

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

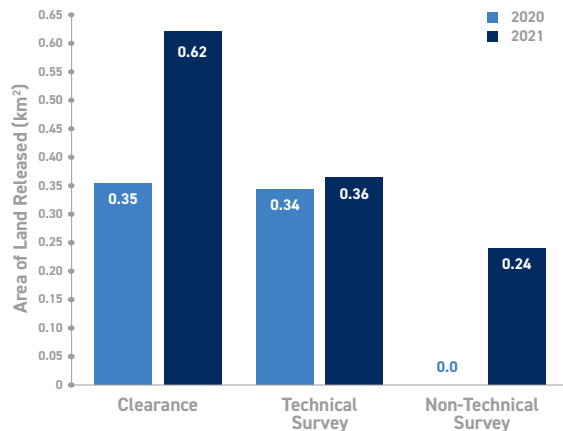
SUBMUNITION CLEARANCE IN 2021

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. BHMAC is responsible for regulating mine action and implementing BiH's survey and clearance plans.¹⁶ BHMAC operates from its headquarters in Sarajevo, and two main offices in Sarajevo and Banja Luka, and eight regional offices (Banja Luka, Bihac, Brčko, Mostar, Pale, Sarajevo, Travnik, and Tuzla).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, BHMAC 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, BHMAC 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. BHMAC 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. BHMAC 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, BHMAC 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 APMB 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, BHMAC 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, BHMAC, 2 July 2021.

19 Email from GICHD, 14 May 2021.

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

21 Email from Ljiljana Ilić, BHMAC, 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, BHMAC, 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); Hercegbosanski 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; Hercegbosanski (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.