ly/2Y3IDUg>.

16 Email from Aimal Safi, UNMAS, 31 May 2020.

17 Email from Aimal Safi, UNMAS, 27 March 2022.

18 Emails from Henrik Rydberg, Country Focal Point, GICHD, 13 April and 3 June 2022.

19 Anti-Personnel Mine Ban Convention (APMBC) 2022 Article 5 deadline Extension Request, p. 4.

20 *Ibid.*, pp. 8 and 30.

21 UNMAS, "2019 Portfolio of Mine Action Projects, Sudan" at: <http://bit.ly/3d0FtVH>; and email from Hatim Khamis Rahama, NMAC, 9 April 2020.

22 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

23 *Ibid.*

24 Email from Aimal Safi, UNMAS, 27 March 2022.

GENDER AND DIVERSITY

NMAC reported that in 2021 a new gender and diversity policy was developed and endorsed and that gender is mainstreamed in the national mine action strategic plan for 2019–23 and in the NMAC for Explosive Ordnance Risk Education (EORE), survey, clearance, and victim assistance.²⁵ It stated that under those standards, all survey and community liaison teams are to be gender balanced, and that women and children are consulted during survey and community liaison activities. It said that gender is also considered in the prioritisation, planning, and tasking of survey and clearance, as per the NMAC and the new standard IMSMA forms.²⁶

Mine action data are disaggregated by sex and age.²⁷ 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.²⁸ New reporting tools were added to the system and new reporting formats were developed for the NGOs to include this information.²⁹

NMAC 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.³⁰ As part of the implementation of Juba Peace Agreement and peacebuilding efforts 21 ex-combatants from one of the Sudan People's Liberation Movement - North (SPLM-N) factions, Malik Agar located in Bau/Ulu and Ingasana mountains, completed training in IMAS EOD Level 1 during 2021 and have been integrated into mine action operations to conduct land

release in the Ulu and Ingasana mountain areas. These areas were found to be heavily contaminated with landmines and ERW including CMR.³¹

NMAC says 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.³² The first female deminer was employed in late 2019.³³ In 2021, 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 2023.³⁴

UNMAS reported that, as at March 2022, around 50% of the non-technical survey teams were female. UNMAS Sudan has 16 staff members, of whom four programme officers and one of the support service staff are women. In addition, within the national operators contracted by UNMAS there are women working in managerial positions and the medics and community liaison officers in most of the field teams are 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.³⁵

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.³⁶ In 2022, Sudan began the migration to IMSMA Core, which was ongoing as of writing.³⁷ 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.³⁸

25 Ibid.

26 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

27 Email from Hatim Khamis Rahama, NMAC, 9 April 2020.

28 Email from Aimal Safi, UNMAS, 31 May 2020.

29 Email from Aimal Safi, UNMAS, 22 July 2020.

30 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

31 2022 Article 5 deadline Extension Request, p. 22.

32 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

33 Email from Aimal Safi, UNMAS, 12 April 2021.

34 2022 Article 5 deadline Extension Request, pp. 65–66.

35 Email from GICHD, 29 June 2021.

36 Emails from Ahmed Elser Ahmed Ali, NMAC, 9 May and 8 June 2016; and Third APMB Article 5 deadline Extension Request, March 2018, pp. 37–38.

37 Email from Henrik Rydberg, GICHD, 3 June 2022.

38 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

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.³⁹ In its latest Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request, Sudan predicted that a revised mine action strategy would be approved and issued in February 2023.⁴⁰ No specific strategy for the release of CMR-contaminated areas has been developed.

In 2021, a systematic prioritisation system was introduced as part of the new national mine action standards (NMAS) and linked with IMSMA with each SHA and CHA classified as high, medium, or low impact and prioritised accordingly.⁴¹

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.⁴² 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 is working with the NMAC and national operators to develop their standing operating procedures (SOPs) to ensure they are compliant with the new NMAS.⁴³

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 also to provide support to neighbouring mine action programmes.⁴⁴

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.⁴⁵ There are also two international operators, SafeLane Global (SLG), which became operational in December 2020, and Danish Refugee Council/DDG, which was accredited during 2021 and as at March 2022, had yet to become operational.⁴⁶

Table 2: Operational clearance capacities deployed in 2021⁴⁷

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
Global Aid Hand	1 MTT	4	0	0
Totals	13 teams	54	2 dogs & 2 handlers	0

39 Ibid.

40 2022 Article 5 deadline Extension Request, p. 19.

41 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

42 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

43 Email from Aimal Safi, UNMAS, 12 April 2021.

44 Emails from Hatim Khamis Rahama, NMAC, 31 March 2022; and Henrik Rydberg, GICHD, 3 June 2022.

45 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

46 2022 Article 5 deadline Extension Request, p. 45.

47 Emails from Hatim Khamis Rahama, NMAC, 31 March 2022; and Aimal Safi, UNMAS, 27 March 2022.

Table 3: Operational survey capacities deployed in 2021⁴⁸

Operator	NTS teams	Total NTS personnel	TS teams	Total TS personnel
JASMAR	3	12	10	44
NUMAD	0	0	1	8
Global Aid Hand	5	20	3	12
Totals	8	32	14	64

NTS = Non-technical survey TS = Technical survey

The multi-task teams (MTTs) and manual clearance team (MCT) were deployed for the clearance of all priority hazardous areas, however, the focus was on anti-personnel mined areas. 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 decrease in funding, operational capacity might decrease further for the operational year 2022–23.⁴⁹

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

In December 2020, in newly-accessible Blue Nile state, SafeLane Global teams started to clear submunitions as EOD spot tasks, and to survey and clear an airstrip in Ulu. Clearing the airstrip was a priority for the local authorities, and although SafeLane Global surveyed and started clearance of surface and sub-surface contamination, the task was suspended in late January 2021 as the contract ended. Clearance covered approximately 70,000m² and involved the destruction of 34 PM-1 submunitions.⁵⁰ This is an increase on clearance in 2020, when no CMR-contaminated area was released through survey or clearance. In addition, four submunitions were destroyed by JASMAR in 2021 during EOD spot tasks.⁵¹

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.⁵² In March 2022, the NMAC stated that there had been no developments in 2021 with regard to Sudan’s accession to the CCM.⁵³

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Sudan has a plan to deal with residual risk and liability post-completion.⁵⁴ As at March 2022, NMAC continues to deal with any residual contamination in the eastern states with the government’s funding.⁵⁵ However, it is planned that in the long term Sudan will establish a sustainable national capacity within the military or police.⁵⁶

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Emails from Aimal Safi, UNMAS, 19 and 26 June 2022.

⁵¹ Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

⁵² Email from Ali Abd Allatif Ibrahim, NMAC, 18 May 2017.

⁵³ Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

⁵⁴ Email from Hatim Khamis Rahama, NMAC, 9 April 2020.

⁵⁵ Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

⁵⁶ Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

KEY DATA

CLUSTER MUNITION CONTAMINATION: UNKNOWN

SUBMUNITION CLEARANCE IN 2021

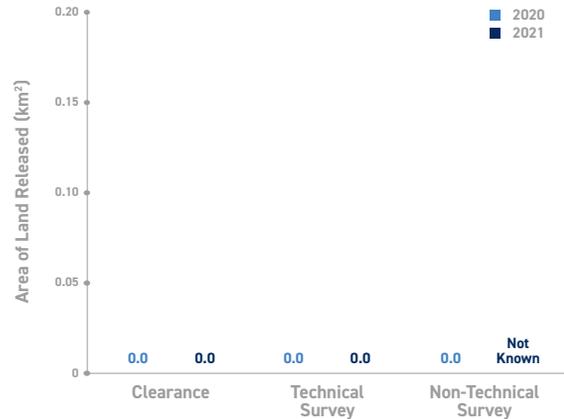
0 km²

(SPOT CLEARANCE ONLY)

SUBMUNITIONS DESTROYED IN 2021

305

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

While there have been no reports of renewed use of cluster munition in Syria since February 2021, one third of Syria's populated communities are said to be affected by explosive ordnance (EO), which includes cluster munition remnants (CMR).¹ The humanitarian needs resulting from contamination remain very high against a backdrop of an underfunded and fragmented mine action programme. The United Nations Mine Action Service (UNMAS) has taken a role of coordinating the mine action area of responsibility covering the whole of Syria.²

Several actors, including international non-governmental organisations (NGOs), are present in areas not controlled

by the government. In government-controlled territories, however, there is a critical lack of qualified clearance operators with only one international operator, the Armenian Centre for Humanitarian Demining and Expertise (ACHDE), accredited (in 2020), and another operator, Shield, which as at March 2022, was still undergoing the accreditation process. In late December 2021, the Norwegian People's Aid (NPA) signed a memorandum of understanding (MoU) with the Syrian government for the establishment of a mine action programme, which was expected to begin implementation in the course of 2022.

RECOMMENDATIONS FOR ACTION

- Syria should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Syria should comply with its obligations under international human rights law to clear CMR on territory under its jurisdiction or control as soon as possible.
- Syria should undertake a baseline survey of CMR contamination in areas over which it has effective control.
- Syria should adopt national mine action standards (NMAS) that are in line with the International Mine Action Standards (IMAS).

1 Syria Humanitarian Needs Overview, February 2022, at: <https://bit.ly/3vzUXwp>, p. 6.

2 Email from Francesca Chiaudani, Mine Action Coordinator, UNMAS, 7 July 2022.

- Syria should create the necessary structures to oversee an efficient mine action programme, namely, a national mine action centre (NMAC) and a national mine action authority (NMAA). The process should be underpinned by the adoption of mine action legislation and a multiyear strategic plan.
- Syria should expedite registration and access for international demining organisations to facilitate a credible humanitarian demining programme.
- Syria and the other parties present in the country should allow mine action operators to move freely across areas under their control and ensure their safety.
- A centralised mine action information management database should be established. All mine action operators in Syria should ensure that survey and clearance data is recorded and safeguarded in a digital format and in accordance with IMAS.

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- The interministerial Mine Action Coordination Committee (headed by the Minister of Foreign Affairs).

NATIONAL OPERATORS

- The Syrian Civil Defence (SCD), or the White Helmets.
- Roj Mine Control Organization (RMCO)
- iMFAD (based in Turkey)

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, operating in the north-west

OTHER ACTORS

- iMMAP
- Norwegian People's Aid (NPA), established in Damascus, December 2021
- United Nations Mine Action Services (UNMAS), operating from Damascus

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. During 2020 and the first quarter of 2021, cluster munition attacks were recorded in Aleppo, Hama, and Idlib governorates. Thirteen of the country's fourteen governorates (all except Tartus) have experienced persistent use of cluster munitions since 2012.³

The Syrian Network of Human Rights (SNHR) recorded at least 492 cluster munition attacks in Syria between July 2012 and 25 February 2020 attributing them to the Syrian forces, Russian forces, or the alliance of the two.⁴ The SNHR recorded the deaths of 176 civilians, including 74 children and 25 women, since the beginning of 2021 as a result of

both mines and CMR.⁵ According to SNHR reports, the Syrian government carried out four cluster munition attacks in the first half of 2020 in Hama and Idlib governorates, two of which hit schools.⁶ In March 2021, SNHR documented the use of 9M55K missiles, loaded with 9N235 submunitions, which were fired from the Russian airbase in Hmeimim and targeting Hiran and the al-Humran crossing in Rural Aleppo. The attack caused civilian casualties, including the death of a civil defence worker, and inflicted considerable damage on fuel tanks and burners. The same report remarked an increased use of BM-30 SMERCH and BM-27 URGAN cluster munitions, delivering mostly submunition types 9M55K, 9M27K, and 9M27K1, which were launched from stationary platforms.⁷

3 The Landmine and Cluster Munition Monitor website, Syria Cluster Munition Ban Policy, last updated 24 November 2020, at: <https://bit.ly/3yHlY0i>.

4 The Syrian Network of Human Rights (SNHR) press release, "The Syrian Regime Repeatedly Uses Cluster Munitions Against Residential Neighborhoods in and Around Idlib Governorate, Constituting War Crimes", 27 February 2020, at: <https://bit.ly/3fUfEtB>.

5 SNHR, "1,271 Civilians, including 299 Children, 134 Women, and 104 Victims of Torture, Killed in Syria in 2021", 1 January 2022, at: <https://bit.ly/3F2ZjyY>.

6 SNHR, "The Syrian Regime Repeatedly Uses Cluster Munitions Against Residential Neighborhoods in and Around Idlib Governorate, Constituting War Crimes", Report 27 February 2020, p. 8, at: <https://bit.ly/2TI1WbH>; and SNHR, The Most Notable Human Rights Violations in Syria in the First half of 2020, Report at: <https://bit.ly/3vvWssY>, p. 28.

7 SNHR, "The Most Notable Human Rights Violations in Syria in March 2021", Report, 5 April 2021, at: <https://bit.ly/2SCnu3m>, p. 3.

The Syria Humanitarian Needs Overview of 2022 estimates that EO contamination affected one third of populated communities. Areas that experienced intense hostilities, including Aleppo, Daraa, Deir Ezzor, Hama, Homs, Idlib, Raqqa, and Rural Damascus, were found to be particularly hard hit. The same report recorded an increase of 23% in the number of incidents caused by explosive remnants of war (ERW) in 2022 compared to 2020.⁸ The extent of contamination disaggregated by device is not known. In 2021, the Office of the UN High Commissioner for Human Rights (OHCHR) documented 1,874 civilian casualties as a result of airstrikes, ground-based shelling, and armed clashes in north-west Syria, as well as EO incidents, including those involving improvised explosive devices (IEDs), and landmines. Most of these incidents occurred in Aleppo, Idlib, Raqqa, and Deir Ezzor Governorates.⁹ Contamination is most frequently reported on agricultural land, on roads, on private property, as well as in and around schools, other public infrastructure and hospitals.¹⁰

The HALO Trust conducted an EO 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).¹¹ Unexploded submunitions were the most frequent type of ordnance encountered, accounting for 36% of total recorded contamination.¹² Other contamination was from landmines and IEDs (4% combined), and a mixture of other unexploded ordnance (UXO).¹³ Submunitions caused 42% of recorded casualties.¹⁴ Another rapid assessment survey conducted by HALO Trust in 2021 identified 91 suspected cluster munition strike zones (50 in Idlib and 41 in Aleppo).¹⁵

The International Committee of the Red Cross (ICRC) and the Syrian Arab Red Crescent (SARC) also 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 ERW. Of the assessed communities, 57% reported presence of anti-personnel mines; 46% of CMR; and 25% of IEDs.¹⁶

Mines Advisory Group (MAG) has been conducting surveys across several governorates in the north-east of Syria since 2016. To date, MAG has registered 241,900m² of CMR contamination across two suspected hazardous areas (SHAs) and three confirmed hazardous areas (CHAs) in Al-Hassakeh and Raqqa governorates. As at May 2022, MAG had a further 97,365m² of CMR contaminated land requiring survey and clearance. MAG has also received reports of CMR in Deir Ezzor governorate, but these are in areas that it cannot currently access.¹⁷

Table 1: Cluster munition-contaminated area in north-east Syria surveyed by MAG (at end 2021)¹⁸

Governorate	CHAs	Area (m ²)
Al-Hassakeh	2	96,365
Raqqa	1	1,000
Totals	3	97,365

Syrian Civil Defence (SCD), better known as the White Helmets (WH), 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 2017–18.¹⁹ In 2021, SCD conducted a non-technical survey in Aleppo, Hama, and Idlib governorates and recorded EO 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, EO contamination was recorded in 73 out of 335 communities surveyed (21.7%), and 42.7% of the total of 194 items of EO found were submunitions.²⁰ 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.²¹

Working from the Syrian capital, Damascus, UNMAS continued an explosive ordnance assessment team (EOAT) survey in Rural Damascus (South) that it had started in August 2020. The assessment locations were identified by UNMAS in line with the UN Humanitarian Response Plan (HRP) priorities and with the approval of the Syrian government. At the end of 2021, the EOAT surveyed 10km² in four locations in Daraya, (Rural Damascus), of which around 6km² were confirmed as hazardous. The EOAT also surveyed residential buildings in Yarmouk camp in Rural Damascus. Of the 423 buildings assessed, 88 were confirmed as contaminated. The EOAT survey was planned to continue throughout 2022.²²

Table 2: Cluster munition-contaminated area in Rural Damascus governorate (at end 2021)²³

Governorate	CHAs	Area (m ²)
Rural Damascus	4	6,383,615
Totals	4	6,383,615

The continued use of cluster munitions in 2020 and 2021 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).

8 Syria Humanitarian Needs Overview, February 2022, at: <https://bit.ly/3vzUXwp>, pp. 6 and 14.

9 OCHA, Syria Humanitarian Needs Overview, February 2022, p. 14.

10 Ibid., p. 60.

11 The HALO Trust, Syria, A Hidden Emergency, Report, at: <https://bit.ly/3fD4w4x>, p. 3.

12 Ibid., p. 7.

13 Ibid.

14 Ibid., p. 11.

15 Emails from Mairi Cunningham, Programme Manager, HALO Trust, 7 June 2021; and Damian O'Brien, Programme Manager, HALO Trust, 1 March 2022.

16 ICRC and SARC, Mine Risk Needs Assessment and Education, PowerPoint presentation to the 24th National Director's Meeting, Geneva, 25 May 2021.

17 Email from Fabrice Martin, Country Director, MAG, 9 March 2022.

18 Ibid.

19 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.

20 Email from Michael Edwards, SCD, 15 June 2022.

21 Email from Michael Edwards, SCD, 11 May 2021.

22 Emails from UNMAS, 30 June 2021; and Francesca Chiaudani, UNMAS, 31 March 2022.

23 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

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, Dr Faisal Mikdad.²⁴ The Ministry of Foreign Affairs (MoFA) assigned a focal point for liaison with UNMAS for all what concerns mine action. UNMAS is informed that the committee meets on an ad-hoc basis as needed.²⁵

Mine action in Syria is coordinated by three response mechanisms:

- Damascus-based Mine Action Sub-Cluster (MASC) coordinated by UNMAS
- The north-west MASC co-chaired by UNMAS and HALO Trust; and
- The north-east Mine Action Working Group (MAWG), which sits under the protection working group in the NGO forum-led response that is coordinated by iMMAP.²⁶

Coordinators of the three structures organise monthly meetings with the respective mine action actors.²⁷ In addition to the MAWG, in 2021, the Humanitarian Affairs Office (HAO) created a north-east Syria Mine Action Centre (NESMAC) to coordinate mine action activities. The HAO is reported to have provided NESMAC with a power of attorney to function as a national authority.²⁸

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. Within this line of effort, UNMAS has been encouraging safer programming for humanitarian workers, training security focal points in risk awareness, and integrating risk education into the programming of different humanitarian clusters and sectors to expand the operational scope and reach the people most in need.²⁹

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.³⁰ 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.³¹

The north-east MAWG meets on monthly and ad-hoc basis whenever required. Coordination meetings were attended regularly by MAG, Humanity and Inclusion (HI), DanChurchAid (DCA), and Enhancing Human Security (ITF) among others. The working group mainly discussed the coordination of explosive ordnance mine risk education (EORE), the sharing of detailed non-technical survey reports, and feedback on MoUs.³²

MAG reported the fragile security as a main challenge to an efficient mine action in the north-east. The border closure with Iraq impacted movement of staff and supplies critical for operations. Further, the lack of available trauma medical care within an hour's reach of its mine action operations has restricted MAG's ability to expand its work to other affected areas. The occasional lack of ownership documents of land and property is a concern that occasionally leads to disputes over clearance, and the absence of a qualified national mine action authority impedes coordination and clearance prioritisation, along with the resolution of property disputes. On the other hand, MAG reported that the newly established NESMAC has been suspending orders due to operators not signing an MoU that requires a 10% monthly service fee on all humanitarian NGO national staff salaries. MAG did not provide any capacity development in the north-east in 2021, but has secured funding for this purpose for 2022.³³

In the north-west, mine action is coordinated by the MASC cross-border response from Gaziantep (Turkey-based response) and is co-chaired by The HALO Trust and UNMAS. Some 25 partners attend its monthly meetings. HALO and its partners coordinate and receive approvals from the local Turkish authorities for its work across the border with Turkey.³⁴ 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.³⁵

The monthly MASC coordination meetings include many organisations that are not operationally involved in mine action beyond risk education. 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 2021 and already have sufficient stocks of equipment required to carry out its activities. However, other organisations have limited options for importing equipment and there is a continued decrease in available funding due to donor fatigue.³⁶

24 This information was provided on condition of anonymity.

25 Emails from UNMAS, 30 June 2021; and Francesca Chiaudani, UNMAS, 31 March 2022.

26 Email from UNMAS, 30 June 2021, and email from Francesca Chiaudani, UNMAS, 31 March 2022.

27 iMMAP, Coordination Support to Humanitarian Mine Action, 2020, at: <https://bit.ly/3yGh9nQ>; and emails from Mairi Cunningham, HALO Trust, 7 and 17 June 2021; and UNMAS, 30 June 2021.

28 Email from Fabrice Martin, MAG, 9 March 2022.

29 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

30 Information was provided on condition of anonymity.

31 Email from UNMAS, 30 June 2021.

32 Email from Fabrice Martin, MAG, 9 March 2022.

33 Ibid.

34 Emails from Mairi Cunningham, HALO, 7 and 17 June 2021; and Damian O'Brien, HALO Trust, 1 March 2022.

35 Email from Damian O'Brien, HALO Trust, 1 March 2022.

36 Email from Michael Edwards, SCD, 5 March 2022.

UNMAS was seeking US\$34 million for its mine action programme in Syria through to the end of 2022, but as at the end of 2021, the programme was facing a shortfall of US\$25.3 million.³⁷ In a statement to the 24th International Meeting of Mine Action National Directors and UN Advisors (24th NDM), 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.³⁸

ENVIRONMENTAL POLICIES AND ACTION

The HALO Trust'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 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.³⁹

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.⁴⁰

UNMAS reports that it takes into consideration the impacts of assessing and removing EO 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 2018–2021 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.⁴¹

GENDER AND DIVERSITY

HALO Trust mainstreams gender, diversity, and inclusion in its programme, and disaggregates all mine action data by sex and age. As part of its community liaison activities, HALO holds separate focus group sessions with women and children with the attendance of appropriate staff. HALO provides equal opportunities and encourages applications regardless of gender, race, religion, or ethnic background and is committed to increasing women's participation at all levels of the organisation and ensuring that its activities benefit women, girls, boys, and men equally. In 2021, 41% of HALO's employees were women, and 23% and 32% of HALO's managerial and operational positions were filled by women, respectively.⁴²

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.⁴³ In 2021, women made up 20% of MAG's total number of employees, 50% of its community liaison officers, and 26% of the organisation's operational positions. 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.⁴⁴

37 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

38 Statement of Syria to the 24th NDM Meeting, 25–27 May 2021, p. 3.

39 Email from Damian O'Brien, HALO Trust, 1 March 2022.

40 Email from Fabrice Martin, MAG, 9 March 2022.

41 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

42 Email from Mairi Cunningham, HALO Trust, 7 June 2021.

43 Email from MAG, 24 May 2021.

44 Email from Fabrice Martin, MAG, 9 March 2022.

SCD has a gender and a diversity strategy in place. Yet, in 2021, SCD's clearance and survey teams were exclusively male. SCD reports that it is actively working to improve the gender balance of the survey teams in order to ensure that all the members of the community, regardless of gender and age, are involved in the information gathering process. SCD was training 12 female volunteers on non-technical survey and was planning to deploy them with the survey teams in June 2022. About 9% of SCD's total employees are female, and 9% of managerial and operational positions are filled by women. The 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 very communities they serve and thus reflect the various ethnic and minority groups which reside in their area of operations. SCD reported that it has procedures and policies in place to ensure that individuals do not face discrimination due to their ethnicity, religion, or sex.⁴⁵

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.⁴⁶

UNMAS risk education teams are fully gender balanced, and its clearance contractor, the ACHDE, has integrated gender and diversity elements in its work. UNMAS reports that recruiting qualified females for technical roles at national level continues to be a challenge, but it continues to reach out to a diverse pool of applicants and create positive working conditions that enable women's participation. A diverse set of indicators, including sex and age of victims and beneficiaries, are used to evaluate prioritisation. In total, 40% of UNMAS Syria employees are women, with women in 30% of the employees in managerial or supervisory positions, and 26% of those in operational positions. UNMAS has deployed to communities with ethnic and minority groups (Druze in Sweida for instance), and engaged with all community members to gather feedback.⁴⁷

UNMAS's context analysis appeared to indicate that ethnic/minority groups are not affected by EO contamination differently, but rather that all population groups are vulnerable regardless of ethnicity.⁴⁸ Despite the lack of evidence to the contrary, Mine Action Review believes that minority groups loyal to the Syrian government are significantly less affected by the EO contamination by virtue of their lesser exposure to the attacks carried out by the Syrian and Russian armed forces.

INFORMATION MANAGEMENT AND REPORTING

The HALO Trust uses the Information Management System for Mine Action (IMSMA) data collection forms and regularly reports to the north-west MASC and the Office of the UN High Commissioner for Refugees in the UN High Commissioner for Refugees (UNHCR)-led Gaziantep coordination response. HALO uses mobile-data collection tools and preserves data in Excel and Microsoft PowerBI databases.⁴⁹ In 2021, HALO sought to refine its quality assurance mechanisms through stronger integration of field teams using Kobo software for mobile data collection.⁵⁰

MAG uses the online server, SharePoint, to preserve its mine action data. MAG also continued sharing data with iMMAP and the protection sector, who can also preserve its mine action data if required.⁵¹ MAG conducted multiple checks across all activities in 2021 in order to uphold data quality. MAG Syria is also in the process of establishing a global information management system, which was not possible beforehand.⁵²

iMMAP provides technical information management (IM) services to the mine action working group in north-east

Syria through mobile data collection, geographic information systems (GIS), and maps of explosive hazard contamination, survey, and clearance progress. iMMAP also supports the north-east HAO in setting up its MAC. As at May 2021, the MAC did not have the capacity to manage an IMSMA database on its own. SCD uses Survey123 for data collection and IMSMA Core for data keeping and management,⁵³ while DCA uses Survey123.⁵⁴

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 4W⁵⁵ 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.⁵⁶ It is of course important that all relevant data on EO contamination, survey efforts, and clearance operations are

45 Emails from Michael Edwards, SCD, 5 March and 15 June 2022.

46 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

47 Ibid.

48 Ibid.

49 Emails from Mairi Cunningham, HALO, 7 June 2021, and Damian O'Brien, HALO, 1 March 2022.

50 Email from Damian O'Brien, HALO Trust, 1 March 2022.

51 Email from Fabrice Martin, MAG 9 March 2022.

52 Emails from MAG, 24 May 2021; and Fabrice Martin, MAG 9 March 2022.

53 Emails from Michael Edwards, SCD, 7 May 2021 and 5 March 2022.

54 Email from Lene Rasmussen, DCA, 13 April 2021.

55 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.

56 Email from Michael Edwards, SCD, 5 March 2022.

captured in a central information management database.

To ensure or improve the quality of data in its mine action database in 2021, SCD continued to employ a multistage data verification system as part of its quality assurance process. All activity reports were checked by three different individuals, at increasing levels of seniority, as part of SCD's operational oversight. Improvements and modifications are made to SCD's data collection and information management systems, as and when dictated by operational or donor requirements.⁵⁷

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.⁵⁸ UNMAS manages the database, collating explosive ordnance data from partners across Syria in a central database. Since its accreditation in 2020, the ACHDE has been providing monthly reports on areas worked and items found to UNMAS IMSMA.⁵⁹ It is believed, however, that clearance conducted by the 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-west, The HALO Trust uses data collected from its EO community contamination assessment survey to identify high-priority communities for explosive ordnance disposal (EOD), focusing on removing contamination that prevents access to basic services or livelihood resources. HALO Trust engages with communities where it conducts EOD to obtain their informed consent and considers requests from the local authorities for future interventions.⁶⁰

The mine action working group, with the support of iMMAP, also participates in determining areas of operations. MAG reported that, due to the lack of the necessary structures, there was no tasking system in place. MAG's community liaison teams identify hazardous areas through non-technical surveys. They subsequently complete a clearance prioritisation matrix to assess the impact of EO contamination on communities and to provide data for the technical operations, including information on direct and indirect beneficiaries, infrastructure, natural resources, land use, and land ownership.⁶¹ The NESMAC proposed to establish a clearance prioritisation

system based on the priorities of civilian authorities in the north-east, which remained under discussion as of writing.⁶²

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.⁶³

UNMAS planned survey and clearance tasks in 2021 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, internally displaced person (IDP) flows, and historic data on explosive incidents.⁶⁴

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

⁵⁷ Ibid.

⁵⁸ Email from Francesca Chiaudani, UNMAS, 31 March 2022.

⁵⁹ Emails from UNMAS, 30 June 2021.

⁶⁰ Emails from Mairi Cunningham, HALO, 7 June 2021; and Damian O'Brien, HALO Trust, 1 March 2022.

⁶¹ Emails from MAG, 24 May 2021; and Fabrice Martin, MAG, 9 March 2022.

⁶² Email from Fabrice Martin, MAG, 9 March 2022.

⁶³ Email from Michael Edwards, SCD, 5 March 2022.

⁶⁴ Email from Francesca Chiaudani, UNMAS, 31 March 2022.

⁶⁵ Ibid.

had been given on the proposed NMAS as at April 2022. The NMAS will be reviewed annually to address new challenges and ensure the employment of best practices.⁶⁵

Due to the lack of NMAS, 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). DCA also offers guidance and advocates best practices to the NESMAC in the north-east of Syria.⁶⁶ HALO increased its efforts to refine its quality assurance (QA) mechanisms through stronger integration of field teams using Kobo software for mobile data collection.⁶⁷ SCD teams also operate according to IMAS for clearance, survey, and risk education.⁶⁸

MAG offered support to the NESMAC to develop NMAS. Such support would include an external consultant to develop mine action standards and overall capacity building, including on quality management (QM). MAG Syria continues to work to its own established SOPs which are in line with IMAS. MAG's own SOPs were updated in December 2021. The updates were designed to align with MAG's new Global Technical Standards.⁶⁹

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.⁷⁰

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 Turkey, Iraq, and then back to Syria in 2020. As at May 2021, and due purely to issues of access, DCA's operations were confined to the parts of north-east Syria not controlled by the government.⁷¹ Updates on DCA's operations in 2021 were not provided to Mine Action Review.

The HALO Trust, which has been present in Syria since 2016, is operational in the north-west of Syria in the opposition-controlled territories of Idlib and northern Aleppo. HALO conducted EOD, risk education, and victim assistance in 2021 in partnership with the following local NGOs: Shafak for risk education; iMFAD for EOD and risk education; and "Hand in Hand for aid and development" for victim assistance, in addition to implementing risk education directly. HALO's operational capacity in 2021 comprised one EOD team (iMFAD), six risk education teams (HALO Trust and iMFAD), and two victim assistance case teams (HALO). As at March 2022, The HALO Trust was preparing to deploy one non-technical survey team in Idlib in 2022, possibly adding another team later in the year. Negotiations to conduct non-technical surveys in northern Aleppo, in addition to clearance and disposal in all of HALO's area of responsibility, were ongoing.⁷²

MAG has been operational in the north-east of Syria since 2016, conducting clearance, risk education, and surveys on contamination, accidents, and victims. As reported by iMMAP,

in 2020, MAG alone accounted for 70% of clearance activities, 60% of mine action beneficiaries, and 95% of contamination mapped and reported in north-east Syria. Following a forced suspension of its activities in October 2019, MAG resumed its activities in the north-east in late 2020,⁷³ and restored around 25% of its pre-2019 capacity in 2021. In early 2022, MAG expected to have restored half of its pre-2019 capacity.⁷⁴

MAG operated from Shaddadi, Markada, and Al-Hasakeh sub-districts in Al-Hasakeh governorate in north-east Syria, conducting survey, risk education, and clearance in Al-Hasakeh, Deir Ezzor, and Raqqa governorates. In the first quarter of 2021, MAG partnered with two NGOs for risk education and community focal point (CFP) training in Deir Ezzor and Aleppo governorates: Action for Humanity (formerly known as Syria Relief), and Bahar. In 2021, as in the previous year, MAG deployed 10 community liaison teams who conduct non-technical survey, in addition to three mine action teams, and two multi-task teams for technical survey and clearance.⁷⁵

In 2022, MAG planned to upscale its operational capacity to 42 community liaison teams (10 in each of Raqqa, Al-Hasakeh, and Easter Aleppo, and another 12 in Deir Ezzor). For technical survey and clearance, MAG will deploy five mine action teams, four multi-task teams, and two mechanical survey teams. MAG was unable to set-up a training centre and a second line mechanical workshop as planned for in 2021, but hoped to do so in 2022. The COVID-19 pandemic caused operational delays due to reduced numbers of risk education beneficiaries, quarantine, and isolation measures.⁷⁶

On 21 December 2021, NPA negotiated an MoU with the Syrian government for the establishment of a humanitarian mine action programme in Syria. In 2022, NPA will start the operational phase primarily focusing on survey and clearance

66 Email from Lene Rasmussen, DCA, 13 April 2021.

67 Email from Damian O'Brien, HALO Trust, 1 March 2022.

68 Email from Michael Edwards, SCD, 5 March 2022.

69 Email from Fabrice Martin, MAG, 9 March 2022.

70 "Russian military boosts qualified Syrian sappers to demine war-ravaged country", *Tass*, 9 January 2018.

71 Email from Lene Rasmussen, DCA, 13 April 2021.

72 Email from Damian O'Brien, HALO Trust, 1 March 2022.

73 Email from MAG, 24 May 2021.

74 Email from Fabrice Martin, MAG, 9 March 2022.

75 Ibid.

76 Ibid.

77 NPA, New Humanitarian Mine Action in Syria, at: <https://bit.ly/3MHNXTF>.

of areas as identified under the UN humanitarian response plan and needs overview.⁷⁷

A small national organisation, Roj Mine Control Organization (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.⁷⁸ As at July 2021, RMCO was still operational and was being trained on EOD by the United States (US) forces.⁷⁹

The SCD was operational in Aleppo, Hama, and Idlib governorates (in the north and north-west of the country),⁸⁰ and continued to conduct surface level battle area clearance (BAC), non-technical survey, 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's operational capacity in 2021 was six non-technical survey and six clearance teams. All SCD teams are trained to deliver risk education.⁸¹

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.⁸²

UNMAS reported the lack of qualified in-country operators as one of the major challenges to progress in mine action. This led UNMAS to hire its own UN personnel to conduct the EO assessment survey in the interim, which normally would be conducted through implementing partners.⁸³ 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.⁸⁴ As at March 2022, only the ACHDE had been accredited by UNMAS for conducting mine action activities in government-controlled areas. Another organisation, SHIELD, was undergoing the process of desk accreditation.⁸⁵

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 EO 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.⁸⁶ In December 2021, UNMAS started the pilot clearance project of the priority area of western Ghouta, in the outskirts of the capital Damascus. After passing their on-site accreditation, two ACHDE clearance teams started BAC in Darayya (western Ghouta).⁸⁷

At the end of 2021, UNMAS operational capacity was two explosive ordnance assessment teams, which consisted of seven technical survey personnel and two non-technical survey personnel. The ACHDE deployed two clearance teams of 12 deminers, in addition to two BAC teams. UNMAS opened a sub-office in Aleppo in 2021. UNMAS hoped to scale up clearance and survey activities in 2022, but this remained contingent on funding and operational capacity.⁸⁸

DEMINER SAFETY

SCD suffered one non-fatal accident in 2021, in which one assistant team leader was injured while disposing of an AO-2.5RT submunition. The operator received fragmentation injuries, which required hospital treatment. As at June 2022, the injured person had fully recovered and rejoined his team. An independent investigation team was deployed to investigate the cause of the accident, after which refresher training was provided to all teams. In addition, a brief summary of the accident was shared with HALO Trust, despite them not being currently conducting single item disposal.⁸⁹

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.

The SCD destroyed a total of 305 submunitions in Aleppo, Hama, and Idlib governates in north-west Syria during EOD call-outs.

78 S. Kajjo, "Landmine removal crucial in post-IS Syria", Voice of America, 3 April 2019; and interview with operators, Erbil, Iraq, May 2019.

79 This information is provided under the condition of anonymity.

80 SCD worked in the following districts of north-west Syria in 2021, A'zaz, Afrin, Al'bab, Jebel Saman (Aleppo governorate), Al Ma'ra, Ariha, Harim, Idlib, Jisr-Ash-Shugur (Idlib governorate), and in As-Suqaylabiyah (Hama governorate); email from Michael Edwards, SCD, 5 March 2022.

81 Email from Michael Edwards, SCD, 5 March 2022.

82 Statement by Agnes Marcaillou, Director, UNMAS, to the UN Security Council, 24 October 2019.

83 Email from UNMAS, 30 July 2021.

84 The ten operators originate from Afghanistan, Croatia, Denmark, Norway, Russia, Switzerland, Ukraine, and the United Arab Emirates.

85 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

86 Statement of Syria to the 24th NDM Meeting, 25–27 May 2021, p. 2.

87 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

88 Ibid.

89 Email from Michael Edwards, SCD, 5 March 2022.

90 Ibid.

91 Email from Damian O'Brien, HALO Trust, 1 March 2022.

Destroyed items included 9N210, AO-1SCh, PTAB, Sh0AB-0.5, and M77 submunitions. SCD disposed of a further 373 items of EO that were not submunitions in 2021.⁹⁰ In 2021, HALO and iMFAD disposed of 66 items of EO, including three anti-personnel mines, in addition to projectiles, mortars, rockets, grenades, and fuzes in the north-west of Syria.⁹¹

UNMAS explosive ordnance assessment team reported having non-technically surveyed 13,198,478m² of EO-contaminated land in 2021.⁹² The results of surveys conducted by both MAG in the north-west and UNMAS are reported above.

UNMAS's clearance project that started on the first of December 2021 in Daraya (Rural Damascus), continues into 2022. In the first month of the project, ACHDE conducted BAC and cleared a total of 71,187m² of surface and 22,731m² of subsurface area. A total of 44 items of EO (39 conventional munitions and 5 IEDs) were identified and marked for destruction. The Syrian army engineering unit continues to be the only entity entitled to conduct demolition in the government-controlled areas of Syria.⁹⁴

In its statement to the Eighteenth Meeting of States Parties to the Anti-Personnel Mine Ban Convention (APMBC) in 2020, Syria stated that "the unilateral sanctions inflicted on the Syrian people pose challenges for the Syrian government to provide the financial, technical and logistical resources [required to clear the mines]". The statement called for an "unpoliticised" financial and technical assistance to the mine action sector in Syria, without pre-conditions and in coordination with the Syrian government.⁹⁵

Table 3: SCD CMR clearance in 2021⁹³

Governorate	Submunitions destroyed
Aleppo	55
Hama	2
Idlib	248
Total	305

92 Email from Francesca Chiaudani, UNMAS, 7 July 2022.

93 Email from Michael Edwards, SCD, 5 March 2022.

94 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

95 Statement of Syria, APMBC 18MSP, Geneva, 16–20 November 2020.

KEY DATA

CLUSTER MUNITION CONTAMINATION: LIGHT

MINE ACTION REVIEW ESTIMATE

1.77 km²

SUBMUNITION CLEARANCE IN 2021

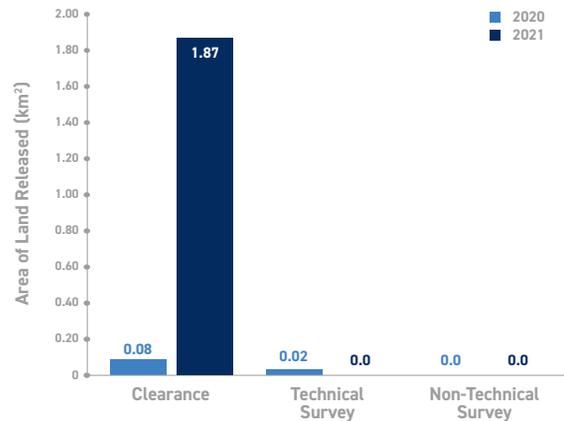
1.87 km²

SUBMUNITIONS DESTROYED IN 2021

1,165

(INCLUDING 604 ABANDONED SUBMUNITIONS DESTROYED DURING SPOT TASKS)

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Tajikistan increased clearance output significantly in 2021 compared to the previous year. However, total cluster munition contamination increased significantly from 0.08km² at the end of 2020 to more than 1.8km² at the end of 2021, due to the identification of new contaminated areas.

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 conduct survey to clarify the extent of remaining contamination and ensure timely clearance and release of the cluster munition-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

- TNMAC
- Union of Sappers Tajikistan (UST)
- Ministry of Defence – Humanitarian Demining Company (HDC)
- Border Guard Forces of Tajikistan

INTERNATIONAL OPERATORS

- Norwegian People's Aid (NPA)
- Swiss Foundation for Mine Action (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 to extend over 1.86km² (see Table 1).¹ This is a significant increase on the 0.08km² identified at the end of 2020. This increase is mainly the result of non-technical survey in 2021 allied to technical interventions over 10 battle areas covering 2.54km². Additionally, one battle area of 90,599m² in Darvoz district, was confirmed as containing CMRs and known contamination of one area in Vahdat district was expanded from 200,000m² to include a further 220,000m² following explosive accidents experienced by local residents.² As such, a total of 2.85km² of CMR contamination was confirmed and added to the database in 2021.

Nine previously unrecorded cluster munition-contaminated areas were added to the national database in 2021. Despite the considerable additions to the baseline in 2021, the authorities believe their understanding of contamination is "reasonably" accurate. Tajikistan cautions, though, 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 (ERW) sites and dangerous areas may exceed those discovered and cleared so far".³ Norwegian People's Aid (NPA) agrees that, while some further survey is required, it does not need to be extensive. A residual risk is, however, likely to remain after survey is complete.⁴

Most of the remaining CMR contamination appears to be concentrated in Vahdat as well as the mountainous Darvoz

district in central Tajikistan.⁵ 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.⁶

Table 1: Cluster munition-contaminated area (National Authority estimate at end 2021)⁷

Province	CHAs	Area (m ²)
Darvoz	3	758,389
Rasht	1	32,000
Vahdat	4	1,073,414
Totals	8	1,863,803

This figure does not accurately reflect what remained as at the end of 2021, though clearance of 148,487m² in several CMR-contaminated areas is not deducted on the basis that the release of the areas was not complete by the end of the year. Mine Action Review calculates that a total of 1,766,311m² of cluster munition-contaminated area remained at the end of the year.⁸

Tajikistan traces its CMR contamination back to the civil war of 1992–97 but has not clarified who was responsible for using cluster munitions.⁹ Most of the submunitions being cleared are Soviet-era AO 2.5RT/RTM type.¹⁰

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.¹¹

TNMAC is the executive arm of CIIHL and the body coordinating mine action, responsible for issuing task orders, information management, and quality assurance (QA)/quality control (QC).¹² 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.¹³ Tajikistan's Parliament adopted a Law on Humanitarian Mine Action in 2016, and the following year it approved a national mine action strategy for 2017–20.¹⁴ 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.¹⁵ Tajikistan has an updated work plan for 2021–25, and an annual detailed and costed work plan for 2021–22.¹⁶ The Government of Tajikistan and TNMAC are enabling 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.¹⁷

1 Email from Muhabbat Ibrohimzoda, Director, TNMAC, 19 June 2022.

2 Ibid.

3 Convention on Certain Conventional Weapons (CCW) Protocol V Article 10 Report (covering 2021), Form A.

4 Email from Melissa Andersson, Country Director, NPA, 21 May 2022.

5 Emails from Muhabbat Ibrohimzoda, TNMAC, 22 April and 4 May 2021.

6 Emails from Muhabbat Ibrohimzoda, TNMAC, 19 and 24 June 2022.

7 Email from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

8 This compares to the figure of 1,715,316m² that would result from National Authority estimates after deduction of the clearance in areas that had not been fully released as at the year's end.

9 Statement of Tajikistan, Anti-Personnel Mine Ban Convention (APMBC) 14th Meeting of States Parties, Geneva, 1 December 2015.

10 Email from Melissa Andersson, NPA, 29 April 2020.

11 2019 APMBC Article 5 deadline Extension Request, p. 20.

12 Ibid., pp. 20–21.

13 Ibid., p. 1; and TMAC, "About TMAC", 2012, accessed 10 March 2014 at: <http://bit.ly/2LvPub1>.

14 Email from Aubrey Sutherland-Pillai, NPA, 18 October 2016; and 2019 APMBC Article 5 deadline Extension Request, pp. 20–21.

15 Emails from Muhabbat Ibrohimzoda, TNMAC, 22 April 2021 and 7 July 2022.

16 APMBC Committee on the Implementation of Article 5, Preliminary Observations on Tajikistan, Intersessional meetings, Geneva, 20–22 June 2022.

17 Email from Melissa Andersson, NPA, 21 May 2022.

In 2021, 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 2020). A further US\$46,096 was allocated to support operational mine action.¹⁸ The Ministry of Defence (MoD) plays a significant role in the mine action sector through the Humanitarian Demining Company (HDC), the biggest national operator, which is funded by the United States.¹⁹

The Organization for Security and Co-operation in Europe Programme Office in Dushanbe (OSCE POiD) has 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”.²⁰ In 2020, it provided funding of approximately €250,000 to the mine action sector to finance three MoD HDC demining teams and seven TNMAC support staff.²¹ In 2021, the OSCE provided €330,000 to TNMAC to enable it to continue supporting the three MoD demining teams (54 field operators in total) under the Centre’s supervision. The two vehicles (a pick-up truck and an ambulance) and other equipment provided for in the 2021 budget were expected to be donated to the teams in June 2022. The OSCE planned to continue supporting the three teams in 2022 with funding of approximately €250,000. However, OSCE notes this amount may change to allow for local currency fluctuation.²²

The OSCE has supported the recruitment and appointment of an adviser for residual risk management, who took up post in March 2022, and is tasked with identifying improvements to the risk management of explosive hazards and to develop residual risk management guidelines to complement the national mine action standards (NMAS).²³

Under the Eastern Europe, Caucasus and Central Asia Regional Cooperation Programme (EECCA RCP), TNMAC participated in three regional training courses offered by the Geneva International Centre for Humanitarian Demining (GICHD) in 2021.²⁴ Through GICHD sponsorship, TNMAC also participated in the 8th Technology Workshop in Geneva in 2021, providing the opportunity to witness and discuss the latest innovative solutions in Information Management, explosive ordnance risk education (EORE) and Land Release.²⁵

NPA does not have a formal capacity development agreement with TNMAC but assists informally with capacity development activities as and when requested.²⁶ Prior to the COVID-19 pandemic, a multi-stakeholder mine action forum for Tajikistan met on a regular basis. These meetings ceased with the onset of the pandemic although NPA has suggested that they be revived.²⁷

ENVIRONMENTAL POLICIES AND ACTION

Clearance activities are undertaken according to Tajikistan’s national mine action standards (NMAS), which contains 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”.²⁸

TNMAC further asserts 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.²⁹

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 standing operating procedure (SOP) and an annual action plan linked to the environmental policy. NPA seeks to limit the environmental impacts of all survey and clearance activities. This includes waste management as well as the proper storage and disposal of fuel and lubricants.³⁰

GENDER AND DIVERSITY

TNMAC adopted a gender programme in October 2018 that was prepared by the GMAP, now a programme of the GICHD, and is committed to improving the situation of women in the mine action sector.³¹ 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.³²

18 Emails from Muhabbat Ibrohimzoda, TNMAC, 22 April 2021 and 19 June 2022.

19 2019 APMBC Article 5 deadline Extension Request, p. 23.

20 Emails from Luka Buhin, OSCE Tajikistan, 9 October 2017; and Muhabbat Ibrohimzoda, TNMAC, 7 July 2022.

21 Email from Johan Dahl, Head of Arms Control and Mine Action, OSCE Programme Office, Dushanbe, 9 April 2021; and interview with Saodat Asadova, OSCE, 24 June 2022.

22 Emails from Saodat Asadova, Programme Assistant, OSCE, 3 and 9 June 2022; and interview with Saodat Asadova, OSCE, 24 June 2022.

23 Emails from Saodat Asadova, OSCE, 3 June 2022; and Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

24 Email from Maria Gurova, GICHD, 24 June 2022.

25 Email from Maria Gurova, GICHD, 1 July 2022.

26 Email from Melissa Andersson, NPA, 21 May 2022.

27 Ibid.

28 Emails from Saodat Asadova, OSCE, 3 and 9 June 2022; and Muhabbat Ibrohimzoda, TNMAC, 19 June 2022; and NMAS, Chapter 20: “Environment, Health and Safety”.

29 Email from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

30 Email from Melissa Andersson, NPA, 21 May 2022.

31 Email from Muhabbat Ibrohimzoda, TNMAC, 14 June 2019.

32 Emails from Melissa Andersson, NPA, 21 May 2022; and Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

Tajikistan reports that gender is mainstreamed in all aspects of their mine action programme based upon international and national guidelines and resolutions, covering the areas of management, mine risk education, victim assistance, and land release.³³

A United Nations Development Programme (UNDP) evaluation at the end of 2019 concluded that TNMAC had made progress mainstreaming gender and diversity in mine action, but noted that the strategy had not yet been systematically implemented. Areas for further action included ensuring the training of trainers for risk education was gender balanced, introducing women QA/QC officers, and developing a code of conduct and complaints mechanisms.³⁴

TNMAC has said it encourages women to apply for employment and planned to diversify survey teams to help reach a wider audience and more sources of information, but progress appears to be slow.³⁵ In 2021, 30% of TNMAC's employees in managerial/supervisory positions were women.³⁶ No women were employed by MoD's HDC in either operational or managerial/supervisory positions in 2021.³⁷

TNMAC acknowledged it would be a challenge 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 said where it could identify key positions that can be filled by female candidates, such as paramedics and/or QA/QC officers, this will be discussed and prioritised. In addition, TNMAC will seek to increase female civilian capacity in coordination with other implementing partners.³⁸

TNMAC confirms that survey teams collect information on hazardous areas on an annual basis as well as conducting risk education sessions, with both of these activities including inclusive consultation with women, girls, boys, and men.³⁹ Tajikistan also reports that monthly briefings take place with local communities on demining operations, with records of the briefing kept as part of documentation.⁴⁰ The Ministry of Defence's HDC multi-task teams reportedly consult with all groups, including women and children, during survey and community liaison.⁴¹ Relevant mine action data are disaggregated by sex and age.⁴²

The OSCE seeks to promote gender awareness by collecting comprehensive relevant information during its work.⁴³ 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 will continue to emphasise the importance of gender mainstreaming and balance throughout project implementation and raise awareness in the mine action community across Central Asia through joint events and training.⁴⁴

NPA has a gender and diversity policy integrated into its Tajikistan operations. NPA's staff are diverse, employing staff from every region.⁴⁵ In 2021, 20% of NPA's staff in Tajikistan were women, with 29% of the managerial/supervisory positions, including task supervisors, team leaders, and organisational senior management being female. NPA have had no significant changes to the gender balance of personnel from 2020 to 2021 and have seen only a slight drop in operational positions occupied by women; from 17%, (including 11 deminers), in 2020 to 14% in 2021. This was due to some staff taking maternity leave.⁴⁶

NPA ensures women and children in communities affected by CMR are consulted during community liaison activities, including impact assessment, which is conducted by both male and female staff. NPA 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 incidents in Tajikistan involve young men or boys working as shepherds. However, the needs of all affected residents are taken into account, in particular through the prioritisation of locations closest to populated areas, for example, those recently cleared in Sagidasht and Romit.⁴⁷

NPA and TNMAC revived meetings of a gender working group in early 2020. Its meetings were interrupted by measures to control the COVID-19 pandemic but resumed in 2021 and the group met twice during the year. In addition, a consultant was hired to conduct gender sensitivity training with staff from both NPA and TNMAC.⁴⁸ Despite continuing cultural constraints that inhibit women from 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.⁴⁹

33 APMBC Committee on the Implementation of Article 5, Preliminary Observations on Tajikistan, Intersessional meetings, Geneva, 20–22 June 2022.

34 R. Roberts, "Final Evaluation of Support to the Tajikistan Mine Action Programme", UNDP, 30 December 2019, pp. 17–18.

35 Email from Muhabbat Ibrohimzoda, TNMAC, 25 July 2019.

36 Email from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

37 Email from Saodat Asadova, OSCE, 3 June 2022.

38 2019 APMBC Article 5 deadline Extension Request, Additional Information received 3 August 2019.

39 Email from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

40 APMBC Committee on the Implementation of Article 5, Preliminary Observations on Tajikistan, Intersessional meetings, Geneva, 20–22 June 2022.

41 Email from Johan Dahl, with information provided by Khurram Maksudzoda, Head of the MoD HDC, 27 August 2019.

42 Email from Muhabbat Ibrohimzoda, TNMAC, 25 July 2019.

43 Email from Johan Dahl, Acting Head, Political-Military Department, OSCE Programme Office, Dushanbe, 13 May 2020.

44 Email from Saodat Asadova, OSCE, 9 June 2022; and interview with Saodat Asadova, OSCE, 24 June 2022.

45 Email from Melissa Andersson, NPA, 21 April 2020.

46 Email from Melissa Andersson, NPA, 23 June 2022.

47 Email from Melissa Andersson, NPA, 21 May 2022.

48 Emails from Melissa Andersson, Country Director, NPA, 21 April and 4 July 2021, and 21 May 2022; and Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

49 Emails from Melissa Andersson, NPA, 21 April and 4 July 2021.

INFORMATION MANAGEMENT AND REPORTING

TNMAC is using Information Management System for Mine Action (IMSMA) Core.⁵⁰ TNMAC hired an information technology (IT) specialist for the newly created post of IMSMA officer in 2020 to further improve data management and continued to fine-tune the system.⁵¹ TNMAC introduced new data collection forms intended to simplify data entry and, in collaboration with NPA, drew on the experience of using the system in 2020 to make small adjustments to reporting forms in 2021.⁵²

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. In 2021, there were efforts to simplify and streamline the reporting system as well as to archive data from previous years. Further improvements are under discussion.⁵³

In 2021, TNMAC launched a progress monitoring tool, intended to improve resource mobilisation and task activity planning, with the aim of improving the efficiency of land release.⁵⁴

PLANNING AND TASKING

Tajikistan does not have a strategic plan that addresses cluster munitions, but TNMAC said in May 2020 it targeted completion of CMR clearance by 2023.⁵⁵ Tajikistan's 2021 updated work plan reported that priority setting tools identified livelihood areas located close to villages to be prioritised for land release.⁵⁶

NPA is tasked by TNMAC after discussions that take account of humanitarian impact, national planning priorities, and seasonal access constraints.⁵⁷

Tajikistan's Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request submitted in March 2019, which sought a new deadline for mine clearance of the end of 2025, forms the basis of its operational planning. The request said land release would concentrate on the Central region and the Tajik-Afghan border, especially the Shamsiddin Shohin district as the area most contaminated with anti-personnel mines.⁵⁸ A General Land Release Operational Plan for 2021–25 details areas targeted for clearance each year and the required funding.⁵⁹

In August 2021, OSCE-supported demining teams were relocated from the Tajik-Afghan border-detached area to the central regions of the country and continued battle area clearance (BAC) in the Rasht region until November 2021. Since 18 April 2022, three demining teams have re-initiated clearance in the Khatlon Region (two teams in Shamsiddin Shohin and the other in Pyanj district).⁶⁰

NPA reports that dossiers are issued in a timely matter by TNMAC.⁶¹

Tajikistan identifies several ongoing challenges for mine action across the country, including difficult terrain, harsh weather conditions, natural disasters such as rockfalls, avalanches and landslides, as well as dense vegetation. Tajikistan identifies a need for increased equipment and cross-country vehicles in order to fulfil the country's commitments under Tajikistan's APMBC Article 5 deadline extension by 2025. TNMAC also highlights ongoing security challenges along the Tajik-Afghan border as a significant challenge to mine action.⁶²

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Tajikistan's revised National Mine Action Standards (TNMAS) were approved by Decree No. 162 on 1 April 2017. The revised standards have been translated into Russian and English.⁶³

TNMAC reports that the NMAS are regularly updated. In general, demining operators are said to update their SOPs once every three years during the accreditation process.⁶⁴ NPA reports that Tajikistan's NMAS are adequate and that they enable efficient survey and clearance work.⁶⁵

50 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.

51 Email from Muhabbat Ibrohimzoda, TNMAC, 22 April 2021.

52 Email from Melissa Andersson, NPA, 21 April 2020.

53 Email from Melissa Andersson, NPA, 21 May 2022.

54 Email from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

55 Emails from Muhabbat Ibrohimzoda, TNMAC, 28 May 2020 and 19 June 2022.

56 APMBC Committee on the Implementation of Article 5, Preliminary Observations on Tajikistan, Intersessional meetings, Geneva, 20–22 June 2022.

57 Emails from Melissa Andersson, NPA, 21 April 2020 and 21 April 2021.

58 2019 APMBC Article 5 deadline Extension Request, p. 35.

59 Email from Muhabbat Ibrohimzoda, TNMAC, 22 April 2021.

60 Email from Saodat Asadova, OSCE, 3 June 2022; and interview with Saodat Asadova, OSCE, 24 June 2022.

61 Email from Melissa Andersson, NPA, 21 May 2022.

62 Presentation by Muhabbat Ibrohimzoda, TNMAC, APMBC Intersessional Meetings, Geneva, 22 June 2022.

63 Email from Muhabbat Ibrohimzoda, TNMAC, 22 May 2017; and Second APMBC Article 5 deadline Extension Request (draft), 31 March 2019, p. 21.

64 Email from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

65 Email from Melissa Andersson, NPA, 21 May 2022.

In 2019, TNMAC agreed to an NPA proposal to introduce the Cluster Munition Remnant Survey (CMRS) methodology pioneered in south-east Asia to Tajikistan. A pilot project was conducted in the central region in July 2019⁶⁶ and the SOP was used in test mode by NPA, working with the Union of Sappers Tajikistan (UST), in 2019–20.⁶⁷ In 2022, however, TNMAC took the decision to exclude this CMRS SOP, concluding, after the test period, that it is better suited to flat terrain where there is a need to investigate large areas covering more than 1km². Following efficiency analysis, TNMAC argues that standard survey methods have proved more suitable in Tajikistan's typically mountainous terrain.⁶⁸

In 2021, Tajikistan developed new regulatory documents including for the accreditation of mine action organisations' activities and a technical manual, "Clearing the Battlefields".⁶⁹ TNMAC states that all updates to NMAS and SOPs made in 2021 were made in consultation with clearance operators.⁷⁰

OPERATORS AND OPERATIONAL TOOLS

Tajikistan significantly expanded its national mine action capacity in 2020, increasing the number of personnel from 71 the previous year to 150 by the end of 2020. The Ministry of Defence's HDC provided the main national capacity, and in 2020 added two demining teams raising the total number to seven, employing a total of 81 staff.⁷¹ In 2021, Tajikistan maintained mine action capacity at 150 personnel across the combined survey and clearance teams. There were six manual demining teams operating in 2021, (a reduction of one team due to reduction of funding available to NPA), with 72 deminers; 12 more than in 2020. This increase in overall capacity was made possible by US Department of State (DoS) funding.⁷²

Of these six teams, four are trained in battle area clearance (BAC) and undertook CMR clearance in 2021.⁷³ TNMAC did not expect any major changes to the number of survey or clearance personnel addressing CMR in 2022.⁷⁴

UST, a national not-for-profit organisation accredited for risk education, survey, and victim assistance, added two non-technical and technical survey teams in 2020, raising the total number of teams in 2021 to four with a total of 28 personnel.⁷⁵ UST started to conduct CMRS in 2020, working with one of NPA's teams for three months on a task in Darvoz district's Sagidasht municipality. This joint task was undertaken with a view to building UST's capacity to conduct CMRS.⁷⁶

NPA did not conduct further joint initiatives with UST in 2021. However, UST continued to survey and add further CMR-contaminated areas to the database in the Romit Valley in Vahdat in 2021, identifying 1.57km² of cluster

munition-contaminated area. UST has continued with two teams working in the Romit Valley and Rasht Valley in 2022, with the expectation that further contamination will be found.⁷⁷ TNMAC expects UST to take on clearance of any residual CMR contamination after release of all known hazards.⁷⁸ TNMAC plans to enhance UST's manual demining operations.⁷⁹

NPA remains the only international operator undertaking CMR clearance in Tajikistan, operating in 2021 with six manual clearance teams, with a total of 50 deminers. These multi-task teams are capable of conducting both mine and battle area clearance. NPA's clearance capacity remained the same in 2021 as in the previous year, with five of the six teams (totalling 42 deminers), engaged in conducting CMR clearance at some point during the year (in conjunction with other mine clearance tasks). Due to funding restrictions, NPA has reduced capacity from six CMR clearance teams to five in 2022.⁸⁰

NPA continues to cooperate with the Border Guard Forces, working in 2020–21 with 13 seconded guards and in 2022 with 12 seconded guards. The officers are part of NPA's multi-task teams, and the majority have been trained in conducting both demining and BAC.⁸¹ NPA, in cooperation with HDC, reactivated a mini MineWolf mechanical asset in 2020. This was being used in 2022 but only for mine clearance not CMR clearance.⁸²

NPA's Tajikistan programme was not significantly affected by the COVID-19 pandemic in 2021, with COVID-19 related staff absences causing only limited disruption.⁸³

66 Email from Melissa Andersson, NPA, 29 April 2020.

67 Email from Muhabbat Ibrohimzoda, TNMAC, 7 July 2022.

68 Ibid.

69 'The Republic of Tajikistan. Updated information provided in accordance with paragraph 2, Article 7 of the Convention on the Prohibition of the Use, Stockpiling, Production and transfer of anti-personnel mines and their destruction, submitted April 30, 2022, for the period from January 1, 2021, to December 31, 2021.'

70 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.

71 Email from Muhabbat Ibrohimzoda, TNMAC, 22 April 2021.

72 Emails from Muhabbat Ibrohimzoda, TNMAC, 19 and 24 June 2022.

73 Email from Muhabbat Ibrohimzoda, TNMAC, 24 June 2022.

74 Email from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

75 Email from Muhabbat Ibrohimzoda, TNMAC, 24 June 2022.

76 Emails from Melissa Andersson, NPA, 29 April and 27 August 2020.

77 Emails from Melissa Andersson, NPA, 21 May, 3 June 2022 and 17 June 2022.

78 Emails from Muhabbat Ibrohimzoda, TNMAC, 22 April and 4 May 2021.

79 APMBC Committee on the Implementation of Article 5, Preliminary Observations on Tajikistan, Intersessional meetings, Geneva, 20–22 June 2022.

80 Emails from Melissa Andersson, NPA, 21 May and 23 June 2022; and interview with Muhabbat Ibrohimzoda, TNMAC, 24 June 2022.

81 Emails from Melissa Andersson, NPA, 21 April 2021 and 21 May 2022.

82 Email from Melissa Andersson, NPA, 21 May 2022.

83 Ibid.

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

A total of almost 1.87km² of cluster munition-contaminated area was cleared in 2021 (see Table 2), a very significant increase on the 0.8km² cleared in 2020. No areas were cancelled through non-technical survey or reduced through technical survey in 2021.⁸⁴

Table 2: CMR clearance in 2021⁸⁵

Operator	Province	Areas released	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
HDC MoD	VMKB/Darvoz	2	798,300	140	27
HDC MoD	DRD/Rasht	1	473,900	357	10
NPA	VMKB/Darvoz GBAO	1	323,597	27	5
NPA	DRS/Sangvor	1	128,195	6	8
NPA	DRS/Vahdat	Suspended**	72,010	31	0
NPA	VMKB/Darvoz	Suspended**	1,901	0	0
UST	DRS/Vahdat	Suspended**	67,854	596***	0
UST	DRS/Vahdat	Suspended**	6,722	3***	0
FSD	Romit, Vahdat / Saghirdasht, Darvoz	*0	0	5	1
Totals		5	1,872,479	1,165	51

* FSD destroyed 604 abandoned submunitions during a spot task in 2021, of which 599 were found by UST.⁸⁶

** Clearance of several cluster munition-contaminated areas was not complete as at the end of 2021.

*** Found by UST and destroyed by FSD.

NPA undertook only scheduled clearance work in Tajikistan in 2021, with no survey and no explosive ordnance disposal (EOD) spot tasks. Its clearance greatly increased as a result of conducting clearance work in GBAO province (which had been surveyed in collaboration with UST in 2020), as well as additional clearance in Margak in the Districts of Republican Subordination (DRS) province.⁸⁷ This Margak field was registered in 2007 by a Swiss Foundation for Mine Action (FSD) non-technical survey team as a battle area without CMR contamination. In 2021, however, NPA discovered evidence of AO-1SCH submunitions and the area was reclassified as containing CMR.⁸⁸ TNMAC further attributes the increase in CMR clearance in 2021 compared to 2020 to the relocation of demining teams away from the Tajik-Afghan border to focus instead on survey and BAC in the central region. Demining was suspended along the Afghan border in July 2021 as a result of the political and military situation and concerns for the safety of personnel.⁸⁹

All cluster munition-contaminated areas cleared by HDC and NPA in 2021 proved to contain CMR.⁹⁰

TNMAC said in 2021 it hoped to complete CMR clearance by 2023.⁹¹ It has also made clear that progress towards achieving that target depended on the availability of funding.⁹²

Table 3: Five-year summary of CMR clearance

Year	Area released (km ²)
2021	1.87
2020	0.08
2019	0.52
2018	0.41
2017	0.25
Total	3.13

84 Ibid.

85 Ibid.; and NPA data in email from Melissa Andersson, NPA, 21 May 2022.

86 Emails from Muhabbat Ibrohimzoda, TNMAC, 19 June and 7 July 2022; and interview with Dr Nickwah Din Mohammed, FSD, 24 June 2022.

87 Email from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

88 Email from Muhabbat Ibrohimzoda, TNMAC, 24 June 2022.

89 Email from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

90 Emails from Melissa Andersson, NPA, 21 May 2022; and Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

91 Emails from Muhabbat Ibrohimzoda, TNMAC, 28 May 2020 and 19 June 2022.

92 Email from Muhabbat Ibrohimzoda, TNMAC, 4 May 2021.

KEY DATA

CLUSTER MUNITION CONTAMINATION: UNKNOWN

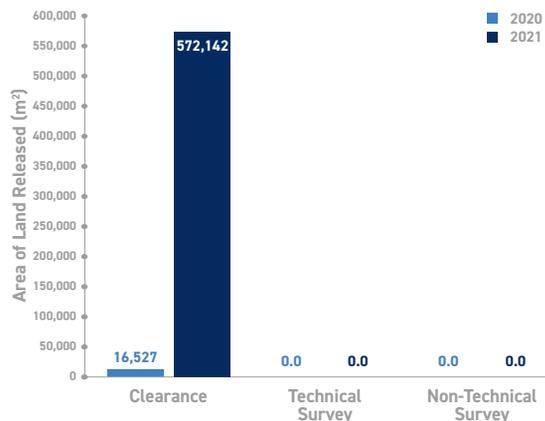
SUBMUNITION
CLEARANCE IN 2021

572,142_M²

SUBMUNITIONS
DESTROYED IN 2021

4

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

From the start of its attack on Ukraine in February 2022, Russia's armed forces used cluster munitions against Ukrainian military targets as well as against civilians and civilian objects in violation of international law. The exact number of cluster munition attacks is unknown, but hundreds have been documented or reported, adding significantly to the existing contamination.¹ The State Emergency Services of Ukraine (SESU) have been clearing some of the contamination caused by explosive ordnance (EO), including of CMR, immediately after its use.² One media report has also alleged the use of cluster munitions by Ukrainian forces against a village occupied by the Russian troops.³

The scale of the new CMR contamination in Ukraine is estimated to be large, with some early estimates suggesting the threat from unexploded submunitions might require a decade or more of concerted action.⁴

In November 2021, the Ukrainian Cabinet of Ministers issued a long-awaited resolution on the establishment of the national mine action authority (NMAA), which was hoped to progress into a stronger and more coordinated mine action sector in Ukraine. This is the first step in what will be a protracted process.

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 cluster munition remnants (CMR) contamination in areas to which it has effective access.
- Ukraine should clear CMR on territory under its jurisdiction or control as soon as possible.
- Ukraine should revise its national mine action standards (NMAS), taking into careful consideration the recommendations of the Technical Working Group.
- Ukraine should expedite the implementation of its new national mine action legislation and finalise the creation of the necessary structures and procedures to allow systematic clearance of CMR.
- Ukraine should elaborate a strategic plan for mine action, including for CMR survey and clearance.
- Ukraine should establish a centralised mine action database and report on contamination, survey, and clearance activities in a manner consistent with the International Mine Action Standards (IMAS).

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- National Mine Action Authority (NMAA)
- Humanitarian Demining Centre (under the State Emergency Services of Ukraine)
- Social-Humanitarian Response Centre (under the Ministry for Reintegration of the Temporarily Occupied Territories)
- Mine Action Centre (under MoD)
- State Special Transport Service (SSTS)
- Military Engineering School

NATIONAL OPERATORS

- State Emergency Services of Ukraine (SESU)
- Armed Forces of Ukraine
- National Guard
- Security Service
- SSTS
- State Border Service
- Demining Solutions
- The Demining Team of Ukraine
- Ukrainian Deminers Association (UDA)

INTERNATIONAL OPERATORS

- 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
- Norwegian People's Aid (NPA)

OTHER ACTORS

- Organization for Security and Co-operation in Europe (OSCE)
- Geneva International Centre for Humanitarian Demining (GICHD)
- Mine Action Sub-cluster chaired by United Nations Development Programme (UNDP)

UNDERSTANDING OF CMR CONTAMINATION

The extent of contamination from CMR in Ukraine is not known, but is expected to be large due to the widespread use of cluster munitions in the course of the Russian assault on Ukraine. Since the beginning of the conflict on 24 February 2022, humanitarian organisations and media outlets have documented and reported on a myriad of cluster munition attacks carried out by the Russian forces. Human Rights Watch documented the use of cluster munitions in at least eight of Ukraine's twenty-four districts: Chernihiv, Dnipropetrovsk, Donetsk, Kharkiv, Kherson, Mykolaiv, Odesa, and Sumy. Six types of cluster munitions were used: 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 some have self-destructing features.

Human Rights Watch believes that, to date, there have already been several hundred cluster munition strikes in the course of the 2022 conflict in Ukraine.⁵

The Office of the UN High Commissioner for Human Rights (OHCHR) stated on 30 March 2022 that it had received credible allegations of Russian armed forces using cluster munitions in populated areas at least 24 times, and was investigating allegations of similar use by the Ukrainian armed forces.⁶ An investigation by *The New York Times* claimed that the Ukrainian army used cluster munitions while trying to retake Husarivka village, which was occupied at the time by the Russian forces, on 6–7 March 2022. Ukrainian army officials did not deny using cluster munitions, but in response to the article declared that the armed forces strictly adhere to the norms of the international humanitarian law (IHL) in their use of weapons.⁷

- 1 Human Rights Watch, "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>.
- 2 "See how Kharkiv's bomb squad neutralizes cluster bombs in Ukraine", National Public Radio (NPR), 24 April 2022, at: <https://n.pr/3NqnQ47>; Ukraine's State Emergency Service Facebook page, 8 May 2022, at: <https://bit.ly/3G04DDJ>.
- 3 Human Rights Watch Report, "Intense and Lasting Harm: Cluster Munition Attacks in Ukraine", 11 May 2022, at: <https://bit.ly/3wJ6Or4>; and "To Push Back Russians, Ukrainians Hit a Village With Cluster Munitions", *The New York Times*, 18 April 2022, at: <https://nyti.ms/3sSAUr5>.
- 4 Online presentation by Hannah Rose Holloway, Humanitarian Disarmament and Peacebuilding Coordinator, Danish Refugee Council (DRC), CCM Intersessional Meeting, Geneva, 16 May 2022.
- 5 Human Rights Watch, "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.
- 6 Statement of Michelle Bachelet, UN High Commissioner for Human Rights, 30 March 2022, at: <https://bit.ly/3M6N1bB>.
- 7 "To Push Back Russians, Ukrainians Hit a Village With Cluster Munitions", *New York Times*, 18 April 2022; and Human Rights Watch, "Intense and Lasting Harm: Cluster Munition Attacks in Ukraine", Report, 11 May 2022, p. 23.

Before 2022, Ukraine said that many unexploded submunitions contaminated the Donetsk and Luhansk regions,⁸ with the most intensive use of cluster munitions said to have occurred in and around the city of Debalcevo in Donetsk oblast.⁹ Since 2017 and again in 2020, Ukraine estimated, implausibly, that total contamination by mines and explosive remnants of war (ERW, including CMR) could extend over 7,000km².¹⁰ The Ukrainian Ministry of Defence (MoD) has accepted that this is a “rough” estimate.¹¹ It was further suggested that up to one fifth of the explosive contamination in Ukraine is from mines, while the rest is from different ERW, including CMR.¹²

Prior to February 2022, 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.¹³ Survey and clearance by The HALO Trust on the GCA side of the buffer zone in 2021 confirmed the presence of a combination of anti-personnel mines, CMR, and other ERW.¹⁴

Multiple reports from 2014 and 2015 indicated that both government forces and pro-Russian rebels used cluster munitions in the Donetsk and Luhansk regions of eastern Ukraine. This included Smerch (Tornado) and Uragan (Hurricane) cluster munition rockets, which deliver 9N210 and 9N235 anti-personnel fragmentation submunitions; 300mm 9M55K cluster munition rockets with 9N235 submunitions; and 220mm 9M27K-series cluster munition rockets.¹⁵ In 2021, HALO Trust discovered 1.57km² of previously unrecorded CMR contamination in six confirmed hazardous areas (CHAs) that it believes dates back to the 2014–15 conflict.¹⁶

NEW USE OF CLUSTER MUNITIONS

As noted above, the 2022 conflict in Ukraine saw repeated use of cluster munitions since its first day. The new use has been extensively covered and documented by media and international organisations, including Amnesty International, Bellingcat, and Human Rights Watch. At least 11 attacks were recorded between 24 February and 9 April, many of which have seemingly targeted civilian objects protected under IHL, including hospitals,¹⁷ sparking widespread international condemnation and allegations of possible war crimes.¹⁸

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 War¹⁹ and remnants of Soviet military training and abandoned stockpiles.

8 National Security and Defence Council and State Emergency Services of Ukraine (SESU), “Humanitarian demining in Ukraine: current issues and challenges”, Anti-Personnel Mine Ban Convention (APMBC) Fourteenth Meeting of States Parties (14MSP), Side event, Geneva, 2 December 2015.

9 Interview with Lt.-Col. Yevhenii Zubarevskiy, Mine Action Department, Ministry of Defence (MoD), in Geneva, 20 May 2016.

10 “Measures to ensure compliance”, presentation by Col. Viktor Kuzmin, Deputy Chief, Engineer Troops, Armed Forces of Ukraine, provided to the APMBC Implementation Support Unit at the APMBC Intersessional Meetings, Geneva, 9 June 2017, at: <http://bit.ly/2EoMS2u>; 2020 APMBC Article 5 deadline Extension Request, p. 1.

11 Interview with Maksym Komisarov, Chief of Mine Action Department, MoD, in Geneva, 8 June 2018.

12 Ibid.

13 Emails from Yuri Shahramanyan, Programme Manager, HALO Trust Ukraine, 24 May 2017; and Henry Leach, Head of Programme, DDG Ukraine, 29 May 2017.

14 Emails from Imogen Churchill, Senior Programme Officer, HALO Trust, 23 March 2022; and Almedina Musić, Head of Humanitarian Disarmament and Peacebuilding, DRC, 7 February 2022.

15 Human Rights Watch (HRW), “Ukraine: Widespread use of cluster munitions”, 20 October 2014, at: <http://bit.ly/2WgCZ0n>; “Ukraine used cluster bombs, evidence”, *The New York Times*, 20 October 2014; HRW, “Ukraine: Attacks require better investigation”, 19 December 2014; “A test of the new Ukraine’s commitment to reform”, 15 January 2015; “Ukraine: More Civilians killed in Cluster Munition Attacks”, 19 March 2015; and Protection Cluster Ukraine, “Eastern Ukraine: Brief on the need for humanitarian mine action activities”, undated, but accessed on Protection Cluster website, 5 May 2016, at: <http://bit.ly/2YKhME2>; Armament Research Services, “9M55K cargo rockets and 9N235 submunitions in Ukraine”, Blog entry, 3 July 2014, at: <http://bit.ly/2YE33AB>.

16 Email from Imogen Churchill, HALO Trust, 23 March 2022.

17 Human Rights Watch, “Ukraine: Russian Cluster Munition Hits Hospital”, 25 February 2022, at: <https://bit.ly/3wqWeGe>; Amnesty International, “Cluster munitions kill child and two other civilians taking shelter at a preschool in Ukraine”, 27 February 2022, at: <https://bit.ly/3wmdVFI>; OHCHR, “Update on the human rights situation in Ukraine, 26 March 2022”, at: <https://bit.ly/3yPZyMP>; Human Rights Watch, “Ukraine: Cluster Munitions Launched Into Kharkiv Neighborhoods”, 4 March 2022, at: <https://bit.ly/3N4IPu5>; Human Rights Watch Report, “Intense and Lasting Harm: Cluster Munition Attacks in Ukraine, Report, 11 May 2022; “To Push Back Russians, Ukrainians Hit a Village With Cluster Munitions”, *The New York Times*, 18 April 2022; Human Rights Watch, “Ukraine: Cluster Munitions Repeatedly Used on Mykolaiv”, 17 March 2022, at: <https://bit.ly/37zfb01>; “In shattered Chernihiv, Russian siege leaves a city asking, ‘Why?’”, *The Washington Post*, 5 April 2022, at: <https://wapo.st/37XfUIq>; and Médecins sans Frontières (MSF), “Area around hospitals, houses, bombed in Mykolaiv”, 5 April 2022, at: <https://bit.ly/3NviCPE>.

18 Human Rights Watch, “End Cluster Munition Attacks in Ukraine”, 11 May 2022, at: <https://bit.ly/3lx3cTX>; and “Early Signs of War Crimes and Human Rights Abuses Committed by the Russian Military during the Full-Scale Invasion of Ukraine”, 16 March 2022, at: <https://bit.ly/385TFA7>; Mines Action Canada, “Cluster Munition Use in Ukraine Condemned”, at: <https://bit.ly/3Npw0d2>; and Cluster Munition Coalition (CMC) “ICBL-CMC Condemns Russia Cluster Bomb Use and Civilian Harm in Ukraine Conflict”, 25 February, at: <https://bit.ly/38FGV4>.

19 See, e.g., “During a Year in Kerch and Sevastopol neutralized 33 thousands of munitions”, *Forum*, 4 December 2009.

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The national bodies involved in the mine action centre in Ukraine include, the MoD, the Ministry of Interior (MoI), under which sits the SESU; the Ministry for Reintegration of the Temporarily Occupied Territories; the State Special Transport Services (SSTS) of the MoD; the National Police; and the State Border Service.

Ukraine's national mine action legislation (Law No. 2642), was originally adopted by parliament on 6 December 2018 and signed into law by the President on 22 January 2019.²⁰ However, the government did not proceed to implement the Law on the grounds that it was inconsistent with a number of other legal acts. None of the institutions was created and the national mine action response in Ukraine has remained uncoordinated as a consequence. In addition to the lack of implementation, the Law also had gaps and weaknesses in its regulation of the safety and efficiency of mine action operators.²¹

In June 2020, the "Law on the Amendments to the Law on Mine Action in Ukraine" passed its first reading. Following this, the UN Development Programme (UNDP), the Organisation for Security and Co-operation in Europe (OSCE) Project Coordinator in Ukraine (PCU), The HALO Trust, and the Danish Refugee Council (DRC) came together to prepare an explanatory note suggesting further amendments.²² The amendments to the Law on Mine Action in Ukraine was finally signed off by the president in December 2020 and the recommendations of the working group were broadly taken into account. Yet, the new Law fell short of addressing two major concerns of the mine action community, namely: operators' licence to carry out disposal, destruction, and transportation of explosive items for explosive ordnance disposal (EOD) procedures, and operators' permits for the importation and use of so-called dual-use items. Additional legislative amendments are required to resolve these two concerns,²³ which as of writing, remained unresolved.²⁴

The approved Law established a framework for humanitarian demining, dividing responsibilities among State institutions, and foresaw the creation of an NMAA. However, it had a peculiarity in that it envisaged the creation of two National Mine Action Centres (NMACs): one under the MoD and a second under SESU (which sits under the MoI). The latter centre was named the "Special Humanitarian Demining Centre". The two NMACs share the remits of information

management (IM), quality assurance (QA), monitoring, planning, and certification of the operators and their responsibility is divided territorially.²⁵ The Humanitarian Demining Centre is in charge of all humanitarian demining across Ukraine with the exception of MoD infrastructure, railways (out to five metres on both sides of the tracks), which is the remit of SSTS, and some other specific areas assigned to other agencies.²⁶ The decision to create two NMACs as opposed to one comes as a compromise after competition between the MoD and MoI on who takes the lead on mine action.²⁷ But it does not augur well for either efficient or effective mine action.

The authorities reported during an online sub-cluster meeting that, by the end of 2021, the Humanitarian Demining Centre has been created in Merefa (in eastern Ukraine) and the MoD NMAC was in an advanced stage of development in Chernihiv (in northern Ukraine) with 100% of senior management fully recruited and 70% of overall personnel recruitment completed.²⁸ The HALO Trust reported, though, that neither of the centres was fully operational as at March 2022.²⁹ The Ministry for Reintegration of the Temporarily Occupied Territories was also setting up a Social-Humanitarian Response Centre, which will coordinate victim assistance and explosive ordnance risk education.³⁰

In November 2021, the Cabinet of Ministers issued Resolution No. 1207 "On Establishment of National Mine Action Authority", providing the framework for the future NMAA. It was defined as an interagency state body acting on an advisory and collegial basis under the chairmanship of the Minister of Defence. The chairmanship of the NMAA will be transferred to the MoI once Ukraine restores territorial integrity over its internationally recognised borders by decision of the Cabinet of Ministers.³¹ The NMAA coordinates the ministries, local self-government, central and local state bodies, and other organisations (including mine action operators). The NMAA forms and ensures national mine action state policy; monitors and reports on state's progress in fulfilling its obligations in mine action field taken under international treaties; and coordinates the development and execution of mine action strategy, national mine action programme, and action plan.³² While the NMAA sits at a ministerial level, it is serviced by a secretariat that also "has some managerial functions."³³

20 OSCE, "Ukrainian parliament adopts legal framework for mine action, with OSCE advice provided", 10 December 2018, at: <http://bit.ly/2QdTa9q>; interview with Miljenko Vahtarić, OSCE PCU, 7 February 2019; and email, 13 June 2019.

21 DRC-DDG Legal Alert Special, "Mine Action Law Amendment", Issue 56, September 2020.

22 Email from Almedina Musić, DRC, 20 April 2021.

23 Email from Ronan Shenhav, HALO Trust, 20 April 2021.

24 Emails from Imogen Churchill, HALO Trust, 23 March 2022; and Almedina Musić, DRC, 7 February 2022.

25 DRC-DDG Legal Alert Special, "Mine Action Law Amendment", Issue 56, September 2020; and interview with Miljenko Vahtarić, OSCE PCU, 13 February 2020.

26 SESU, 'Public Report of the Head of the SESU on the SESU operational results in 2020' (in Ukrainian), at: <https://bit.ly/3wb8Lev>, p. 13; and email from Nick Vovk, Project Manager, DRC, 3 June 2021.

27 Interview with Miljenko Vahtarić, OSCE PCU, 10 May 2021.

28 Email from Almedina Musić, DRC, 7 February 2022.

29 Email from Imogen Churchill, HALO Trust, 23 March 2022.

30 Emails from Imogen Churchill, HALO Trust, 23 March 2022; and Almedina Musić, DRC, 7 February 2022.

31 DRC Special Legal Alert – "NMAA Framework 2022", Issue 73, January 2022; and email from Miljenko Vahtarić, OSCE PCU, 1 July 2022.

32 DRC Special Legal Alert – "NMAA Framework 2022", Issue 73, January 2022.

33 Email from GICHD, 17 June 2022.

Operators participate in monthly mine action sub-cluster meetings, which are attended by representatives of the MoD, SESU, the Ministry of Reintegration of the Temporarily Occupied Territories, and which are chaired by UNDP. There are also regular roundtable meetings organised by OSCE PCU on specific mine action topics and other sectoral relevant discussions.³⁴ The Geneva International Centre for Humanitarian Demining (GICHD) convened an NMAS working group and an IMSMA working group,³⁵ to add to the information management (IM) working group established in 2020 and which has remained active during the 2022 conflict.³⁶

There is an overall positive environment and facilitation of the operators' work by the Ukrainian government (e.g., granting of visas, collaboration on security matters).³⁷ But operators continue to face difficulties importing armoured equipment and dual-use items.³⁸

Since the 2022 conflict, all operators, including those yet to be certified, have supported Ukraine in demining, explosive ordnance risk education (EORE), and building of national capacities.³⁹ The DRC, for one, supported the Ukrainian authorities so that they can continue providing services related to mine action. Technical, non-technical, and clearance activities have taken place around Kyiv and Kyiv district with the support of 30 deminers. DRC has also been providing risk education and training in EOD.⁴⁰ In 2021, DRC supported or equipped 13 SESU demining teams, 2 non-technical survey teams, and 1 EOD team; trained 60 IM personnel from 25 regional centres; trained 35 deminers on mechanical mine clearance, battle area clearance (BAC), and

technical survey; revised and adapted standard operational procedures (SOPs) to be IMAS compliant; equipped the SESU training centre in Merefa and the regional coordination cell in Rubizne; procured metal detectors and protective personal equipment (PPE); and provided 10 new vehicles, including an armoured vehicle for the EOD team.⁴¹

In 2021, the GICHD led or co-led various capacity building efforts for the Ukrainian authorities: a non-technical survey training course delivered in two parts, an operational efficiency roundtable discussion led by the GICHD-OSCE in September, and a training on IMAS and land release in October 2021.⁴² The HALO Trust provided further training and workshops to national mine action stakeholders.⁴³

Norwegian People's Aid (NPA) has provided SESU with EOD clearance equipment, PPE, medical supplies, and communication equipment. NPA has also been engaging directly with SESU with a view to future cooperation in the fields of EORE, and mine detection dogs (MDD).⁴⁴

The OSCE PCU organised two regional roundtables on strategic planning and land release. In addition, together with GICHD and the Swiss Foundation for Mine Action (FSD), OSCE organised trainings on non-technical survey, and several workshops on topics including NMAS, IMAS, EORE, and geographic information system (GIS). In addition, OSCE sponsored the participation of the Ukrainian delegation in the 25th meeting of mine action national directors (NDM) in June 2022, and donated four vehicles and 20 electronic tablets for non-technical survey and quality control teams of the MAC.⁴⁵

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".⁴⁶

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.⁴⁷ FSD has detailed SOPs on environmental management (SOP 17.0) and work safe practices (SOP 02). These SOPs are in accordance with IMAS and comply with Ukrainian legal requirements.⁴⁸

The HALO Trust works in line with the IMAS and is accredited to the ISO 14001:2015 environmental standards, aiming to adhere to or exceed their requirements. HALO SOPs aim to leave the environment in a state equivalent to or better than prior to the completion of demining operations. The HALO Trust aligns its environmental management policy with NMAS as well as national laws on environmental protection and any other relevant regulations or guidelines in the country of operation. HALO's SOPs contain recommendations on the environmental protection measures that should be taken to ensure that environments affected by survey and clearance operations are not degraded by the work, and, once demining is completed, are fit for their intended use.⁴⁹

34 Emails from Toby Robinson, HALO Trust, 27 April 2020; Almedina Musić, DDG, 23 April 2020; and GICHD, 13 May 2020.

35 Email from Imogen Churchill, HALO Trust, 23 March 2022.

36 Email from GICHD, 18 May 2022.

37 Emails from Almedina Musić, DRC, 7 February 2022; and Imogen Churchill, HALO Trust, 23 March 2022.

38 Emails from GICHD, 13 May 2020; Almedina Musić, DRC, 20 April 2021; and Tony Connell, Country Director, Swiss Foundation for Mine Action (FSD), 24 March 2021.

39 Email from Miljenko Vahtarić, OSCE PCU, 1 July 2022.

40 Online presentation by Hannah Rose Holloway, DRC, to the CCM Intersessional Meeting, Geneva, 16 May 2022.

41 Email from Almedina Musić, DRC, 7 February 2022.

42 Email from GICHD, 18 May 2022.

43 Email from Imogen Churchill, HALO Trust, 23 March 2022.

44 Email from Alberto Serra, Programme Manager, NPA, 5 July 2022.

45 Email from Miljenko Vahtarić, OSCE PCU, 1 July 2022.

46 Emails from Almedina Musić, DRC, 7 February 2022; and Imogen Churchill, HALO Trust, 23 March 2022.

47 Emails from Almedina Musić, DRC, 7 February and 13 June 2022.

48 Email from Tony Connell, FSD, 10 June 2022.

49 Email from Imogen Churchill, HALO Trust, 23 March 2022.

GENDER AND DIVERSITY

As at May 2021, no information had been provided on whether there is a gender policy and associated implementation plan for mine action in Ukraine. 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 2020.⁵⁰

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 is age, gender, and disability disaggregated. In 2021, of the total 114 staff members, 20 women were employed in operations positions and eight in managerial/supervisory positions, making a total of 25% of the workforce of DRC's Humanitarian Disarmament and Peacebuilding Sector in Ukraine.⁵¹

FSD uses mixed gender non-technical survey and manual clearance teams and employs women in management roles within its country office. In 2021, the Deputy Country Director, Senior Finance Officer, Operations Coordinator,

two risk education team leaders, one non-technical survey team leader, and one Support to Education team leader were women. FSD states that it is a strong advocate of promoting talent and recognising skills regardless of gender. At the end of 2021, 29% of FSD's national staff were female, of whom 24% were in operational roles.⁵²

The HALO Trust uses mixed gender non-technical survey and community liaison teams.⁵³ HALO seeks to increase the number of women employed in operational roles and improve gender balance in these roles. It has an equality and diversity policy and is working globally on a gender and diversity implementation plan. In September 2021, HALO introduced a new benefit for female employees and single fathers to reimburse childcare costs for children aged three to six. HALO continues to tailor job adverts towards women, and ensures that voices of women are heard in case they have differing accounts of contamination and its effects during non-technical surveys. As of December 2021, 25% of HALO's national staff and 22% of its operational staff were women. In addition, 18% of international and cross-posted staff were women.⁵⁴

The OSCE PCU translated into Ukrainian two GICHD brochures: the 'Recruitment and Training Guidelines' and 'Gender and Priority Setting'. It subsequently distributed the translated brochures to partners and government officials.⁵⁵

INFORMATION MANAGEMENT AND REPORTING

Ukraine uses the International Management Systems for Mine Action (IMSMA) Core database. The database is housed in two separate servers, one owned by SESU and the other by the MoD.⁵⁶ Both entities collect and analyse contamination and land release data from national operators and NGOs using the harmonised forms and reporting systems.⁵⁷ The main server at SESU was subject to cyberattacks shortly before the Russian military offensive on 24 February, which meant that the GICHD and the IM Working Group subsequently needed to re-establish large parts of the data.⁵⁸ As at May 2022, the IMSMA database was not yet fully functional.⁵⁹

The GICHD continued supporting SESU and MOD to establish their respective IMSMA databases, which is a key pillar of its work in Ukraine.⁶⁰ In collaboration with the OSCE, GICHD also provided training on IMAS and land release in October, which was attended by representatives of SESU, the Humanitarian Demining Centre, the Mine Action Centre, the STT, and the Ministry for Reintegration of the Temporarily Occupied Territories. Since the end of 2020, the GICHD has dedicated an IM advisor for Ukraine, and maintained a pool of consultants who can provide additional ad-hoc support on IM.⁶¹

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 05.10.⁶²

50 2020 Article 5 deadline extension request, Annex A.

51 Emails from Almedina Musić, DRC, 7 February and 13 June 2022.

52 Email from Tony Connell, FSD, 10 June 2022.

53 Emails from Yuri Shahramanyan, HALO Trust Ukraine, 24 May 2017 and 16 May 2019.

54 Email from Imogen Churchill, HALO Trust, 23 March 2022.

55 Email from Miljenko Vahtarić, OSCE PCU, 1 July 2022.

56 Email from GICHD, 17 June 2022.

57 Emails from Lt.-Col. Yevhenii Zubarevskiy, MoD, 21 October 2016 and 27 June 2017; and GICHD, 17 June 2022.

58 Email from GICHD, 17 June 2022.

59 Email from Imogen Churchill, HALO Trust, 23 March 2022.

60 Emails from GICHD, 18 May 2022; and Imogen Churchill, HALO Trust, 23 March.

61 Email from GICHD, 18 May 2022.

62 Email from Almedina Musić, DRC, 7 February 2022.

DRC delivered an IM workshop for 60 key IM SESU personnel from 25 regional departments and five central SESU offices. The trainees also received courses on MS Excel, MS Access with data management, data analysis, geographic information system (GIS), and aeronautical reconnaissance coverage geographic information system (ArcGIS).⁶³ During further workshops, all IM SESU staff installed the application ArcGIS Survey123 on their mobile devices and PCs; received access to IMSMA Core mobile data collection forms; and tested IMSMA Core. DRC also supported SESU to develop IM SOPs for the first time. The IM SOPs are based on DRC IM SOPs which are IMAS compliant.⁶⁴

FSD conducted the initial trials of Survey123 in conjunction with GICHD during 2021, before the system was subject to further development.⁶⁵

The GICHD continued to chair the IM Working Group and meet on a regular basis in 2021. The group was attended by IM personnel from DRC, FSD, HALO Trust, the GICHD, NPA, MoD, the Ministry for Reintegration of the Temporarily Occupied Territories, and SESU.⁶⁶ The group discussed substantive data that should be recorded in the national database, and minimum reporting requirements for data collection forms. The following reports were agreed and started being used: the risk education data collection form, cancellation report, completion report, and non-technical survey forms.⁶⁷

While the quality of official reporting was expected to improve markedly in light of all the capacity development support that Ukraine has received on information management, the new large-scale contamination and the need to focus on emergency clearance means that Ukraine will now require more time to translate this capacity building support into quality information management and reporting.

PLANNING AND TASKING

Ukraine does not have a national mine action strategy, but as of June 2022, the NMAA secretariat has set as a priority the creation of a "national programme", and asked the GICHD and the OSCE to support its drafting.⁶⁸

There are currently no standardised criteria at national level for task prioritisation.⁶⁹ 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.⁷⁰ Local government have been helping the MoD to prioritise tasks based on humanitarian criteria.⁷¹ Operators prioritise clearance according to humanitarian impact and in discussion with the local community.⁷²

DRC continues to prioritise areas for survey and clearance according to its integrated mine action and development programming, and as defined by communities or local officials during non-technical survey.⁷³ DRC began in 2021 an in-depth consultation process with conflict-affected communities in order to prioritise and plan its mine activities, and to advocate for tasking with the NMAA. DRC's area-based development approach begins with a stakeholder mapping exercise, following which, field visits are conducted to consult with all major local-level stakeholders, with gender, age, disability, and displacement representation considerations, using integrated needs assessment forms to collect data on the socio-economic interactions with EO contamination. Further community consultation feeds back into decision-making on the targeting of clearance, survey, and risk education.⁷⁴

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.⁷⁵

63 Ibid.

64 Ibid.

65 Email from Tony Connell, FSD, 10 June 2022.

66 Emails from Imogen Churchill, HALO Trust, 23 March 2022; and Almedina Musić, DRC, 7 February 2022.

67 Ibid.

68 Email from GICHD, 17 June 2022.

69 Emails from Henry Leach, DDG Ukraine, 2 May 2019; Yuri Shahramanyan, HALO Trust Ukraine, 16 May 2019; and Almedina Musić, DRC, 7 February 2022.

70 Email from Almedina Musić, DRC, 7 February 2022.

71 Interviews with Lt.-Col. Yevhenii Zubarevskiy, Ministry of Defence, in Geneva, 20 May 2016; and Maksym Komisarov, MoD, in Geneva, 8 June 2018.

72 Emails from Almedina Musić, DDG, 23 April 2020; and Toby Robinson, HALO Trust, 27 April 2020.

73 Email from Almedina Musić, DRC, 7 February 2022.

74 Ibid.

75 Email from Imogen Churchill, HALO Trust, 23 March 2022.

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.⁷⁶ However, the NMAS did not consider all the inputs from the mine action stakeholders and have not been updated regularly to address new challenges and ensure employment of best practices.⁷⁷ In May 2020, representatives from the GICHD, OSCE PCU, DRC, and HALO Trust formed a working group with the objective of revising NMAS to better align it with the IMAS. The working group submitted its recommendations to the MoD, the acting NMAA at that time.⁷⁸ According to DRC, the Ukrainian government had set a deadline to finalise the NMAS by August 2021,⁷⁹ a target that was then postponed to April 2023 due to delays in establishing the NMAA.⁸⁰ In January 2022, HALO received information from the MoD saying that, while in waiting for professional support from the GICHD to develop national standards, amendments to the national standards were not to be expected before April 2023.⁸¹

DRC, FSD, and HALO consider that the current NMAS are yet to be fully developed to meet the needs of the mine action sector in Ukraine.⁸² In July 2021, the GICHD submitted the recommendations on behalf of the technical working group to the MoD for its consideration.⁸³ The recommendations suggested improvements on the liability clause, monitoring

of land release operations, and considerations on all reasonable efforts. According to the GICHD, Ukraine has developed NMAS that are in line with IMAS with GICHD support in the past. Now with the conflict unfolding, the review and application of standards has become an important topic which will need further support. The GICHD intends to continue its work supporting the national authorities in developing NMAS once the conditions are right.⁸⁴

In April 2019, the Cabinet of Ministers approved Resolution 372 on "Regulations on marking mine and ERW hazards", which are said to follow the provisions in the IMAS.⁸⁵

DRC has been working with the military unit "A2641" acting in accordance with the regulations of the certification body, and was officially requested to submit its application for accreditation in February 2021. The process was completed at the end of 2021 with a physical inspection, and DRC received its certificates of conformity for manual mine clearance, BAC, risk education, technical, and non-technical survey by December 2021. According to DRC, the resolution of establishment of NMAA in November 2021 aims at addressing the issue of delayed accreditations that resulted from the lack of fully functional mine action structures in the preceding years.⁸⁶

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 Mol, 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.⁸⁷

Three international demining organisations—DRC, FSD, and The HALO Trust—are operating in Ukraine.⁸⁸

In 2019, the Ukrainian organisations Demining Team of Ukraine and Demining Solutions were active in demining in the east of the country.⁸⁹ In its 2020 APMB Article 5 deadline extension request, Ukraine reported that 41 demining "groups" with a total of more than 500 people were involved in mine action from these organisations.⁹⁰ Since the beginning of the conflict in 2022, SESU reportedly deployed more than 600 deminers across the country, and was rushing to hire more. One SESU unit cleared approximately 30 items of UXO per day.⁹¹

76 Email 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.

77 Email from GICHD, 30 April 2021.

78 Emails from Almedina Musić, DRC, 20 April 2021; and Ronan Shenhav, HALO Trust, 20 April 2021.

79 Email from Almedina Musić, DRC, 26 July 2021.

80 Email from Almedina Musić, DRC, 7 February 2022.

81 Email from Imogen Churchill, HALO Trust, 23 March 2022.

82 Emails from Almedina Musić, DRC, 7 February 2022; Imogen Churchill, HALO Trust, 23 March 2022; and Tony Connell, FSD, 10 June 2022.

83 Email from Almedina Musić, DRC, 7 February 2022.

84 Email from GICHD, 18 May 2022.

85 Email from Miljenko Vahtarić, OSCE PCU, 13 June 2019; and Ministry for Temporarily Occupied Territories and Internally Displaced Persons, "Danger! Mines! Cabinet of Ministers of Ukraine Approved Regulations of Marking Mine and ERW Hazards, Developed By MTOT", 4 May 2019, at: <http://bit.ly/2l06vCA>.

86 Email from Almedina Musić, DRC, 13 July 2022.

87 Interview with Col. Oleksandr Shchebatiuk, 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.

88 2020 Article 5 deadline Extension Request; and Article 7 Report (covering 2018), Form F.

89 Email from Gianluca Maspoli, GICHD, 20 June 2017; "Tightening with the process of mine clearance in the East of Ukraine can lead to a new crisis", *Military Informant*, 25 July 2016, at: <http://bit.ly/2Qf1jeg>; and "Presentation of the Demining team of Ukraine", SD Crisis, 26 April 2017, at: <http://bit.ly/2wb6DG7>.

90 2020 Article 5 deadline Extension Request.

91 "Clearing the deadly litter of unexploded Russian bombs in Ukraine", *The Washington Post*, 15 April 2022, at: <https://wapo.st/37XmuPc>.

Table 1: Operational clearance capacities deployed in 2021⁹²

Operator	Manual teams	Total deminers*	Dogs and handlers	Machines**	Comments
DRC	8	60	0	0	Five teams (41 deminers) between January and May 2021, then increased to eight teams (60 deminers) for the remaining of 2021.
HALO	23	299	0	3	1x JCB excavator 1x Case frontloader 1x Volvo frontloader Initial trials of a tractor with harrow magnet attachment started. ⁹³
FSD***	3	20	0	0	One clearance team operated with only six deminers. Medics and drivers are cross-trained as deminers, and have therefore been included.
Demining Solutions***	1	7	0	0	
Totals	35	386	0	3	

* Excluding team leaders, medics, and drivers unless otherwise stated. ** Excluding vegetation cutters and sifters.

*** Data correct as at the end of 2020.

In 2021, DRC deployed two non-technical survey personnel in one team, then in July 2021, increased to four non-technical survey personnel in two teams. All of DRC’s technical survey teams are trained and equipped to conduct manual mine clearance and BAC. This is double the technical and demining capacity deployed in 2020. The number of DRC’s clearance teams (including technical survey), increased by three in 2021 compared to the previous year, reaching eight at the end of 2021, thanks to secured donor funding. DRC might create one more clearance and one non-technical survey teams in 2022, contingent upon funding, but as at June 2022, the Russian military offensive did not allow for this increase to happen and DRC was reassessing the need to step up its capacity.⁹⁴

FSD suspended demining operations in 2019 due to lack of funding but later secured additional funds and restarted its programme in 2020.⁹⁵ As at June 2022, FSD has started both non-technical survey and risk education activities in Chernihiv, and was recruiting additional staff from Chernihiv and Kyiv regions in preparation for a rapid response and BAC tasking by August 2022. FSD plans to deploy seven clearance teams, three non-technical survey, and three risk education teams, and is waiting for an import clearance from the Ukrainian authorities to deploy an MV4, armoured front-end loaders, armoured excavators, and tipper trucks. FSD also

plans to increase its international staff from one to nine, and its national staff from 53 to 105.⁹⁶

The HALO Trust deployed 12 non-technical survey personnel across three teams until October 2021, then increased by one additional four-strong non-technical survey team until the end of the same year thanks to additional secured funds. Similar to the previous year, HALO deployed three teams of 18 technical survey personnel. Apart from an increase of one-technical survey team, HALO has maintained the same survey and clearance capacity in 2021 compared to the previous year. In 2022, The HALO Trust planned to increase its non-technical survey capacity by one more team, and to increase its clearance teams by reducing their size but augmenting their number, in line with HALO’s global practices.⁹⁷

The HALO Trust used Minehound detectors in combination with rapid excavation drills on appropriate tasks in the first half of 2021. It also changed its approach to the use of remote vegetation cutting devices, which enabled more efficient manual clearance. HALO also started increasing the scope of the types of tasks (threat types) where these machines can be deployed. Initial trials started on the use of a harrow magnet, but conclusions were yet to be drawn.⁹⁸

92 Emails from Almedina Musić, DRC, 7 February 2022; and Imogen Churchill, HALO Trust, 23 March 2022.

93 The harrow magnet system combines a power harrow with a large, fixed magnet pulled by an armoured tractor. The system is designed to improve productivity on heavily metal-contaminated hazardous areas that do not contain landmines (battle areas or unplanned explosions at munitions sites). The harrow breaks up the soil and the magnet collects metal which can then be inspected for any hazardous items. A metal detector can then rapidly clear the land for any remaining EO once the majority of metal has been removed. This is a technique pioneered by HALO in Afghanistan that has been shown to significantly improve the speed of clearance. Email from Imogen Churchill, HALO Trust, 23 March 2022, 17 June 2022.

94 Emails from Almedina Musić, DRC, 7 February and 13 June 2022.

95 Email from Tony Connell, FSD, 24 March 2021.

96 Email from Tony Connell, FSD, 10 June 2022.

97 Emails from Ronan Shenhav, HALO Trust, 20 April 2021; and Imogen Churchill, HALO Trust, 23 March 2022.

98 Ibid.

The COVID-19 pandemic had a direct impact on DRC's Ukraine operations mainly due to the three-month lockdown and procurement challenges. DRC had to postpone some compulsory pre-deployment training courses. Local restrictions in place also lead to a reduction of training attendees and demining operations.⁹⁹

HALO reported that COVID-19 reduced efficiency due to mitigation measures such as limits on the number of people in a vehicle and deployment of staff from home. In addition, working time was lost because precautionary isolation of staff who were in contact with positive cases.¹⁰⁰

On 19 May 2022, the GICHD issued a first edition of an explosive ordnance guidance for Ukraine. The guidance aimed to assist qualified personnel conducting survey and EO reconnaissance work to correctly identify EO and understand some of the associated hazards.¹⁰¹ In June 2022, the GICHD was preparing for a second edition of the guide and intended to collaborate with SESU on reviewing the technical terminology of the Ukrainian version.¹⁰²

Following the decision by NPA's management board to initiate a humanitarian response in Ukraine, NPA has been working to establish a mine action programme based out of Kyiv with funding from the Norwegian Ministry of Foreign Affairs (MoFA). Since 15 May 2022, NPA has a country office with three international staff, and has been seeking registration and accreditation. NPA has also had discussions with the national operator, Ukrainian Deminer's Association (UDA), on the possibility of partnership in EORE, conflict preparedness, and protection.¹⁰³

NPA's plans for the immediate future are focused on reducing the humanitarian impact of EO and weapons through a combination of survey, clearance, and risk education projects. NPA is planning to certify, recruit, train, equip, and deploy four non-technical teams and two multi-task teams conducting EOD, clearance, and BAC by the end of 2022. UDA is operating in several districts (oblasts) conducting non-technical survey, EORE, EOD, and clearance.¹⁰⁴

DEMINER SAFETY

The SESU reported to the media that, as at 15 April 2022, 29 deminers had been killed while on duty, and 73 had been injured. Demining teams have had to work under the assumption that any object could have a mine attached.¹⁰⁵

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

None of the international operators released any cluster munition-contaminated area through survey in 2021, as in the previous two years.¹⁰⁶ A total of 1.57km² of previously unrecorded CMR contamination was discovered by HALO Trust in 2021.¹⁰⁷

A total of 572,142m² of CMR-contaminated land was cleared in 2021 in Donetsk and Luhansk districts by international operators, destroying in the process four submunitions and seventy-two items of UXO.¹⁰⁸

DRC demining teams manually cleared a total of 273,364m² of cluster munition-contaminated area. Four submunitions and 11 items of UXO were destroyed. The HALO Trust cleared 298,778m² of what was reported as cluster munition-contaminated area. No submunitions were found, but 61 other items of UXO were destroyed.¹⁰⁹

The year 2021 saw a significant increase in clearance compared to 2020 where 16,527m² of CMR-contaminated area was released by clearance, and one submunition destroyed.¹¹⁰ This increase occurred as a result of increased demining capacity in the case of DRC, and more efficient clearance as HALO adjusted its use of remote vegetation-cutting devices to increase efficiency gains in manual clearance.¹¹¹

99 Email from Almedina Musić, DRC, 7 February 2022.

100 Email from Imogen Churchill, HALO Trust, 23 March 2022.

101 GICHD publication, "Explosive Ordnance Guide for Ukraine", 9 May 2022, at: <https://bit.ly/3a4d70j>.

102 Email from GICHD, 17 June 2022.

103 Email from Alberto Serra, NPA, 5 July 2022.

104 Ibid.

105 "Clearing the deadly litter of unexploded Russian bombs in Ukraine", *The Washington Post*, 15 April 2022.

106 Emails from Almedina Musić, DRC, 7 February 2022 and 20 April 2021; Imogen Churchill, HALO Trust, 23 March 2022; Tony Connell, FSD, 24 March 2021; and Ronan Shenhav, HALO Trust, 20 April 2021.

107 Email from Imogen Churchill, HALO Trust, 23 March 2022.

108 Emails from Almedina Musić, DRC, 7 February 2022; and Imogen Churchill, HALO Trust, 23 March 2022.

109 Email from Imogen Churchill, HALO Trust, 23 March 2022.

110 Email from Ronan Shenhav, HALO Trust, 20 April 2021.

111 Emails from Almedina Musić, DRC, 7 February 2022; and Imogen Churchill, HALO Trust, 23 March 2022.

According to SESU, a total of 98,864 items of UXO, including submunitions and landmines (not disaggregated), have been cleared and destroyed between the start of the conflict in 24 February 2022 and 9 May 2022.¹¹² Media reports also quoted a spokesperson of SESU relating that, as at 15 April 2022, 54,000 mines and other items of EO, including almost 2,000 missiles, had been found and deactivated.¹¹³

Table 2: CMR clearance in 2021¹¹⁴

District (oblast)	Sub-district	Village	Operator	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
Luhansk	Shchastynskiyi	Peredilske	DRC	130,468	4	0
Luhansk	Shchastynskiyi	Schastia	DRC	*142,896	0	11
Luhansk	Shchastynskiyi	Dmytrivka**	HALO	*287,272	0	57
Luhansk	Svativskiyi	Svatove	HALO	*286	0	2
Donetsk	Volnovskiyi	Novohryhorivka	HALO	*10,100	0	2
Donetsk	Pokrovskiyi	Slavne**	HALO	*1,120	0	0
Totals				572,142	4	72

* No CMR found in areas with CM threat where clearance took place.

** Areas where non-technical survey suggested a mixed threat of anti-personnel mines and CMR.

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 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 being 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.¹¹⁵

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, in any areas of Ukraine over which it exercises effective control.

112 Updates provided on SESU's official Facebook page, 9 May 2022, at: <https://bit.ly/3G04DDJ>.

113 "Clearing the deadly litter of unexploded Russian bombs in Ukraine", *The Washington Post*, 15 April 2022.

114 Emails from Imogen Churchill, HALO Trust, 23 March 2022; and Almedina Musić, DRC, 7 February 2022.

115 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 2021

48km²

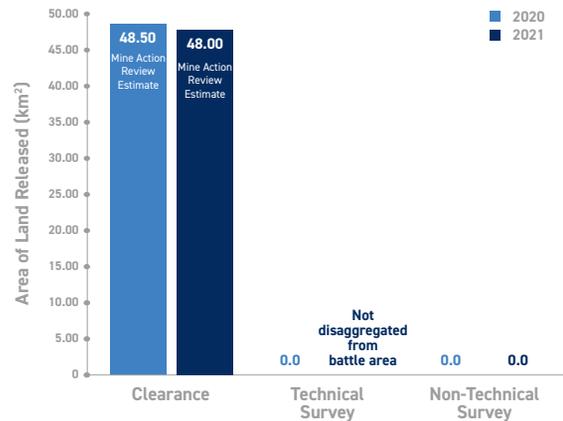
(MINE ACTION REVIEW ESTIMATE)

SUBMUNITIONS DESTROYED IN 2021

13,456

(INCLUDING 1,665 DURING SPOT TASKS)

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

In 2021, approximately 48km² of cluster munition-contaminated area was cleared, similar to output the previous year. The Vietnam National Mine Action Centre (VNMAC) continued efforts to strengthen coordination of humanitarian mine action in Vietnam and elaborated a draft five-year National Mine Action Plan (2021-25). For the first time, VNMAC also produced an annual operations report of NGO and Korea-Viet Nam Mine Action Project (KV-MAP) survey and clearance operations in 2021. VNMAC developed regulations for a national Information Management System, setting up the framework for establishing information management structures beyond the provinces where Norwegian People's Aid (NPA) has conducted

capacity development activities previously. This is a significant step forward in VNMAC assuming the coordination role delegated to it in Guiding Circular 195, which came into force in early 2020.

However, as at the time of writing, neither the regulation on the Information Mine Action System nor the National Technical Regulations (QCVNs), both of which were said to have been brought into line with the International Mine Action Standards (IMAS), had been formally approved by the government.

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 cluster munition remnant (CMR) contamination, with a view to establishing a nationwide baseline of CMR contamination. As part of these efforts, VNMAC should expand non-technical and technical survey.
- VNMAC should elaborate annual work plans for CMR, with clear targets for survey and clearance.
- The National Technical Regulations (QCVNs), revised in 2020 in line with IMAS, should be approved and published as soon as possible.
- The revision of National Mine Action Standards (TCVNs), in line with IMAS, should be completed as soon as possible.
- VNMAC should continue progress to develop a fully comprehensive national information management database, containing data from all clearance operations, including those of the military. VNMAC should also make the Information Management System for Mine Action (IMSMA) data available to all clearance operators and relevant stakeholders.

- VNMAC should publish comprehensive annual reports on the results of survey and clearance by all operators.
- VNMAC should continue to engage in regional sector discussions more actively, including within those of the Association of Southeast Asian Nations (ASEAN) Regional Mine Action Centre (ARMAC), aimed at accelerating the progress of CMR survey, particularly on survey efficiencies and effectiveness.

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- Vietnam National Mine Action Centre (VNMAC)
- Quang Tri Mine Action Centre (QTMAC)

NATIONAL OPERATORS

- Ministry of Defence
- PeaceTrees Vietnam (PTVN)

INTERNATIONAL OPERATORS

- Mines Advisory Group (MAG)
- Norwegian People's Aid

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 cluster munition remnants (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 61,308km² 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.¹

According to VNMAC, the total area still contaminated with bombs, mines, and explosive ordnance in Vietnam in 2021 is more than 57,000km², which accounts for more than 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.² VNMAC does not plan to conduct a separate survey for CMR, and instead is implementing its clearance plan for all types of ERW and mines.³ 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**, reputedly Vietnam's most contaminated province, Norwegian People's Aid (NPA)

is conducting a province-wide survey.⁴ Estimates of CMR-contaminated area are increasing sharply as survey progresses. At the end of April 2022, NPA completed non-technical survey in 91% of Quang Tri's 801 villages (i.e. non-technical survey had taken place in 690 accessible villages and in 38 villages which were surveyed before the villages became restricted. Some 73 restricted villages have not been covered by non-technical survey). Technical survey by NPA had so far confirmed 512km² of confirmed hazardous area (CHA) as contaminated by CMR, nearly 11% of the total area of Quang Tri province. NPA estimates that it will complete technical survey of all remaining evidence points in the 690 accessible villages by end of April 2023, but the exact timeframe will depend on the amount of direct evidence identified during survey. The target date for completion of technical survey has been brought forward, thanks to NPA's trialling of a new and much more efficient version of technical survey that uses a revised team structure and employs a different approach to how survey personnel move through the four sub-boxes in each 50m x 50m box.⁵ The remaining 111 villages in Quang Tri Province continue not to be accessible to international operators for survey.⁶

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 Tim Horner on behalf of Mr Phuc, Director, VNMAC, 6 April 2021.

3 Ibid.

4 Email from Resad Junuzagic, Country Director, NPA, 6 May 2019.

5 Emails from Kimberley McCosker, NPA, 22 June and 13 July 2022.

6 Emails from Kimberley McCosker, NPA, 21 May, 22 June, and 13 July 2022.

7 Email from Jan Erik Støa, NPA, 24 June 2020.

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, adopted a CMRS approach.⁷ In Quang Binh province, MAG has historically used a non-technical survey methodology – Evidence Point Polygon (EPP) mapping – to map initial CHAs. The EPP technique, pioneered by MAG, uses historical and ongoing operational data from Global Positioning System (GPS)-recorded explosive ordnance disposal (EOD) spot tasks involving submunitions to plot what are termed Initial CHAs (iCHAs). MAG has combined the EPP technique within their application of the CMRS methodology to accelerate survey and support early prioritisation for clearance to be deployed to where the impact will be the highest. This has helped to speed up MAG's technical survey (or even negate the need for it entirely in some instances) when plotting CHAs for clearance during non-technical survey. As at April 2022, MAG was no longer conducting technical survey in Quang Binh, as NPA has taken this over as part of the PM/WRA consortium.⁸

In **Thua Thien Hue province**, in collaboration with VNMAC and the provincial authorities, NPA has been implementing CMRS in four districts. More than 17km² of CHA had been identified in Thua Thien Hue province, of which 15.8km² is in the western district of A Luoi. Based on a desk exercise, NPA estimates that total cluster munition contamination in A Luoi is likely to be around 45km².⁹

The United States (US) 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.¹⁰ 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,¹¹ as well as BLU-63 (in Quang Binh province).¹² In Quang Nam province, almost all the CMR cleared by Danish Demining Group (DDG) were M83 submunitions.¹³

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.¹⁴ 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.¹⁵

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,¹⁶ although management and operations continued to depend largely on the Armed Forces.

Vietnam's mine action programme continues to undergo significant restructuring, following the Decree on the Management and Implementation of Mine Action Activities (Decree No. 18), which entered into effect on 20 March 2019 and subsequent approval of a Guiding Circular (Guiding Circular No. 195) which came into effect in February 2020.¹⁷ Under Decree 18, the Ministry of National Defence (MoD) continues to be the lead authority for the national mine action programme, in coordination with other relevant ministries and sectors,¹⁸ while VNMAC will, under the direction of the Prime Minister and management of the MoD, "monitor, coordinate and implement mine action tasks".¹⁹

The adoption of Decree and Guiding Circular has given VNMAC a clear mandate, roles, and responsibilities, as the national coordinating entity for mine action operations and have established the legal basis for revision and updating of the national regulations and standards (the National Technical Regulations (QCVNs) and the National Mine Action Standards (TCVNs)), which began in 2020, but which had yet to be adopted as at time of writing.²⁰ VNMAC now has authority over mine action data, which it is beginning to exercise by requiring provinces to collect and report data to the VNMAC Information Management Unit (IMU) on a quarterly basis.²¹ 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.²²

8 Emails from Helene Kuperman, MAG, 31 March 2021; and Valentina Stivanello, MAG, 29 April 2022.

9 Email from Kimberley McCosker, NPA, 21 May 2022.

10 "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.

11 Interview with Magnus Johansson, NPA, Hanoi, 17 April 2018, and Michael Raine, MAG, Quang Tri, 18 April 2018.

12 Email from Helene Kuperman, MAG, 23 June 2020.

13 Email from Clinton Smith, Country Director, DDG, 23 March 2017.

14 VNMAC, "Report on Explosive Remnants of War Contamination in Vietnam", Hanoi, 2018, pp. 33–36.

15 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.

16 Prime Ministerial Decree (No. 738 of 2013) on the management and implementation of mine action activities, Hanoi, April 2018.

17 Emails from Jan Erik Støa, NPA, 6 April 2020; and Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

18 Decree on Implementation and Management of Mine Action, No.18/2019/ND-CP, 1 February 2019.

19 Draft Decree on the management and implementation of mine action activities, Hanoi, April 2018.

20 Emails from Kimberley McCosker, NPA, 8 April 2021; and Helene Kuperman, MAG, 31 March 2021.

21 Email from Kimberley McCosker, NPA, 13 May 2021.

22 Ibid.

VNMAC is entirely nationally funded, and implementation of the National Mine Action Programme (Programme 504) is funded by both state and international funding.²³ 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 standing 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.²⁴

VNMAC's involvement in coordination meetings, such as the Landmine Working Group (LWG, renamed in 2022 to the Mine Action Working Group (MAWG)), has increased in recent years. The LWG, which is currently co-chaired by MAG and the United Nations Development Programme (UNDP), is a platform for all mine action stakeholders in Vietnam to meet regularly to share and discuss updates that impact the sector. Due to restrictions caused by the COVID-19 pandemic, only one LWG meeting took place during 2021, although several other technical meetings requested by VNMAC did also take place. The focus of the LWG in 2021 was on the following up on the revision of the QCVNs and TCVNs, and on the Information Management System regulation.²⁵

Despite constraints posed by COVID-19, VNMAC has shown an increased understanding of their role, including a greater willingness to discuss ideas and challenges with international operators.²⁶ However, VNMAC still operates within the limits of the MoD which is very regulated, so there is still room for improved transparency and efficiency.²⁷ 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.²⁸

VNMAC now produces a twice-yearly mine action calendar and operations report covering the activities and results of all NGOs and the UNDP in Vietnam.²⁹ In 2021, a biannual report was produced for the first half of the year, followed by an annual report covering the whole of 2021. This is the first time an annual operations report has been published by VNMAC. While the report included data from NGOs and military data under the Korea-Viet Nam Mine Action Project

(KV-MAP), it did not include other military clearance data or commercial clearance.³⁰

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. Restrictions on travel and meetings due to the COVID-19 pandemic, made it more difficult and sometimes impossible for NGOs to facilitate and host familiarisation visits by VNMAC to their offices and operations in 2021.³¹

In October 2021, MAG entered a three-year Memorandum of Understanding (MOU) with VNMAC to provide technical support and capacity building on EOD, clearance, QM, and expanding digital explosive ordnance risk education (EORE) to new provinces. MAG is working with VNMAC to develop a work plan for QM training. Activities under this MOU were due to be implemented in 2022.³²

NPA is implementing a capacity-development project with VNMAC, with funding from US Department of State's Bureau of Political-Military Affairs PM-WRA (PM/WRA). The project, which was previously four separate projects but combined into a single award from the start of 2022, under the management of the Senior Technical Advisor (STA), has four main objectives. The first objective is to increase VNMAC's capacity to fulfil its role and mandate as national mine action centre. The second is the full implementation of the national information management system, through provision of support to the VNMAC information management unit (IMU) as well as to provincial IM activities in Quang Tri and Quang Binh province. The third objective is for planning, prioritisation, and coordination of mine action in Quang Tri province, implemented through support to the Quang Tri Mine Action Centre (QTMAC)'s Management and Operations Units. The fourth objective is planning, prioritisation, and coordination of mine action in Quang Binh province, implemented through Quang Binh Database and Coordination Unit (DBCUC) functions.³³

PTVN undertakes joint efforts to support and help enhance the management and coordination of 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. PTVN expected to continue and expand these activities in 2022.³⁴

In 2021, the GICHD worked with VNMAC, UNDP, and NPA on several areas, including proposed support to VNMAC in drafting a Mine Action Law, review of national standards,

23 Email from Tim Horner, Senior Technical Advisor, VNMAC, on behalf of Mr Phuc, VNMAC, 6 April 2021.

24 Email from Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

25 Emails from Kimberley McCosker, NPA, 21 April 2022; Valentina Stivanello, MAG, 29 April 2022; and Phạm Hoàng Hà, PTVN, 9 May 2022.

26 Emails from Kimberley McCosker, NPA, 21 April 2022.

27 Ibid.

28 Email from Jan Erik Støa, NPA, 6 April 2020.

29 Emails from Jan Erik Støa, NPA, 6 April 2020; and Helene Kuperman, MAG, 23 June 2020.

30 Emails from Kimberley McCosker, NPA, 21 April 2022; Valentina Stivanello, MAG, 29 April 2022; and Phạm Hoàng Hà, PTVN, 9 May 2022.

31 Ibid.

32 Email from Valentina Stivanello, MAG, 29 April 2022.

33 Email from Kimberley McCosker, NPA, 21 April 2022.

34 Emails from Phạm Hoàng Hà, Country Director, PTVN, 9 May and 17 June 2022.

and working on the concept of long-term risk management, in particular on the issue of tools and protocols in risk management. Due to the COVID-19 pandemic, all GICHD activities took place via online communications in 2021.³⁵ The GICHD was, however, able to visit in April 2022, to follow up on the long-term risk management tool.³⁶

Golden West is fully funding and providing EOD training that reflects the IMAS to the Provincial Military Command in Quang Tri province, building technical skills and developing the capacity for long term response to residual ERW across the province. In cooperation with the United States Department of Defense (DOD) and Indo-Pacific Command (INDO-PACOM), Golden West is supporting or providing US military-to-military mine action training for VNMAC by the US Army, Pacific (USARPAC). Golden West is working with Provincial Officials and the Provincial Military Command of Quang Tri to develop a high-quality EOD training and test range in Cam Lo District. Funded by multiple donors, including the DOD Humanitarian Demining Research and Development Organization, Golden West is assisting the Provincial Military Command to construct training, detection testing, and demilitarization facilities in central Quang Tri Province that are safe and environmentally responsible.³⁷

In 2021, the International Committee of the Red Cross (ICRC) conducted a survey on the Knowledge, Attitude and Practices of local communities living on land contaminated by ERW. The research took place in three communes in Northern Vietnam and had a particular focus on community resilience.³⁸

Vietnam has shown increasing engagement with the international mine action sector over recent years. It was a non-permanent member of the UN Security Council for 2020–21, during which it played an active role in emphasising the importance of mine action being an integral part of the UN peace and security agenda.³⁹ In April 2021, Vietnam convened and chaired the Security Council open debate on “Mine Action and Sustaining Peace”.⁴⁰

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 Quang Binh province DBCU.⁴¹ As part of this project, NPA recruited and trained eight provincial DBCU staff in 2020.⁴² Data on technical survey from NPA were inputted

into the provincial IMSMA for review, prioritisation, and tasking for clearance. The DBCU is now fully operational and is responsible for all provincial mine action data and reporting to VNMAC, in line with the Information Management System. The DBCU conducts regular coordination meetings for operators in Quang Binh and is responsible for tasking operators.⁴³ A prioritisation system was completed by the end of 2021, and then formally approved and implemented in Quang Binh from 1 April 2022.⁴⁴

VNMAC, the Korea International Cooperation Agency (KOICA), and UNDP collaborated on a US\$30 million project (of which US\$20 million was from KOICA and the remainder from the Government of Vietnam, mainly through in-kind contributions) for ERW survey and clearance (KV-MAP), and to support information management resources, risk education, and victim assistance (VA) in two central provinces (**Binh Dinh** and **Quang Binh**). The project aimed to strengthen national capacities (VNMAC, Ministry of Labour, Invalid and Social Affairs (MOLISA) and authorities in the Quang Binh and Dinh Binh provinces. Capacity development components at the VNMAC were complimentary to long standing capacity developments by NPA.⁴⁵

The three year KV-MAP was originally planned to finish in December 2020, but was extended up to the end of 2021. While the project also addressed EORE and VA, the land release component was by far the largest, with 78% of funds from KOICA used for survey and clearance and clearance rates exceeded the project target by 30%. Almost 64km² of explosive ordnance (EO)-contaminated area was released through technical survey and 104km² through clearance, during the four year duration of the project. During project implementation 21 survey teams and 64 clearance teams were deployed in 69 communities.⁴⁶ A final evaluation of KV-MAP, which was the largest mine action project in Vietnam to date, concluded that it had led to major advances in mine action, including land released at an average cost of US\$0.14 per square metre. The successful tripartite collaboration was highlighted in the report of the UNSG on mine action in August 2021.⁴⁷

A new tripartite project, to succeed KV-MAP has been negotiated between VNMAC, KOICA, and UNDP for 2022–26, known as the Korea – Vietnam Peace Village Project (KVPVP). 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 150km² of EO-contaminated land over the five year period (60km² in Binh Dinh; 60 km² in Quang Ngai; and 30km² in Thua Thien Hue).⁴⁸

35 Email from the GICHD, 24 April 2022.

36 Email from Kimberley McCosker, NPA, 13 July 2022.

37 Email from Mark Lasley, Golden West Humanitarian Foundation, 16 June 2021.

38 Email from Kiona Bolt, ICRC, 26 April 2022.

39 Email from Phạm Hoàng Hà, PTVN, 9 May 2022.

40 Ibid.

41 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.

42 Email from Kimberley McCosker, NPA, 8 April 2021.

43 Email from Valentina Stivanello, MAG, 29 April 2022.

44 Email from Kimberley McCosker, NPA, 22 June 2022.

45 Email from Havard Bach, Consultant, UNDP, 27 May 2022.

46 Ibid.

47 Email from Havard Bach, Consultant, UNDP, 27 May 2022.

48 Ibid.

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. In 2021, the key capacity development focus was on the development of a QM SOP, criteria for prioritisation, and finalisation of the prioritisation process (which may need further review). A five-year action plan (2021–25) to implement mine action programme in Quang Tri Province was released in 2021. The manual on integration of mine action into social-economic development plans for Quang Tri province has also been issued for application in the province.⁴⁹ During 2020 and 2021, NPA supported QTMAC in the ongoing development of a QM SOP, which was submitted to the Provincial Mine Action Steering Committee for review and approval in November 2021, and was expected to be approved in Q3 2022.⁵⁰

The NPA-VNMAC technical survey project in **Thua Thien Hue province** is an evolving process to formulate a SOP on technical survey for VNMAC. The first phase of the NPA-VNMAC operational support successfully concluded in 2020 and saw the successful revision and strengthening of VNMAC's SOP for technical survey (and non-technical survey), as well as the training, management, supervision and monitoring of four VNMAC technical survey teams. The next phase of the project was approved in December 2021, with training of VNMAC in Battle Area Clearance (BAC) to be based on NPA's SOPs, which will enable VNMAC to directly compare procedures to their own SOPs, learn from NPA best practice, and improve overall clearance efficiency.⁵¹

ENVIRONMENTAL POLICIES AND ACTION

Currently VNMAC does not have a TCVN or policy on environmental management. However, according to NGOs, VNMAC plans to develop a TCVN on environmental management in 2022 and to discuss it within the LWG.⁵² As a precursor to this, the STA had prepared two expert lectures to deliver to VNMAC, one on IMAS 07.13 and a second on climate change and mine action, planned to be delivered in 2022.⁵³

MAG reported having an environmental SOP in place, which is followed throughout the survey and clearance process, in the absence of national guidelines.⁵⁴

NPA has a comprehensive environmental management system in place, including a policy, local implementation plan, and SOP. NPA also reported having an emissions monitoring dashboard that it expected to be finalised and implemented soon.⁵⁵ Tasking of NPA operations is the responsibility of provincial authorities, so site selection is largely out of NPA's responsibility. However, NPA is developing an operational environment assessment globally, which seeks to identify environmental impacts of its operations at task level. NPA Vietnam is currently trialling this, but it is a work in progress

and will not be fully implemented by NPA's teams until it undergoes further revision and testing. As a preliminary step, NPA provided environmental training to all operational personnel in May 2022, including considerations they can make at task level to protect the environment. NPA's SOP is in line with IMAS, which provides basic recommendations on environmental protection.

PTVN has an environmental policy which it applies to its all its operations, including during planning, clearance, and post-clearance community development programme and projects. Furthermore, PTVN 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; implementing processes for reducing environmental impact across the organisation by applying various solutions for prevention of pollution, waste reduction, and recycling to minimise one-time-use of supplies in field operations (for example, by using rechargeable batteries in operations).⁵⁶

GENDER AND DIVERSITY

According to VNMAC, the goal of gender equality has been recognised in the Constitution of Vietnam since 1946, and is clearly stipulated in subsequent amendments and supplements to the Constitution. Most recently, the 2013 Constitution stipulated that "male and female citizens are equal in all aspects". The policy is to ensure the rights and opportunities for gender equality and that gender discrimination is prohibited.⁵⁷

49 Email from Valentina Stivanello, MAG, 29 April 2022.

50 Emails from Kimberley McCosker, NPA, 21 April and 13 July 2022.

51 Ibid.

52 Emails from Kimberley McCosker, NPA, 21 April 2022; Valentina Stivanello, MAG, 29 April 2022; Phạm Hoàng Hà, PTVN, 9 May 2022.

53 Email from Kimberley McCosker, NPA, 21 April 2022.

54 Email from Valentina Stivanello, MAG, 29 April 2022.

55 Email from Kimberley McCosker, NPA, 21 April 2022.

56 Email from Phạm Hoàng Hà, PTVN, 9 May 2022.

57 Email from Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021. (Clauses 1 and 3, Article 26 of the 2013 Constitution).

In 2006, the Law on Gender Equality was enacted to achieve the goal of eliminating gender discrimination. Other legislation related to gender policy includes Decision No. 2351/QĐ-TTg dated 24 December 2010 of the Prime Minister approving the National Strategy on gender equality for the period 2011–2020 with seven goals and 22 specific targets in areas of governance, economics, labour/employment, education and training, health care, culture, information, family, and state management capacity building on gender equality; and Decision No. 515/QĐ-TTg dated 31 March 2016 of the Prime Minister approving the project to implement measures to ensure gender equality for female civil servants in the 2016–2020 period.⁵⁸ It was not known if there is a replacement to the strategy for 2021 onwards.

At VNNMAC, 22% of employees are female, with women in more than 20% of management, supervisory, and executive positions.⁵⁹ VNNMAC said that women's participation in survey and clearance activities is limited due to the nature of the work and due to the fact that the majority of participants are from the military forces. For other activities, projects have encouraged the participation of civil society agencies and organisations to help ensure a higher proportion of women. Local partners such as the Provincial Military Commission, the Department of Education and Training, and the Red Cross are required to take gender into account in their training events and activities, to ensure an increase in female participation.⁶⁰

The final evaluation of the KVMAP, which finished at the end of 2021, concluded that gender and diversity had been adequately addressed. The wider project has sought female participation at all levels and sectors throughout planning and implementation. The overall gender balance for staff that were part of KV-MAP in 2021, was 42% women (20 out of 48 staff). Of this, 25% women of VNNMAC personnel were women (7 out of 28 staff); 65% of UNDP's staff (9 out of 12 staff); 67% of KOICA staff (2 out of 3 staff) and 40% of MOLISA staff (2 out of 5 staff).⁶¹

MAG has a gender policy, which is also incorporated into other policies and procedures. It encourages diversity and inclusion within its recruitment, training, and promotion procedures, ensuring equal opportunities for all staff. As at April 2022, MAG employed 725 employees in Vietnam, of whom 28% were women. Women represent 26% of MAG's total operational capacity in Vietnam (175 women out of 672 employees) and 21% of managerial/supervisory level positions (25 women out of 120 employees).⁶²

NPA follows Vietnamese law governing equal opportunity and non-discrimination in employment. NPA continues to prioritise gender mainstreaming and work towards gender equality in the recruitment process and in the workplace. Women are actively encouraged to apply for roles and to pursue development opportunities once employed.⁶³ NPA employs a total of 367 staff in Vietnam, of whom 30% are

female, including 27% of operational staff and 18% of total management-level positions, rising to 50% of NPA's senior management team. While recruiting staff for the increased operational capacity, NPA Vietnam continued a high rate of recruitment of women, with women 30 of 58 (52%) new hires. NPA also 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. NPA Vietnam has designed a comprehensive framework to assess performance on gender and diversity mainstreaming and identify areas for focus, which it will implement in 2022.⁶⁴

Gender and diversity mainstreaming remains a priority when working with national authorities, and NPA Vietnam continues to take every opportunity available to influence VNNMAC, QTMAC, the Thua Thien Hue DBU, and the Quang Binh DBCU towards positive gender and diversity mainstreaming. In 2021, NPA Vietnam helped highlight the topic of gender mainstreaming in mine action on a global stage, when Ms Nguyen Thi Dieu Linh, Provincial Programme Manager in Quang Tri, was invited to become the first Vietnamese citizen to address the UN Security Council during an open debate on "Mine action and sustaining peace: Stronger partnerships for better delivery", which was convened by the Government of Vietnam under their Council Presidency. As well as sharing her recommendations for more effective and efficient implementation of mine action activities based on her 12 years' experience in NPA field operations, Linh spoke about the importance of promoting and increasing the involvement of women in all aspects of mine action. Particular reference was made to the diverse positions that Vietnamese women hold in mine action, the progressive increase in the number of women participating in mine action in Vietnam, and to the first all-female BAC team established by NPA in 2018.⁶⁵

PTVN has gender policies in place and encourages diversity and inclusion within its recruitment, training, and procedures for promotion, ensuring equal opportunities for all staff. PTVN gives priority for female candidates in recruitment. It has 189 staff in Vietnam, 36 (19%) of whom are women, including 11 women out of 32 (34%) in managerial/supervisory-level positions and 25 women out of 157 (16%) in operational positions. Six of PTVN's staff are from ethnic minority groups. In its field clearance, EORE, and victim assistance operations PTVN prioritises women and children as beneficiaries.⁶⁶

Gender and diversity were also a focus of capacity development activities with QTMAC, to share lessons learned and best practices with the provincial authority in Quang Tri. A Gender and Diversity Policy was adopted by QTMAC in 2021 and gender and diversity training delivered.⁶⁷

MAG's, NPA's, and PTVN's operations data are disaggregated by sex and age.⁶⁸

58 Email from Tim Horner on behalf of Mr Phuc, VNNMAC, 6 April 2021.

59 Ibid.

60 Ibid.

61 Email from Havard Bach, Consultant, UNDP, 27 May 2022.

62 Email from Valentina Stivanello, MAG, 29 April 2022.

63 Email from Resad Junuzagic, NPA, 6 May 2019.

64 Emails from Kimberley McCosker, NPA, 21 April and 13 July 2022.

65 Emails from Kimberley McCosker, NPA, 21 April and 13 July 2022.

66 Email from Phạm Hoàng Hà, PTVN, 9 May 2022.

67 Email from Kimberley McCosker, NPA, 22 June 2021.

68 Emails from Simon Rea, MAG, 24 April 2019; Resad Junuzagic, NPA, 6 May 2019; and Phạm Hoàng Hà, PTVN, 11 May 2021.

INFORMATION MANAGEMENT AND REPORTING

Decree 18 and Guiding Circular 195 make VNMAC responsible for information management, including the reporting, collection and provision of data on mines and ERW. VNMAC uses the IMSMA, however the full IMSMA database is not yet accessible to mine action operators. As previously mentioned, VNMAC still operates a request-based process and data distribution requires MoD approval. Operators received a bi-annual report from VNMAC, containing summary data for Q1 and Q2 2021 and a completed annual report, which included NGO and UNDP data, but not military data.⁶⁹ Linkages between VNMAC and the provinces are yet to be fully defined and different models are emerging (for example, QTMAC in Quang Tri province, DBCU in Quang Binh province, DBU in Thua Thien Hue province, and Project Management Unit (PMU)/IMU in Binh Dinh province as part of KV-MAP).⁷⁰ VNMAC is in the process of determining how information management will be collected nationally and shared,⁷¹ and is steadily strengthening its data management and coordination role, thanks to the Decree and Guiding Circular providing a clear mandate and legal authority.

VNMAC reported making efforts to improve the collection of data and information management capacity nationwide, but sought continued international assistance.⁷² The national database process is being implemented as part of the information management project, overseen by the PM/WRA Information Management Advisor to VNMAC. The national database structure exists and the inputting of available data is ongoing. The VNMAC database unit is now fully functional and operational, and the focus is on standardisation of the reporting forms to ensure data is reported consistently and is subject to quality control (QC).⁷³

VNMAC reported that data collection forms are specified in the Appendices of Circular 195 and the National Standard TCVN 10299-10 (2014), and that since 2020, it had started to develop a set of standardised IMSMA data collection/reporting forms.⁷⁴ However, as at April 2022, all reporting was based on individual operators' forms.⁷⁵

NPA is working with the VNMAC IMU at national level to collect and collate information from across Vietnam and give transparent access to available data. Throughout 2019–20, VNMAC's IMU worked to input historical data stored on other databases, including available data from the provinces. However, it is unclear what data the provinces are holding that have not yet been delivered to VNMAC.⁷⁶ In Q1 2021, significant effort was made to continue to collect and migrate

all historic data into the national IMSMA database. As at April 2022, VNMAC were reported to have entered all paper records shared by the Provincial Military Commands – approximately 70% of all historic data. Furthermore, VNMAC (with the support of the IM advisory team) have entered Landmine Impact Survey (LIS) data for 42 provinces (66% of all provinces) and have digitised maps of 42 provinces (74%) for use in ArcGIS.⁷⁷ VNMAC IM SOPs have also recently been reviewed, with comprehensive feedback provided by operators, but had yet to be formally approved at writing.⁷⁸

In 2021, NPA capacity development personnel supported VNMAC to develop regulations for a national Information Management System. Following a consultative review process using the LWG, these regulations were finalised by VNMAC and were awaiting approval from the MoD. Once approved, they will see the establishment of a system for reporting provincial mine action data to a national IMSMA database held by VNMAC, using standardised IMSMA forms. NPA also supported VNMAC to provide training to provincial and regional military commands on the use of the national Information Management System, including standardised forms, and provided 70 laptops to ensure every province and region is adequately equipped to report mine action data. These trainings were ongoing as of writing. The establishment of a national mine action database, held by VNMAC, is a prerequisite for many other activities, including QM and prioritisation.⁷⁹

In **Quang Binh** province, MAG initiated a partnership with NPA and PTVN in October 2019, which includes support to the Quang Binh provincial Department of Foreign Affairs to establish a central database in the province, based on the Quang Tri database unit model.⁸⁰ NPA is responsible for the capacity development to the Quang Binh DBCU, which is also supported by VNMAC.⁸¹ In 2020, eight staff were recruited, trained, and accredited to IMSMA Level 1 and also trained in GIS and ArcGIS online. In addition, the DBCU has been fully equipped with required equipment and software, and a provincial IMSMA database, with field reporting templates based on VNMAC's forms, has been established, and field operators and DBCU staff have been trained.⁸² All of MAG's historical data has now been inputted into the database.⁸³

As at April 2022, all data had been systematised except for the data from the military clearance and KV-MAP project.⁸⁴ The reporting system and tasking from the Quang Binh DBCU became effective in 2021 and is said to have been conducted

69 Emails from Kimberley McCosker, NPA, 21 May 2022; and Valentina Stivanello, MAG, 29 April 2022.

70 Email from Helene Kuperman, MAG, 31 March 2021.

71 Emails from Jan Erik Støa, NPA, 6 April 2020; and Helene Kuperman, MAG, 10 April 2020.

72 Email from Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

73 Email from Kimberley McCosker, NPA, 8 April 2021.

74 Email from Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

75 Email from Valentina Stivanello, MAG, 29 April 2022.

76 Emails from Kimberley McCosker, NPA, 8 April 2021; and Helene Kuperman, MAG, 31 March 2021.

77 Email from Kimberley McCosker, NPA, 21 April 2022.

78 Email from Valentina Stivanello, MAG, 29 April 2022.

79 Email from Kimberley McCosker, NPA, 21 April 2022.

80 Email from Helene Kuperman, MAG, 10 April 2020.

81 Email from Kimberley McCosker, NPA, 8 April 2021.

82 Ibid.

83 Email from Valentina Stivanello, MAG, 29 April 2022.

84 Email from Kimberley McCosker, NPA, 21 April 2022.

efficiently by the DBCU, with the DBCU reporting to the VNMAC.⁸⁵ The operators in Quang Binh (VNMAC, MAG, NPA, and PTVN) are responsible for reporting their own data. VNMAC was responsible for managing survey and clearance data and results under KV-MAP and also for reporting relevant data to the provincial DBCU in Quang Binh.⁸⁶ As part of the KV-MAP, IM training was conducted for all relevant staff and a new server, IT equipment, and software procured for the database centre.⁸⁷ Database Centres for Mine Action in **Quang Binh** and **Binh Dinh** provinces managed the data from the KV-MAP project which was then fed into the VNMAC database.⁸⁸

In **Quang Tri province**, the QTMAC database unit has been running well and is able to autonomously collect, collate, analyse, and task operators based on information shared by all mine action stakeholders in the province (domestic and international, civilian and military).⁸⁹ 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.⁹⁰

In October 2021, a project was established for NPA to support the creation of the **Thua Thien Hue** Department of Foreign Affairs 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 in line with the national Information Management System regulations. NPA is providing additional support for collecting and migrating historic data from previous and ongoing military operations and from international organisations that were previously operational in the province.⁹¹

According to international NGOs (INGOs), Binh Dinh is the next key province that VNMAC wants to focus on.⁹²

PLANNING AND TASKING

Decision 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.” It called for clearance of 8,000km² of ERW between 2016 and 2025.⁹³ 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 Program 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).⁹⁴ 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 NGOs or other members of the LWG, also seeks to develop and implement the technical survey of “zoning areas” confirmed as contaminated by mines and ERW, as the basis for strategic planning.⁹⁵ As at

June 2022, the five-year plan had yet to be formally released and was still undergoing Prime Ministerial review regarding two final issues concerning the budget and capacity for implementation of the plan.⁹⁶ There was an annual work plan in place for 2022.⁹⁷

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 5,000km², with priority in heavily contaminated areas.⁹⁸

As at April 2022, there was no national prioritisation system for CMR clearance, and currently 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.⁹⁹

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.¹⁰⁰

85 Ibid.

86 Email from Havard Bach, Consultant, UNDP, 27 May 2022.

87 Ibid.

88 Emails from Helene Kuperman, MAG, 23 June 2020; and Nils Christensen, UNDP, 2 October 2020.

89 Email from Helene Kuperman, MAG, 10 April 2020.

90 Emails from Resad Junuzagic, NPA, 6 May 2019; and Jan Erik Støa, NPA, 24 June 2020.

91 Email from Kimberley McCosker, NPA, 21 April 2022.

92 Ibid.

93 Prime Minister, “Decision on Approval of the National Mine Action Plan Period 2010–2025”, Hanoi, 21 April 2010.

94 Emails from Valentina Stivanello, MAG, 29 April 2022; and Phạm Hoàng Hà, PTVN, 9 May 2022.

95 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.

96 Interview with Mr Phuc, VNMAC, Geneva, 23 June 2022.

97 Email from Kimberley McCosker, NPA, 21 April 2022.

98 Email from Doan Thi Hong Hai, Capacity Development Project Officer, NPA, on behalf of Mr Phuc, VNMAC, 3 June 2022.

99 Email from Kimberley McCosker, NPA, 21 April 2022.

100 Ibid.

In **Quang Tri province**, there is a prioritisation process in place and an effective system for task allocation.¹⁰¹ The prioritisation processes and accompanying forms were piloted in 2018 and were rolled out in May 2019, with QTMAC now managing the province-wide clearance task prioritisation process.¹⁰² In March 2020, the QTMAC issued a letter to inform operators on the application of the prioritisation guidelines.¹⁰³ The criteria are 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.¹⁰⁴ Information from experience gained in developing and implementing the prioritisation plan in Quang Tri province has been shared with VNMAC.¹⁰⁵

In **Thua Thien Hue province**, tasking for NGO operators is decided by provincial authorities in accordance to the provincial socio-economic development plan.¹⁰⁶

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Vietnam has both National Technical Regulations (QCVNs), which are legally binding and similar in content to SOPs, and National Mine Action Standards (TCVNs), which despite being standards are considered optional by VNMAC.¹⁰⁷

VNMAC made significant progress in 2020 to review and update the QCVNs to help bring them into line with IMAS.¹⁰⁸ The former QCVNs and existing TCVNs were drafted more with the MoD in mind, used terminology inconsistently, and chapters contradicted themselves.¹⁰⁹ INGOs welcomed the inclusiveness of the revision process,¹¹⁰ which involved the establishment of four working groups, co-chaired by VNMAC, and extensive consultation with operators and international organisations, including the GICHD.¹¹¹ However, despite the revision process for the QCVNs having been completed by early 2021, the QCVNs were still awaiting final approval from the Prime Minister's office. VNMAC hoped the QCVNs would receive approval and then be released in July 2022.¹¹² Revision of the TCVNs was also underway as at time of writing, in anticipation of the expected official approval and release of the QCVNs, which are required to be adopted first. The revised TCVNs had been shared with the LWG for input from all stakeholders.¹¹³

As part of the revision process, VNMAC also updated its SOP on QM Systems (QMS), as part of KV-MAP. In addition, a single, field-orientated QM SOP has been prepared by the QTMAC, with support from NGOs, for use in Quang Tri province.¹¹⁴ Corresponding legal documents (Circulars) related to the QM SOPs, and to the revised non-technical survey, technical survey, and clearance SOP, were approved in October 2021, but had still to be translated as at April 2022.¹¹⁵

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.¹¹⁶ Survey and clearance by the Engineering Commands in 2020 increased compared to the previous year. VNMAC expected a further increase in survey and clearance capacity for socio-economic projects in 2021.¹¹⁷ Under the KV-MAP project, 36 clearance teams were deployed in 2021 to conduct ERW clearance (including CMR) in Quang Binh province.¹¹⁸

101 Emails from Resad Junuzagic, NPA, 6 May 2019; Helene Kuperman, MAG, 31 March 2021; and Phạm Hoàng Hà, PTVN, 11 May 2021.

102 Email from Simon Rea, MAG, 16 June 2019.

103 Email from Kimberley McCosker, NPA, 13 May 2021.

104 Emails from Jan Erik Støa, NPA, 6 April 2020; Simon Rea, MAG, 24 April 2019; and Helene Kuperman, MAG, 31 March 2021.

105 Email from Kimberley McCosker, NPA, 8 April 2021.

106 Email from Jan Erik Støa, NPA, 6 April 2020.

107 Email from Resad Junuzagic, NPA, 6 May 2019.

108 Email from Kimberley McCosker, NPA, 8 April 2021; and Helene Kuperman, MAG, 31 March 2021.

109 Emails from Resad Junuzagic, NPA, 6 May 2019; Jan Erik Støa, NPA, 6 April 2020; and Helene Kuperman, MAG, 10 April 2020.

110 Email from Kimberley McCosker, NPA, 8 April 2021.

111 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.

112 Interview with Mr Phuc, VNMAC, in Geneva, 23 June 2022.

113 Emails from Valentina Stivanello, MAG, 29 April 2022; and GICHD, 24 April 2022.

114 Email from Kimberley McCosker, NPA, 8 April 2021.

115 Email from Kimberley McCosker, NPA, 21 April 2022.

116 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.

117 Email from Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

118 Email from Havard Bach, Consultant, UNDP, 27 May 2022.

Since 2006, Golden West has been providing technical support and training to Vietnamese humanitarian mine action organisations. Beginning in 2016, Golden West began a programme training Provincial Military Commands in Ha Tinh, Quang Binh and Quang Tri provinces to conduct EOD operations to an IMAS standard. The programs in Ha Tinh and Quang Binh resulted in training and certification of 77 IMAS Level 1 and Level 2 technicians. Since 2017, Golden West training has focused on Quang Tri province and training for both the Provincial Military Command and PTVN. In Quang Tri, Golden West has trained dozens of EOD technicians to comply with IMAS EOD Levels 1, 2, and 3 and are training a specialised Provincial Military Command team to operate a mobile cutting system for safe demilitarisation and disposal of large bombs and projectiles. Golden West also leverages its partnerships in Quang Tri to provide valuable field mentoring and training to VNMAR EOD personnel being formally trained by USARPAC's humanitarian mine action program.¹¹⁹

International operators active in 2021 included: MAG, working in Quang Binh and Quang Tri provinces; NPA, working in Quang Binh, Quang Tri, and Thua Thien Hue provinces; and PTVN, who have been working in Quang Tri province since 1995 and now also in Quang Binh.¹²⁰ DDG ceased its survey and clearance operations in Vietnam (Quang Nam province) in January 2020, due to lack of funding.¹²¹

In 2021, MAG deployed 40 clearance teams, totalling 360 deminers (excluding team leaders, deputy team leaders, and medics) and seven mechanical assets, which was the same capacity as the previous year. MAG also deployed seven non-technical survey teams in 2021, totalling fourteen community liaison officers, as well as one technical survey team of nine deminers (excluding team leader, deputy team leader, and medic). In 2022, MAG expected to move one of its technical survey teams to Quang Binh province.¹²² 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, and three deminers).¹²³ In 2019, MAG received permission from the Vietnam People's Army Department of Operations for the deployment of drones

to support its operations in designated areas in Trieu Phong and Hai Lang districts, Quang Tri province. The permission is renewed every three months with the Department of Operations.¹²⁴ As at June 2022, drones were fully operational within MAG's programme.¹²⁵

In 2021, NPA continued operations in Quang Binh, Quang Tri, and Thua Thien Hue provinces, and conducted capacity development activities with VNMAR in Hanoi and provincial mine action units in Quang Tri, Quang Binh, and Thua Thien Hue provinces. NPA also received formal permission to conduct activities in Kon Tum province in 2021, but due to restrictions on travel and meetings because of COVID-19, it was only able to conduct initial meetings with provincial partners and VNMAR in April 2022.¹²⁶ As at the end of 2021, NPA had 16 non-technical survey teams (totalling 34 personnel); 13 technical survey teams (totalling 54 personnel); 15 clearance teams (totalling 134 personnel), and one mechanical asset. This represented an increase in capacity compared to the previous year, with technical survey capacity being deployed in Quang Binh from January 2021 and an increase in CMRS capacity from July in Quang Binh and Quang Tri provinces thanks to increased funding from PM/WRA. In April 2022, NPA completed non-technical survey in all accessible villages in Quang Tri province, and all non-technical survey personnel in Quang Tri were retrained as technical survey personnel.¹²⁷ 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.¹²⁸

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 2021.¹²⁹ PTVN undertakes EOD, clearance, and integrated risk education, but does not conduct CMRS.¹³⁰ In 2021, PTVN deployed 6 BAC teams and 2 EOD teams in Quang Tri and 4 multi-task teams in Quang Binh, with a total of 106 technicians. Clearance capacity in 2021 was an increase on 2020, due to the commencement of clearance operations in Quang Binh since 2021, and the addition of personnel from a special clearance project celebrating the 25th Anniversary of PTVN and of Vietnam-US relations.¹³¹ PTVN's capacity also includes 2 pairs of surveyors, who mostly focus on site assessments and re-visiting CHAs for the purpose of planning and evaluation.¹³²

119 Email from Mark Lasley, Golden West Humanitarian Foundation, 16 June 2021.

120 Emails from Kimberley McCosker, NPA, 21 April 2022; Valentina Stivanello, MAG, 29 April 2022; and Phạm Hoàng Hà, PTVN, 9 May 2022.

121 Email from Søren Adser Sørensen, Programme Specialist, DDG, 5 May 2020.

122 Email from Valentina Stivanello, MAG, 29 April 2022.

123 Email from Valentina Stivanello, MAG, 20 June 2022.

124 Emails from Helene Kuperman, MAG, 10 April 2020; and 31 March 2021.

125 Email from Valentina Stivanello, MAG, 20 June 2022.

126 Email from Kimberley McCosker, NPA, 21 April 2022.

127 Ibid.

128 Emails from Helene Kuperman, MAG, 10 April 2020; and Kimberley McCosker, NPA, 8 April 2021.

129 Email from Phạm Hoàng Hà, PTVN, 11 May 2021.

130 Ibid.

131 Email from Phạm Hoàng Hà, PTVN, 9 May 2022.

132 Email from Phạm Hoàng Hà, PTVN, 17 June 2022.

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

In 2021, a total of approximately 48km² of cluster munition-contaminated area was cleared in Vietnam: 46.2km² cleared by NGOs and an estimated 1.8km² of CMR contamination cleared as part of the KV-MAP project. The project cleared 13.5km² of land in total, but not all of it was cluster munition-contaminated area, therefore Mine Action Review has made a conservative estimate of the extent of CMR clearance.¹³³

A total of at least 13,456 submunitions were reported to have been destroyed in 2021: 3,351 during technical survey, 8,440 during clearance, and 1,665 during EOD spot tasks.¹³⁴

SURVEY IN 2021

Based on data from NGOs, nearly 82km² was confirmed as contaminated with CMR in 2021 in Quang Binh and Quang Tri provinces (see Table 1), during which 3,351 submunitions were destroyed.¹³⁵ This was a slight reduction on the 85km² of area confirmed in 2020.

Table 1: Technical survey of cluster munition-contaminated area in 2021 (based on operator data)¹³⁶

Operator	Province	Area surveyed (m ²)	Area confirmed (m ²)	Submunitions destroyed	Other UXO destroyed
MAG	Quang Binh	14,792,500	10,754,867	435	0
NPA	Quang Binh	12,892,500	26,750,744	*799	*77
NPA	Quang Tri	30,275,000	44,314,559	2,117	1,865
Totals		57,960,000	81,820,170	3,351	1,942

* Items discovered by NPA technical survey teams in Quang Binh were destroyed by PTVN as part of the consortium agreement between MAG, PTVN, and NPA in Quang Binh. The items were reported by NPA to the DBCU and subsequently tasked by the DBCU to PTVN for destruction.

MAG confirmed more than 10.75km² as containing CMR in 2021, a decrease on the almost 19.27km² surveyed the previous year. NPA confirmed nearly 71.1km² as containing CMR in 2021, an increase on the 65.6km² confirmed as CHA the previous year. In Quang Tri, ranked as one of Vietnam's most heavily contaminated provinces, NPA completed non-technical survey of the 91% of villages in April 2022 and estimates that technical survey of all remaining evidence points in the 690 accessible (i.e. unrestricted) villages will be completed in April 2023, depending on the amount of direct evidence identified during survey.¹³⁷

According to VNMAC, non-technical survey in 2021 was conducted by MAG and NPA in 169 villages, identifying 1,011 points of evidence, and completing 1,762 EOD spot tasks,¹³⁸ and a total of 129km² of land was technically surveyed in 2021 and confirmed to be contaminated with mostly UXO. However, the amount of area confirmed to be contaminated with CMR was not disaggregated.¹³⁹ This is a slight increase on the 120.63km² of land was surveyed in 2020.¹⁴⁰ In addition, VNMAC also reported reducing nearly 47.21km² through technical survey in 2021,¹⁴¹ but this likely includes reduction through technical survey of all EO-contaminated area, and not only CMR, as part of the KV-MAP.

CLEARANCE IN 2021

A total of more than 48km² of cluster munition-contaminated area was cleared in 2021, with the destruction of 10,065 submunitions (8,400 during clearance and a further 1,665 submunitions during spot tasks), based on NGO data and an estimate of the CMR-clearance conducted as part of KV-MAP in 2021. As already mentioned above, a further 3,351 submunitions were destroyed during technical survey.¹⁴² CMR clearance in 2021 was broadly the same as the equivalent clearance in 2020.

133 Emails from Kimberley McCosker, NPA, 21 April 2022; Valentina Stivanello, MAG, 29 April 2022; Phạm Hoàng Hà, PTVN, 9 May 2022; and Havard Bach, Consultant, UNDP, 27 May 2022.

134 Emails from Kimberley McCosker, NPA, 21 April 2022; Valentina Stivanello, MAG, 29 April 2022; Phạm Hoàng Hà, PTVN, 9 May 2022; and Havard Bach, Consultant, UNDP, 27 May 2022.

135 Emails from Kimberley McCosker, NPA, 21 April 2022; and Valentina Stivanello, MAG, 29 April 2022.

136 Ibid.

137 Emails from Kimberley McCosker, NPA, 21 April and 22 June 2022.

138 Email from Doan Thi Hong Hai, NPA, on behalf of Mr Phuc, VNMAC, 3 June 2022.

139 Ibid.

140 Email from Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

141 Email from Doan Thi Hong Hai, NPA, on behalf of Mr Phuc, VNMAC, 3 June 2022.

142 Emails from Kimberley McCosker, NPA, 21 April 2022; Valentina Stivanello, MAG, 29 April 2022; Phạm Hoàng Hà, PTVN, 9 May 2022; and Havard Bach, Consultant, UNDP, 27 May 2022.

NGOs reported to Mine Action Review clearing a total of more than 46.2km² of cluster munition-contaminated area in 2021, with destruction of 8,128 submunitions (see Table 2) and a further 1,665 submunitions during EOD spot tasks. While NGO clearance output in 2021 was an increase on the 38.5km² of CMR-contaminated area cleared in 2020, the total number of submunitions destroyed by NGOs in 2021 was a slight decrease on the 8,402 destroyed during NGO CMR clearance operations in 2020. The number of submunitions destroyed during spot tasks in 2021 (1,665) was a significant increase on the 499 destroyed in 2020.

VNMAC reported clearing 59.17km² of land contaminated by all explosive ordnance (not only CMR-contaminated area) in 2021, with the destruction of 7,997 submunitions, 22,867 other items of ERW, 11 anti-personnel mines, and 67 bombs.¹⁴³ Of this, UNDP reported that 13.5km² was cleared, and 312 submunitions and 1,323 other UXO destroyed, through clearance by the provincial military teams coordinated by VNMAC as part of the KV-MAP ERW project. The reported total for destruction is significantly less than the 3,443 submunitions destroyed as part of KV-MAP in 2020. The remainder is said to relate to NGO clearance and military clearance conducted outside of the KV-MAP

project.¹⁴⁴ However, these military operations relate mainly to emergency EOD spot tasks, rather than to area clearance, and it is also thought that not all military clearance is reported to VNMAC. It is not known what proportion of the total area cleared as part of the KV-MAP was cluster munition-contaminated area, as the amount of area cleared of CMR was not disaggregated from area cleared of other ERW and mines. Mine Action Review has therefore estimated CMR clearance under the KV-MAP ERW project in 2021 conservatively at 1.8km².¹⁴⁵ A further 1,665 submunitions were found and destroyed during EOD spot tasks in 2021: 142 by MAG, 249 by NPA, and 1,274 by PTVN.¹⁴⁶

For the first time, VNMAC also produced an annual INGO operational report for 2021. However, the data was not consistent with data provided by VNMAC and the INGOs to Mine Action Review. According to the annual report, non-technical survey was completed in 169 villages in 2021, with 57.87km² technically surveyed; 81,82km² of CHAs established; nearly 37.25km² of agricultural and development land cleared (in addition to over 34.84km² of "other" land); and a total of 68 bombs, 14,962 submunitions, and 25,930 other UXO (and mines) were destroyed.¹⁴⁷

Table 2: CMR clearance in 2021 (based on NGO and UNDP data)¹⁴⁸

Operator	Operator	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
Quang Binh	MAG	8,286,284	2,702	698
Quang Binh	Provincial Military Command coordinated by VNMAC as part of KV-MAP	Est. 1,800,000	312	1,323
Quang Binh	PTVN	908,035	286	52
Quang Tri	MAG	24,026,295	3,138	8,964
Quang Tri	NPA	638,970	288	213
Quang Tri	PTVN	5,661,206	144	6,181
Thua Thien Hue	NPA	6,689,183	1,570	2,082
N/K	Provincial Military Command (excluding KV-MAP)	N/K	N/K	N/K
Totals		48,009,973	8,440	19,513

N/K = not known

MAG's clearance of more than 32.3km² in 2021, was an increase on the more than 30.9km² cleared the previous year.¹⁴⁹

NPA's clearance of more than 7.3km² in 2021 was a significant increase on 4.1km² cleared the previous year. The increase was due to a reduced impact from COVID-19 restrictions in 2021, compared to 2020, and in 2021 NPA strengthened its operational planning based on lessons learned during 2020, which enabled it to respond better to provincial restrictions and lockdowns

143 Email from Doan Thi Hong Hai, NPA, on behalf of Mr Phuc, VNMAC, 3 June 2022.

144 Interview with Mr Phuc, VNMAC, in Geneva, 23 June 2022.

145 Estimate by Mine Action Review based on the number of submunitions reported destroyed by VNMAC and comparison with cleared area per submunition found by INGOs in 2021.

146 Emails from Kimberley McCosker, NPA, 21 April 2022; Valentina Stivanello, MAG, 29 April 2022; and Phạm Hoàng Hà, PTVN, 9 May 2022.

147 VNMAC, Annual 2021 INGO Operations Report, March 2022.

148 Emails from Kimberley McCosker, NPA, 21 April 2022; Valentina Stivanello, MAG, 29 April 2022; Phạm Hoàng Hà, PTVN, 9 May 2022; and Havard Bach, Consultant, UNDP, 27 May 2022.

149 Email from Valentina Stivanello, MAG, 29 April 2022.

in 2021. Furthermore, there were fewer adverse weather events in 2021, unlike in 2020 when several weeks' stand-down had been caused by extraordinary seasonal weather.¹⁵⁰

PTVN's clearance output in 2021 was significant increase on the nearly 3.5km² cleared the previous year. The increase was due to PTVN starting clearance and EOD spot tasks in Quang Binh from January 2021, with an associated increase in the number of deminers. In addition to submunitions and other ERW, PTVN also found four anti-personnel mines during cluster munition clearance operations in Quang Tri in 2021.¹⁵¹

The KV-MAP exceeded its operational targets in 2021, despite COVID-19 restrictions.¹⁵²

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 8,000km² of ERW from 2016 to 2025¹⁵³ 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.¹⁵⁴

The adoption of Decree 18 and Guiding Circular 195 is enabling VNMAC to put in place systems and practices to coordinate and strengthen mine action in Vietnam, bringing national standards relating to survey and clearance operations in line with IMAS, and establishing a national information management database.

VNMAC reported that the COVID-19 pandemic has had a major impact on all aspects of operations, including survey and clearance efforts. Challenges posed by the pandemic include the organisation and deployment of the field personnel according to the regulations of the Government and each locality in implementing the activity/project; the organisation of COVID-19 prevention measures and the work of ensuring personnel, equipment, and logistics for performing tasks; and challenges posed in implementation of mine action projects in partnership with international partners, as only online meeting have been possible.¹⁵⁵

MAG reported that the COVID-19 pandemic continued to disrupt its operations in 2021. MAG has estimated that it lost around 1,267 team days across its mine action teams due to COVID-19 lockdowns and infections, and adverse weather conditions, equal to 5km² of land release.¹⁵⁶

NPA reported that COVID-19 had a similar impact on operations in 2021 as in 2020, with a total of 22 working days on stand down in Quang Binh province; 25 in Quang Tri province; and 23 working in Thua Thien Hue province. It was necessary for operations to be more flexible (such as re-tasking to different areas) and better coordinated, as many personnel had to take leave after contracting COVID-19 or after coming into close contact with a confirmed case. Despite the challenges, NPA's operational flexibility ensured that all targets were met in 2021.¹⁵⁷

PTVN also continued to feel the impact of the COVID-19 pandemic in 2021, with staff suffering from COVID-19 or on quarantine causing a shortage of human resources. PTVN has had to change its operations plan on several occasions during the pandemic.¹⁵⁸

The significant reduction in United Kingdom Foreign and Commonwealth Office (FCDO) funding from the end of March 2021 has impacted the mine action sector in Vietnam. NPA Vietnam was, however, able to mitigate the impact of this by ensuring good dialogue and subsequent increase in funding from PM/WRA to cover its entire FCDO capacity (both operational and capacity development). MAG also had a significant portion of their FCDO funding picked up by PM/WRA.¹⁵⁹

150 Email from Kimberley McCosker, NPA, 21 April 2022.

151 Email from Phạm Hoàng Hà, PTVN, 9 May 2022.

152 Email from Havard Bach, Consultant, UNDP, 27 May 2022.

153 Prime Minister, "Decision on Approval of the National Mine Action Plan Period 2010–2025", Hanoi, 21 April 2010.

154 Email from Kimberley McCosker, NPA, 8 April 2021.

155 Emails from Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021; and Doan Thi Hong Hai, NPA, on behalf of Mr Phuc, VNMAC, 3 June 2022.

156 Emails from Valentina Stivanello, MAG, 29 April and 20 June 2022.

157 Email from Kimberley McCosker, NPA, 21 April 2022.

158 Email from Phạm Hoàng Hà, PTVN, 9 May 2022.

159 Emails from Kimberley McCosker, NPA, 21 April and 13 July 2022.

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Golden West continues to partner with the GICHD in a Management of Residual Explosive Remnants of War project to study the ERW ageing; develop standards for the collection, cutting, and dissection of ERW; and to draw up and pilot a long-term risk management model.¹⁶⁰

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. In 2021, the support expanded to conduct training course on residual risk management, site safety, and long-term risk management (LTRM) framework (tools and protocols).¹⁶¹ Implementation of the trial of the LTRM framework to help identify the elements of a residual state and manage residual risk according to best practice, will start once COVID-19 related restrictions enable GICHD staff to travel to Vietnam. 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. A final report has been compiled jointly by GICHD and VNMAC, and as at April 2022 was waiting government approval.¹⁶²

Golden West believes that the Provincial Military Commands provide a long-term capacity to respond to residual ERW regardless of external funding or support. Golden West is building a Vietnamese capacity to continue EOD operations in a safe and effective manner as long as the threat to the public exists.¹⁶³ Golden West has worked with VNMAC to improve their technical EOD skills and to support formal training by the United States DOD by providing continuity and field mentoring to inculcate trained skills into everyday operations. With US funding, Golden West has provided equipment and training to BOMICEN (Technology Centre for Bomb and Mine Disposal Engineering Command), an advisory agency under the Vietnamese Ministry of Defence and Engineering Command.¹⁶⁴

Golden West is also training PTVN EOD teams, funded by PTVN, to help develop their training capability, ensuring long-term success. From this process, one IMAS EOD level 2 training course was conducted by a PTNV trainer for PTVN technicians (deminers) in 2021, under supervision from Golden West and followed by mentoring.¹⁶⁵ PTVN instructors regularly work with Golden West and VNMAC, enhancing training skills and building a lasting capability.¹⁶⁶

¹⁶⁰ Emails from Mark Lasley, Golden West Humanitarian Foundation, 16 June 2021; and Rob White, Adviser, Strategic Management and Residual Contamination, GICHD, 25 April 2018.

¹⁶¹ Email from GICHD, 16 June 2021.

¹⁶² Email from GICHD, 24 April 2022.

¹⁶³ Email from Mark Lasley, Golden West Humanitarian Foundation, 16 June 2021.

¹⁶⁴ Ibid.

¹⁶⁵ Email from Phạm Hoàng Hà, PTVN, 9 May 2022.

¹⁶⁶ Email from Mark Lasley, Golden West Humanitarian Foundation, 16 June 2021.

KEY DATA

**CLUSTER MUNITION
CONTAMINATION: UNKNOWN**

SUBMUNITION
CLEARANCE IN 2021

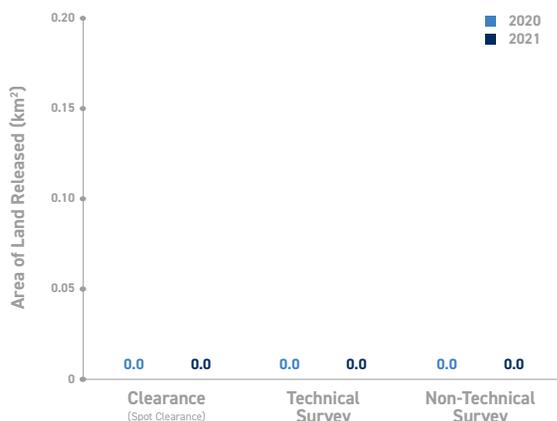
0
M²

(SPOT CLEARANCE)

SUBMUNITIONS
DESTROYED IN 2021

1,777

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Management of mine action in Yemen continues to be geographically divided along the lines of the conflict that erupted in March 2015. Yemen's mine action programme remains on an emergency footing, balancing the need for urgent clearance to remove explosive hazards posing an immediate threat to communities and the longer term need for survey to locate and measure the extent of the threat. Norwegian People's Aid (NPA) completed registration with the authorities in November 2021 and established an office in Aden to help the Yemen Executive Mine Action Centre (YEMAC) develop a mine detection dog (MDD) programme in the south.

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 amend bureaucratic procedures and arbitrary barriers that are obstructing the importation of demining equipment and impeding implementation of YEMAC's mine action plans.
- YEMAC and the Yemen Mine Action Coordination Centre (YMACC) should increase transparency by publishing regular, comprehensive reports on developments in its management, planning, and implementation of mine action and the capacity of all mine action operators for survey and clearance.
- YEMAC and YMACC should publish annual work plans specifying areas targeted for survey and/or clearance.
- YEMAC and/or YMACC should publish regular updates on the results of the baseline survey disaggregating by location (governorate and district), size, and, where possible, type of contamination.
- Yemen should review, adopt, and circulate revised national mine action standards.
- YEMAC should clarify and circulate criteria for prioritization of survey and clearance.

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)
- HALO Trust
- Swiss Foundation for Mine Action (FSD)

OTHER ACTORS

- United Nations Development Programme
- Norwegian People's Aid (NPA)

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 Sana'a, including in Sana'a City.¹

Yemen had CMR contamination before 2015 and Human Rights Watch has said it recorded Saudi air strikes using cluster munitions dating back to 2009.² The escalation of armed conflict since 26 March 2015 significantly increased both its extent and the 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), which are the so-called De Facto Authority (DFA) in Yemen.³ 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.⁴

Human rights groups have documented the use of United States (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 Sana'a 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.⁵

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 (Ansar Allah) movement controlling the capital Sana'a and much of the north and west (the DFA), and the internationally recognised government (IRG), operationally based in Aden and the south. The Sana'a-based interministerial 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. In the south, YEMAC has fulfilled a double role of regulator responsible for policy and planning while also serving as the sole national operator.⁶

YEMAC was established in Sana'a in January 1999 as a national mine action agency and nominally maintains a national role today, with more than 1,000 staff working in 20 of Yemen's 21 governorates as at late 2019.⁷ In practice, however, YEMAC has split into two, centred round Sana'a and Aden. YEMAC South informed Mine Action Review there was no coordination between the two because YEMAC North was under the control of Houthi militias.⁸

YEMAC North employed around 500 staff, working in northern governorates controlled by Houthi forces.⁹ It manages all aspects of mine action including survey and clearance, risk education, victim assistance, information management, and quality management, but with much less equipment and assets than available to the south. YEMAC North and the DFA have agreed in principle to set up a coordination centre but as of the end of 2021 had not committed to a timeline for implementing it.¹⁰

1 Interviews with Ahmed Alawi, YEMAC, 17 February 2016; and Stephen Bryant, Chief Technical Adviser, United Nations Development Programme (UNDP), in Geneva, 6 February 2017.

2 Human Rights Watch, "Yemen: Cluster munitions harm civilians", 31 May 2015, at: <http://bit.ly/32sdP0x>.

3 UNDP, Grant Progress Report for 1 October–31 December 2015, 25 January 2016.

4 Human Rights Watch, "Brazil-made cluster munitions wound children", 23 December 2016, at: <http://bit.ly/32ub4vE>.

5 Ibid.; 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, Sana'a, "The bombing of civilians and residential neighbourhoods with international forbidden weapons (cluster munitions)", undated but 2018.

6 Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report (covering 2018), Form A.

7 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, pp. 7, 14.

8 Email from Ameen Saleh Alaqili, Director, YEMAC, 26 December 2021.

9 Interview with Ameen Saleh Alaqili, YEMAC, in Geneva, 13 February 2020.

10 UNDP Annual Report on Mine Action in Yemen 2021, 15 February 2022, p. 18.

From Aden, YEMAC operated with some 550 staff mainly active in Abyan, Aden, Amran, Hadramaut, Lahj, and Taiz governorates. YEMAC also has an office in Mokha, and in 2019 it opened offices in Taiz to support operations around Hodeida, and in Marib for operations in al-Jawf governorate.¹¹ YEMAC said at the time that it had set up "skeleton" offices using its own resources pending receipt of financial support from the UN Development Programme (UNDP).¹²

YEMAC's Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request, submitted in March 2022, said YEMAC was planning to open an office in Marib to support operations in Al Bayda, Al Jawf, and western Shabwah governorates. Operations included explosive ordnance disposal (EOD) spot tasks, non-technical survey, and risk education.¹³ UNDP reported that in total YEMAC conducted clearance in 19 of Yemen's 21 governorates.¹⁴

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/quality control.¹⁵ The centre convened its first coordination meeting on 9 April 2020 and by early 2021 employed 44 people.¹⁶ It had set up technical working groups focused on non-technical survey and risk education.¹⁷

Mine action stakeholders say the creation of YMACC has improved coordination with operators but decision-making boundaries between YEMAC and YMACC are opaque. Other institutions significantly 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).

UNDP provides technical and administrative support to YEMAC through a project 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.¹⁸ 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. UNDP deployed an international adviser to YEMAC at the end of 2014 to support planning and programme management.¹⁹ The DFA revoked the visa of UNDP's Senior Technical Adviser in 2021 but other UNDP staff were able to visit Sana'a in early 2022.²⁰

GENDER AND DIVERSITY

YEMAC said the inclusion of women in mine action was a priority in 2021 and, in Yemen's APMBC Article 5 deadline extension request submitted by the IRG in March 2022, repeated that it was the position of both YEMAC and YMACC.²¹ It started training female staff for EOD, non-technical survey, and risk education in 2020.²² The extension request noted that YEMAC had employed 15 women in non-technical survey, another 15 women in risk education, while others worked in information management and victim assistance. It stated "there is no objection to including more women".²³ However, YMACC was reportedly resistant to employing women in multi-task teams.²⁴

UNDP noted that integrating women into the mine action programme remained "challenging", but it reported that among 17 women who underwent training in 2021, three took a Level 2 EOD course, three others attended an improvised explosive device disposal (IEDD) good practice course and engage in IED disposal operations with the Directorate of Family Protection, and 10 women were trained in non-technical survey.²⁵

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 report cases where husbands have forbidden women applicants from attending interviews. Risk education is conducted separately for

11 2019 APMBC Article 5 deadline Extension Request, pp. 5 and 22; and email from Stephen Robinson, Senior Technical Adviser, UNDP, 21 July 2020.

12 APMBC Article 7 Report (covering 2019), Form D.

13 Yemen APMBC Article 5 Extension Request, March 2022, pp. 26-27.

14 UNDP Annual Report on Mine Action in Yemen 2020, February 2021, p. 9.

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 Ibid., p. 8.

19 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 9; and interview with Stephen Robinson, UNDP, in Geneva, 20 July 2020.

20 Emails from Ameen Saleh Alaqili, YEMAC, 26 December 2021; and Stephen Bryant, UNDP, 7 February 2022.

21 Email from Ameen Saleh Alaqili, YEMAC, 26 December 2021; and APMBC Article 5 deadline Extension Request, March 2022, p. 21.

22 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021; and UNDP Annual Report 2020, p. 15.

23 APMBC Article 5 deadline Extension Request, March 2022, p. 21.

24 Email from Marie-Josée Hamel, Regional Programme Advisor – Middle East, DRC, 30 March 2022.

25 UNDP, Annual Report on Mine Action in Yemen 2021, p. 15.

women, often by female staff, to encourage 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.²⁶

Employment of women among international operators remained at a low level. The Danish Refugee Council Humanitarian Disarmament and Peacebuilding Sector (DRC) said 21% of its national employees were women and none worked in managerial or supervisory positions, but at least one woman was employed in each of its three-person non-technical survey teams.²⁷ Women made up 14% of HALO Trust's staff overall, but included eight women in two non-technical survey teams.²⁸

INFORMATION MANAGEMENT AND REPORTING

YEMAC, with support from UNDP and the Geneva International Centre for Humanitarian Demining (GICHD), upgraded its headquarters Information Management System for Mine Action (IMSMA) database, installing the Core version which UNDP reported became operational in September 2020.²⁹ The system was installed in YMACC in 2021 and will serve as a centralised data centre.³⁰ YEMAC's northern office works with an older IMSMA system.³¹

Efforts continued in 2021 to bring the system into line with international standards. YEMAC and its implementing partners developed a range of hard copy and electronic reporting forms, including non-technical survey forms, which underwent extensive modification in the course of the year. Operators said the quality of data and access to it had improved during the year but observed the system involved considerable duplication and could benefit from streamlining.³² UNDP said an information management technical working group is considered one of the vital mine action groups in which all implementing partners and stakeholders participate³³ but its meetings were suspended

in 2021 because of COVID-19 and have not resumed on a regular basis. Implementing partners say the need for inclusive discussion on information management has increased and that the lack of such meetings has hampered timely decision making.³⁴

Gaps in reporting remained a significant concern in 2021. YEMAC stated that all mine action data collected by operators is nationally owned and shared. It said Project MASAM provides monthly reports detailing the operating sites of its teams, operating results, and locations of mine contamination.³⁵ International implementing partners say that some actors are not disclosing operating results, creating uncertainty about what areas have been surveyed or cleared, risking duplication of efforts or the omission of hazardous areas in the national database.³⁶ Among key operational challenges facing the sector, UNDP reported "the lack of cooperation between Project MASAM and YEMAC (South) in terms of sharing statistically verifiable data on contamination in areas where Project MASAM operates."³⁷

PLANNING AND TASKING

Mine action in Yemen continues on an emergency basis in a context of continuing conflict that has not lent itself to detailed advance planning, responding instead to immediate threats from all forms of explosive ordnance.³⁸ UNDP observed that YEMAC needed to organise field operations to also address longer term impacts of contamination from explosive remnants of war.³⁹ 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.⁴⁰

26 Email from Esteban Bernal, Programme Manager, Humanitarian, Disarmament and Peace Building, DRC, 23 March 2021.

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

28 Email from Nicholas Torbet, Head of Region – Middle East (Yemen, Libya), HALO Trust, 19 April 2022.

29 *UNDP Annual Report on Mine Action in Yemen 2020*, p. 13; and email from Esteban Bernal, DRC, 23 March 2021.

30 Interview with Stephen Robinson, UNDP, Geneva, 23 March 2021; and *UNDP Annual Report 2021*, p. 10.

31 Email from GICHD, 30 April 2020.

32 Emails from Marie-Josée Hamel, DRC, 30 March 2022; and Nicholas Torbet, HALO Trust, 19 April 2022.

33 *UNDP Annual Report on Mine Action in Yemen 2021*, p. 11.

34 Email from Nicholas Torbet, HALO Trust, 19 April 2022.

35 Email from Ameen Saleh Alaqili, YEMAC, 26 December 2021.

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

37 *UNDP Annual Report on Mine Action in Yemen 2021*, p. 6.

38 APMBC Article 5 deadline Extension Request, March 2022, p. 26.

39 *UNDP Annual Report on Mine Action in Yemen 2021*, p. 20.

40 APMBC Article 5 deadline Extension Request, March 2022, p. 27.

YEMAC identified its priority for 2021 as conducting baseline survey in line with Yemen's APMB Article 5 deadline Extension Request, expanding risk education, improving coordination with humanitarian agencies in identifying operating priorities, and updating standing operating procedures (SOPs) and national mine action standards (NMAS).⁴¹ YMACC priorities in 2021 included planning survey and clearance in conjunction with operators; directing implementation of the baseline survey; accrediting and tasking mine action organisations; building up operational capacity; mobilising donor support; and prompt investigation of demining accidents.⁴²

Priorities remained largely unchanged in 2022. A new APMB Article 5 deadline extension request submitted by Yemen in March 2022 keeps the baseline survey as its top priority along with building the capacity and resources of the mine action sector. The request emphasises flexibility and states the plans it set out are a "living document" that will be subject to continuous review to adapt to changing circumstances.⁴³

International operators received the first task orders from YMACC in July 2020, marking a significant step forward for planning and coordination.⁴⁴ Lack of clarity on the boundaries between YEMAC and YMACC exposed some initial coordination challenges and UNDP said YEMAC needed to finalise a review of its internal structure in order to increase efficiency.⁴⁵ International operators said the process of issuing task orders had improved and that it was functioning

smoothly in 2021. YMACC had monthly meetings with implementing partners who reported it consulted them on work plans and issued task dossiers in a timely manner.⁴⁶

Bureaucratic obstacles particularly with regard to equipment imports and the issuance of visas continued to pose a major impediment, holding back the fulfilment of YEMAC plans to expand cooperation with international demining organisations and attract more international support. YEMAC 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. It also noted that in meetings with MOPIC, national mine action authorities pointed out the importance of importing equipment for survey and clearance.⁴⁷

HALO Trust noted it had tried for two years to import a range of equipment, including Minelab F3 detectors, delaying operations. It received approval in late 2021 but as of April 2022 was still awaiting delivery.⁴⁸ DRC similarly reported a serious blockage to importing equipment, also citing customs complications in transit countries as an additional delaying factor. The transfer of responsibility for issuing visas from MOPIC to the Ministry of Interior in the second half of 2021 saw the time taken to issue visas for international staff typically increase from one month to three months, causing further delays implementing planned activities.⁴⁹

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Yemen is in the process of revising and updating its national mine action standards. 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.⁵⁰

YEMAC reported it had revised 32 chapters of NMAS in 2021, including standards relating to land release, and that these were compliant with IMAS and the Oslo Action Plan. The new standards have yet to be approved by the government⁵¹ and had not come into effect as of May 2022. 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.⁵² HALO Trust said it had developed new SOPs for non-technical survey and drafted SOPs for clearance that would be finalised after it had taken delivery of the new detectors.⁵³

41 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021.

42 Ibid.

43 APMB Article 5 deadline Extension Request, March 2022, p. 29.

44 Emails from DRC, 25 March 2021; and Matthew Smith, Programme Manager, HALO Trust, 17 May 2021.

45 *UNDP Annual Report on Mine Action in Yemen 2021*, p. 20.

46 Emails from Marie-Josée Hamel, DRC, 30 March 2022; and Nicholas Torbet, HALO Trust, 19 April 2022.

47 Email from Ameen Saleh Alaqili, YEMAC, 26 December 2021.

48 Email from Nicholas Torbet, HALO Trust, 19 April 2022.

49 Emails from Marie-Josée Hamel, DRC, 30 March 2022; and Nicholas Torbet, HALO Trust, 19 April 2022.

50 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 17; and 2019 APMB Article 5 deadline Extension Request, p. 16.

51 Email from Ameen Saleh Alaqili, YEMAC, 26 December 2021.

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

53 Email from Nicholas Torbet, HALO Trust, 19 April 2022.

Criteria for prioritising tasks remained unclear. Yemen's Article 5 deadline extension request says it has a prioritisation mechanism and augments it with input from local authorities and humanitarian agencies.⁵⁴ YEMAC said it has a temporary prioritisation matrix⁵⁵ but implementing partners said it had not been circulated so they were unaware of the criteria. UNDP said national mine action authorities would use threat impact assessments prepared by experts it had contracted to identify priority mine action projects for supporting delivery of humanitarian assistance.⁵⁶

OPERATORS AND OPERATIONAL TOOLS

YEMAC is nominally the biggest operator employing some 500 personnel in YEMAC North and 550 personnel in YEMAC South but both organisations lacked financing and it was unclear how many survey or clearance teams they deployed. At the end of 2020, YEMAC reported that its staff of 491 in the south included 30 manual clearance teams with 272 personnel; 15 non-technical survey teams with 60 staff; 7 technical survey teams with 49 staff; and 2 EOD teams with 22 people.⁵⁷ It is unclear if the structure and composition of operational teams changed in 2021. Yemen's APMB Article 5 deadline extension request in March 2022 said the national programme had a total of 66 mine action teams but gave no details of how these assets were distributed around the country or how many were active.⁵⁸

Project MASAM, funded by Saudi Arabia's King Salman Humanitarian Aid and Relief Center, reported it deployed 32 teams but gave no further details of their composition.⁵⁹ 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 Marid and deployed teams in Aden, Al-Jawf, Aldala'a, Al-Hudaydah, Maa'rib, Shabwa, and Taiz.⁶⁰ The project's record of items destroyed does not specify any cluster munition remnants. 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.⁶¹

DRC had a total staff of 33 people, including five teams conducting non-technical survey and risk education working mainly from Aden, although it also received a task order for these activities in Lahj governorate. It also had nine people working in three battle area clearance/EOD teams but they did not conduct any clearance in 2021 as they awaited clearance to import equipment. In the hope imports would receive clearance in 2022, DRC planned to add three multi-task teams to its capacity.⁶²

The HALO Trust, with 38 staff, operated two four-person non-technical survey/risk education teams and three five-strong EOD teams trained to Level 1 that were conducting mainly battle area clearance (BAC) and bulk demolitions. HALO Trust 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. Non-technical survey teams use Survey 123 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 2022.⁶³

Norwegian People's Aid (NPA) completed registration with MOPIC in November 2021 and established an office in Aden to help YEMAC develop a mine detection dog (MDD) programme in the south. NPA has one MDD technical adviser and two team leaders to provide technical and managerial support. NPA previously had 12 dogs undergoing long-leash training at its Global Training Centre in Bosnia and Herzegovina and brought these to Yemen in October 2021. NPA selected 12 MDD handlers from a group put forward by YEMAC and ran a training course on support for technical survey. The handlers and dogs deployed at the start of March 2022 and by early April 2022 had released some 6,860m² of battle area.⁶⁴

DEMINER SAFETY

Yemen's mine action programme has experienced heavy casualties among deminers in the past four years, particularly in Project MASAM.⁶⁵ DRC and HALO Trust reported they did not sustain any casualties in 2021.⁶⁶ No reports of casualties were received from other operators.

54 APMB Article 5 deadline Extension Request, March 2022, p. 7.

55 Email from Ameen Saleh Alaqili, YEMAC, 26 December 2021.

56 UNDP Annual Report on Mine Action in Yemen 2021, p. 11.

57 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021.

58 APMB Article 5 deadline Extension Request, March 2022, p. 15.

59 Project MASAM website, 'What we do', at: <https://bit.ly/3KXW2m1>, accessed 27 April 2022.

60 Project MASAM website, 'Where we work', at: <https://bit.ly/3L0UoQy>, accessed 27 April 2022.

61 "Saudi Arabia extends mine clearing contract in Yemen", *Arab News*, 21 July 2021.

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

63 Email from Nicholas Torbet, HALO Trust, 19 April 2022.

64 Email from Faiz Mohammad Paktian, Programme Manager, NPA, 8 April 2022.

65 Project MASAM reported 37 casualties between May 2018 and April 2020: 21 killed and 16 injured.

66 Emails from Marie-Josée Hamel, DRC, 30 March 2022; and Nicholas Torbet, HALO Trust, 19 April 2022.

LAND RELEASE OUTPUTS IN 2021

Yemen's mine action programme remains on an emergency footing, balancing the need for urgent clearance to remove explosive hazards posing an immediate threat to communities and the longer term need for survey to identify, locate, and measure the extent of those threats.

SURVEY IN 2021

In June 2021, YEMAC started a programme of non-technical survey in IRG-controlled areas as part of its commitment to develop a baseline estimate of mine contamination.⁶⁷ It said 17 task orders were issued in six governorates leading to the recording of more than 160 hazardous areas.⁶⁸ UNDP also reported a steady flow of reports into the IMSMA database,⁶⁹ but as of April 2022 YEMAC had not provided an overview of the survey findings. Survey activity in the north, if any, is unknown.

CLEARANCE IN 2021

YEMAC reported BAC of 4.49km² in 2021, 43% per cent more than the previous year (see Table 1), but covering all forms of explosive remnants of war.⁷⁰ The number of CMR destroyed during clearance operations have fluctuated sharply, from 79 in 2018, to 7,071 in 2019, falling back to 403 in 2020, and rising again to 1,777 in 2021.⁷¹ Mine Action Review has not recorded any clearance of cluster munition-contaminated area for 2021.

Table 1: YEMAC operating results for 2020-2021⁷²

Year	Area cleared (m ²)	Submunitions destroyed	AP mines destroyed	IEDs destroyed	AV mines destroyed	Other UXO destroyed
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

67 APMBC Article 5 deadline Extension Request, p. 9.

68 Email from Ameen Saleh Alaqili, YEMAC, 26 December 2021.

69 UNDP Annual Report on Mine Action in Yemen 2021, p. 10.

70 Ibid., p. 11.

71 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 14; UNDP Mine Action Dashboard, February 2021; and UNDP Annual Report 2021, p. 11.

72 UNDP Mine Action Dashboard, February 2021; and UNDP Annual Report on Mine Action in Yemen 2021, p. 11.

OTHER AREAS

The background consists of several overlapping, semi-transparent geometric shapes in various shades of blue. A prominent light blue diagonal band runs from the bottom left towards the top right. Other shapes in darker and medium blue tones are layered behind and around it, creating a complex, layered effect.

KEY DATA

CLUSTER MUNITION CONTAMINATION:

NATIONAL ESTIMATE

11.36 km²

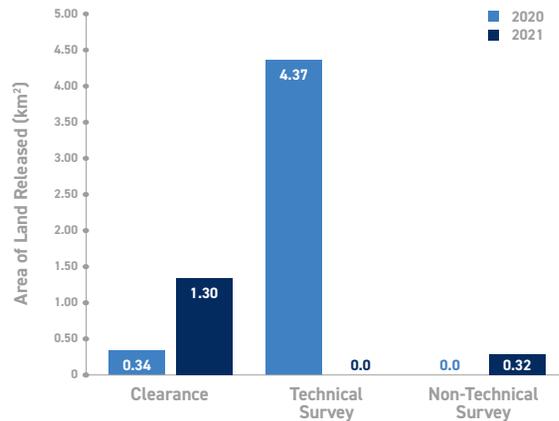
SUBMUNITION CLEARANCE IN 2021

1.30 km²

SUBMUNITIONS DESTROYED IN 2021

43

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 yet recognised as a State by the depositary of the Convention, Kosovo should submit a letter to the UN Secretary-General pledging to fully comply, on a voluntary basis, with the CCM.
- Kosovo should reconsider its decision not to submit a voluntary CCM Article 7 report on an annual basis, and instead act in line with its Mine Action Strategy 2019–2024.
- The Kosovo Mine Action Centre (KMAC) should seek to complete clearance of cluster munition remnants (CMR) at the latest by the end of 2024, in line with the objectives in its mine action strategy.
- Local mine action standards need to be updated in accordance with the International Mine Action Standards (IMAS), in particular on land release, to enhance the efficiency of demining operations.
- 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 review of the mine action strategy and for the future strategy on clearance of residual CMR contamination.

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- Kosovo Mine Action Centre (KMAC)

NATIONAL OPERATORS

- Kosovo Security Force (KSF)

INTERNATIONAL OPERATORS

- The HALO Trust
- 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 2021, Kosovo reported 11.36km² of CMR contamination across 44 confirmed hazardous areas (see Table 1).¹ This is a small reduction from a year earlier when contamination was estimated to cover a total of more than 11.36km² across 44 areas.² It is inconsistent with clearance of almost 1.3km² recorded for 2021. It also appears to be inconsistent with data reported by operators.³ KMAC has been unable to explain the discrepancies.

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. By 2019, the location of most of the contamination was well known across Kosovo's seven districts with the exception of the northern district of Mitrovica, where Norwegian People's Aid (NPA) was in the process of conducting technical survey of all tasks to convert suspected hazardous areas (SHAs) into confirmed hazardous areas (CHAs), based systematically on evidence points. But technical survey of 17 tasks in the northern municipalities, planned for 2021, did not happen, with NPA focusing instead on clearing CHAs defined in previous years. KMAC believes that once these surveys are completed the baseline of contamination in the northern municipalities will be finalised.⁴ NPA is considering starting the resurvey in 2023, and expects it to result in reduction in the size of existing polygons.⁵

The HALO Trust believes Kosovo's current baseline reflects a relatively accurate picture of the remaining contamination but suggests that it would benefit from a critical review and further assessment of the 2013 survey data. For HALO, the ongoing 2021–22 non-technical survey project, which transfers current re-survey tasks into CHAs for CMR has helped to improve the understanding of the existing contamination and the organisation expected to have a much clear and precise picture of the remaining contamination by the end of 2022. This non-technical survey project was designed to create CHAs and SHAs, as this was not done during the 2013 Survey; prior to the non-technical survey project there was no classification of CHAs and SHAs in Kosovo. HALO Trust also highlights that their standing operating procedures (SOPs) only allow the creation of CHAs for CMR tasks; SHAs can only be created for mine threats in line with SOPs.⁶ In HALO Trust's area of operations, 31 CHAs containing CMR contamination have been identified, covering

3,674,188m² (see Table 2).⁷

The HALO Trust believes that access to North Atlantic Treaty Organization (NATO) bombing data is critical to the sector as a means of verifying clearance, without the requirement for costly, extensive re-survey, but has experienced challenges in obtaining it.⁸ The NATO official bombing database is still not available to HALO Trust, the organization reports.⁹ The information that HALO Trust has access to are minefields maps from the Yugoslav Army (handed over to NATO as part of the Military – Technical Agreement, also known as the Kumanova Agreement). The information HALO is missing on CMR concerns: location of strikes, types of cluster munitions deployed, direction of the strikes, release altitude, and the fuze and time delays set. HALO believes this information would help significantly in identifying the remaining uncleared strike areas during the current non-technical survey project in order to have an updated picture of the remaining contamination levels in Kosovo.¹⁰

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 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.¹¹ FRY forces also used cluster munitions during the 1998–99 conflict in Kosovo.¹² 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.¹³

In 2013, HALO Trust and KMAC conducted a joint non-technical survey of cluster munition strikes and minefields across Kosovo, with the exception of four municipalities in the north. The survey identified 130 CHAs: 51 cluster munition strikes, covering 7.63km², and 79 mined areas over 2.76km².¹⁴ In 2015, NPA, in coordination with KMAC and local municipality authorities, conducted non-technical survey of the four northern municipalities.¹⁵ The NPA survey confirmed 8.9km² of CMR contamination in three of the four municipalities surveyed (Leposavic, Zubin Potok, and Zvecan). No CMR contamination was found in the fourth (Mitrovica North). NPA believes that 83 cluster bombs were dropped in this region, dispersing a total of 17,041 submunitions.¹⁶

1 Email from Ahmet Sallova, Head, KMAC, 24 May 2022.

2 Email from Ahmet Sallova, KMAC, 28 April 2021.

3 At the end of 2021, NPA, in their area of operations (Mitrovica and Pristina districts) reported 13 CHAs covering 3.65km² and 8 SHAs covering 5.80km². Email from Vanja Sikirica, Country Director, NPA Kosovo, 30 June 2022; and telephone interview, 30 June 2022. As illustrated in Table 2, The HALO Trust, which operates in the districts of Ferizaj, Gjakove, Peje, Pristina, and Prizren, has reported 31 CHAs containing CMR, covering an area of 3.67km². Email from Wilko Dirks, Acting Programme Manager, HALO Trust, 23 June 2022.

4 Email from Ahmet Sallova, KMAC, 24 May 2022.

5 Email from Vanja Sikirica, NPA Kosovo, 1 June 2022.

6 Email from Wilko Dirks, HALO Trust, 23 June 2022.

7 Ibid.

8 Email from Megan Dwyer, Programme Manager, HALO Trust, 23 April 2021.

9 Email from Megan Dwyer, HALO Trust, 11 May 2022.

10 Email from Wilko Dirks, HALO Trust, 23 June 2022.

11 ICRC, *Explosive Remnants of War, Cluster Bombs and Landmines in Kosovo*, rev. June 2001, pp. 4 and 6; and The HALO Trust, "Action on cluster munitions in Kosovo", 10 September 2015, at: <https://bit.ly/30P1X70>.

12 Human Rights Watch (HRW) and Landmine Action, *Banning Cluster Munitions Government Policy and Practice*, Mines Action Canada, Ottawa, 2009, p. 238.

13 A. Moore, The HALO Trust, "Action on cluster munitions in Kosovo", Side event, First CCM Review Conference, Dubrovnik, 10 September 2015.

14 Ibid.

15 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.

16 NPA, *Cluster Munition Remnants in Northern Kosovo: non-technical survey of contamination and impact*, September 2015.

Table 1: Cluster-munition contaminated areas as reported by KMAC (at end 2021)

	CHAs containing CMR	Area (m ²)	SHAs that may contain CMR	Area (m ²)
Totals	44	11,367,061	0	0

Table 2: HALO Trust data on cluster-munition contaminated area by district and municipality in its area of operations (at end 2021)

District	Municipality	CHAs containing CMR	Area (m ²)
Ferizaj	Shtime	3	263,468
Gjakove	Gjakove	5	470,000
Gjakove	Junik	2	161,028
Peje	Peje	8	1,044,218
Pristina	Drenas	2	169,474
Pristina	Fushe Kosove	1	50,000
Pristina	Prishtine	2	450,000
Prizren	Dragash	2	331,000
Prizren	Prizren	6	735,000
Totals		31	3,674,188

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 World War II.¹⁷ 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.¹⁸

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 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.¹⁹ 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.²⁰

Kosovo's mine action programme is fully nationally owned. In 2021, KMAC had five staff: a Director, a Senior QA Officer, a QA Inspector, a Mine Risk Education (MRE) Officer, and a Public Information Officer.²¹ NGO operators in Kosovo report a constructive and proactive working relationship with KMAC.

In 2021, the Kosovo Government provided €995,000 in financial support to KMAC and to the KSF for mine and CMR clearance.²² Kosovo's current Mine Action Strategy, for 2019–24, sets an objective of ensuring greater financial stability through intensified fundraising efforts.²³ In 2021, the United States (US) Department of State's Office of Weapon Removal and Abatement (WRA) approved a grant to NPA for land release of cluster munition-contaminated areas in northern Kosovo and for the Merdare Tunnel Project.²⁴ HALO Trust was also able to secure further funding, in May 2021, for three years from the US Government with support from KMAC.²⁵ A joint project proposal from NPA and HALO Trust to the European Union (EU) was pending approval as of writing.²⁶

¹⁷ UNMIK, "OKPCC EOD Management Section Annual Report 2008", Pristina, 12 January 2009, p. 4.

¹⁸ Email from Ahmet Sallova, KMAC, 1 August 2012.

¹⁹ Ibid.

²⁰ 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.

²¹ Email from Ahmet Sallova, KMAC, 24 May 2022.

²² Email from Ahmet Sallova, KMAC, 8 June 2022.

²³ "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 14.

²⁴ Email from Ahmet Sallova, Head, KMAC, 24 May 2022.

²⁵ Email from Megan Dwyer, HALO Trust, 11 May 2022.

²⁶ Email from Ahmet Sallova, KMAC, 24 May 2022.

Although there is no in-country platform for dialogue among all mine action stakeholders, in September 2022, a mid-term review of the latest five-year strategy was due to take place, supported by the Geneva International Centre for Humanitarian Demining (GICHD).²⁷

GENDER AND DIVERSITY

Gender and Diversity continued to be taken into account in 2021 as per Kosovo's mine action strategy for 2019–24.²⁸ The Strategy 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.²⁹

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. Within KMAC, one of its five staff (the Risk Education Officer) is a woman.³⁰ A total of 5% of KSF staff employed in operational mine action roles were women, but none is in a managerial or supervisory position.³¹

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.³²

In 2018, The HALO Trust developed a gender policy in consultation with the Kosovo Women's Network, an advocacy network of more than 140 member organisations, including women's organisations of all ethnic backgrounds from throughout Kosovo, which was adopted in February. The policy aims at both increasing the recruitment of women and at retaining existing female employees. In 2019, HALO further

developed this policy to include provision for increased family leave and child-care allowances for those taking care of children, in order to remove barriers to women's employment. Through the Dutch Government, HALO Trust contracted the Gender and Mine Action Programme (GMAP, a part of the GICHD) to conduct gender sensitivity and leadership training in July 2019 to more than 20 operation and support management staff in the Kosovo programme, to address issues of unconscious bias and inclusion.³³

In 2021, HALO Trust continued to implement the Gender and Diversity Policy and conducted an annual refresher training for management, support and operational staff. HALO Trust continues to ensure that as many as possible of household members 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 non-technical survey teams, and senior management staff who are fluent in relevant languages are deployed for CL activities.³⁴

New funding in 2021 provided new job opportunities. By the end of 2021, women's employment in the organisation increased from 17% (in 2020) to 24%, with three women in operational management roles and two in support management roles. HALO Trust expected to promote more women to assistant team leader and team leader roles. In 2021, 4% of managerial/supervisory positions were filled by women; in operations 20% of the positions were held by women.³⁵

NPA reported that a target of 25% female staff was in place, and in 2019, 21% of its total staff were women, including one of four team leaders, two of six medics, and one of four staff in the management team.³⁶ The proportion of women subsequently increased to 24% in 2020, with two women promoted to positions of leadership within the clearance teams.³⁷ Women were especially encouraged to apply for staff positions, and given priority over male applicants with equivalent skills and experience. In 2021, the overall target was almost achieved (it was at 24.7% in 2022) and 60% of managerial supervisory positions are held by women, a substantial increase from the 12% recorded in 2020. A decrease from 21% women in 2020, to 19.3% in 2021, was recorded for operations positions.³⁸

27 Emails from Megan Dwyer, HALO Trust, 11 May 2022; and Vanja Sikirica, NPA Kosovo, 1 June 2022.

28 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 8.

29 Ibid.; and email from Megan Dwyer, HALO Trust, 11 May 2022.

30 Email from Ahmet Sallova, KMAC, 24 May 2022.

31 Ibid.

32 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, pp. 8–9.

33 Email from Olivia Meader, HALO Trust, 22 May 2020.

34 Email from Megan Dwyer, HALO Trust, 11 May 2022.

35 Ibid.

36 Email from Terje Eldøen, NPA, 25 April 2019.

37 Email from Terje Eldøen, NPA, 1 September 2020.

38 Email from Vanja Sikirica, NPA Kosovo, 1 June 2022.

NPA confirmed its survey and community liaison 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.³⁹ 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.⁴⁰ 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.⁴¹

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.⁴² 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 collected forms are consistent and they enable collection of the necessary data and that there were no efforts to improve the database in 2021.⁴³ HALO Trust reported in a similar manner, and added that the database, kept and maintained by KMAC is checked in comparison to HALO's about once every quarter; once every task is completed or when KMAC agrees and signs off on a re-survey or survey conducted by a non-technical survey team, the data is fed into IMSMA.⁴⁴

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 reconfirmed to Mine Action Review that Kosovo would only start submitting Article 7 reports when it becomes a member of the UN.⁴⁵

PLANNING AND TASKING

The GICHD supported the development of Kosovo's new Mine Action Strategy for 2019–24. The strategy, which was launched by the Ministry of Kosovo Security Services on 4 April 2019, has three broad "goals":

- Mine/ERW threats managed and reduced
- Communication and awareness raising
- Management of residual contamination.

The strategy declares that all known mined and CMR-contaminated areas will be addressed by the end of 2024, leaving only residual contamination to be managed accordingly. It contains annual projections for CMR clearance, including:

- all high-priority CMR tasks (four as at October 2018) would be cleared by 2020;
- all medium-priority CMR tasks (30 as at October 2018) will be cleared by 2022; and
- all low-priority CMR tasks (16 as at October 2018) will be completed by 2024.⁴⁶

39 Email from Terje Eldøen, NPA, 25 April 2019.

40 Emails from Terje Eldøen, NPA, 25 April 2019 and 1 September 2020.

41 Email from Vanja Sikirica, NPA Kosovo, 1 June 2022.

42 Email from Ahmet Sallova, KMAC, 30 April 2019.

43 Emails from Olivia Meader, HALO Trust, 1 May 2019; Terje Eldøen, NPA, 25 April 2019; and Vanja Sikirica, NPA Kosovo, 1 June 2022.

44 Email from Megan Dwyer, HALO Trust, 11 May 2019.

45 Email from Ahmet Sallova, KMAC, 24 May 2022.

46 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 12.

The strategy is explicitly based on a number of assumptions, including that the necessary funding will be secured and that no new mined or CMR-contaminated areas are identified. It notes, however, that “so far each year 3–4 different affected areas have been reported” and that should this trend continue, capacity and progress will need to be reassessed with regards to the 2024 deadline.⁴⁷ KMAC reported two new unknown CHAs in 2021, one reported by HALO of 56,000m² and the Merdare Tunnel by NPA of 38,744m².⁴⁸ HALO Trust identified two new BAC tasks and were approved by KMAC, whose total size was 115,921m².⁴⁹

As per the strategy, KMAC will develop annual operational work plans to implement the strategy's goals.⁵⁰ KMAC has already requested an external mid-term review of the strategy in 2022 to evaluate progress and make any adaptations according to contextual changes if required. The GICHD were due to conduct the review in September 2022. Thereafter, new plans will be set to achieve the goals of the Strategy.⁵¹

KMAC's national operational work plan for 2021 aims to ensure BAC is conducted on 10 tasks clearing a total of 650,000m².⁵² KMAC considers that the 2021 plan was achieved with clearance even higher due to more resources

for KSF and HALO Trust used for BAC.⁵³ This was in addition to NPA concentrating on clearance rather than survey. The mine action strategy for 2019–24 is in aligned with the objectives of Kosovo's National Development Strategy 2016–2021.⁵⁴

In 2019, The HALO Trust 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. This continued to be implemented throughout 2021. New prioritisation information was added during 2021 and early 2022 through the non-technical survey project by providing an individual rank for prioritisation based on set parameters.⁵⁵

For 2021, NPA concentrated on clearing high-impact areas both in ethnic Serbian and Albanian areas. Most of the tasks in NPA's area of responsibility are at high altitude, only allowing work from May to September. KMAC offers other tasks to NPA in locations where weather conditions are more favourable between October and December.⁵⁶

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

National mine action standards for land release in Kosovo are due to be updated to be in accordance with IMAS, including the IMAS 07.13 on environmental management in mine action.⁵⁷

The HALO Trust considers that Kosovo's NMAS do not currently reflect IMAS, in particular as the NMAS include outdated land release procedures. Only two partial cancellations of battle area resurvey polygons were approved by KMAC in 2021. There are no specific SOPs for the environment but HALO's head office is working on creating policies and environmental SOPs which will be implemented across all HALO programmes when they are ready. HALO Trust in Kosovo was working on developing local SOPs.⁵⁸

Kosovo's national mine action standards set the standard clearance depth for battle area clearance (BAC) at 50cm.⁵⁹ A reduction to 30cm in certain forested and stony areas has

been proposed, which would enable detectors to be set to a medium- rather than high-sensitivity setting and result in fewer false indicators needing to be investigated.⁶⁰ In 2019, KMAC informed Mine Action Review that the depth of 50cm is necessary as many of the areas targeted with cluster munitions were especially wet and muddy, and because the bombing campaign took place during a period of heavy rain, making it possible for submunitions to penetrate to greater than normally expected depths.⁶¹ It did, though, state that on certain tasks where the ground was entirely stony, a reduction in search depth could be considered.⁶²

Data from operators tend, overall, to support KMAC's caution. The HALO Trust's analysis of devices found by depth in 2008–18 show that 22% of all items found by HALO Trust teams were at a depth of 30cm or more. This included buried cluster bomb units with submunitions still inside.⁶³ When removing full containers

47 Ibid., pp. 9–10.

48 Emails from Ahmet Sallova, 24 May and 8 June 2022.

49 Email from Megan Dwyer, HALO Trust, 11 May 2022.

50 Mine Action Strategy 2019–2024 in Republic of Kosovo”, 4 April 2019, pp. 9–10.

51 Ibid., p. 16; and email from Ahmet Sallova, Head, KMAC, 24 May 2022.

52 Email from Ahmet Sallova, KMAC, 28 April 2021.

53 Email from Ahmet Sallova, KMAC, 24 May 2022.

54 “Mine Action Strategy 2019–2024 in Republic of Kosovo”, 4 April 2019, p. 1.

55 Emails from Olivia Meader, HALO Trust, 22 May 2020; and Megan Dwyer, HALO Trust, 11 May 2022.

56 Email from Vanja Sikirica, NPA Kosovo, 1 June 2022.

57 Email from Ahmet Sallova, Head, KMAC, 24 May 2022.

58 Email from Megan Dwyer, HALO Trust, 11 May 2022.

59 Email from Ahmet Sallova, KMAC, 4 May 2018.

60 Ibid.

61 Interview with Ahmet Sallova, KMAC, Pristina, 5 April 2019.

62 Ibid.

63 Email from Olivia Meader, HALO Trust, 21 June 2019.

from the analysis, however, HALO found that 96% of items were found at a depth of 30cm or less, with the average depth of items found through clearance at 12.4cm.⁶⁴ NPA's clearance statistics show that 12% of all submunitions found in its operations were found at depths greater than 30cm. At the same time, NPA raised the issue of the potential threat that explosive items located deeper than 30cm below the surface might pose and whether the expected future ground use could be considered when setting the search depth.⁶⁵ HALO, which agrees with this approach, has collected data on planned post-clearance land use, including the depth needed for crop cultivation.⁶⁶

Both The HALO Trust and NPA were using large-loop detectors on certain CMR tasks, which increases clearance productivity.⁶⁷

In 2018, in another significant advance in land release efficiency, KMAC formally approved the implementation of Cluster Munition Remnants Survey (CMRS) methodology by NPA to carry out technical survey activities 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.⁶⁸

HALO Trust, which was reluctant to implement a CMRS approach in 2017, reported in 2019 that it was interested in defining evidence-based clearance standards and felt there could be scope to explore and improve survey and clearance standards for addressing CMR, especially in regard to recent developments with the implementation of CMRS methodology in South-East Asia.⁶⁹ It believed, however, that as general survey has already been conducted in HALO Trust's areas of operations, implementing CMRS would duplicate work already carried out to define confirmed hazardous areas.⁷⁰

In 2020, HALO Trust introduced new SOPs for BAC, which were formally accredited by KMAC in September 2020, and subsequently rolled out in November 2020 at a task in Komogllavë, a village in Ferizaj municipality. The main changes include the ability for operators to walk on uncleared area to conduct activities such as vegetation clearance, and to enable clearance to begin at an evidence point and expand outwards, rather than spending time breaching towards the

contamination from the outer boundary of the polygon. The systematic deployment of vegetation clearance will enable wider and more extensive use of the large-loop detectors, which are expected to increase productivity, especially on tasks where heavy vegetation is present.⁷¹ The new SOPs are all now used in all BAC clearance, and increased productivity in 2021 by 32% in comparison to 2020. In fact, the gain is even greater as the tasks worked on in 2021 were on hard-to-access terrain and tough vegetation.⁷²

The HALO Kosovo Programme continues to conduct its research and development activities to increase safety and operational efficiency and share innovative technological means. In 2019, the programme was used as a testing ground for the Scorpion detection system from US Night Vision and Electronic Sensors Directorate (NVESD), which was bound for Afghanistan. The success of the trial allowed the system to be used in the Kosovo programme, which 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.⁷³ The system was not deployed in 2021 due to constraints in the programme's capacity, the need for additional training, and hardware updates. HALO Trust planned to deploy the Scorpion for 2022 and anticipates additional productivity gains where it can be deployed.⁷⁴

For 2021, NPA reported that Kosovo's NMAS are reasonably appropriate in their area of operations and do not pose significant restrictions on any type of activity. It reports that the Kosovo Guidelines and Technical Standards for Mine/UXO clearance on chapter 19 refer to Environmental Management. NPA also amended its SOPs on fade-out distances and the quality management (QM) system was improved. An environmental management system is in place in the NPA SOP on Health, Safety and the Environment module and a separate SOP module on Environment was set to be produced in 2022.⁷⁵

64 Email from Olivia Meader, HALO Trust, 3 September 2020.

65 Emails from Terje Eldøen, NPA, 25 April 2019; and Olivia Meader, HALO Trust, 1 May 2019.

66 Email from Olivia Meader, HALO Trust, 3 September 2020.

67 Emails from Olivia Meader, HALO Trust, 1 May 2019; and Terje Eldøen, NPA, 25 April 2019.

68 Interview with Terje Eldøen, NPA, Pristina, 5 April 2019; and email, 25 April 2019.

69 Emails from Ash Boddy, HALO Trust, 5 May 2017; and Olivia Meader, HALO Trust, 1 May 2019.

70 Email from Olivia Meader, HALO Trust, 21 June 2019.

71 Email from Megan Dwyer, HALO Trust, 23 April 2021.

72 Email from Megan Dwyer, HALO Trust, 11 May 2022.

73 Email from Megan Dwyer, HALO Trust, 23 April 2021.

74 Email from Megan Dwyer, HALO Trust, 11 May 2022.

75 Email from Vanja Sikirica, NPA Kosovo, 1 June 2022.

OPERATORS AND OPERATIONAL TOOLS

In 2021, Kosovo's national mine action programme's capacity consisted of two international operators, The HALO Trust and NPA, and a national operator, the KSF. The KSF, also provided a round-the-clock EOD emergency response.⁷⁶ 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.⁷⁷ During 2021, NPA focused on clearance in two districts (Leposavic, in Mitrovica, and Zubin Potok, Zvecan) and in Podujevo municipality in Pristina district.⁷⁸

Table 3: Operational clearance capacities deployed in 2021

Operator	Manual CMR clearance teams	Total deminers*	Dog teams (dogs and handlers)	Mechanical assets/machines**	Comments
KSF	3	50	0	0	
KFOR	N/K	N/K	N/K	N/K	Nothing reported
HALO	***6	48	0	0	BAC Technicians
NPA	9	58	0	0	As of end 2021. Includes 49 BAC Operators and 9 Deputy Team Leaders who conduct clearance and stand in for Team Leaders when needed.
Totals	18	156	0	0	

N/K = Not known

* Excluding team leaders, medics, drivers. ** Excluding vegetation cutters and sifters *** Average over the course of the year.

The HALO Trust's operational personnel are cross-trained for mine clearance and BAC and can move readily between activities. On average, in 2021, HALO Trust deployed six clearance teams totalling 48 BAC Technicians to CMR clearance tasks and two survey teams with eight personnel in total. No major changes in personnel are expected for 2022 unless a new grant is approved.⁷⁹

NPA's area of operations in Kosovo cover the five northern municipalities of Leposavic, Mitrovica, Podujevo, Zubin Potok, and Zvecan.⁸⁰ In 2021, NPA deployed nine teams with 58 deminers. NPA deploys local teams of mixed ethnicities, making it possible for NPA to work in previously inaccessible areas in north Kosovo and deploy teams to both ethnic Serbian and ethnic Albanian areas through the multi-ethnic composition of the teams. NPA and Halo Trust submitted a joint proposal to the EU (IPA III), they anticipate the grant might be approved in 2022 and it would result in an increase of survey/clearance staff.⁸¹

KSF operated three manual clearance teams in 2021, totalling 50 deminers, a considerable increase from 2020 when it had reported two teams with 20 deminers.⁸² NPA has no EOD capacity in Kosovo, so all demolitions of ordnance found during NPA operational activities are carried out by KFOR and KSF with EOD support to NPA coordinated by KMAC.⁸³

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

For 2021, KMAC and the international operators reported release of 3.27km² of CMR-contaminated land.⁸⁴ But this amount included release by KSF of 1.97km², which involved the destruction of a single submunition and this has been deducted from the total considered cleared by Mine Action Review (almost 1.30km²; see Table 4).

76 Email from Ahmet Sallova, KMAC, 16 April 2020; and "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 3.

77 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 4; and interview with Ahmet Sallova, KMAC, Pristina, 5 April 2019.

78 Email from Vanja Sikirica, NPA Kosovo, 1 June 2022.

79 Email from Megan Dwyer, HALO Trust, 11 May 2022.

80 Email from Terje Eldøen, NPA, 26 August 2020.

81 Email from Vanja Sikirica, NPA Kosovo, 1 June 2022.

82 Email from Ahmet Sallova, KMAC, 24 May 2022.

83 Email from Vanja Sikirica, NPA Kosovo, 1 June 2022.

84 Email from Ahmet Sallova, KMAC, 24 May 2022.

SURVEY IN 2021

In 2021, no technical surveys were conducted in Kosovo. This is a major drop from the previous year when 4.37km² of CMR-contaminated area was released through technical survey, most by NPA.⁸⁵

HALO Trust cancelled through non-technical survey a total of 320,804m² in the districts of Pristina and Ferizaj⁸⁶ in 2021, whereas in 2020 no land was cancelled through non-technical survey.

One new unknown CHA in Peje municipality was reported by HALO Trust, covering 56,000m², as well as the Merdare tunnel in Livadica, Podujevo, reported by NPA on the border between Kosovo and Serbia with a size of 38,744m².⁸⁷ Both areas were added to IMSMA database in 2021.⁸⁸

CLEARANCE IN 2021

A total of 43 submunitions were destroyed during clearance of cluster munition-contaminated area totalling almost 1.30km² in 2021 (see Table 4).⁸⁹ The boost in clearance (up from 0.34km² the year before) is due to the increase in resources and demining personnel with NPA concentrating on clearance and not survey.⁹⁰

HALO Trust cleared 438,873m², destroying 18 submunitions and 1 item of UXO.⁹¹ NPA cleared 645,554m² of cluster munition-contaminated area, finding 22 submunitions.⁹² NPA also cleared three other battle area tasks (in Dyç and Batllava) in Pristina district, Podujevo municipality, in 2021, covering a further 214,000m². Although no submunitions were found, NPA teams did find 327 CMR fragments.⁹³

Table 4: CMR clearance in 2021⁹⁴

District	Operator	Area cleared (m ²)	Submunitions destroyed*
Ferizaj	HALO	314,806	12
Peje	HALO	123,867	6
Prizren	HALO	200	0
Mitrovica	NPA	645,554	22
Pristina	NPA	213,940	0
	KSF		3
Totals		1,298,367	43

* Figures include items destroyed during technical survey and EOD.

The KSF, with support from KFOR in northern Kosovo, carries out demolition of CMR and items of UXO found by The HALO Trust and NPA.⁹⁵ In 2021, three submunitions were destroyed by KSF during EOD and BAC tasks.⁹⁶

85 Email from Charles Frisby, NPA, 27 April 2021.

86 Email from Megan Dwyer, HALO Trust, 11 May 2022.

87 The Merdare Tunnel is a key component of the normalisation agreements between Kosovo and Serbia signed in September 2020 in Washington DC, whereby both sides agreed to operationalise the "Peace Highway", of which the tunnel is a part.

88 Emails from Ahmet Sallova, KMAC, 24 May and 8 June 2022.

89 Email from Ahmet Sallova, KMAC, 24 May 2022.

90 Ibid.

91 Email from Megan Dwyer, HALO Trust, 8 June 2022.

92 Emails from Vanja Sikirica, NPA Kosovo, 1 and 14 June 2022.

93 Email from Vanja Sikirica, NPA Kosovo, 14 June 2022.

94 Ibid.; and emails from Megan Dwyer, HALO Trust, 8 June 2022; and Ahmet Sallova, KMAC, 24 May 2022.

95 Email from Ahmet Sallova, KMAC, 24 May 2022.

96 Ibid.

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 2024.⁹⁷ The year 2021 saw increased funding for new teams for all operators; additional funding is expected to be provided by the EU in 2022. As of June 2022, HALO Trust, KMAC, and NPA all believed that the target date of 2024 can be met based on the new grants already in place and others expected to be approved in 2022.⁹⁸ So far, just over 5km² of CMR contamination has been cleared in the last five years (see Table 5), but if the rate of clearance continues as in 2021, the target might be achieved, leaving large residual contamination.

To meet the 2024 target, however, The HALO Trust emphasises the importance of applying efficient land release methodologies and updating the NMAS on land release, as well as finalising the resurvey project.⁹⁹

Assuming the target is met, completion of CMR clearance in 2024 would be 25 years after the end of the conflict between the FRY forces and NATO and more than 20 years after the UN claimed that area clearance was largely done.

Table 5: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2021	1.30
2020	0.34
2019	1.26
2018	1.24
2017	0.88
Total	5.02

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

According to Kosovo's Mine Action Strategy 2019–24, a separate national strategy on the management of residual contamination will be developed by KMAC for 2023, in collaboration with other national actors. This will clarify roles and responsibilities in order to manage what is expected to be a long-term residual contamination problem.¹⁰⁰ The HALO Trust highlighted the importance of establishing a common definition for residual risk – a priority for KMAC that is due to be addressed by a strategy review scheduled for September 2022.¹⁰¹

97 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 6.

98 Emails from Ahmet Sallova, KMAC, 24 May 2022; Megan Dwyer, HALO Trust, 11 May 2022; and Vanja Sikirica, NPA Kosovo, 1 June 2022.

99 Email from Megan Dwyer, HALO Trust, 11 May 2022.

100 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 15.

101 Emails from Olivia Meader, HALO Trust, 22 May 2020; and Ahmet Sallova, KMAC, 24 May 2022.

NAGORNO-KARABAKH

MINE
ACTION
REVIEW

CLEARING CLUSTER
MUNITION REMNANTS
2022

KEY DATA

CLUSTER MUNITION CONTAMINATION:

BASED ON HALO TRUST ESTIMATE

11.27 km²

SUBMUNITION
CLEARANCE IN 2021

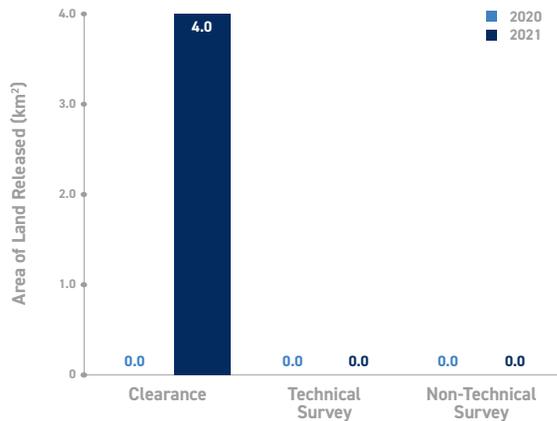
4 km²

SUBMUNITIONS
DESTROYED IN 2021

1,860

(INCLUDING 1,715 DESTROYED
DURING SPOT TASKS)

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

A six-week armed conflict between Armenia and Azerbaijan over the Nagorno-Karabakh region broke out in September 2020 and ended with Azerbaijan regaining control over most of its internationally recognised territories, including about a third of Nagorno-Karabakh.¹ In the course of the fighting, both Armenia and Azerbaijan are reported to have used cluster munitions, unlawfully killing and injuring civilians,² and adding to existing CMR contamination. In 2021, 9.8km² of new contamination was discovered in Nagorno-Karabakh as a result of the conflict, although the overall extent of CMR in Nagorno-Karabakh decreased, due to Azerbaijan regaining much of the territory which had existing CMR contamination. Clearance of cluster munitions was 4km² in 2021 in contrast to 2020 when there was no clearance, as the focus that year had been on clearing landmines.³

RECOMMENDATIONS FOR ACTION

- Nagorno-Karabakh authorities should make a formal commitment 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.
- Nagorno-Karabakh authorities should set up a mine action centre to coordinate survey and clearance, introduce mine action standards and work on mobilising resources.
- Nagorno-Karabakh authorities should provide funding for the work.

1 Thomas De Waal, "Unfinished Business in the Armenia-Azerbaijan Conflict", Carnegie Europe, 11 February 2021, at: <https://bit.ly/3PFvArz>.

2 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.

3 Email from Miles Hawthorn, Programme Manager, HALO Trust, 5 May 2022.

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

OTHER ACTORS

- Russian peacekeeping forces

UNDERSTANDING OF CMR CONTAMINATION

The 2020 conflict was brought to an end by a Russian-brokered ceasefire agreement that came into effect on 10 November 2020.⁴ Azerbaijan regained control of a substantial part of Nagorno-Karabakh (approximately one-third of the territory previously controlled by Armenia). The de facto Nagorno-Karabakh authorities retain control over the remainder of Nagorno-Karabakh, which is patrolled by a Russian peacekeeping force, including along the new Line of Contact (LOC).⁵ Areas now under Azerbaijan's control include Nagorno-Karabakh's former second town of Shushi; Hadrut; and Lachin, with Russian peacekeepers monitoring part of Lachin district.⁶

Nagorno-Karabakh already had extensive CMR contamination prior to the 2020 conflict, with pre-existing CMR-contaminated area estimated to total 71.3km².⁷ Extensive use of cluster munitions in the 2020 conflict then added considerable CMR contamination to territory that continues to be controlled by the Nagorno-Karabakh authorities.⁸ A rapid assessment by The HALO Trust found that contamination affected nearly three-quarters of all Nagorno-Karabakh settlements, including 20% of Stepanakert, 21% of Martuni, and 34% of Martakert.⁹ However, overall cluster munition-contaminated area in Nagorno-Karabakh has decreased significantly since the 2020 conflict, with the cluster munition-contaminated area in territory remaining under the control of the Nagorno-Karabakh authorities standing at 11.27km² as at April 2022 (see Table 1).¹⁰ This is due to the fact that Azerbaijan regained control of much of the territory of Nagorno-Karabakh which had pre-existing CMR contamination.

Table 1: Cluster munition-contaminated area (in areas of Nagorno-Karabakh not under Azeri control) (at April 2022)¹¹

District	CHAs	Area (m ²)
Askeran	16	1,281,791
Martakert	42	4,178,101
Martuni	77	5,811,592
Totals	135	11,271,484

CHA = Confirmed hazardous area

The HALO Trust discovered 9,877,473m² of new CMR contamination in 2021, all as a result of the six-week conflict, the details of which were added to the database. This comprised 674,825m² in 11 confirmed hazardous areas (CHAs) in Askeran; 3,718,438m² in 38 CHAs in Martakert; and 5,484,210m² in 73 CHAs in Martuni.¹²

Loss of territory has increased population pressures on available land, raising the humanitarian threat posed by explosive remnants of war (ERW), including submunitions, on land that may previously have been considered low-threat areas. LAR-160 rockets containing M095 submunitions and 9M55K Smerch rockets containing 9N235 submunitions were both found.¹³ The HALO Trust also identified Russian-made ShOAB and PTAB submunitions.¹⁴

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Nagorno-Karabakh is also contaminated by other ERW and anti-personnel and anti-vehicle mines (see Mine Action Review's *Clearing the Mines* report on Nagorno-Karabakh for further information).

4 "Armenia, Azerbaijan and Russia sign Nagorno-Karabakh peace deal", *BBC*, 10 November 2020; and Thomas De Waal, "Unfinished Business in the Armenia-Azerbaijan Conflict", Carnegie Europe, 11 February 2021.

5 International Crisis Group (ICG), "The Nagorno-Karabakh Conflict: A Visual Explainer", Last updated 7 May 2021, at: <https://bit.ly/3uiOou2>.

6 ACAPS, "Azerbaijan: Pre-existing situation and impact of the 2020 Nagorno-Karabakh conflict", 21 December 2020.

7 Email from Miles Hawthorn, HALO Trust, 18 April 2021.

8 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.

9 Email from Miles Hawthorn, HALO Trust, 18 April 2021.

10 Email from Miles Hawthorn, HALO Trust, 5 May 2022.

11 Ibid.

12 Ibid.

13 Human Rights Watch, "Technical Briefing Note: Cluster Munition Use in the Karabakh Conflict", 21 July 2021.

14 Email from Miles Hawthorn, HALO Trust, 18 April 2021.

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. The working group meets weekly with participation from the Rescue Service and humanitarian mine clearance organisations.¹⁵ In August 2021, by presidential decree, the group became the "Mine Action Coordination Council" (known as the Mine Action Council), with high-level representation from the authorities, Centre for Humanitarian Demining (CHD FUND), and The HALO Trust.¹⁶

The HALO Trust established the Nagorno-Karabakh Mine Action Centre (NKMAC) in 2000 but the project did not attract local support and stalled.¹⁷ Discussions on the issue were held with Nagorno-Karabakh's Ministry of Foreign Affairs in 2019 and 2020 as well as with the State Emergency Services and the Ministry of Agriculture, but did not lead to any decision.¹⁸ A mine action coordination committee responsible for liaising between the local authorities and The HALO Trust ended in 2018.¹⁹

The HALO Trust provided capacity-building support in Nagorno-Karabakh in 2021, training eight members of the Rescue Service and CHD FUND (a national non-governmental organisation funded by the authorities in Nagorno-Karabakh) to explosive ordnance disposal (EOD) Level 1. Another course for eight personnel was planned in 2021 but was abandoned due to a spike in COVID-19 infections.²⁰

The Nagorno-Karabakh authorities do not provide The HALO Trust with funding to clear affected areas.²¹

ENVIRONMENTAL POLICIES AND ACTION

The HALO Trust does not have a programme-level environmental management standard operating procedures (SOPs) for Nagorno-Karabakh, but does adhere to an organisational SOP set at its headquarters. There is a new "Global Environment and Nature Conservation" lead in post at The HALO Trust and the programme anticipates having a local SOP in place in 2022.²² In line with its commitment to protecting the environment, when conducting EOD, HALO Trust ensures that safe land is not contaminated by explosive kick-outs, and all scrap metal is cleared and disposed of appropriately.²³

GENDER AND DIVERSITY

HALO's Nagorno-Karabakh programme follows the organisation's gender and diversity policies, providing equal access to employment for women and engaging them in management and operational roles.²⁴ Overall, 14% of HALO Trust staff in Nagorno-Karabakh in 2021 were women. This comprised 14% of supervisory positions and 9% working in field operations.²⁵ HALO's most senior national staff member is a woman,²⁶ and women have been employed in both survey and clearance. HALO appointed the first woman for non-technical survey in 2019 and by 2021 all HALO survey teams included at least one woman.²⁷

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 Trust prioritises survey and clearance activities in areas where children play and women go to forage.²⁸ Relevant mine action data are disaggregated by sex and age.²⁹

INFORMATION MANAGEMENT AND REPORTING

Nagorno-Karabakh does not have a mine action information management system. The HALO Trust operates its own database.³⁰ In 2020, HALO switched to an online server (cloud system) that it refers to as the Global Operations Information Management System (GO-IMS).

No central mechanism exists for systematic sharing of data on mine clearance, underscoring the value of a mine action authority. There is the working group, known as the Mine Action Council, comprising The HALO Trust, the local Rescue Service, CHD FUND, the military, and Russian peacekeepers. The Council meets weekly to facilitate information and data sharing,

15 Email from Miles Hawthorn, HALO Trust, 20 May 2021.

16 Email from Fiona Kilpatrick-Cooper, Head of Region – Europe (South Caucasus), HALO Trust, 6 May 2022.

17 Emails from Andrew Moore, HALO Trust, 28 June 2013; and Asqanaz Hambardzumyan, Field Officer, HALO Trust, 26 April 2019.

18 Emails from Rob Syfret, HALO Trust, 13 May and 4 September 2020; and Miles Hawthorn, HALO Trust, 18 April 2021.

19 Emails from Andrew Moore, HALO Trust, 26 May 2016; and Asqanaz Hambardzumyan, HALO Trust, 26 April 2019.

20 Email from Miles Hawthorn, HALO Trust, 5 May 2022.

21 Ibid.

22 Ibid.

23 Ibid.

24 Email from Asqanaz Hambardzumyan, HALO Trust, 10 April 2019.

25 Email from Miles Hawthorn, HALO Trust, 18 April 2021.

26 Email from Miles Hawthorn, HALO Trust, 5 May 2022.

27 Emails from Rob Syfret, HALO Trust, 7 May 2020; and Miles Hawthorn, HALO Trust, 29 July 2021.

28 Email from Miles Hawthorn, HALO Trust, 5 May 2022.

29 Ibid.

30 Email from Rob Syfret, HALO Trust, 7 May 2020.

coordination of activities, and discussion of security and other safety issues. In general, while the mine action authorities in Nagorno-Karabakh share some information about CMR contamination, survey, and clearance, more detail is required to conform to recognised international standards.³¹

PLANNING AND TASKING

Prior to the outbreak of the conflict in September 2020, The HALO Trust 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 Trust put the mine survey on hold and has given priority to a baseline survey of CMR and other unexploded ordnance (UXO) resulting from the war as well as conducting battle area clearance (BAC) and EOD. It had aimed to complete the survey, covering all villages, by the end of September 2021³² but by the end of 2021 it had completed the survey of 105 out of 128 inhabited settlements. Explosive ordnance risk education (EORE) was another of HALO Trust's priorities in 2021.³³ In 2022, the priority for the organisation is to complete the survey and to focus clearance efforts on Martakert and Martuni, the second and third most populated towns in Nagorno-Karabakh.³⁴ HALO Trust selects tasks according to its own prioritisation matrix but working closely with local authorities, and applying its own prioritisation process to tasks allocated to it by the authorities.³⁵

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Nagorno-Karabakh has no local mine action standards. The HALO Trust follows its internal SOPs but it updated its SOPs on BAC in 2020 to address the threat from urban contamination.³⁶

OPERATORS AND OPERATIONAL TOOLS

Since it started working in Nagorno-Karabakh in 2000, HALO Trust has been and remains the main organisation conducting land release. Clearance is conducted mostly in the summer months between May and October. The HALO Trust's overall staff numbers have fluctuated in recent years, falling from 159 at the start of 2020 to 137 by September after support from the United States Agency for International Development (USAID) ended in April 2020. In February 2021, HALO recruited new staff bringing the total complement to 155, increasing the number of survey teams from five to seven and the number of clearance teams from eight to ten.³⁷ By the end of 2021, HALO Trust employed a total of 135 staff in Nagorno-Karabakh.³⁸ It still had seven non-technical survey teams with a total of 28 personnel, but the number of operational clearance teams had fallen back to eight, with a total of 56 personnel.³⁹ An overall decrease in the number of survey and clearance personnel from March to December 2021 was due to staff who had been displaced and others leaving for Armenia or Russia as well as decreased funding. The number of non-technical survey staff was likely to decrease again in 2022 due to the reduced amount of survey outstanding and less funding.⁴⁰

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 Rescue Service and has provided many of its staff with EOD and area clearance training.⁴¹ One Nagorno-Karabakh army unit conducts limited demining.⁴² Russian peacekeepers have conducted area clearance and spot EOD since the conflict. The units have not shared details of clearance operations but coordinated with HALO Trust on carrying out demolitions.⁴³

31 Email from Miles Hawthorn, HALO Trust, 5 May 2022.

32 Email from Miles Hawthorn, HALO Trust, 18 April 2021.

33 Email from Miles Hawthorn, HALO Trust, 5 May 2022.

34 Ibid.

35 Email from Fiona Kilpatrick-Cooper, HALO Trust, 6 May 2022.

36 Emails from Rob Syfret, HALO Trust, 7 May 2020; and Miles Hawthorn, HALO Trust, 18 April 2021.

37 Emails from Rob Syfret, HALO Trust, 7 May 2020; and Miles Hawthorn, HALO Trust, 18 April and 20 May 2021.

38 Email from Fiona Kilpatrick-Cooper, HALO Trust, 6 May 2022.

39 Email from Miles Hawthorn, HALO Trust, 5 May 2022.

40 Email from Miles Hawthorn, HALO Trust, 5 May 2022.

41 Email from Asqanaz Hambardzumyan, HALO Trust, 26 April 2019.

42 Ibid.

43 Email from Miles Hawthorn, HALO Trust, 18 April 2021.

A new local mine clearance organisation, HAK (now CHD FUND), was established in 2020, initially with one clearance team. In 2020, it was mainly focused on getting established and learning about contamination and was not reportedly very active operationally. In 2020, the HALO Trust provided CHD FUND with information and equipment, including detectors and personal protective equipment (PPE)⁴⁴ and in 2021, provided EOD training (Level 1) to two CHD FUND staff.⁴⁵

COVID-19 had a significant impact on survey and clearance operations in 2021 as there was widespread vaccine hesitancy in Nagorno-Karabakh, including among HALO Trust staff, and the national vaccine uptake rate is estimated at only 2% of the population.⁴⁶ Despite HALO's robust internal COVID SOPs, there were spikes in infections in the middle of the year and then again in November and December. In conformity with national and international regulations, infected staff and their close contacts, including their HALO teams, were stood down, resulting in a considerable number of lost team days in both survey and clearance.⁴⁷

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

Prior to the 2020 war, HALO Trust had focused on landmine clearance and cleared no cluster munition contaminated land in 2020. It switched focus to CMR clearance after the war ended in November 2020 to address the threat posed by unexploded submunitions. In 2021, HALO Trust cleared 4,001,259m² of CHA.⁴⁸ No land was cancelled through non-technical survey or reduced through technical survey by HALO in 2021.

HALO Trust has to date only conducted surface CMR clearance.⁴⁹ As was the case following the 2016 war, minimal items have been found subsurface since the 2020 war ended, despite numerous areas being ploughed since. The HALO Trust will conduct subsurface clearance when the number of items found on the surface starts to decrease. It has recently purchased two new large-loop detectors with funding from Norway and further tests on soft ground in highly contaminated areas were planned for 2022.⁵⁰

Table 2: CMR clearance by The HALO Trust in 2021⁵¹

District	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed during CMR clearance
Askeran	2,342,246	28	203
Martakert	245,670	10	18
Martuni	1,413,343	107	171
Totals	4,001,259	145	392

HALO conducted 505 EOD call-outs in 2021, and destroyed 1,715 submunitions and 3,117 other items of explosive ordnance (in addition to those listed in Table 2).⁵² This compared to 2020, when HALO destroyed 73 submunitions in EOD call-outs.⁵³ HALO Trust completed 16 BAC tasks in 2021 and in only two of them found no remnants. The total size of tasks cleared in 2021 which contained cluster munition remnants was 3,398,570m².⁵⁴

Table 3: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2021	4.00
2020	0
2019	0.05
2018	0
2017	1.06
Total	5.11

PROGRESS TOWARDS COMPLETION

Until 2021, productivity had dropped sharply in recent years, which HALO ascribed to donor hesitancy. Despite the sharply increased humanitarian threat posed by cluster munitions and other ERW since the 2020 war and an increase in CMR clearance in 2021, prospects for scaling up clearance continue to be limited by funding constraints.⁵⁵

44 Ibid.

45 Email from Fiona Kilpatrick-Cooper, HALO Trust, 13 June 2022.

46 Email from Miles Hawthorn, HALO Trust, 5 May 2022.

47 Ibid.

48 Ibid.

49 Ibid.

50 Ibid.

51 Ibid.

52 Email from Miles Hawthorn, HALO Trust, 5 May 2022.

53 Email from Miles Hawthorn, HALO Trust, 20 May 2021.

54 Ibid.

55 Emails from Miles Hawthorn, HALO Trust, 18 April 2021 and 5 May 2022.

KEY DATA

CLUSTER MUNITION CONTAMINATION: LIGHT

NATIONAL ESTIMATE

2 KM²

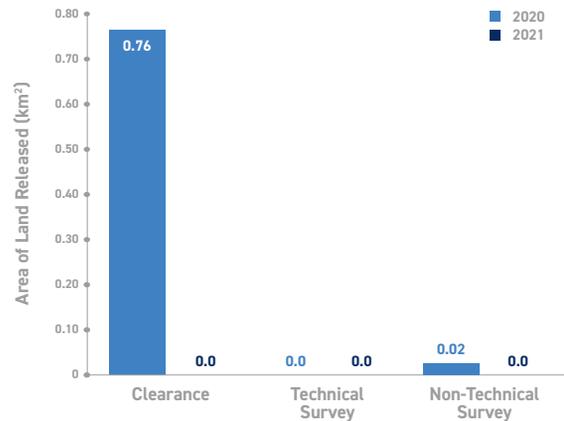
SUBMUNITION CLEARANCE IN 2021

0 KM²

SUBMUNITIONS DESTROYED IN 2021

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) and to clear all cluster munition remnants (CMR) contamination east of the Berm as soon as possible. This commitment should include annual submission of voluntary Article 7 transparency reports.
- Polisario Front should approve survey and clearance operations allowing the United Nations Mine Action Service (UNMAS) and its implementing partners to address the remaining mine, CMR, and other explosive remnants of war (ERW) contamination on territory under its jurisdiction or control.
- The SADR should comply with its obligations under international human rights law to clear CMR on territory under its jurisdiction or control as soon as possible.
- Greater support should be provided to the Saharawi Mine Action Coordination Office (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 lost.
- Mine action in Western Sahara must not become forgotten or overlooked by the international mine action community. Support must still be given to address remaining mine, CMR, and other ERW contamination.
- SMACO should revise its strategy to include a more realistic date for completion of clearance of CMR with annual survey and clearance targets, and a detailed budget.

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 2021, Western Sahara east of the Berm¹ had a total of 45 confirmed hazardous areas (CHAs) containing CMR, covering a total of 2.09km².² This is a small decrease from the 45 areas totalling 2.1km² reported by UNMAS as remaining at end of 2020 (in relation to the southern region) which is due to data cleaning and a more accurate mapping system used by Information Management System for Mine Action (IMSMA) Core.³ Both the north and south of Western Sahara east of the Berm are still affected, as summarised in Table 1.⁴

Table 1: Cluster munition-contaminated area east of the Berm (at end 2021)⁵

Region	CHAs	Area (km ²)
North	26	0.81
South	19	1.28
Totals	45	2.09

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 Sahrawi Arab Democratic Republic (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.⁶ 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.⁷ 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.⁸

While CMR clearance had been projected to be completed by the end of 2012,⁹ 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.¹⁰ In 2021, no new areas of previously unrecorded contamination were identified and added to the database.¹¹

Of the 45 recorded CHAs, eight cluster munition strike areas covering a total estimated size of 0.5km² are located inside the buffer strip and are inaccessible for clearance.¹² Clearance of mines and ERW in the buffer strip, restricted areas, and along the Berm itself is not foreseen in the United Nations Mission for the Referendum in Western Sahara (MINURSO) mission agreements, which, according to the UN, considerably limits the ability of MINURSO military observers to patrol.¹³

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Western Sahara also remains significantly affected by mines and ERW other than CMR 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 29 October 2021, MINURSO's mandate was extended for an additional 12 months until 31 October 2022 under UN Security Council Resolution 2602. 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.¹⁴

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 Edwin Faigmane, Programme Officer, UNMAS, 21 March 2022.
 3 Emails from Leon Louw, Programme Manager, UNMAS, 30 March 2021; and Edwin Faigmane, UNMAS, 24 May 2022.
 4 Email from Leon Louw, UNMAS, 4 February 2022.
 5 Email from Edwin Faigmane, UNMAS, 21 March 2022.
 6 SADR Voluntary CCM Article 7 Report, dated 20 June 2014, Form F.
 7 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/3mPfyGj>.
 8 Email from Edwin Faigmane, UNMAS, 24 May 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 Leon Louw, UNMAS, 4 February 2022.
 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 2021, UNMAS Western Sahara provided SMACO with a US\$26,497 grant to cover some of its operating expenses. SMACO has reported to UNMAS that it has also received some funding from the International Committee of the Red Cross (ICRC). UNMAS has advocated that SMACO and the Sahrawi authorities provide their own funding to support SMACO activities. SMACO also receives ongoing capacity development support from UNMAS Western Sahara and is currently being supported to develop a resource mobilisation plan.¹⁵

UNMAS Western Sahara receives funding from the UN Assessed Budget for land release activities in the area east of the Berm. It received \$3.03 million for the period 1 July 2021 to 30 June 2022.¹⁶

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.¹⁷ UNMAS has a gender strategy as part of its overall country strategy.¹⁸ 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.¹⁹ 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.²⁰

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 2021, 20% (one of five) of staff in SMACO were women in managerial/supervisory positions while in SafeLane Global (UNMAS's contractor) 14% (one of seven) of managerial staff and 4% of survey and clearance teams (one of twenty-four) were women.²¹ 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.²²

INFORMATION MANAGEMENT AND REPORTING

According to UNMAS, the IMSMA database for Western Sahara, east of the Berm, improved as a result of an ongoing data audit initiated at the end of 2015.²³ 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 2019.²⁴ This did not occur and was further delayed due to the COVID-19 lockdown, but as at February 2022 the migration was complete and personnel were undergoing refresher training before a full switch to IMSMA Core.²⁵

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. In 2021, UNMAS reported that a strategy for CMR clearance was under development, but this has been delayed due to COVID-19 and the outbreak of hostilities between the Royal Moroccan Army (RMA) and the Polisario Front.²⁶

15 Emails from Leon Louw, UNMAS, 4 February 2022; and Edwin Faigmane, UNMAS, 21 March 2022.

16 Emails from Leon Louw, UNMAS, 4 February 2022; and Edwin Faigmane, UNMAS, 24 May 2022.

17 Emails from Graeme Abernethy, UNMAS, 1 March and 5 May 2018.

18 Email from Leon Louw, UNMAS, 30 March 2021.

19 Email from Edwin Faigmane, UNMAS, 18 June 2020.

20 Emails from El Hadji Mamadou Kebe, NPA, 4 May 2019 and 14 March 2018.

21 Email from Leon Louw, UNMAS, 4 February 2022.

22 Email from Leon Louw, UNMAS, 30 March 2021; and SMAWT newsletter, March 2022, at: <https://bit.ly/3yN542U>.

23 Emails from Graeme Abernethy, UNMAS, 1 March and 5 May 2018.

24 Email from Robert Thompson, UNMAS, 31 May 2019.

25 Email from Leon Louw, UNMAS, 4 February 2022.

26 Email from Leon Louw, UNMAS, 30 March 2021; and Edwin Faigmane, UNMAS, 21 March 2022.

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 2023.²⁷

As at February 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 versions. A mine action work plan was in place for UNMAS in 2021, developed by UNMAS Western Sahara, in support of MINURSO's mandate.²⁸

UNMAS Western Sahara mine action activities continue to be in support of MINURSO's mandate.²⁹ 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.³⁰ 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.³¹ 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.³²

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. A first annual review of the standards was completed in November 2018 with a review board consisting of representatives from UNMAS, SMACO, and implementing partners. No significant changes were made, and UNMAS reported in June 2019 that translation of the standards into Arabic had been completed and shared with SMACO.³³ UNMAS reported that the standards are reviewed annually but that no updates were made in 2021.³⁴ As part of their national standards, SMACO have a policy on environmental management with a requirement that all implementation plans consider environmental impacts.³⁵

An external quality management system was in place from 2018 and implemented by UNMAS and SMACO to the east of the Berm.³⁶

OPERATORS AND OPERATIONAL TOOLS

Table 2: Operational clearance capacities deployed in 2021³⁷

Operator	Manual teams	Total deminers*	Dog teams	Mechanical assets	Comments
SafeLane Global (for UNMAS Western Sahara)	1	10	0	0	Decrease from 2020 by one team of 14 deminers
Totals	1	10	0	0	

* Excluding team leaders, medics, and drivers.

27 SMACO, "Strategic Plan 2019–2023", at: <http://bit.ly/38jaGm?>; and email from Robert Thompson, UNMAS, 31 July 2019.

28 Email from Leon Louw, UNMAS, 4 February 2022.

29 Email from Edwin Faigmane, UNMAS, 18 June 2020.

30 Emails from Graeme Abernethy, UNMAS, 1 March and 5 May 2018; and Edwin Faigmane, UNMAS, 6 August 2020.

31 Email from Leon Louw, UNMAS, 4 February 2022; and Edwin Faigmane, UNMAS, 21 March 2022.

32 Email from Edwin Faigmane, UNMAS, 24 May 2022.

33 Emails from Robert Thompson, UNMAS, 29 April 2019; and Dandan Xu, UNMAS, 28 June 2019.

34 Email from Leon Louw, UNMAS, 4 February 2022.

35 Email from Edwin Faigmane, UNMAS, 18 June 2020.

36 Emails from Robert Thompson, UNMAS, 29 April 2019; and Edwin Faigmane, UNMAS, 28 July 2020.

37 Email from Leon Louw, UNMAS, 4 February 2022.

SafeLane Global (formerly Dynasafe MineTech Limited, DML) was the implementing operator for UNMAS Western Sahara in 2021. During 2021, due to COVID-19 restrictions, 75% of personnel were stood down. After the restrictions lifted, capacity was scaled up but was still at only 50% of planned capacity due to the conflict. No changes to capacity were expected in 2022.³⁸

DRC did not conduct any survey or clearance in Western Sahara in 2021. During 2021, DRC was planning to deploy teams to conduct non-technical survey in Western Sahara east of the Berm but was unable to do so due to restrictions from COVID-19 and the renewal of conflict. As at February 2022, with the border between Algeria and Western Sahara opened again, DRC was looking for funding to reinstate non-technical survey, although none had been secured as of writing.³⁹

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

No cluster munition-contaminated area was released through survey or clearance in 2021.⁴⁰ This is a reduction from the 0.78km² that was released through survey and clearance in 2020 with 292 submunitions destroyed. Of this, 0.02km² was cancelled through non-technical survey and 0.76km² was cleared.⁴¹

No CMR were reported to have been destroyed in spot tasks in 2021 either.⁴² UNMAS stated that the reasons for lack of CMR survey and clearance output in 2021 was the partial suspension of clearance operations in accordance with COVID-19 protocols as well as the ending of the three-decades-long ceasefire between Morocco and Polisario in November 2020, which 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.⁴³

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 therefore 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”.⁴⁴ 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 2019.⁴⁵ 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 2018.⁴⁶ This did not happen, however, and in SMACO's new mine action strategy 2019–23, the vision is for Western Sahara to be free of the impact of mines and ERW by 2023.⁴⁷ No land release took place during 2021, a further decrease from the 0.76km² cleared in 2020, as operations were restricted by both COVID-19 and the resurgence of conflict. Currently Western Sahara is not on track to meet its 2023 completion date, which should now be revised along with the timed objectives in SMACO's Strategic Plan 2019–2023. As at May 2022, UNMAS were in the process of obtaining permission to restart clearance operations in safe areas.⁴⁸ In support of this there is a need for increased resources and capacity at SMACO.

38 Email from Leon Louw, UNMAS, 30 March 2021.

39 Email from Catherine Smith, Regional Coordinator, DDG, 1 February 2022.

40 Email from Leon Louw, UNMAS, 4 February 2022.

41 Email from Leon Louw, UNMAS, 30 March 2021.

42 Email from Leon Louw, UNMAS, 4 February 2022.

43 Email from Leon Louw, UNMAS, 30 March 2021; and UN Country Level Survey for the Monitoring & Evaluation Mechanism of the United Nations Mine Action Strategy 2019 – 2023.

44 SADR Voluntary CCM Article 7 Report, Form F, 20 June 2014.

45 Emails from Virginie Auger, UNMAS, 29 March 2017; and Graeme Abernethy, UNMAS, 31 March 2018.

46 Email from Graeme Abernethy, UNMAS, 1 March 2018.

47 SMACO, “Strategic Plan 2019–2023”, at: <http://bit.ly/38jaGm2>.

48 Email from Edwin Faigmane, UNMAS, 24 May 2022.

ANNEX

The background of the page is composed of several overlapping, angular shapes in two shades of blue: a medium blue and a dark blue. These shapes create a dynamic, layered effect, with some shapes appearing to be in front of others, creating a sense of depth and movement. The overall composition is abstract and modern.

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.

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.

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

AIM	Abandoned Improvised Mines (Afghanistan)	LIS	Landmine Impact Survey
AP mine	Anti-personnel mine	MAG	Mines Advisory Group
APMBC	1997 Anti-Personnel Mine Ban Convention	MDD	Mine detection dog (team)
AV mine	Anti-vehicle mine	MoU	Memorandum of Understanding
AXO	Abandoned explosive ordnance	MRE	Mine risk education
BAC	Battle area clearance	MTT	Multi-task team
BiH	Bosnia and Herzegovina	NATO	North Atlantic Treaty Organization
CCM	2008 Convention on Cluster Munitions	NGO	Non-governmental organisation
CCW	Convention on Certain Conventional Weapons	NMAS	National Mines Action Standards
CHA	Confirmed hazardous area	NPA	Norwegian People's Aid
CMR	Cluster munition remnants	NSAG	Non-state armed group
CMRS	Cluster Munition Remnants Survey	NTS	Non-technical survey
DCA	DanChurchAid	OAP	Oslo Action Plan
DDG	Danish Demining Group	OAS	Organization of American States
EDD	Explosive detection dog (team)	OSCE	Organization for Security and Co-operation in Europe
EO	Explosive ordnance	PPE	Personal protective equipment
EOD	Explosive ordnance disposal	QA	Quality assurance
EORE	Explosive ordnance risk education	QC	Quality control
ERW	Explosive remnants of war	QM	Quality management
EU	European Union	SHA	Suspected hazardous area
FSD	Swiss Foundation for Mine Action	SOP	Standing (or standard) operating procedure
GICHD	Geneva International Centre for Humanitarian Demining	TS	Technical survey
GIS	Geographic information system	TWG	Technical working group
HI	Humanity and Inclusion	UN	United Nations
ICRC	International Committee of the Red Cross	UNDP	United Nations Development Programme
IED	Improvised explosive device	UNICEF	United Nations Children's Fund
IMAS	International Mine Action Standards	UNMAS	United Nations Mine Action Service
IMSMAS	Information Management System for Mine Action	UXO	Unexploded ordnance
IP	Implementing partner	VA	Victim assistance
ITF	International Trust Fund (ITF) Enhancing Human Security	VTF	Voluntary Trust Fund (United Nations)



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Norwegian People's Aid
PO Box 8844 Youngstorget
N-0028 Oslo, Norway
Telephone: + 47 2203 7700
Email: npaid@npaid.org
www.npaid.org