

MINE
ACTION
REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2021

A REPORT BY MINE ACTION REVIEW FOR PART 2 OF THE THIRD REVIEW
CONFERENCE OF THE 2008 CONVENTION ON CLUSTER MUNITIONS

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Other information

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CLEARING CLUSTER MUNITION REMNANTS

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KEY FINDINGS

- In 2020, a global total of **135.1 square kilometres** was cleared of cluster munition remnants (CMR), a new annual record. This is an exceptional achievement given the backdrop of the global COVID-19 pandemic, the public health management of which has impacted negatively on operations in several countries. Fewer unexploded submunitions, however, were destroyed during clearance, survey, and spot tasks in 2020 than the year before: **more than 110,000, compared to over 132,000 in 2019.**
- **Three States Parties to the CCM—Croatia, Montenegro, and the United Kingdom—fulfilled their Article 4 obligations in 2020.** Croatia and Montenegro both fulfilled their respective Convention on Cluster Munitions (CCM) Article 4 clearance obligations in July 2020, ahead of their original 10-year common 1 August treaty deadline. The United Kingdom, which had not considered itself to have an obligation under Article 4 of the CCM,¹ confirmed that UK bombing data for the Falkland Islands showed no evidence that cluster munitions were dropped on the four remaining minefields in Yorke Bay which the United Kingdom cleared in 2020 as part of completion of its Article 5 obligations under the Anti-Personnel Mine Ban Convention (APMBC).
- In total, **ten States Parties and one State not party have been declared free of cluster munition-contaminated area since 2010, the year the CCM entered into force.**² Mauritania, which had reported fulfilment of its Article 4 clearance obligations in 2013, was added back to the list of affected States Parties in 2020 after discovering cluster munition-contaminated areas in territory under its jurisdiction or control.
- As at 1 July 2021, **26 States and three other areas** were confirmed or suspected to have CMR-contaminated areas under their jurisdiction or control,³ an overall increase of one State on last year's *Clearing Cluster Munition Remnants* report, due to new contamination in Armenia in late 2020 as a result of the conflict with Azerbaijan.
- Of these ten affected States Parties, only Lao PDR is massively contaminated (defined as covering more than 1,000km² of land), while heavy contamination exists in Iraq (covering more than 100 km²). In the other nine affected States Parties, the extent of contamination is medium or light. However, no clearance was recorded or reported for 2020 in four States Parties: Afghanistan, Chile, Mauritania, and Somalia. Furthermore, no affected State Party was clearly on track to complete clearance by the expiry of its Article 4 deadline, although BiH should be able to complete clearance by its extended deadline of 1 September 2022 with effective national ownership and planning, and Chad and Somalia could conceivably meet their original deadlines (1 September 2023 and 1 March 2026, respectively).
- Four of the world's most heavily contaminated States—Lao PDR, Vietnam, Cambodia, and Iraq—again saw the greatest clearance during the year, together accounting for 95% of recorded global output.
- In **Mine Action Review's assessment of national mine action performance in 2020**, Croatia and Montenegro, who fulfilled their Article 4 obligations during the year, were again ranked as Very Good. Afghanistan, Germany, Lao PDR, and Lebanon were again ranked Good. BiH and Iraq remained ranked as Average, along with Mauritania, newly scored following the report of previously undiscovered CMR contamination. Chad and Chile remained Poor, while Somalia dropped from Poor to 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 consideration is also becoming increasingly prominent in mine action** as it is across all sectors.

As a result of progress achieved under the CCM, **of the 110 States Parties to the CCM, only ten had cluster munition-contaminated areas to release:** Afghanistan, Bosnia and Herzegovina (BiH), Chad, Chile, Germany, Iraq, Lao PDR, Lebanon, Mauritania, and Somalia.

1 The United Kingdom considered that it had made every effort to identify all cluster munition-contaminated areas under its jurisdiction or control, prior to becoming a State Party to the CCM.

2 States Parties: Croatia, Colombia, Rep. of Congo, Grenada, Guinea-Bissau, Montenegro, Mozambique, Norway, United Kingdom (see note 1 above), and Zambia (Zambia completed CMR clearance in June 2010 prior to entry into force of the CCM on 1 August 2010). In addition, State not Party, Thailand, also completed CMR clearance.

3 **Afghanistan**, Angola, Armenia, Azerbaijan, **BiH**, Cambodia, **Chad**, **Chile**, DR Congo, Germany, Georgia, **Iraq**, Iran, *Kosovo*, **Lao PDR**, **Lebanon**, Libya, **Mauritania**, *Nagorno-Karabakh*, Serbia, **Somalia**, South Sudan, Sudan, Syria, Tajikistan, Ukraine, Vietnam, *Western Sahara*, and Yemen. States Parties to the CCM are in bold; signatories are underlined; and other areas are in italics.

OVERVIEW

SUMMARY OF PROGRESS

Global clearance of cluster munition-contaminated areas totalled 135.1km² in 2020, an increase on the 131.7km² cleared in 2019 and a new annual record. A total of more than 110,000 unexploded submunitions were destroyed during clearance and explosive ordnance disposal (EOD) operations in 2020 (almost 17% fewer than in 2019), which occurred in 19 countries and other areas.¹ This is an exceptional achievement given the backdrop of the global COVID-19 pandemic, the public health management of which has impacted negatively on operations in several countries. The total recorded figure of area clearance for 2020 also understates the true level of clearance given that detailed results in Azerbaijan, Iran, and Syria have not been made public.

Croatia and Montenegro both fulfilled their respective Convention on Cluster Munitions (CCM) Article 4 clearance obligations in 2020, ahead of their original 10-year common 1 August treaty deadline. The United Kingdom, which had not considered itself to have an obligation under Article 4 of the CCM,² confirmed that UK bombing data for the Falkland Islands showed no evidence that cluster munitions were dropped on the four remaining minefields in Yorke Bay, which the United Kingdom cleared in 2020 as part of completion of its Article 5 obligations under the Anti-Personnel Mine Ban Convention (APMBC). As a consequence, as at July 2021, ten States Parties to the CCM had cluster munition-contaminated areas on territory under their jurisdiction or control still to release: Afghanistan,

Bosnia and Herzegovina (BiH), Chad, Chile, Germany, Iraq, the Lao People's Democratic Republic (Lao PDR), Lebanon, Mauritania, and Somalia. Of these, none was firmly on target to meet its clearance deadlines under Article 4 of the Convention without the need for one or more extensions.

There have been indications from the national mine action authority that Chad has been considering declaring fulfilment of its Article 4 obligations in 2021, but such a declaration would be premature, given the lack of adequate survey of suspected areas of contamination. More realistic would be a declaration of completion by signatory State Angola, if it believes that no suspected or confirmed cluster munition-contaminated areas remain on its territory (although a small "residual" number of submunitions may still be encountered from time to time). Georgia is also believed to be free of cluster munition remnants (CMR), with the possible exception of South Ossetia, where the situation remains unclear.

Globally, 26 States and three other areas were cluster munition contaminated as at 1 July 2021, with Armenia having been added to the list as a result of cluster munition use in the conflict with Azerbaijan in 2020 (see below). By 2030, all but Cambodia, Iraq, Lao PDR, Syria, Vietnam, and Yemen should have completed clearance. The world is making good strides towards ending the threat from cluster munition remnants.

NEW USE OF CLUSTER MUNITIONS

Regrettably, however, new contamination from unexploded submunitions was added in 2020 as a result of the six-week armed conflict between Armenia and Azerbaijan, which broke out in September of that year. The full extent of such contamination is not known, but in December Human Rights Watch declared that Armenian or allied Nagorno-Karabakh forces "repeatedly fired" cluster munitions in "attacks on populated areas in Azerbaijan during the six-week war over Nagorno-Karabakh".³ Human Rights Watch had previously accused Azerbaijan of "repeatedly" using cluster munitions "in residential areas in Nagorno-Karabakh".⁴ Armenia also suffered cluster munition attacks, adding it to the list of affected States. Both Armenia and Azerbaijan should commit to cease all use of cluster munitions and accede to the CCM. In Syria, too, cluster munitions continued to be used, whether by Syrian forces, the Russian air force, or a combination

of the two. Both in 2020 and into 2021, attacks have been recorded in Aleppo, Hama, and Idlib governorates adding to a significant existing problem. No armed force or armed group should be using cluster munitions under any circumstances. Targeting civilians or civilian objects with cluster munitions or the indiscriminate use of cluster munitions in populated areas is a serious violation of international humanitarian law.

All States that adhere to the CCM formally renounce under international law all use of cluster munitions in any circumstances and undertake to destroy all stockpiles of the weapons. As at 1 July 2021, 110 States were party to the CCM, leaving a total of 87 States not party. Of these, 13 States were signatories to the CCM, meaning that they are also prevented by general international law from using cluster munitions.⁵ This is so, even before they ratify the CCM.

1 States Parties Bosnia and Herzegovina, Chad, Croatia, Germany, Iraq, Lao PDR, Lebanon, and Montenegro, and States not party Azerbaijan, Cambodia, Serbia, South Sudan, Syria, Tajikistan, Ukraine, Vietnam, and Yemen, and other areas Kosovo and Western Sahara.

2 The United Kingdom had not considered itself to have an obligation under Article 4 of the CCM and had reported that it considered that it had made every effort to identify all cluster munition-contaminated areas under its jurisdiction or control, prior to becoming a State Party to the CCM.

3 Human Rights Watch, "Armenia: Cluster Munitions Used in Multiple Attacks on Azerbaijan", 15 December 2020, at: <https://bit.ly/3wnkBCw>.

4 Human Rights Watch, "Azerbaijan: Cluster Munitions Used in Nagorno-Karabakh", 23 October 2020, at: <https://bit.ly/2ToTDMs>.

5 Art. 18(a), Vienna Convention on the Law of Treaties; adopted at Vienna, 23 May 1969; entered into force, 27 January 1980.

GLOBAL CMR CONTAMINATION

Globally, 26 States and three “other areas” (territories not recognised as States by the United Nations Secretary-General) were cluster munition-contaminated as at 1 July 2021. In addition to the ten CCM States Parties with areas containing CMR on territory under their jurisdiction or control, two signatory States and a further fourteen States not party were also affected. All affected States and other areas are listed in Table 1. Armenian territory was newly contaminated with CMR as a result of the 2020 conflict with Azerbaijan.

By far the world’s most contaminated State is State Party Lao PDR, which is massively contaminated. While a national baseline survey is still ongoing, there were indications that there will be a huge reduction from the 87,000km² claimed some years ago. State not party, Vietnam, also has massive contamination on its territory, likely to amount to around 1,500km². But evidence based survey and better targeted clearance are bringing down huge deadly legacies of the Vietnam War into manageable challenges. This is not a problem without a finite solution.

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 also likely demand more than a decade. The extent of CMR contamination in Syria and Yemen has yet to be established but is likely to be heavy.

However, with the exception of Cambodia, Iraq, Lao PDR, Syria, Vietnam, and Yemen, all other affected States and other areas can be free of cluster munition remnants by 2030 (and most well before), meeting the end date for the fulfilment of the United Nations Sustainable Development Goals (SDGs). While CMR affect many of the SDGs, especially important are SDG 1 and 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.

Table 1: Global CMR contamination (at 1 July 2021)

States Parties	Signatory States	States not party	Other areas
Afghanistan	Angola	Armenia	Kosovo
BiH	DR Congo	Azerbaijan	Nagorno-Karabakh
Chad		Cambodia	Western Sahara
Chile		Georgia*	
Germany		Iran	
Iraq		Libya	
Lao PDR		Serbia	
Lebanon		South Sudan	
Mauritania		Sudan	
Somalia		Syria	
		Tajikistan	
		Ukraine	
		Vietnam	
		Yemen	
10 States Parties	2 Signatory States	14 States not party	3 Other areas

* Clearance believed by Mine Action Review to be complete in areas under government control.

Table 2: Extent of CMR-contaminated Areas in Affected CCM States Parties (at 1 July 2021)

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

CMR CLEARANCE IN 2020

A total of 135.1km² of cluster munition-contaminated area was cleared globally in 2020 (see Table 3), an increase on the 131.7km² cleared in 2019 (revised up from almost 130.1km², based on new 2019 information) and a new annual record for the sector. Significant clearance was reported for 2020 in Vietnam thanks to transparency from the Vietnam National Mine Action Centre (VNMAC). During the year, a total of more than 110,000 unexploded submunitions were destroyed worldwide during clearance, survey, and spot tasks – an almost 17% reduction on more than 132,000 submunitions destroyed in 2019.

The four most heavily contaminated States in the world—Lao PDR, Vietnam, Cambodia, and Iraq—again saw the greatest extent of clearance during the year, together accounting for 95% of recorded global clearance (see Table 3). Both Croatia and Montenegro completed clearance of CMR contamination on their territory in July 2020. Given the context of the COVID-19 pandemic and associated impacts and restrictions, this is a testament to the commitment and dedication of demining personnel and organisations around the world, as well as the political will and determination of the affected countries.

Progress in affected States Parties has, though, been disappointingly uneven. Of the 12 affected States Parties on

1 January 2020, only eight conducted clearance of cluster munition-contaminated area during the year. In Afghanistan, no clearance or release through survey of CMR-contaminated area occurred in 2020 (though 276 submunitions were destroyed during EOD operations), leaving more than 7.5km² to release in 2021 and early 2022 before the expiry of its Article 4 clearance deadline. Further discoveries of cluster munition-contaminated area in 2021 meant that Afghanistan had to seek an extension to its treaty deadline. No clearance of cluster munition-contaminated area occurred at all in Chile or Somalia in 2020, though two submunitions were cleared during battle area clearance (BAC) operations in Somalia. No clearance also occurred in Mauritania, which had newly reported in 2020 that it had discovered legacy CMR contamination that fell within its borders, leading it to request an extension to its treaty deadline, in order to rebuild a clearance programme and release the newly discovered cluster munition-contaminated areas.

The global total of CMR clearance in 2020 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 2020

States Parties	Area cleared in 2020 (km ²)	Submunitions destroyed*	Comparison to 2019 clearance (+/- km ²)	Comments
Afghanistan	0	276	-2.72	
BiH	0.35	166	-0.1	
Chad	0.41	2	-0.94	
Chile	0	0	0	
Croatia	0.03	19	-0.02	Completed CMR clearance in July 2020
Germany	1.09	971	- 0.12	
Iraq	5.67	5,831	+ 0.93	
Lao PDR	**42.90	71,235	- 2.87	** Based on humanitarian clearance data the National Regulatory Authority (NRA) reported to Mine Action Review. Excludes commercial clearance.
Lebanon	1.28	2,098	+ 0.02	
Mauritania	0	0	0	Legacy CMR contamination reported in 2020
Montenegro	0.06	15	-0.21	Completed CMR clearance in July 2020
Somalia	0	2	0	
Sub-totals (States Parties)	51.79	80,615		

States not party, signatories, and other areas	Area cleared in 2020 (km ²)	Submunitions destroyed*	Comparison to 2019 clearance (+/- km ²)	Comment
Cambodia	30.99	10,710	+ 5.80	
South Sudan	2.24	2,045	- 1.05	
Vietnam	***48.50	15,279	****+ 9.96	***Includes a conservative estimate by Mine Action Review of 10km ² of CMR clearance from a total of 61.5km ² BAC of all explosive ordnance reported by the Vietnam National Mine Action Centre and related to the Korea-Vietnam Mine Action Project (KV-MAP). ****2019 clearance data did not include an estimate for KV-MAP.
Western Sahara	0.76	292	- 0.83	
Other States Parties, signatories, and other areas combined	0.82	1,150	N/A	
Sub-totals (States not party, Signatories, and other areas)	83.31	29,476	N/A	
Grand Totals	135.10	110,091	+3.4	

* Includes submunitions destroyed during survey and spot tasks.

STATES THAT HAVE COMPLETED CMR CLEARANCE

In 2020, three States Parties, Croatia, Montenegro, and the United Kingdom, fulfilled their Article 4 obligations under the CCM, bringing the total to 10 States Parties and 1 State not party that have completed survey and clearance of CMR-contaminated area in territory under their jurisdiction or control in the last decade. Zambia completed CMR clearance in June 2010, ahead of the Convention's entry into force on 1 August 2010, and the remaining States Parties all completed survey and clearance within their original ten-year treaty deadlines (see Table 4). Four of the States that have completed clearance are from Africa, four from Europe, two from the Americas, and one is from Asia. Thailand is the only State not party to have completed CMR clearance on its territory since 2010.

Mauritania, which had formally declared fulfilment of its Article 4 clearance obligations in 2014, discovered in 2019 that contamination remained on territory under its jurisdiction or control. In June 2021, Mauritania presented a two-year Extension Request to its Article 4 deadline. The extension being sought comprises six months to mobilise the necessary resources and set up the operation, a year to complete the clearance, and a further six months to address any additional contamination that might be found during clearance and to finalise completion reporting. Likewise, with further survey and clearance, Chad could declare fulfilment in the next two years.

Table 4: States that have Completed CMR Clearance since 2010 (at 1 July 2021)

State	Date of Completion
Croatia	2020
Montenegro	2020
United Kingdom*	2020
Colombia	2017
Mozambique	2016
Norway	2013
Grenada	2012
Republic of Congo	2012
Guinea-Bissau	2012
Thailand**	2011
Zambia***	2010
Total	11 States

* The United Kingdom had not considered itself to have an obligation under Article 4 of the CCM and had reported that it considered that it had already made every effort to identify all cluster munition-contaminated areas under its jurisdiction or control, prior to becoming a State Party to the CCM.

** State not party to the CCM.

*** Completed CMR clearance in June 2010 prior to entry into force of the CCM on 1 August 2010.

CLEARANCE DEADLINES AND PROGRESS IN ARTICLE 4 IMPLEMENTATION

While all affected States and territories are obligated under international human rights law to clear unexploded submunitions as soon as possible, States Parties to the CCM have specific deadlines. Article 4 of the CCM requires affected States to complete CMR clearance as soon as possible, but not later than ten years from becoming party to the Convention. The first of these original ten-year deadlines expired in 2020, leading to extensions being granted by States Parties to BiH (18-month extension), Chile (one-year interim extension), and Germany, Lao PDR, and Lebanon (each was granted a five-year extension). In addition, a four-year extension request to its original deadline from Afghanistan, a further one-year interim extension request

from Chile, and a first extension request for two-years from Mauritania were being considered by the States Parties at the second part of the Second Review Conference in 2021.

Of the 10 affected States Parties, none was clearly on track to complete clearance by the expiry of its Article 4 deadline, although BiH should be able to complete clearance by its extended deadline of 1 September 2022 with effective national ownership and planning, and Chad and Somalia could conceivably meet their respective original deadlines (1 September 2023 and 1 March 2026, respectively). Table 5 sets out the details of progress towards fulfilment of the clearance obligations under the Convention.

Table 5: Progress in Implementing CCM Article 4 Obligations

State Party	Article 4 Deadline	Status of progress	Implementation progress and priorities
Afghanistan	1 March 2022	Four-year Article 4 deadline extension requested to 1 March 2026.	Afghanistan had expected to meet its deadline despite the considerable clearance task remaining as at the beginning of 2021, but delays in securing funding and further new discoveries of CMR contamination in 2021 meant that it has had to request an extension from the other States Parties at Part 2 of the Second Review Conference of the Convention.
Chile	1 June 2022	One-year interim Article 4 deadline extension requested to 1 June 2023.	Chile was granted a first interim one-year extension to conduct technical survey. A second one-year interim extension request for technical survey was submitted in June 2021. A ministerial decree was issued in 2021, which outlined the management structure within the government for the delivery of Chile's obligations under the CCM. In August 2021, Chile submitted a detailed costed work plan in which it committed to conduct technical surveys of the affected areas in November to December 2021 and to complete the reports of the surveys in January to February 2022.
Mauritania	1 August 2022	Two-year Article 4 deadline extension requested to 1 August 2024.	Mauritania newly reported in 2020 the discovery of cluster munition-contaminated areas under its jurisdiction or control and that it must restart a CMR clearance programme that had closed eight years ago. Mauritania estimates that CMR clearance can be concluded within approximately one year of starting operations. As at July 2021, Mauritania had yet to secure funding for clearance, but was making efforts to mobilise international support.
BiH	1 September 2022	Unclear	BiH was granted an 18-month extension in 2020. However, as of writing BiH's completion of CMR clearance by this extended deadline looked to be very tight, with no margin for delay. BiH will need to seek a further extension for consideration from the other States Parties at Part 2 of the Second Review Conference of the Convention, if it is not certain to complete by the end of August 2022.
Chad	1 September 2023	Unclear	The extent of remaining contamination in Chad is not known but regions where CMR are suspected are yet to be surveyed. Mooted plans by the Chadian authorities to announce fulfilment of Article 4 in 2021 would therefore be premature. Chad should elaborate a completion strategy for Article 4 implementation.
Iraq	1 November 2023	No and will require an extension.	Iraq's massive contamination will likely demand at least two extensions to its deadline but current clearance capacity and output are inadequate to the task and need to be increased. In 2020, the amount of cluster munition-contaminated area released through survey and clearance declined for the second successive year, although the COVID-19 pandemic was partly the cause. Iraq should ensure it secures sufficient funding and capacity for survey and clearance of CMR to fulfil its Article 4 obligations.

State Party	Article 4 Deadline	Status of progress	Implementation progress and priorities
Germany	1 August 2025	Unclear	Germany continues to make slow if steady progress towards fulfilment of its Article 4 obligations. A drop in clearance output is ascribed to dense unexploded ordnance (UXO) contamination but an increase in clearance capacity by the end of the year offers the promise of better output in 2021 and beyond. Germany is confident of meeting its 2025 deadline, but clearance output must increase for this to be realised.
Lao PDR	1 August 2025	No and will require multiple extensions to its deadline	Lao PDR continued to make solid progress in CMR clearance in 2020, although the amount of area cleared and the amount of confirmed hazardous area (CHA) confirmed through survey fell slightly, compared to the previous year, due to the impact of COVID-19 on operations. The National Regulatory Authority (NRA) should facilitate the development, together with inclusive participation from all operators and other relevant mine action stakeholders, of a new Safe Path Forward III strategy for the sector for 2021–30.
Somalia	1 March 2026	No	No CMR clearance has yet taken place in Somalia, although two submunitions were found and destroyed during battle area clearance in 2020. No overview of the extent of contamination from CMR exists as no baseline survey has been conducted. Somalia also has no plan for implementing its obligations under Article 4 of the CCM. If properly planned, clearance could likely be completed by its deadline.
Lebanon	1 May 2026	Unclear	Lebanon, which has been granted a five-year extension to its Article 4 deadline, plans to complete CMR clearance by the end of 2025, in line with its new National Mine Action Strategy. But if it is to meet this new target, it will need to ensure evidence-based technical survey is conducted prior to initiating clearance, maintain funding for CMR operations, and determine how it plans to address CMR contamination in especially difficult to address terrain, such as deep and very steep canyons and cliffs.

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 2020, each affected State Party 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, additional 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 6. The country-specific assessments of the seven criteria, which should be viewed alongside the Recommendations for Action in the country reports, are intended as an implementation tool, offered in the spirit of openness and constructive dialogue, to assist States Parties to identify and overcome challenges and fulfil their Article 4 obligations as efficiently as possible.

In 2020, both Croatia and Montenegro, who fulfilled their Article 4 obligations during the year, were again ranked as Very Good. Afghanistan, Germany, Lao PDR, and Lebanon were again ranked Good. BiH and Iraq remained ranked as Average, along with Mauritania, newly scored following the report of previously undiscovered CMR contamination. Chad and Chile remained Poor, while Somalia dropped from Poor to Very Poor, a reflection of the unacceptably low performance of the national programme in implementing its Article 4 obligations of survey and clearance. The largest drop in scores, however, were in Afghanistan (resulting from the lack of any clearance of CMR-contaminated area in 2020) and in Chile (owing to its failure to conduct technical survey of contaminated areas in 2020).

Table 6: Mine Action Programme Performance in Affected States Parties

State Party	Ranking in 2020	Score in 2020	Score in 2019	Change in score
Afghanistan	Good	7.1	7.8	- 0.7
BiH	Average	5.3	5.6	- 0.3
Chad	Poor	4.5	4.3	+ 0.2
Chile	Poor	4.6	4.9	- 0.3
Croatia	Very Good	8.3	8.3	No change
Germany	Good	7.2	7.2	No change
Iraq	Average	5.9	5.8	+ 0.1
Lao PDR	Good	7.1	7.1	No change
Lebanon	Good	7.5	7.5	No change
Mauritania	Average	5.1	Not scored	N/A
Montenegro	Very Good	8.3	8.1	+ 0.2
Somalia	Very Poor	3.9	4.0	- 0.1

N/A = Not applicable

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

Criterion	Key Factors Affecting Scoring
UNDERSTANDING OF CLUSTER MUNITION CONTAMINATION (20% of overall score)	<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>
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	<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>

Criterion	Key Factors Affecting Scoring
GENDER AND DIVERSITY (10% of overall score)	<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>
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>

Criterion	Key Factors Affecting Scoring
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 2020, 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>

GENDER AND DIVERSITY

Both gender and especially diversity continue to be under-addressed in mine action although concrete progress, especially in promoting gender equality, was again recorded in 2020. Examples of some of the positive developments are included below, but for additional information please see the 'Gender and Diversity' section of the individual reports for each State Party.

In Afghanistan, among other positive developments, the Directorate of Mine Action Coordination (DMAC) appointed a new Gender and Diversity Manager in October 2020. By the end of the year, the new incumbent had reviewed the gender and diversity content of DMAC's internal policy documents and guidelines, provided training for the gender focal points of implementing partners as well as training on non-technical survey for male and female staff of DMAC and its implementing partners. A technical working group on gender and diversity meets regularly with implementing partners to promote implementation. The Lebanon Mine Action Centre (LMAC) has also appointed a gender focal point to help mainstream gender-sensitive policies and procedures, and monitor their implementation.

In Iraq, the Directorate of Mine Action (DMA) has adopted the first Gender Unit Action Plan. The DMA has also engaged with clearance organisations to strengthen gender and diversity in mine action. Operators are slowly increasing the number of women employees and have also expanded the roles performed by female staff beyond office support tasks.

In Lao PDR, half of HALO Trust's workforce were women in 2020, including half of all operational roles. Of the programme's 20 most senior managerial positions, half were filled by women. In Chad, the first (and so far, only) women leader of a demining team was appointed by Mines Advisory Group (MAG) in 2019. Chile has pledged that the Ministry of National Defence will promote women to the teams that will conduct CMR clearance, while Mauritania has committed to taking gender principles into account during recruitment and to ensure that mine action teams are gender balanced. Barriers are being broken down.

Major challenges remain, however. Gender policies need to be adopted, implemented, and mainstreamed in all affected States. In Croatia, survey data are not disaggregated by sex and age, a fundamental requirement for all programmes. And despite the national Gender Equality Act, which promotes

gender equality and prohibits gender-based discrimination, the proportion of women employed in the mine action sector in Croatia remains extremely low.

Even more work is needed to meaningfully start mainstreaming diversity considerations into mine action programmes. Mine action can and should counteract systemic discrimination based on diversity factors such as race, ethnicity, language, religion, disability, sexual orientation, social class, and age, and should ensure that diversity is mainstreamed alongside gender in mine action programmes. Components of a person's identity interrelate and therefore taking an intersectional approach can help identify where different diversity aspects are overlapping and creating interdependent systems of discrimination. Steps are being taken in some mine action programmes to factor in diversity considerations, at the least, raising awareness of the issues, but significant challenges remain.

International operators in Lao PDR are also taking various measures to help ensure individuals of different ethnic origins, including from language minorities, as well as persons with disabilities, are represented in their mine action operations. In State Party Somalia, clearance operators take into consideration clan affiliation 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. Similarly, ethnic identity is taken into account within survey and clearance teams in State not party South Sudan, to ensure safe access and acceptance by the respective local communities. In Kosovo, the national mine action strategy specifically notes 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 poor socio-economic conditions.

Little progress has been made overall in promoting lesbian, gay, bisexual, transgender, queer and others (LGBTQ+) inclusion in mine action. In State Party Lao PDR, a workshop in December 2020 for management staff from UXO Lao's Head Office in Vientiane sought to gauge the level of knowledge and attitudes of participants and provide an overview of definitions of key terms, as well as a global and cultural history of the LGBTQ+ rights movement.

ENVIRONMENTAL CONSIDERATIONS

The importance of environmental consideration is also becoming increasingly prominent in mine action as it is across all sectors. In State not party Cambodia, for instance, a national mine action standard on the environment was finalised and, as of writing, was awaiting approval by the Cambodian Mine Action and Victim Assistance Authority (CMAA).

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.⁶

To help focus attention and bring greater clarity to the topic, Mine Action Review is publishing a separate policy briefing which will outline the key environmental impacts of landmine and CMR contamination and land release operations, the relevant regulatory frameworks and treaty commitments, and the importance of environmental management. The policy briefing will include a selection of examples and case studies from different regions of the world, to illustrate how mine action programmes can have a positive impact on the environment and how environmental management can help mitigate potentially negative impacts of land release operations.

THE SECOND CCM REVIEW CONFERENCE

The Second CCM Review Conference could not be held in person in Lausanne, Switzerland in November 2020, owing to the global COVID-19 pandemic. As a result, the Review Conference was split into two parts. "Part 1" of the Review Conference was held in a fully virtual format on 25–27 November 2020. "Part 2" of the Review Conference was planned to take place in person in early 2021, during which formal decisions on extension requests and adoption of the Lausanne Action Plan was to take place. However, the second part of the Review Conference had to be postponed due to the ongoing global pandemic. At the time of writing, and COVID-19 restrictions permitting, the second part of the Review Conference was scheduled to take place in a hybrid format on 20–21 September 2021.

Due to the postponement of Part 2 of the Second Review Conference, the Article 4 extension requests by BiH, Chile, and Lebanon were instead adopted by a new "silence procedure" in 2021 (in February for BiH and in April for Chile and Lebanon) whereby a request is deemed to be granted unless a State Party objects. Application of the silence procedure avoided the three affected States Parties in question from becoming in

involuntary violation of Article 4 upon expiry of their respective Article 4 deadlines, and was required due to the exceptional circumstances caused by COVID-19. To what extent the silence procedure is compatible with the provisions of Article 4 of the CCM, in particular its paragraph 7, is open to interpretation, but it perhaps amounts to a "subsequent agreement between the parties". This would be in accord with the 1969 Vienna Convention on the Law of Treaties⁷ and customary international law. Formal amendment of the CCM is governed by its Article 13 and has never occurred in the history of the Convention. The extension requests of Afghanistan, Chile, and Mauritania were due to be considered and approved at Part 2 of the Second Review Conference.

During Part 2 of the Second Review Conference, States Parties will also formally adopt the Lausanne Action Plan, which will guide the work of the States Parties for the coming five years. Once formally adopted, Mine Action Review will conduct the civil society monitoring and analysis of the action points and indicators relating to survey and clearance, including setting the baseline results in 2022.

OUTLOOK

Continued commitment should see eight of the ten States Parties which are still CMR-contaminated fulfil their Article 4 obligations before the end of the decade and most by the CCM Third Review Conference, expected to now occur in 2026, if there is requisite political will, effective planning, efficient land release, and sufficient and sustained funding. For Iraq and Lao PDR, the remaining work will be long, but their efforts are having a positive impact on the amount of time that will be needed as well as on the depth of the human, social, and economic impact that submunitions will have until clearance is complete. States and operators reacted well to the unprecedented challenge posed to cluster munition survey and clearance by COVID-19 and did not allow it to overrun operations. This must continue. Safe access to land and its resources will be needed to alleviate poverty and enable social and economic development more than ever.

⁶ IMAS 07.13: Environmental Management in Mine Action, 1st Edn, 14 March 2017, p. v.

⁷ Art. 31(3)(a), Vienna Convention on the Law of Treaties.

STATES PARTIES

The background of the page is composed of several overlapping, semi-transparent geometric shapes in various shades of purple and lavender. These shapes create a layered, abstract effect, with some areas appearing darker due to the overlap of multiple colors. The overall aesthetic is modern and minimalist.

ARTICLE 4 DEADLINE: 1 MARCH 2022
EXTENSION REQUESTED TO 1 MARCH 2026

KEY DATA

CLUSTER MUNITION CONTAMINATION: MEDIUM

BASED ON NATIONAL AUTHORITY DATA

12 KM²

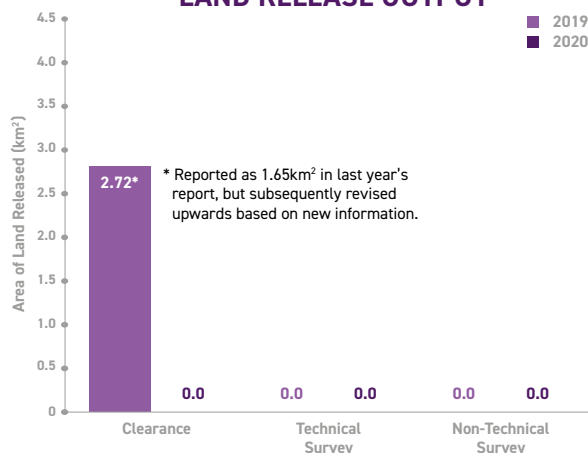
SUBMUNITION
CLEARANCE IN 2020

0 KM²

SUBMUNITIONS
DESTROYED IN 2020

276

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Afghanistan added three new confirmed hazardous areas (CHAs) to its national database in 2020, increasing its estimated total area of cluster munition remnants (CMR) contamination by almost one third. One of the three CHAs identified in 2020 was located in Faryab province where the Directorate of Mine Action Coordination (DMAC) said liaison with local communities had enabled implementing partners to gain access for mine action for the first time in a decade. Discovery of eleven new hazardous areas in 2021, coupled with delays in delivery of donor funding, meant Afghanistan would be unable to complete clearance as expected within its CCM Article 4 deadline. In August 2021, it submitted a request for a four-year extension.

RECOMMENDATIONS FOR ACTION

- Afghanistan should confirm whether there are any additional cluster munition contaminated areas (including any areas suspected to contain submunitions), beyond those already set out in its latest extension request, which it has not yet surveyed, including in areas where security conditions currently prevent access.
- In view of continuous discovery of unexploded submunitions, Afghanistan should set out clearly the national capacity it will have to address residual CMR identified after fulfilment of its Convention on Cluster Munitions (CCM) Article 4 clearance obligations.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2020)	Score (2019)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	8	9	Afghanistan has known and suspected CMR contamination that means that it will not fulfil its Article 4 clearance obligations by its March 2022 deadline. It continues to identify previously unrecorded submunition hazards, underscoring the possibility that further areas needing clearance will emerge over time. Operators also encounter scattered "legacy" submunitions in the course of other tasks.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	8	8	The Mine Action Programme of Afghanistan (MAPA) is nationally managed but most DMAC salaries and operations are funded by international donors and CMR clearance is funded by the United States and the United Nations Mine Action Service (UNMAS).
GENDER AND DIVERSITY (10% of overall score)	7	6	DMAC is committed to mainstreaming gender which featured in the 2016–20 strategic plan. Implementing partners have made slow progress putting the plan into practice but most added gender focal points in 2020. Although women are hired in community liaison and risk education as well as administrative positions, recruitment of women for operational roles in Afghanistan's deeply conservative society continues to be limited. DMAC appointed a new Gender and Diversity Manager in October 2020, and MAPA organisations now each have a gender focal point.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	8	8	DMAC has an Information Management System for Mine Action (IMSMA) New Generation database and is preparing to upgrade to IMSMA Core with support from the Geneva International Centre for Humanitarian Demining (GICHD). Operators say DMAC's data entry can be slow but it provides extensive disaggregated information. Afghanistan routinely submits comprehensive Article 7 transparency reports. These have often been late due to slow government review procedures but in 2021 the report was submitted in early May.
PLANNING AND TASKING (10% of overall score)	8	8	Afghanistan has requested a four-year extension to its Article 4 deadline, during which it plans to release the remaining cluster munition-contaminated areas. Afghanistan included a work plan in its extension request, with annual CMR clearance planned up to October 2025. More broadly, DMAC worked with the GICHD to prepare a five-year mine action strategic plan for 2021–26.
LAND RELEASE SYSTEM (20% of overall score)	7	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.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	5	8	DMAC had planned to complete CMR clearance in 2020, then by October 2021. Due to non-receipt of expected funding, the MAPA did not release any CMR contamination in 2020, but had still aimed to complete clearance by the end of 2021. However, further delays to funding, in addition to discovery of 11 cluster munition-contaminated areas in 2021, meant that Afghanistan will not meet its Article 4 deadline and has had to request an extension. The length of the extension—four years—was an unexpected surprise, and is linked to additional funding only being made available from end of 2022 and clearance operations in Paktya only being possible for a six month period during, due to adverse weather conditions in the winter.
Average Score	7.1	7.8	Overall Programme Performance: GOOD

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)
- 18 companies (15 national and 3 international), but none active in CMR clearance.

UNDERSTANDING OF CMR CONTAMINATION

Afghanistan has limited CMR contamination, in comparison to its much larger landmine problem, and had expressed confidence it would complete its CCM Article 4 obligations in 2021 or by its March 2022 deadline. Instead, continuing discoveries of hazardous areas in 2021 made it necessary for Afghanistan to request an extension of its Article 4 deadline. In August 2021, it asked for another four years.¹

In 2020, DMAC had added three CHAs covering 1.72km² to the database which brought the number of hazardous areas to 10 and raised total contamination by nearly 30% to 7.54km² at the end of the year (see Table 1).² The 2020 additions included two CHAs covering 1.67km² in eastern province of Nangahar. DMAC also added a small CHA with unexploded US-made BLU-97 submunitions in northern Faryab province, not previously known to be affected by CMR.³

At the time it submitted its request in August 2021, Afghanistan had roughly 12km² of known and suspected CMR contamination outstanding.⁴ This comprised 21 confirmed CMR hazardous areas (CHAs) covering a little over 9.89km², including 11 CHAs identified by HALO Trust rapid response teams during 2021, and suspected hazardous areas in Paktya province thought to cover approximately 3km².

The confirmed contamination consisted of:⁵

- 5 CHAs in Faryab and Paktya with a total area of 3.58km² undergoing clearance and due for completion in 2021.⁶ At the time the request was submitted DMAC estimated 40% had already been cleared leaving approximately 2.15km² still to be cleared;

- 5 CHAs in Nangahar covering a total of 4.23km², including two discovered in 2020;
- 11 CHAs discovered in 2021. These included seven in Paktya, covering 5.26km², two in Bamyana (392,756m²) affected by Soviet-era cluster munition remnants, and two in Samangan (11,715m²).

The hazardous areas in Paktya province were close to an existing project but had not been surveyed previously because armed groups did not allow access. DAFA believed there may still be more unexploded submunitions in Zurmat district of Paktya province in locations where armed groups still deny access. DMAC said these areas are thought to cover around 3km².⁷

Explosive ordnance disposal (EOD) operations in 2020 destroyed 276 submunitions in eight provinces. These consisted mostly of Soviet-era submunitions, pointing to the widespread presence of scattered items dating from the decade-long war of the 1980s.⁸

CMR make up only a small part of Afghanistan's extensive explosive remnants of war (ERW) contamination, which includes a wide range of other unexploded ordnance. There are also hundreds of square kilometres of anti-personnel and anti-vehicle mine contamination, including mines of an improvised nature (see Mine Action Review's *Clearing the Mines* report on Afghanistan for further information).

Table 1: Cluster munition-contaminated area (at end 2020)⁹

Province	District	CHAs	Area (m ²)
Nangahar	Pachier Agam, Dur Baba	5	4,233,907
Faryab		1	46,467
Paktya	Zurmat	4	3,259,627
Totals		10	7,540,001

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Afghanistan's National Disaster Management Committee fulfils the role of a mine action authority acting through the Afghan National Disaster Management Authority (ANDMA). The MAPA is led by the Directorate of Mine Action Coordination (DMAC), a department of ANDMA. From its headquarters in Kabul and seven regional offices, DMAC manages and coordinates the work of national and international implementing partners. DMAC provides strategic planning and annual work plans, sets priorities and standards, accredits operators, conducts quality management operations, manages the mine action database, and conducts resource mobilisation.¹⁰

The MAPA is nationally managed but remains almost entirely internationally funded. DMAC transitioned from being a project of the United Nations Mine Action Service (UNMAS) to national management, a process formally completed in June 2018. Most of DMAC's staff of 155 is paid by UNMAS and ITF Enhancing Human Security. The Government of Afghanistan paid 15 staff.¹¹

The MAPA employed a total of 5,910 people at the end of 2020, including 4,700 people in field operations. Of 48 humanitarian and commercial organisations involved in the mine action sector, 31 were accredited for survey and clearance, and the remainder were engaged in victim assistance, explosive ordnance risk education (EORE), or a monitoring and support function.¹² Most explosive ordnance survey and clearance is undertaken by nine humanitarian NGOs. DMAC coordinates closely with implementing partners through technical working groups that address planning and priority setting, operations, survey, mechanical clearance, risk education, improvised mines, quality management, and victim assistance.¹³

Afghanistan issued a decree in September 2019 adding an annex to the existing Law on Firearms Ammunitions and Explosive Materials, which includes cluster munitions in a ban on the use, acquisition, trading and stockpiling of weapons, ammunition, and explosive items without a requisite licence.¹⁴

The government earmarked a payment of AFN 20 million (approximately US\$250,000) for a humanitarian mine clearance project for the first time in 2019 but lengthy bureaucratic procedures meant the funding was not received until 2020.¹⁵ The government pledged additional funding of about US\$500,000 in 2020 for demining operations in Nangahar province's Achin district.¹⁶

UNMAS supported DMAC in 2020 providing funding of US\$7.1 million through the Voluntary Trust Fund, down from US\$17.4 million provided the previous year. UNMAS noted that donors delivered the funding previously committed but new funding was limited reflecting the priority given to the COVID-19 response. Funding went to six implementing partners for survey, clearance, and the delivery of EORE. UNMAS operated in 2020 with 32 national and 3 international

staff providing technical advice, training, and capacity building. It expected to add three more international and one national staff in 2021. UNMAS also reports that it has conducted advocacy at a political level for humanitarian mine action with armed non-state actors, including the Taliban, with leadership and in the field at a local community level to facilitate access for survey and clearance.¹⁷

Norwegian People's Aid (NPA) provided third-party monitoring of all mine action and conventional weapons disposal projects funded by the US Department of State, working with 18 staff, of whom six were international staff. In 2020, it monitored a total of 21 grants worth approximately US\$13 million to nine organisations, including 14 grants for mine clearance and 1 for non-technical survey. The grants did not include survey or clearance of CMR hazards.¹⁸

GENDER AND DIVERSITY

The MAPA has had a policy on gender in mine action since 2014 and set gender mainstreaming as one of four goals in its 2016–20 strategic plan. It states that "achievable targets, reflecting prevailing circumstances and conditions, will be adopted to support and encourage progress wherever possible."¹⁹ However, Afghanistan's Article 4 deadline extension request noted that "the ongoing conflict, political issues and uncertain peace process in Afghanistan has major implications for women's workforce participation in different areas of Afghanistan."²⁰

Progress in the prevailing circumstances has continued at a modest pace. In 2021, DMAC planned to reinforce its 155 staff by hiring one woman employed as a human resources assistant and three women as interns for the gender and diversity, information management, and risk education departments. In June 2021, DMAC said it was awaiting receipt of funding to make those appointments. In MAPA's workforce, the number of women employees had increased from 170 towards the end of 2019 to 212 in the last quarter of 2020.²¹

After leaving the position vacant for some months, DMAC appointed a new gender focal point in October 2020 and reported that by the end of the year the new incumbent had reviewed the gender and diversity content of DMAC's internal policy documents and guidelines, 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.²² DMAC reported that all vacancy announcements are now gender sensitive, that a woman is present in all recruitment panels, and that women candidates' scores are automatically accorded extra points, in line with Afghan labour law. It also reported having a human resources manual that recognises rights of female employees, including maternity leave and reduced working hours for pregnant women.²³ DMAC operates a hotline taking calls from affected communities which it said also allows interests of minorities to be taken into account.²⁴

DMAC reported that six national implementing partners all now have a dedicated gender and diversity officer. UNMAS

reported it recruited gender mainstreaming officers for five of them in 2020 who were working in conjunction with DMAC and UNMAS on reviewing their gender standards and training. They were also responsible for ensuring implementing partner projects engaged with women and addressed the specific needs of women, girls, men and boys.²⁵ In 2020, GICHD held a non-technical survey training and according to GICHD at least two operators had plans in 2021 to deploy couple teams to conduct non-technical survey.²⁶ Some implementing partners employ women in operational as well as administrative roles but deploying women in field operations in particular remains challenging in Afghanistan's deeply conservative society. Danish Demining Group (DDG), now known as Danish Refugee Council Humanitarian Disarmament and Peacebuilding Sector, operated with female deminers for the first time in 2018 in Bamyan province. After they completed the DDG demining tasks, the teams were taken on by OMAR to conduct battle area clearance (BAC) on firing ranges in Bamyan province.²⁷

A technical working group on gender and diversity meets regularly with implementing partners to promote implementation.²⁸ DMAC's review of IP project proposals also ensures gender issues are considered in operational planning.²⁹ In addition, GICHD reported that there are gender mainstreaming checklists which DMAC applies to operators and feeds into grant management systems.³⁰

The gender strategy and Afghanistan's national mine action standards (AMAS) for community liaison underscore the importance of including women and girls as well as boys and men in non-technical survey, and pre- and post-clearance impact assessments and for equal access to employment for women. The strategy called for implementing partners to identify forums in which to access under-represented groups, including women and girls, and to ensure data collection and reporting was disaggregated for gender and age.³¹ The AMAS also refer to the importance of consulting representatives of different groups, such as tribal and religious leaders.³² EORE teams are required to include a female and male trainer.³³

INFORMATION MANAGEMENT AND REPORTING

DMAC is preparing to upgrade its national database from the present New Generation version to IMSMA Core but says the process of cleaning up data to be uploaded into the new system will not be completed until 2023,³⁴ two years beyond the expected completion date previously predicted.³⁵ In the meantime, DMAC in collaboration with the GICHD brought into service in 2020 the Mine Action Reporting System (MARS), a digital tool for improving data collection in the field. MARS will initially be used for post-demining impact assessments and quality management but will later cover all survey and clearance activities as well.³⁶

Afghanistan submits comprehensive Article 7 reports annually and DMAC's information department produces a range of monthly, quarterly, and annual reports as well as reports on request and maps.³⁷ DMAC also holds monthly data coordination meetings which implementing partners said had resulted in improvements, but complained that entry of survey and clearance data continued to be slow because of a shortage of trained information management staff in DMAC.

PLANNING AND TASKING

Afghanistan does not have a CMR-specific strategic plan. The Article 4 deadline extension request submitted in August 2021 asked for four more years until March 2026. It 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 includes 0.65km² in 2022, 5.35km² in 2023, 2.14km² in 2024, and 1.75km² in 2025.³⁸

Afghanistan's Anti-Personnel Mine Ban Convention Article 5 deadline extension request, submitted in 2012, foresaw completion of clearance of all known mine and ERW contamination by the requested Article 5 deadline of March 2023. This remains a benchmark against which DMAC measures progress but long ago ceased to be a realistic target given shortfalls in the level of financing needed to achieve it. DMAC, working in close coordination with the GICHD, has drafted a new five-year mine action strategic plan for 1400 to 1404 (April 2021 to March 2026), including annual work-plan targets,³⁹ which it planned to launch during a high-level event in September 2021.⁴⁰

The national strategic plan for 2016–20 reaffirmed Afghanistan's identified four broad goals: facilitating development; engaging with other sectors and government departments to have them include mine action in their development plans; preventive action to reduce the impact of mines and ERW, including by enhanced resource mobilisation, completing survey of all communities, conducting EORE, and keeping its extension request work plan on track, responsive functions to provide required assistance for the victims of explosive ordnance; and gender and diversity mainstreaming.⁴¹

DMAC awards tasks to implementing partners through a process of competitive bidding. The US State Department's Office of Weapons Removal and Abatement has asked DAFA to bid for clearance of five tasks, four in Paktia province and one in Faryab. UNMAS planned to issue a call for proposals for the remaining five tasks (also to be funded by the US),⁴² but this did not cover the 11 cluster munition-contaminated areas subsequently identified since April 2021. Afghanistan's extension request indicated the US would provide the required funding in late 2022 or early 2023.⁴³

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).⁴⁴

OPERATORS AND OPERATIONAL TOOLS

Mine action is conducted mainly by six national and three international implementing partners. Several, including ATC, DAFA, HALO Trust and MCPA, have conducted survey of cluster munitions hazards in recent years but clearance has only involved two. DAFA conducted five of the six tasks tackled in 2019 and ATC the other.⁴⁵ Most operators tackle some residual CMR in the course of clearing mined and battle areas.

In its 2021 CCM Article 4 extension request, Afghanistan indicated that there are approximately ten demining NGOs and 23 commercial demining companies capable of conducting CMR clearance.⁴⁶

Only manual clearance of CMR is conducted in Afghanistan.

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2020

Afghanistan did not cancel, reduce, or clear any cluster munition-contaminated areas in 2020.⁴⁷ However, 276 submunitions were destroyed in EOD operations during 2020.

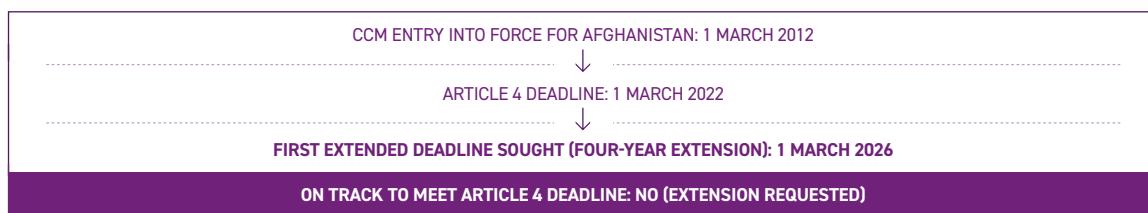
SURVEY IN 2020

Intensive liaison with local communities and armed entities enabled an implementing partner to work in Faryab province for the first time in a decade. Non-technical survey conducted by ATC identified a small CHA of 46,467m² affected by BLU-97 submunitions. Non-technical survey in Nangahar also confirmed three hazardous areas totalling 1,720,714m².⁴⁸

CLEARANCE IN 2020

Afghanistan did not conduct any area clearance of CMR-affected land in 2020. DMAC reported that HALO Trust and DDC destroyed a total of 276 submunitions in the course of EOD operations in nine provinces.⁴⁹ They included 12 BLU-97 items found in Kabul province and the remainder, described by DMAC as "legacy contamination", consisted mainly of Russian-made fragmentation submunitions.⁵⁰ DDC reported destroying 69 submunitions, mostly in the Kabul area.⁵¹

ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM, Afghanistan is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 March 2022. Afghanistan recognised it would be unable to meet this deadline and in August 2021 requested an extension of four years.

Afghanistan made no progress on clearance in 2020 and continuing discoveries of CMR hazardous areas derailed prospects for achieving completion within its original Article 4 deadline. At the end of 2020, DMAC had identified 10 tasks affecting 7.5km² remaining to be cleared. Although this significantly exceeded the most CMR clearance conducted in any recent year (see Table 2) Afghanistan had, as recently as March 2021, still expressed confidence it would be able to complete clearance by the end of the year or by March 2022 if it received the necessary donor funding and insecurity did not block access to the tasks.⁵²

With funding from PM/WRA, DAFA had started work on five tasks which, according to latest estimates totalled about 3.58km² and by July 2021 had cleared around 40%. UNMAS had issued calls for proposals from IPs for clearing the other five tasks in Nangahar province carried over from 2020 and totalling about 4.23km² but work could not start because expected donor funding had not been received. It was subsequently agreed that the United States will also fund these five tasks.⁵³ However, in the meantime, survey had found 11 other CMR-contaminated areas in three provinces covering a total of about 5.6km². As a result, Afghanistan realised it would be unable to complete its Article 4 obligations by the start of March 2022 and had to request an extension of its deadline.⁵⁴

Afghanistan requested an extension of four years, requiring deployment of 165 clearance teams at a projected cost of US\$2,350,700.⁵⁵

The surprise in this development was the amount of time requested. In early 2021, DMAC had assessed that it would be able to clear more than 7km² by March 2022 (subject to availability of funding). The extension request seeks four years to tackle what it now estimates may be around 15km². The request identifies a number of challenges to implementation:⁵⁶

- **Insecurity:** which may be the major consideration behind the time requested. The Mine Action Programme of Afghanistan has long proved able to operate in areas controlled by anti-government elements, but access requires lengthy negotiation and operations are not possible in areas of active hostilities that have expanded sharply in recent months.
- **Climate:** most of the hazards are in cold (high altitude) locations where clearance operations are not possible in winter months between November and May.
- **Funding shortfalls:** these have constrained Afghanistan's ability to implement its strategy for mine and CMR clearance. Funding that was expected to come through UNMAS for CMR clearance in 2021 did not materialise, necessitating discussions to find a replacement donor. The extension request says the US PM/WRA will be able to provide the funding needed by late 2022 or early 2023.

Table 2: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2020	0
2019	2.72 ⁵⁷
2018	4.24
2017	2.89
2016	0
Total	9.85

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

Afghanistan's Article 4 extension request did not specify plans for tackling contamination identified after completion. It noted, however, that the MAPA comprises 10 demining NGOs and 23 commercial companies with trained staff and capacity for clearing cluster munitions.⁵⁸

1 2021 Article 4 deadline Extension Request, Executive Summary.

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

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

4 2021 Article 4 deadline Extension Request, p. 10.

5 Ibid., Annex C, p. 19.

6 Email from Mohammad Akbar Oriakhil, DMAC, 8 July 2021.

7 2021 Article 4 deadline Extension Request, Executive Summary, Executive Summary and p. 10.

8 Email from Mohammad Akbar Oriakhil, DMAC, 11 April 2021. The provinces included Balkh, Herat, Kabul, Kandahar, Khost, Nangarhar, Paktya, and Parwan; and CCM Article 7 Report (covering 2020), Form 3.

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

10 Email from Mohammad Wakil Jamshidi, Chief of Staff, United Nations Mine Action Service (UNMAS)/DMAC, 16 May 2017.

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

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

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

14 CCM Article 7 Report (for 2018), Form A.

15 Email from Fazel Rahman, DMAC, 25 February 2020. The funding was allocated for clearance of a total of 403,423m² in two districts of south-eastern Khost province.

16 Email from Mohammed Shafiq Yousufi, Director, DMAC, 20 July 2020.

17 Email from Sohaila Hashemi, Communications and Advocacy Officer, UNMAS, 22 April 2021.

18 Email from Mats Hektor, Country Director, NPA, 7 and 19 April 2021.

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

20 2021 Article 4 deadline Extension Request, p. 4.

21 Emails from Mohammad Akbar Oriakhil, DMAC, 17 March and 21 June 2021.

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

23 Emails from Mohammad Akbar Oriakhil, DMAC, 17 March 2021; and Arianna Calza Bini, GICHD, 27 July 2021.

24 Email from Fazel Rahman, DMAC, 25 February 2020.

25 Email from Sohaila Hashemi, Communications and Advocacy Officer, UNMAS, 22 April 2021.

26 Email from Arianna Calza Bini, GICHD, 27 July 2021.

27 Emails from Daniel Bertoli, Head of Programme - Afghanistan, DDG, 14 April 2021; and Mohammad Akbar Oriakhil, DMAC, 21 June 2021.

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

29 Email from Fazel Rahman, Project Manager - Operations, DMAC, 25 February 2020.

30 Email from Arianna Calza Bini, GICHD, 27 July 2021.

31 DMAC, "Gender mainstreaming strategy of the Mine Action Programme of Afghanistan", undated but 2013, pp. 3-9.

32 GICHD, Integrated Capacity Assessment Report, 5 July 2019 (draft), p. 17.

33 Email from Fazel Rahman, DMAC, 25 February 2020.

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

35 Emails from Fazel Rahman, DMAC, 25 February and 28 April 2020.

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

37 GICHD, Integrated Capacity Assessment Report, 5 July 2019 (draft), p. 16.

38 2021 Article 4 deadline Extension Request, Annex D.

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

40 2021 Article 4 deadline Extension Request, p. 4.

41 DMAC, "National Mine Action Strategic Plan 1395-1399 (2016-2020), State Ministry for Disaster Management and Humanitarian Affairs, undated but 2016, pp. 2-5.

42 Email from Mohammad Akbar Oriakhil, DMAC, 17 March 2021; and 2021 Article 4 deadline Extension Request, p. 10.

43 2021 Article 4 deadline Extension Request, p. 14.

44 Statement by Mohammed Shafiq, GICHD workshop, Geneva, 26 March 2019.

45 Email from Fazel Rahman, DMAC, 25 February 2020.

46 2021 Article 4 deadline Extension Request, Executive Summary.

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

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

49 Afghanistan's initial 2021 Article 4 deadline extension request reported destruction of 2,718 submunitions in 2020. DMAC subsequently informed Mine Action Review that this was an unintentional error which it planned to correct, and it confirmed that 276 submunitions were destroyed in 2020. Email from Mohammad Akbar Oriakhil, DMAC, 8 August 2021.

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

51 Email from Daniel Bertoli, DDG, 14 April 2021.

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

53 2021 Article 4 deadline Extension Request, p. 14.

54 Email from Mohammad Akbar Oriakhil, DMAC, 8 July 2021.

55 2021 Article 4 deadline Extension Request, Executive Summary.

56 Ibid., p. 14.

57 Afghanistan's Article 7 report for 2019 recorded cluster munition clearance of 3.62km². DMAC commented 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 UXO items. 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 that due to a civilian death at this location attributed to a submunition and the suspected presence of other CMR the task was cleared applying cluster munition clearance protocols, not BAC. The Review accordingly has reinstated 2019 CMR clearance of 2.72km². (Emails from Mohammad Akbar Oriakhil, DMAC, 23 and 28 June 2021).

58 2021 Article 4 deadline Extension Request, Executive Summary.

BOSNIA AND HERZEGOVINA

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2021

ARTICLE 4 DEADLINE: 1 SEPTEMBER 2022
UNCLEAR WHETHER ON TRACK TO MEET DEADLINE

KEY DATA

CLUSTER MUNITION CONTAMINATION: LIGHT

NATIONAL MINE ACTION CENTRE ESTIMATE

2.05 KM²

SUBMUNITION CLEARANCE IN 2020

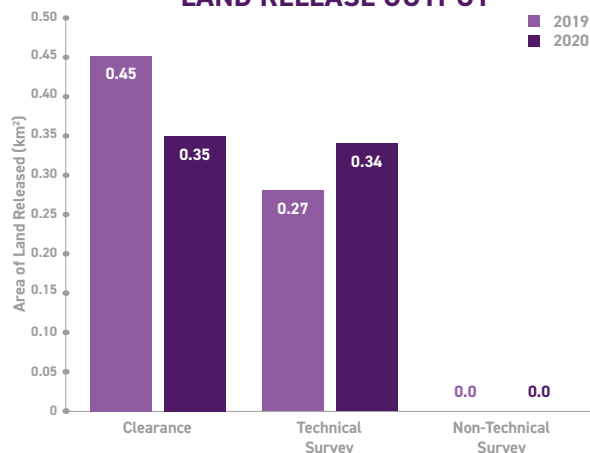
0.35 KM²

SUBMUNITIONS DESTROYED IN 2020

166

(INCLUDING 4 SUBMUNITIONS DESTROYED DURING SPOT TASKS)

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Bosnia and Herzegovina (BiH) was not able to complete clearance of cluster munition remnants (CMR) by 1 March 2021, and was granted an 18-month extension to its Convention on Cluster Munitions (CCM) Article 4 deadline, to 1 September 2022. However, in order to achieve this BiH must release all CMR-contaminated area by the requested deadline, including CMR-contaminated area that also contains contamination from depleted uranium munitions.

RECOMMENDATIONS FOR ACTION

- The amended demining law drafted in 2017, which has still to be adopted, should be revised further and re-submitted to Parliament for adoption. Liability policy and clearly defining “all reasonable effort” in the context of BiH should be discussed in parallel with the revision of the amended draft law.
- BiH should implement the recommendations of both the 2015 United Nations Development Programme (UNDP) Mine Action Governance and Management Assessment, and the 2016 performance audit report of the Audit Office of the Institutions of BiH,¹ both of which remain valid. In particular, BiH should continue reforming and strengthening the governance and management of the mine action programme.
- The Bosnia and Herzegovina Mine Action Centre (BHMIC) should strive to ensure that its Article 4 completion plan targets for the release of all remaining CMR-contaminated area by the September 2022 deadline are reached by all implementing partners, including the BiH Armed Forces, Civil Protection entities, and Norwegian People’s Aid (NPA).
- BHMIC should secure an appropriate solution and funding for the CMR task containing depleted uranium, and then commence with clearance without delay, so that it does not prevent completion within the extended deadline.
- BHMIC should also prioritise clearance of the hazardous areas which contain both CMR and anti-personnel mines, in order to release these areas of mixed contaminated by BiH’s 1 September 2022 deadline. Any area contaminated by CMR falls under the obligations of the CCM, irrespective of whether it also contains anti-personnel mines or other explosive ordnance.

- If BiH begins to fall behind schedule on its CMR clearance completion plan, it should seek to increase clearance capacity immediately, in order to meet its deadline. However, if at any stage and for whatever reason, BiH believes it might not be in a position to complete CMR clearance by 1 September 2022, it should submit an Article 4 extension request for consideration by States Parties well in advance of its deadline.
- BHM MAC should report more accurately and consistently on the extent of CMR contamination and on release of CMR-contaminated areas. This should be done using the classification of suspected hazardous area (SHA) and confirmed hazardous area (CHA), and by disaggregating CMR-contaminated area reduced through technical survey from area released through clearance, consistent with the International Mine Action Standards (IMAS).
- BiH should fully embrace the “Country Coalition” approach, in partnership with Germany, which can provide a forum for regular dialogue among all mine action stakeholders to strengthen coordination and identify and overcome challenges.
- BHM MAC should provide information on what steps it plans to further mainstream gender and diversity within its mine action programme and strive to improve gender balance in the sector, at the least by meeting the target of 40% female staff set by the 2003 Law on Gender Equality.
- BHM MAC 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 (2020)	Score (2019)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	6	6	BiH's baseline of CMR contamination totalled 2km ² as at the end of 2020 and is not classified into CHA and SHA, consistent with IMAS. Some areas of CMR contamination also contain anti-personnel mines and one CMR-contaminated area also contains depleted uranium, which poses additional complications for its release.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	6	6	National ownership of mine action in BiH falls under the responsibility of the Demining Commission and BHM MAC. 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 early completion. It is hoped that the Country Coalition established between BiH and Germany in 2020, and which was convened for the first time in October of that year, will provide a forum for regular dialogue among all mine action stakeholders, help demonstrate national ownership, strengthen coordination of Anti-Personnel Mine Ban Convention (APMBC) Article 5 and CCM Article 4 implementation, and monitor progress against the 2018–25 strategy.
GENDER AND DIVERSITY (10% of overall score)	5	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. Two of the three members of the appointed Demining Commission are women. However, 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, with the support of UNDP and the Geneva International Centre for Humanitarian Demining (GICHD). In addition, UNDP has developed a Geographic Information System (GIS) mobile application, which was released in November 2020. BHM MAC does not report accurately and consistently on the extent of CMR contamination or on survey and clearance output.
Table continued...			

Criterion	Score (2020)	Score (2019)	Performance Commentary
PLANNING AND TASKING (10% of overall score)	5	6	BiH adopted its National Mine Action Strategy 2018–2025 in January 2019, which foresees fulfilment of Article 4 by 1 March 2021. However, BHMAC failed to effectively plan for completion of CMR clearance early enough. A “completion initiative” to address CMR contamination was finally elaborated in 2019, with BiH Armed Forces, entity Civil Protections, and Norwegian People’s Aid (NPA) tasked to release CMR-contaminated area. However, output was insufficient for BiH to meet its deadline and the COVID-19 pandemic also negatively impacted survey and clearance of CMR. BiH therefore requested and was granted an 18-month extension to 1 September 2022.
LAND RELEASE SYSTEM (20% of overall score)	6	6	BHMAC has in place national standards and standing operating procedures (SOPs) for survey and clearance of CMR, which are adapted to the local threat and context. 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.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	4	5	The rate of CMR clearance has been unacceptably slow, with less than 2km ² of CMR-contamination cleared in the last five years. In comparison to landmine contamination, CMR 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 and BiH was granted an 18-month extension to 1 September 2022.
Average Score	5.3	5.6	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 2020, BiH reported a total of 2.05km² of CMR-contaminated area (see Table 1), with no disaggregation of CMR-contaminated area into CHA and SHA.² This compares to CMR contamination of 2.31km² as at the end of 2019.³ BHMAC also reported that previously unrecorded CMR contamination was added to BiH's database in 2020, but did not specify the size of the area added.⁴

According to BiH's Statement at Part 1 of the CCM Second Review Conference in November 2020, the total cluster munition-contaminated area in BiH in 2020 was 2.24km² across 36 areas. However, within the same CCM statement it was also reported CMR contamination as standing at 2.14km² (in line with BiH's Article 4 deadline extension request), highlighting the lack of consistency in BiH's reporting.⁵

BiH's remaining CMR to be addressed under Article 4 includes a cluster munition-contaminated area that also contains depleted uranium, located in Japaga – Han Pijesak in Republika Srpska.⁶

Table 1: Cluster munition-contaminated area by canton (at end 2020)⁷

Canton	Area (km ²)
Tuzlanski	0.40
Zanicko-Dobojski	0.61
Srednje Bosanski (Central Bosnia)	0.01
Hercegovačko Neretvanski	0.02
Sarajevo	0.23
Zapadno Hercegovački	0.20
Total Federation BiH	1.47
Total Republika Srpska	0.58
National Total	2.05

A total of 0.65km² of remaining CMR contamination, across six locations, is in areas which also contain mines. These areas containing mixed CMR and anti-personnel mine contamination fall under the obligations of both the CCM and the Anti-Personnel Mine Ban Convention (APMBC). BiH has said previously that the areas will be cleared of mines first and then cluster munition remnants.⁸ The tasks with mixed CMR and mine contamination should be prioritised for clearance, in order to release them by BiH's CCM Article 4 deadline of 1 September 2022.

In 2019, 3.6km² of items projected in an improvised manner was removed from BiH's baseline of CMR-contaminated area.⁹ This contamination was the result of individually launched KB-1 submunitions fired from modified AK-47 rifles,¹⁰ and was originally reported as 2.7km²,¹¹ and then as 2.1km², but was subsequently confirmed as 3.6km² through non-technical survey by NPA and BHMAC.¹² When used in this way, individual KB-1 submunitions do not fall within the definition of a cluster munition covered by the CCM, and, as such, are not governed by the treaty clearance obligations.¹³ BHMAC included reference to this contamination in its National Mine Action Strategy 2018–2025,¹⁴ and legitimately removed it from its Article 7 transparency reporting covering 2019.

CMR contamination dates back to the conflicts of 1992–95 related to the break-up of the Socialist Federal Republic of Yugoslavia.¹⁵ A survey and initial general assessment of cluster munition contamination was jointly conducted by BHMAC 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 2012.¹⁶ Of this, around 5km² was deemed actually contaminated and marked for clearance.¹⁷

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 BHMAC and represents BiH in its relations with the international community on mine-related issues.¹⁸ 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 strategic body responsible for setting mine action policy, and it proposes the appointment of BHMAC senior staff, for approval by the Council of Ministers.¹⁹

According to a 2016 audit office report, however, "The Commission has not developed a methodology on how to monitor the work of the BHMAC".²⁰ BHMAC, established by a 2002 Decree of the Council of Ministers, is responsible for regulating mine action and implementing BiH's survey and clearance plans.²¹ 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).²²

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. 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.²³ 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.

It is hoped that the "Country Coalition" established between BiH and Germany, will 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. The conference was focused on the political aspects of mine action in BiH, as well as on the technical challenges in the release of remaining contaminated areas.²⁴ It provided

an opportunity for participants to highlight the progress being made in BiH and underline remaining challenges and obstacles towards completion.²⁵

BHMAC is funded by the common institutions of BiH and other institutions at State level.²⁶ BiH State funding also supports survey and clearance of CMR. Operations of the BiH Armed Forces are supported by the State budget of BiH, while the Government of the Federation of BiH finances the operations of Federal Administration of Civil Protection (FACP).²⁷ The Civil Protection Administration of Republika Srpska (CPA RS) is financed by the Government of Republika Srpska.²⁸

On 7 April 2020, it was announced that €10 million of European Union (EU) funding under the Instrument for Pre-accession Assistance (IPA) 2018–20 programme, which had been intended for humanitarian demining, had been diverted to COVID-19 and migration issues. The EU funds had been intended for support of mine action in BiH, including the procurement of personal protective equipment (PPE) and supplies for BHMAC's work, the entity Civil Protections, as well as financing of demining projects of priority areas.²⁹

BiH has said that it requires funds totalling 4.5 million BAM (approximately US\$2.68 million) in order to fulfil its Article 4 obligations by its requested deadline of 1 September 2022. Part of the funding will be allocated from State budgets for the Armed Forces of BiH and the entity Civil Protections, and part will be sought from donors.³⁰

In 2020, a total of almost 6.22 million BAM (approximately US\$3.86 million) was allocated to releasing CMR-contaminated areas, of which more than 4.19 million BAM (approximately US\$2.60 million) was from national institutions.³¹

GENDER AND DIVERSITY

The National Mine Action Strategy 2018–2025 specifies that: "Under the leadership of BHMAC, relevant actors will include gender and diversity into all phases of planning, realisation and follow-up of all mine activities".³² 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.³³ However, as at June 2021, 25% of BHMAC's employees were female, with women employed in 8% of managerial/supervisory positions and 10% of operations positions.³⁴ BHMAC reported that it has a gender and diversity policy and that BHMAC upholds the Law on Gender Equality and routinely includes it in the development of strategies and standards.³⁵

BHMAC has reported that it consults all groups affected by CMR, including women and children, during survey and community liaison activities, and BHMAC's survey and community liaison teams are inclusive with a view to facilitating this. BHMAC also reported that relevant mine action data are disaggregated by gender and age.³⁶ In a

welcome development, two of the three new members of BiH's Demining Commission, adopted on 30 April 2020, are women.³⁷ However, except for one reference to the provision of adequate gender- and age-sensitive mine risk education,³⁸ there was no other mention of either gender or diversity in BiH's Article 4 deadline extension request submitted in September 2020.

The CPA RS reported that nearly 24% of its staff were female, including 30% of managerial/supervisory positions. CPA RS has six female medics, but none of its operations staff is a woman.³⁹ During survey and community liaison activities, it cooperates with the local population, regardless of ethnicity, and where needed has representatives from different ethnic groups.⁴⁰

As at June 2021, the Demining Battalion of the Armed Forces of BiH had a workforce of 535 personnel, including 27 women (5% of the total). Three of these women were in managerial/supervisory positions and the remainder were working in operations.⁴¹

FACP reported that of its 139 employees deployed in demining and destruction of UXO, 17 (12%) are women, including three (43%) of the seven managerial positions.⁴²

NPA reports promoting gender equality in all aspects of its programme activities in BiH. Mixed gender representation

is an obligation for NPA teams conducting community liaison and risk education.⁴³ That said, NPA reported that the overall gender split of its staff as at February 2021 was 107 men and 16 women, which represents 13% female staff. Women only accounted for 7 of NPA's 92 (8%) operational staff deployed in the field.⁴⁴ NPA explained that it rarely received applications from women for vacant operational roles. NPA says it is working to achieve a gender balance, and that the programme encourages the employment of women,

including into managerial and operational staff positions.⁴⁵ Three of the five (60%) managerial positions in the NPA BiH programme are held by women.⁴⁶ During the implementation of its activities, NPA teams organise meetings with female representatives in smaller groups, to provide a forum in which women may feel more comfortable to talk about potentially contaminated areas in their community and NPA's interventions.⁴⁷

INFORMATION MANAGEMENT AND REPORTING

BHMAC is in the process of migrating from its own information management system, the Bosnia and Herzegovina Mine Action Information System (BHMAIS), to Information Management System for Mine Action (IMSMA) Core, with the support of UNDP and the GICHD, and with financing from the EU.⁴⁸

The joint development of IMSMA Core in BiH began in 2019. Data from the country assessment project were originally expected to be transferred in March/April 2020 and the new database operational by mid 2020.⁴⁹ As at May 2020, however, the transition from BHMAIS to IMSMA Core was only partially complete and the target was then set for final completion by the end of the year.⁵⁰ GICHD training on the new system was also planned for BHMAC staff, which will take place once the situation with COVID-19 permits.⁵¹ According to the GICHD, IMSMA CORE has been implemented to be used for managing information resulting from Country Assessment project in BiH and it is ready for use by BHMAC.⁵² As at February 2021, BHMAC was using both databases and was in the process of training its staff. UNDP expected it to take a further six months to fully migrate to BHMAC using only IMSMA

Core.⁵³ Once in place, the database should be sustainable according to the GICHD, although the programme will still be susceptible to potential challenges stemming from turnover of key staff positions in the BHMAC IM department.⁵⁴

Information in BHMAC's information management system is made available to clearance operators.⁵⁵ 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 locations of hazardous areas, as well as other features, through Android and iOS Apple devices.⁵⁶

BHMAC does not report consistently on CMR contamination by SHAs and CHAs, in a manner consistent with IMAS. In addition, there are frequent inaccuracies in BHMAC reporting on land release. In its September 2020 Article 4 extension request BHMAC did, however, provide more detailed information on the location and size of the remaining CMR-contaminated area.⁵⁷

As at June 2021, BiH had yet to submit a CCM Article 7 report covering 2020.

PLANNING AND TASKING

In 2017, BiH developed a new national mine action strategy for 2018–25, with support from the GICHD, which 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 2018–25 was formally adopted in January 2019.⁵⁸ Strategic goal three on survey and clearance includes a commitment to complete CMR clearance obligations by 1 March 2021, in line with BiH's initial CCM Article 4 deadline.⁵⁹ However, the strategy did not contain an action plan or concrete milestones towards completion of CMR clearance.⁶⁰ In November 2020, the Demining Commission reported that a request would be sent to the Council of Ministers to initiate a first revision of the Mine Action Strategy for 2018–25, in line with the latest information.⁶¹ According to the strategy, a second revision is planned for 2023.⁶²

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 2020.⁶³ The completion initiative received support from the Norwegian Ministry of Foreign Affairs, the Swiss Government, and Norwegian cooperative COOP Norge SA.⁶⁴ But the national survey and clearance capacities planned under the completion initiative were not fully realised.⁶⁵ 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.⁶⁶ It was further negatively impacted by the COVID-19 pandemic⁶⁷ which caused survey and clearance operations to be paused from mid-March until June, and operations were then impacted again in October. COVID-19 also impacted BHMAC, which worked at reduced capacity.⁶⁸

Furthermore, the completion initiative did not include the CMR-contaminated area with depleted uranium contamination,⁶⁹ which is, however, still covered under BiH's Article 4 obligations. The 2020 Article 4 deadline extension request did refer to the CMR task that has contamination from depleted uranium, but without saying how BiH intends to address it.⁷⁰ BHMAC said that the project was prepared and reserved by NPA, and is the only remaining CMR task under the responsibility of the Pale regional office.⁷¹ As at March 2021, NPA said that an adequate solution had yet to be found for release of this task.⁷²

The completion plan fell behind schedule and BiH requested to extend its deadline by 18 months to 1 September 2022. The 2020 extension request included a work plan for release of remaining CMR-contaminated areas,⁷³ but lacked concrete milestones. The CMR-contaminated areas which also contain anti-personnel mine contamination, will be cleared of mines

first and then of CMR.⁷⁴ These areas of mixed contamination fall under BiH's CCM Article 4 obligations and should be prioritised for clearance, in order to release the contaminated areas before the 1 September 2022 deadline.

BHMAC also elaborates annual work plans. The 2021 work plan included planned CMR clearance of 0.5km² and planned reduction through technical survey of 1.5km².⁷⁵ NPA reported that it had been tasked to release a total of up to 1.35km² of CMR-contaminated area in 2021 and that addressing the remaining CMR contamination would largely depend on governmental commitment and greater participation of national capacities.⁷⁶

In 2020, the Demining Battalion had planned to conduct five demining projects in Federation BiH, covering a total area of 245,041m². It completed three of the five planned projects in 2020, clearing a total of 271,712m² during the year. The amount of CMR-contaminated area cleared in 2020 was greater than the planned clearance output, despite only three of the five projects having been completed. This was because

the clearance in some areas had to be expanded compared to the original task size.⁷⁷

The two cluster munition projects planned, but not completed in 2020, have been moved to the Demining Battalion's 2021 work plan. In 2021, the Demining Battalion planned to clear 341,108m² across seven projects, including the two projects postponed from 2020. The seven projects are in Federation of BiH in the cantons of Sarajevski, Tuzlanski, and Zanicco-Dobojski. As at June 2021, one of the two tasks moved from 2020, had been finished and the other was in progress.⁷⁸

BHMAC should ensure that CMR clearance tasks allocated to all implementing partners, including the Armed Forces of BiH, FACP, and NPA are fully implemented and released by BiH's 1 September 2022 deadline.

According to BHMAC, cluster munition-contaminated areas are prioritised for clearance based on agreement with local communities and municipalities.⁷⁹

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

In 2016, the Demining Commission formally adopted three revised chapters of the national mine action standards (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.⁸⁰ The Demining Commission adopted new standards for CMR at the beginning of 2017.⁸¹ According to NPA, national mine action standards in BiH are suitably adapted to the local threat and context, and enable efficient evidence-based survey and clearance of CMR.⁸²

In 2015, BHMAC adopted a new national SOP for non-technical survey of areas suspected to contain CMR, based on NPA's own SOP.⁸³ In October 2016, BHMAC made updates and improvements to national SOPs for CMR clearance and technical survey, also based on NPA's SOPs.⁸⁴ In April 2018, the new SOP for non-technical survey was adopted by the Demining Commission.⁸⁵

GICHD considers the current CMR baseline in BiH as a good foundation. It appears that BHMAC made good efforts to visit all the known hazardous areas and to document them.

However, it is not clear whether the sizes of those areas are accurate enough for proper planning and whether more cancellation could be done.⁸⁶

Plans for revising the NMAS and further development of relevant chapters was planned by BHMAC for 2020, but no significant progress was made. This remains in BHMAC's plans for 2021 and beyond.⁸⁷

The GICHD organised a one-day workshop in 2020 titled "technical survey – current methodologies and possibilities for enhancement", with a view to identifying gaps and possibilities for improving the technical survey in BiH, in a broader context, including operations, information management, standards, and legal framework. In agreement with the BHMAC and dependent on funding, GICHD will attempt to support BiH with development of several National Mine Action Standards, giving the priority to technical survey, information management, and quality management.⁸⁸

BHMAC reported that survey or resurvey of hazardous areas suspected to contain CMR is conducted as standard, as part of all land release operations.⁸⁹

OPERATORS AND OPERATIONAL TOOLS

Land release operations on CMR-contaminated area in 2020 were conducted by non-governmental organisation NPA; entity Civil Protections; and the BiH Armed Forces.⁹⁰ In its Article 4 deadline extension request, BHMAC said that the remaining CMR contamination will be released by these same entities. However, it also stated that CMR operations can be performed by Centar za humanitarno razminiranje, Detektor, In Demining NGO, and Stop Mines NGO, and that these organisations could be accredited and engaged, if and when a tender is issued for removal of the remaining CMR contamination.⁹¹

BHMAC asserts that the BiH Armed Forces and the FACP are equipped with necessary demining equipment and capable, trained personnel for CMR clearance.⁹² However,

both have suffered from logistical challenges and equipment deficits in the past, which prevent them from working at full capacity.⁹³ 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.⁹⁴ The BiH Armed Forces require ongoing support to secure PPE, batteries for detectors, and fuel for demining machinery, since the Army's own complex procurement system often cannot ensure delivery in time.⁹⁵ In August 2020, the Demining Battalion received a donation of 180 demining visors from the US government, enabling 18 manual clearance teams to be

equipped.⁹⁶ The BiH demining battalion would like to upgrade PPE and demining equipment, and cautioned that it could face 25% reduction in capacity without this equipment.⁹⁷

In 2020, the BiH Armed Forces had three teams specialised and deployed in CMR clearance.⁹⁸ This was an increase of one team compared to 2019, with the third team having been equipped for CMR survey and clearance operations, as part of the completion initiative. NPA provided eight magnetic detectors, under a Swiss-funded contract. NPA also loaned the Demining Battalion its Digger D-250 and provided direct operational support for mechanical ground preparation.⁹⁹ The Demining Battalion also receives support from Austria, France, Italy, and the United States, as well as European Union Force Bosnia and Herzegovina (EUFOR), which alone provides 90% of total support.¹⁰⁰

The FACP had a combined technical survey and clearance capacity in 2020 of 11 teams, totalling 63 personnel. It expected to maintain the same capacity in 2021.¹⁰¹

The CPA RS conducts survey and clearance of mines, CMR, and other explosive remnants of war (ERW CPA RS did not conduct any CMR operations in 2020, but it did the previous year.¹⁰²

In 2020, NPA had three manual clearance teams totalling 14 deminers for technical survey and clearance of CMR-contaminated area in BiH. However, of the 14 deminers, only eight were deployed for a period of five months. As mentioned above, since 2010, NPA also continued helping to build the capacity of the Armed Forces Demining Battalion.¹⁰³

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.

The Demining Commission is responsible for considering the periodic re-accreditation of field operators, following the recommendation from BHMAL. Any delay in the appointment of the Demining Commission can therefore impact the re-accreditation process and have a knock-on impact on survey and clearance operations.¹⁰⁴ This was the case for a six month period from late October 2019, when the previous Demining Commission's term expired, until 30 April 2020, when the new Demining Commission was put in place and accreditations could again be renewed or approved. The delay in appointing the new Demining Commission negatively impacted CMR operations, in some instances preventing the initiation of CMR clearance at the start of the demining season.¹⁰⁵

In October 2020, the BHMAL invited operators to consult and comment on the new draft rules for the accreditation process, which had been posted online. In addition to the online consultation, the BHMAL plans to invite operators to a meeting to discuss and address comments and questions on these new rules. This participatory approach is welcomed by international NGO clearance operators.¹⁰⁶

Quality control (QC) and quality assurance (QA) are conducted by BHMAL.¹⁰⁷

No animal detection systems or mechanical assets were used in CMR survey or clearance operations in BiH in 2020 (or 2019). 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.¹⁰⁸ In 2014, NPA successfully piloted using SDDs for technical survey and clearance of CMR-contaminated areas.¹⁰⁹ It recommended the use of detection dogs in technical survey (both targeted and systematic investigation).¹¹⁰ However, as at August 2020, BHMAL had yet to make the necessary amendments to the national standards.

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2020

Based on data reported by BHMAL to Mine Action Review, a total of 0.69km² of CMR-contaminated area was released in 2020: 0.34km² through technical survey and 0.35km² through clearance, during which a total of 162 submunitions were destroyed. This total includes four submunitions destroyed during explosive ordnance disposal (EOD) spot tasks. No area was cancelled through non-technical survey.¹¹¹

While BHMAL did provide disaggregated data to Mine Action Review, BiH did not disaggregate land reduced through technical survey from land released through clearance in its Article 7 report covering 2020, in which the technical survey and clearance outputs were reported as a combined total of 0.68km².¹¹²

SURVEY IN 2020

In 2020, 0.34km² of CMR-contaminated area was reduced through technical survey, as reported by BHMAL to Mine Action Review.¹¹³ This is a slight increase on the 0.27km² of CMR-contaminated area reduced through technical survey in 2019.¹¹⁴ No CMR-contaminated area was cancelled through non-technical survey in 2020.

Table 2: Reduction through technical survey in 2020¹¹⁵

Canton	Area reduced (m ²)
Hercegovacko Neretvanski	25,908
Sarajevo	12,686
Tuzlanski	68,814
Unsko Sanski	21,573
Total Federation BiH	128,981
Total Republika Srpska	212,363
Total	341,344

CLEARANCE IN 2020

In 2020, more than 0.35km² of CMR-contaminated area was cleared, with the destruction of 162 submunitions, with a further 4 submunitions destroyed during EOD spot tasks, as reported by BHMAC to Mine Action Review.¹¹⁶

The 2020 land release output was, overall, a slight decrease on 2019, when 0.45km² of CMR-contaminated area was cleared, as reported by BHMAC to Mine Action Review.¹¹⁷ According to BHMAC the decrease in clearance was due to the impact of the COVID-19 pandemic.¹¹⁸

Table 3: CMR clearance in 2020^{119*}

Canton	Area cleared (m ²)	Submunitions destroyed
Hercegovacko Neretvanski	24,440	20
Sarajevo	16,900	0
Tuzlanski	98,050	20
Unsko Sanski	44,380	99
Total Federation BiH	183,770	139
Total Republika Srpska	170,469	23
National Totals	354,239	162

* The combined amount of CMR-contaminated area cleared in 2020, as reported by the Demining Battalion of the Armed Forces (271,712m² cleared and 18 submunitions destroyed) and NPA (246,232m² cleared and 137 submunitions destroyed), exceeded the total area reported as cleared by BHMAC for 2020 (see endnote for further details).

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. Based on current progress in CMR clearance, it was unclear whether BiH would achieve completion by the extended deadline.

The decision on BiH's extension request was due to be formally adopted during the Part 2 of the Review Conference, planned to take place in a hybrid format in February 2021. However, Part 2 of the Review Conference was postponed, due to COVID-19 restrictions preventing a hybrid meeting in Switzerland, and BiH's request to extend its Article 4 deadline was instead granted by States Parties through a new "silence procedure" in February 2021.¹²⁰ As at March 2021, BHMAC said it was on track to complete CMR by its extended deadline.¹²¹ However, this is highly debatable based on land release output in 2020 and the fact that less than 2km² of CMR-contamination was cleared in the last five years (see Table 4).

Table 4: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2020	0.35
2019	0.45
2018	0.44
2017	0.27
2016	0.10
Total	1.61

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.

BHMAC reported that COVID-19 resulted in a significant reduction in the realisation of CMR tasks in 2020, due to the impact on deployment of clearance capacity.¹²² COVID-19 also impacted BHMAC, which worked at reduced capacity.¹²³ COVID-19 caused NPA's survey and clearance operations to be paused from 17 March to 1 June 2020, and two manual demining teams were also stood down in October.¹²⁴ However, both NPA and the FACP reported achieving their respective CMR land release targets as per their 2020 work plans, despite the impact of COVID-19.¹²⁵ The Demining Battalion of the BiH Armed Forces completed two of three of its CMR tasks in 2020, clearing more land than had been planned for the two tasks.¹²⁶ CMR clearance by the Armed Forces is an essential component of BiH's completion plan for Article 4 implementation.

BHMAC faces the additional obstacle of a cluster munition clearance task in the municipality of Han Pijesak, in the Republika Srpska, which also contains depleted uranium munitions remaining from NATO air strikes. The presence of depleted uranium complicates cluster munition clearance as deminers must be adequately trained and protected against exposure to the uranium. While this task is referred to in BiH's September 2020 Article 4 deadline extension request,

no details are provided on how BiH plans to address the mixed threat.¹²⁷ Previously, in February 2020, BHMAC had said it was discussing the possibility of seeking assistance from NATO to clear this area.¹²⁸

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, had there been greater political will, national ownership, and commitment from BHMAC, the Demining Commission, and their superiors in the government.

BiH has said that in order to fulfil its obligations under Article 4, during the 18-month extension period from 1 March 2021 to 1 September 2022, funds totalling US\$2.73 million are necessary. Part of the funds will be provided by governmental organisations (Armed Forces of BiH, Civil Protection entities, and BHMAC) through State budgets, while part of the funds will be sought from donors.¹²⁹

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

The National Mine Action Strategy for 2018–2025 requires the development of a strategy for the management of residual contamination by 2022. As at July 2021, BHMAC had still to begin development of the strategy.¹³⁰

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- 2 Email from Ljiljana Ilić, BHMAC, 31 March 2021.
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- 5 Statement of BiH, CCM Second Review Conference (Part 1), virtual format, 25–27 November 2020; and 2020 Article 4 deadline Extension Request, September 2020, pp. 9 and 11.
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- 12 Statements of BiH, CCM Ninth Meeting of States Parties, Geneva, 2–4 September 2019; and CCM Second Review Conference (Part 1), virtual format, 25–27 November 2020.
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- 20 Audit Office of the Institutions of Bosnia and Herzegovina, "Performance Audit Report. Efficiency of the Demining System in Bosnia and Herzegovina", 4 November 2016, p. 8.
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- 31 Email from Ljiljana Ilić, BHMAC, 31 March 2021.
- 32 BiH, National Mine Action Strategy 2018–2025, p. 14.
- 33 Ibid.
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- 37 2020 Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, p. 18.
- 38 2020 Article 4 deadline Extension Request, September 2020, p. 7.
- 39 Email from Milisav Pantic, on behalf of Dragan Kos, Civil Protection Administration of Republika Srpska, 3 June 2021.
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- 42 Email from Muamer Husilović, Federal Administration of Civil Protection (FACP), 12 March 2021.
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- 92 Email from Ljiljana Ilić, BHMIC, 24 April 2019.
- 93 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, BHMIC, Sarajevo, 10 May 2017.
- 94 Email from Jonas Zachrisson, NPA, 26 March 2020.
- 95 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.
- 96 "Vlada SAD-a donirala zaštitne vizire Deminerskom bataljONU OSBiH", Sarajevograd, 26 August 2020.
- 97 Presentation online by Brig. General Kenan Dautovic, Head of BiH Demining Battalion, 13 October 2020.
- 98 Ibid.
- 99 Email from Jonas Zachrisson, NPA, 26 March 2020.
- 100 Email from Fotini Antonopoulou, EU, 18 September 2017.
- 101 Email from Muamer Husilović, Federal Administration of Civil Protection (FACP), 12 March 2021.
- 102 Email from Milisav Pantic, on behalf of Dragan Kos, Civil Protection Administration of Republika Srpska, 3 June 2021.
- 103 Email from Jonas Zachrisson, NPA, 14 March 2021.
- 104 Email from GICHD, 13 May 2020.
- 105 2020 Article 4 deadline Extension Request, September 2020, p. 5.
- 106 Email from Clement Meynier, MAG, 11 March 2021.
- 107 2020 APMBIC Article 5 deadline Extension Request, p. 8.
- 108 Statement of BiH, CCM Seventh Meeting of States Parties, Geneva, 4–6 September 2017.
- 109 Email from Amela Balic, NPA Bosnia, 15 April 2015.
- 110 Email from Jonas Zachrisson, NPA, 5 June 2019.
- 111 Email from Ljiljana Ilić, BHMIC, 31 March 2021.
- 112 CCM Article 7 Report (covering 2020), Form F. There was a small discrepancy in BiH's Article 7 report, which reported the total area released through clearance and technical survey as 680,790m², though the different geographical areas actually totalled 680,430m². Furthermore, the combined clearance and technical survey total of 14,793m² reported for the canton of Sarajevo in BiH's Article 7 report, was lower than the equivalent combined total of 29,586m² for Sarajevo reported to Mine Action Review.
- 113 Email from Ljiljana Ilić, BHMIC, 31 March 2021.
- 114 Email from Ljiljana Ilić, BHMIC, 18 September 2020; and 2020 Article 4 deadline Extension Request, September 2020, p. 6.
- 115 Email from Ljiljana Ilić, BHMIC, 31 March 2021. NPA reported reducing a total of 317,492m² in 2020 (Hercegovacko Neretvanski (16,690m²); Tuzlanski (62,610m²); Zanicco-Dobojski (102,080m²); and Republika Srpska (136,112m²)). Email from Jonas Zachrisson, NPA, 14 March 2021.
- 116 Email from Ljiljana Ilić, BHMIC, 31 March 2021.
- 117 Email from Ljiljana Ilić, BHMIC, 18 September 2020; and 2020 Article 4 deadline Extension Request, September 2020, p. 6.
- 118 Email from Ljiljana Ilić, BHMIC, 31 March 2021.
- 119 Ibid. There were some discrepancies in BHMIC data on cluster munition-contaminated area cleared in 2020 compared to that reported to Mine Action Review by the implementing partners directly. The Demining Battalion of the BiH Armed Forces reported completing three of the five CMR projects planned for 2020, during which it cleared a total of 271,712m², with the destruction of 18 submunitions and 2 anti-personnel mines. Emails from Brig. Dzevad Zenunovic, Demining Battalion of the Armed Forces of BiH, 11 and 28 June 2021. NPA reported clearing a total of 246,232m² in 2020, with the destruction of 137 submunitions and 8 items of other UXO (Hercegovacko Neretvanski (53,750m² cleared, 14 submunitions destroyed); Tuzlanski (50,602m² cleared, 51 submunitions destroyed); Zanicco-Dobojski (108,700m² cleared, 71 submunitions destroyed); and Republika Srpska (33,180m² cleared, 1 submunition destroyed)). Email from Jonas Zachrisson, NPA, 14 March 2021. The Federal Administration of Civil Protection (FACP) reported releasing a combined total of 132,903m² through technical survey and clearance in Sarajevo Canton in 2020, with the destruction of 45 submunitions, on tasks relating to individually fired submunitions. This contamination does not fall under the CCM and is therefore not part of BiH's Article 4 obligations. Email from Muamer Husilović, FACP, 12 March 2021. BiH did not disaggregate land reduced through technical survey from land released through clearance in its Article 7 report covering 2020, in which the technical survey and clearance output were reported as a combined total of 680,790m². CCM Article 7 Report (covering 2020), Form F.
- 120 Email from the CCM Secretariat to CCM States Parties, 1 March 2021.
- 121 Email from Ljiljana Ilić, BHMIC, 31 March 2021.
- 122 Ibid.
- 123 2020 Article 4 deadline Extension Request, September 2020, pp. 4, 5, and 11; Statement of BiH, CCM Second Review Conference (Part 1), virtual format, 25–27 November 2020; and email from Jonas Zachrisson, NPA, 14 March 2021.
- 124 Email from Jonas Zachrisson, NPA, 14 March 2021.
- 125 Emails from Muamer Husilović, FACP, 12 March 2021; and Jonas Zachrisson, NPA, 14 March 2021.
- 126 Email from Brig. Dzevad Zenunovic, Demining Battalion of the Armed Forces of BiH, 11 June 2021.
- 127 2020 Article 4 deadline Extension Request, September 2020, p. 9.
- 128 Interview with Saša Obradovic, BHMIC, Geneva, 11 February 2020.
- 129 Statement of BiH, CCM Second Review Conference (Part 1), virtual format, 25–27 November 2020.
- 130 Email from Ljiljana Ilić, BHMIC, 2 July 2021.

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

KEY DATA

CLUSTER MUNITION CONTAMINATION:

BELIEVED TO BE LIGHT BUT
NO NATIONAL BASELINE ESTIMATE

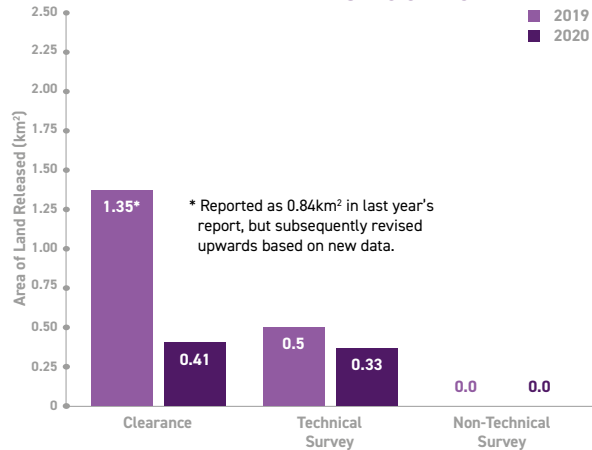
SUBMUNITION CLEARANCE IN 2020

0.41 KM²

SUBMUNITIONS DESTROYED IN 2020

2 SUBMUNITIONS **1** DISPENSER

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Chad suspended mine action operations for around five months of 2020 as part of its measures to combat the COVID-19 pandemic. The National High Commission for Demining (HCND) reported that international operator Humanity and Inclusion (HI) was able to conduct technical survey and clearance in the Fada region of Ennedi which it also identified as the last area of known cluster munition remnants (CMR) contamination. After three decades in power, President Idris Déby died in April 2021, ushering in a chapter of political transition and uncertainty.

RECOMMENDATIONS FOR ACTION

- Chad should provide a comprehensive report detailing all areas that have been surveyed for CMR; all areas that have been cleared; and areas where CMR are suspected to be present that have not been subjected to survey or clearance.
- Chad should draw up a work plan providing for CMR survey and clearance, particularly in the Borkou, Ennedi, and Tibesti regions.
- Chad should introduce national standards specific to CMR survey and clearance.
- Chad's Ministry of Economy and Planning should develop a resource mobilisation strategy for the mine action sector.
- International donors willing to support Chad's mine action should ensure that funding is linked to a concrete and measurable work plan.
- Chad's national mine action authority should disaggregate CMR from other explosive ordnance in reporting results of survey and clearance.
- Chad should ensure that it establishes a sustainable national capacity to address any residual CMR contamination discovered following fulfilment of Article 4.
- Chad should establish a country coalition, to bring together key stakeholders on a quarterly or biannual basis to discuss progress and challenges, and agree on an Article 4 completion plan.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2020)	Score (2019)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	5	4	Chad provided an estimate of cluster munition contamination for the first time in 2019 but as a result of gaps in Chad's reporting the basis for that estimate is unclear. The location and extent of remaining CMR contamination has not been clearly determined.
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' commitment to 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 donor funding. The COVID-19 pandemic and the change of regime in 2021 presented challenges likely to eclipse support for mine action.
GENDER AND DIVERSITY (10% of overall score)	4	4	Gender and diversity considerations do not appear in Chad's national plans but 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), which conducted survey verification in 2020, but data suffer from reporting delays and persistent inconsistencies between official results and operator reports. Chad has submitted Article 7 reports for each of the past five years.
PLANNING AND TASKING (10% of overall score)	3	3	Chad has never presented a strategic plan or identified priorities for survey or clearance of CMR contamination. Chad's claims to be on the brink of meeting its Article 4 obligations are regarded as premature.
LAND RELEASE SYSTEM (20% of overall score)	5	5	Chad has International Mine Action Standards (IMAS)-compatible national standards but none is specific to CMR survey or clearance.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	5	5	Chad reported that it released 0.7km ² through technical survey and clearance in 2020 representing significant progress towards completing clearance of known CMR hazards, although HI reporting did not corroborate these results.
Average Score	4.5	4.3	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 so the extent to which it has been, or is, affected is uncertain, though its contamination has never been assessed as heavy. Chad informed the Convention on Cluster Munitions (CCM) signing conference in 2008 that it had "vast swathes of territory" contaminated by mines and unexploded ordnance, including cluster munitions,¹ but it provided no details. In 2021, despite the absence of any baseline data or detailed record of survey and clearance results, Chad claimed to be close to completing clearance of the last known CMR hazard and meeting its Article 4 obligations.²

No baseline of cluster munition-contaminated area was reported as at the end of 2020. Chad identified 146,638m² of CMR-contaminated area in 2019, almost entirely located in the northern Ennedi region (see Table 1).³ The reliability of this data is unclear. In March 2019, Mines Advisory Group (MAG) spotted some cluster bomb containers in the Wouda area of Borkou,⁴ and most of the submunitions cleared in Chad since then were also in Borkou province.⁵ Moreover, insecurity has prevented operators from conducting any survey in the northern province of Tibesti, an area believed to have been one of the most affected by cluster munitions.

Table 1: Cluster munition-contaminated area by region (at end 2019)⁶

Province	CHAs	Area (m ²)
Borkou	2	2,782
Ennedi	1	143,856
Totals	3	146,638

Chad's cluster munition contamination dates back to conflicts with Libya, which occupied northern areas between 1980 and 1987. Chad stated in 2012 that while the precise extent of CMR contamination was not known, it was certain cluster munitions had been used in the Fada region and highly likely they had been used in other parts of the north.⁷ Chad also reported that, after Libyan troops withdrew in 1987, members of the French Sixth Engineers Regiment found and destroyed CMR around former Libyan positions and it suspected additional contamination remained in the Tibesti region.⁸

Chad claimed there was heavy CMR contamination in palm groves around Faya Largeau, which had caused many casualties.⁹ In January 2015, four children (three girls and one boy) were reportedly injured after handling a submunition in Faya Largeau.¹⁰ Also in 2015, MAG identified and destroyed a limited number of CMR, including two empty RBK-250-275 cluster bomb containers in the Tibesti region and an AO-1-SCh submunition in the Borkou region.¹¹

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Chad's mine action programme is coordinated by the HCND, which comes under the Ministry of Economy, Development Planning and International Cooperation.¹² The HCND is responsible for preparing a national demining strategy, annual work plans, and proposing a budget to support them.¹³

Government funding for mine action is limited to payment of salaries for national staff.¹⁴ Threats by former deminers over non-payment of salaries prevented some planned survey and clearance activities from proceeding in 2018.¹⁵ The long-running strike by deminers included threats by former personnel that have prevented operations in areas of Tibesti earmarked for survey and clearance.¹⁶

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 human resources.¹⁷ Operators say constant changes in coordination staff have hampered efficiency.¹⁸ They also report lengthy delays obtaining the permits required to import equipment as well as in other bureaucratic procedures.

GENDER AND DIVERSITY

Chad does not address gender or diversity in its latest Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request submitted in 2019 or subsequent statements on mine action. 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 (less than 5%) 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.¹⁹

International operators have gender and diversity policies but under agreement with the HCND employ deminers provided by the national authority, which limits the opportunities for employing female technical staff. Women made up 13% of HI's total programme staff in Chad but only one of the 76 mine action employees, who worked as a community liaison officer.²⁰ MAG's total staff of 91 included six women, representing a little under 7% of its work force. They include the first woman in Chad to attain an explosive ordnance disposal (EOD) Level 3 certification, who is employed as a team leader, but women made up only about 1.5% of field staff compared with nearly 22% of office support staff.²¹

INFORMATION MANAGEMENT AND REPORTING

The HCND is equipped with an Information Management System for Mine Action (IMSMA) database operated with the support of FSD. Poor maintenance and shortages of trained information technology (IT) staff meant data available became unreliable because of lost reports and duplication. FSD started a clean-up of the database in 2017 under the EU-funded PRODECO project which has resulted in cancellation of large numbers of duplicate entries.²² 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 and conducted 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”.²³

PLANNING AND TASKING

Chad does not have a strategic plan for CMR survey and clearance. In the CCM Article 7 report Chad submitted in July 2020, the authorities noted 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,²⁴ but it appears those plans were never implemented.

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 recce tasks with the HCND and local authorities prior to deploying staff.²⁵ HI said it prioritised tasks according to local community development priorities.²⁶

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Chad has national mine action standards that HCND says comply with the International Mine Action Standards (IMAS) but has no CMR-specific standards.

OPERATORS AND OPERATIONAL TOOLS

HI's mine action programme in Chad included three multi-task teams (MTTs) with 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. HI also had a mechanical team operating a GCS 200 multi-purpose vehicle used for ground preparation. In 2020, HI worked on mined and battle area tasks mainly in Ennedi West province, particularly in the Fada and Wadi Doum areas, but it did not tackle any cluster munition-contaminated areas.²⁷

HI worked with a private company testing the use of drones for non-technical survey of mined areas using infrared and thermal technologies. HI found the drones enhanced mapping of hazardous areas, the identification of high- and low-threat areas, helping the project to save time and assign more precisely the resources needed to tackle specific tasks.²⁸

MAG operated with three 12-strong EOD teams comprising a total of 26 deminers. It also had one survey team and a mechanical team operating an ARMTRAC 100-350 to assist technical survey. In 2019, it worked in northern Chad's Borkou region, including road clearance operations to enable communications between towns in the north. In 2020, it shifted operations to the western part of northern Ennedi province where teams continued working in 2021, tackling mined areas around Fada and other unexploded ordnance around Kalait and conducting spot EOD tasks.²⁹

FSD employed a total of 12 people at the end of 2020 with four international staff, four national programme staff, and four support personnel. In addition to developing Chad's IMSMA database and training HCND staff, activities in 2020 included assisting non-technical survey operations.³⁰

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

Mine action in 2020 was set back by the impact of the COVID-19 pandemic. Operations were suspended for up to five months from May 2020.³¹ In addition to basic personal measures of using hand sanitizers and wearing face masks operators adopted a range of measures for field teams, testing staff for COVID-19 before deployment, restricting the number of passengers in each vehicle and limiting contacts with local populations.³²

LAND RELEASE OUTPUTS IN 2020

Chad reported release of 742,657m² of cluster munition-contaminated area in 2020, all of it resulting from survey and clearance by HI in the vicinity of Delbo village in the Fada district of Ennedi West province.³³

SURVEY IN 2020

Chad said 330,647m² of cluster munition-contaminated area was reduced through technical survey conducted by HI in 2020 around Delbo village.³⁴

CLEARANCE IN 2020

Chad reported that HI cleared 412,010m² of cluster munition-contaminated area in 2020 during operations around Delbo village in Ennedi West. It also said the operation resulted in destruction of two submunitions and one cluster munition dispenser.³⁵

Updated results from Chad and operators show slightly increased outputs from operations in 2019 than the 0.84km² previously recorded. MAG reported the CM task cleared in 2019 amounted to 1,353,959m² (previously reported as 837,453m²).³⁶ The 28 submunitions destroyed by MAG in that operation were previously recorded as the only CMR destroyed in 2019. Chad's latest Article 7 report says HI also destroyed nine submunitions and 27 A01-SCH containers in 2019.³⁷

ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR CHAD: 1 SEPTEMBER 2013



ORIGINAL ARTICLE 4 DEADLINE: 1 SEPTEMBER 2023

ON TRACK TO MEET ARTICLE 4 DEADLINE: UNCLEAR

Chad reported release of land through technical survey and clearance in 2019 and 2020, that was modest in extent but still represented significant progress after years of prior inactivity in dealing with cluster munitions (see Table 2).

Chad has announced that the task HI worked on in Ennedi represents its last known CMR hazard. It expected completion of the task in July 2021 and said if HCND's QA/QC confirmed completion of the task Chad would make a formal statement that it had fulfilled its Article 4 obligations.³⁸

The Mine Action Review considers such a declaration would be premature in view of:

- the absence of baseline contamination data;
- the lack of clarity on what areas have been subjected to comprehensive non-technical survey and clearance;
- the possibility of additional cluster munition contamination in areas not previously identified as suspected hazardous areas (SHA) as experienced in Borkou province which accounted for most of the cluster munitions cleared in 2019; and
- the inability of operators to access, and conduct survey in Tibesti province, where past conflicts involving cluster munitions use point to a strong possibility of CMR contamination.

As it looks ahead to completion, Chad also needs to outline what, if any, national capacity and support it has in place to address residual CMR discovered post completion. Such planning is particularly important in view of the uncertain funding outlook for Chad's mine action programme. The EU-financed PRODECO project, which has provided the only funding for survey and clearance operations since 2017, was due to end in September 2021. Operators expressed the hope that operating delays resulting from the COVID-19 pandemic could lead at least to a no-cost extension of the PRODECO project until the end of the year but, as of June 2021, the operating consortium implementing the project had not yet applied for the extension. Discussions with donors had yet to identify any successor to the PRODECO project.

Table 2: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2020	0.41
2019	1.35 ³⁹
2018	0
2017	0
2016	0
Total	1.76

-
- 1 Statement of Chad, Convention on Cluster Munitions (CCM) Signing Conference, Oslo, 3 December 2008.
- 2 CCM Article 7 Report (covering 2020), Form F.
- 3 Email from Soultani Moussa, Manager/Administrator, National High Commission for Demining (HCND), 27 April 2020.
- 4 Email from Soultani Moussa, HCND, 14 May 2019.
- 5 Email from Gérard Kerrien, Country Director, MAG, 20 May 2021.
- 6 Email from Soultani Moussa, HCND, 27 April 2020.
- 7 Statement of Chad, CCM Third Meeting of States Parties, Oslo, 13 September 2012.
- 8 Article 7 Report (covering 2013), Form F.
- 9 Statement of Chad to the Ninth Meeting of States Parties, 2-4 September 2019.
- 10 Article 7 Report (covering 2015), Form H.
- 11 Article 7 Report (covering 2015), Form F; and email from Llewelyn Jones, Director of Programmes, Mines Advisory Group (MAG), 31 May 2016.
- 12 Ibid.
- 13 Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, April 2019, p. 10.
- 14 Email from Soultani Moussa, HCND, 14 May 2019.
- 15 Email from Romain Coupez, Country Director, MAG, 4 March 2019.
- 16 Ibid. "Tchad: grève des démineurs restés 10 mois sans salaire", ("Chad: deminers strike after 10 months without pay"), Agence de Presse Africaine, 10 May 2017, at: <http://bit.ly/30Cz25g>; and email from Julien Kempeneers, HI, 26 September 2017.
- 17 APMBC Article 5 deadline Extension Request, April 2019, p. 10.
- 18 Email from Seydou Gaye, HI, 3 June 2020.
- 19 Emails from Soultani Moussa, HCND, 14 May 2019 and 29 May 2020.
- 20 Email from Marie-Cécile Tournier, Country Director, HI, 2 June 2021.
- 21 Email from Gérard Kerrien, Country Director, MAG, 20 May 2021.
- 22 Email from Moussa Soltani, HCND, 27 April 2020.
- 23 Email from Olivier Shu, Senior Technical Adviser, FSD, 18 May 2021.
- 24 Article 7 Report (covering 2019), Form F.
- 25 Email from Daniel Davies, MAG, 27 April 2020.
- 26 Email from Seydou Gaye, HI, 3 June 2020.
- 27 Email from Marie-Cécile Tournier, HI, 2 June 2021.
- 28 Ibid.
- 29 Email from Gérard Kerrien, Country Director, MAG, 20 May 2021.
- 30 Email from Olivier Shu, FSD, 18 May 2021.
- 31 Email from FSD on behalf of Soultani Moussa, HCND, 10 June 2021.
- 32 Emails from Gérard Kerrien, MAG, 20 May 2021, and Marie-Cécile Tournier, HI, 2 June 2021.
- 33 Article 7 Report (covering 2020), Form F. HI, however, did not report releasing any cluster munition-contaminated area through survey or clearance in 2020. Email from Marie-Cécile Tournier, HI, 2 June 2021.
- 34 Article 7 Report (covering 2020), Form F.
- 35 Ibid.
- 36 Emails from Daniel Davies, Programme Support Coordinator, MAG, 21 May 2021; and Caroline Bruvier, Programme Officer, MAG, 5 August 2020.
- 37 Article 7 Report (covering 2020), Form F.
- 38 Ibid.; and Skype interview with Olivier Shu, Senior Technical Adviser, FSD, 29 June 2021.
- 39 Reported in *Clearing Cluster Munition Remnants 2020* as 0.84km², but subsequently revised upwards based on new data provided to Mine Action Review by MAG.

ARTICLE 4 INTERIM DEADLINE: 1 JUNE 2022
 FURTHER INTERIM EXTENSION REQUESTED TO 1 JUNE 2023

KEY DATA

CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

64.6 KM²

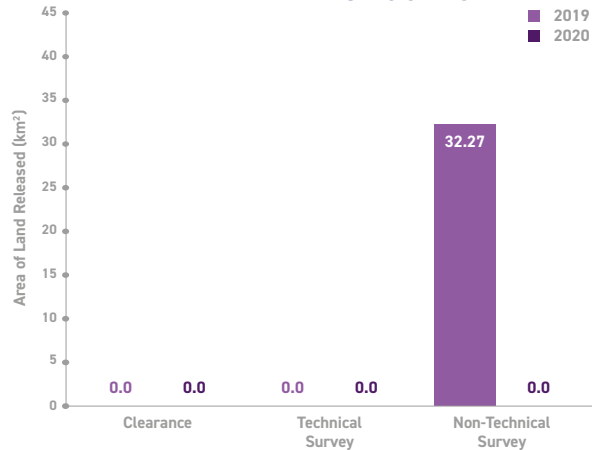
SUBMUNITION
CLEARANCE IN 2020

0 KM²

SUBMUNITIONS
DESTROYED IN 2020

0

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

In 2020, Chile submitted a first request for a one-year interim extension to its Convention on Cluster Munitions (CCM) Article 4 deadline for the clearance of cluster munition remnants (CMR). In its extension request, which was subsequently granted, Chile provided information on the cluster munition-contaminated area and its survey and clearance capacity, detailing a plan to conduct technical survey in 2021. However, Chile subsequently reported that due to impact of the COVID-19 pandemic in the country sufficient resources had not been mobilised to conduct the planned technical survey in 2021. In June 2021, Chile submitted a further one-year interim extension request to its Article 4 deadline, to 1 June 2023. During the new extension period, Chile plans to conduct the required technical survey. The request will be considered at Part Two of the Second Review Conference of the CCM in September 2021. In a positive development, Chile issued a ministerial order in 2021, outlining the management structure within the government for the implementation of Chile's international obligations under the CCM.

RECOMMENDATIONS FOR ACTION

- Chile should ensure that it secures sufficient resources to complete technical survey by its new requested interim Article 4 deadline of 1 June 2023 without fail.
- Chile should elaborate a gender and diversity policy and implementation plan for its mine action programme.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2020)	Score (2019)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	5	5	There was no change in Chile's understanding of CMR contamination at the end of 2020 from the situation at the end of the previous year. Technical survey is now planned for 2022. It is highly likely that the current CMR contamination figure is an overestimate as some clearance was already carried out by the armed forces after the use of cluster munitions in training at the four military sites.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	4	4	The Joint Chief of Staffs have been instructed by the Minister of Defence to assume responsibility for planning and coordinating the survey and clearance of CMR which will be conducted by units of the armed forces. In previous years, Chile funded its own mine action activities but reported that no funding for CMR survey or clearance had been allocated in 2021 due to the COVID-19 pandemic.
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. Chile should also formulate a mine action-specific gender and diversity policy.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	5	6	Chile uses the Information Management System for Mine Action (IMSMA) database it updated in 2017. Chile has submitted CCM Article 7 reports annually since 2012. In July 2020, Chile submitted its first extension request, seeking an interim one-year extension to 1 June 2022. The extension request was granted by a "silence procedure", which was necessary because COVID-19 delayed Part 2 of the CCM Second Review Conference during which a formal decision on the extension request had been due to take place. In June 2021, Chile submitted a second interim extension request seeking an additional 12-months to 1 June 2023.
PLANNING AND TASKING (10% of overall score)	5	5	Chile included plans for technical survey of CMR-contaminated areas in 2021 in its first extension request, as well as basic information on its technical survey and clearance capacity and an estimated budget to complete CMR clearance. However, it did not conduct the planned technical survey, which it ascribes to the impact of the COVID-19 pandemic.
LAND RELEASE SYSTEM (20% of overall score)	5	5	Chile says it is 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)	3	4	Chile did not conduct any survey or clearance of CMR-contaminated area in 2020. Chile had stated that technical survey would be conducted during 2021 but was not able to allocate sufficient resources due to the COVID-19 pandemic. In June 2021, Chile submitted a second one-year interim request to extend its deadline to 1 June 2023, during which time it plans to conduct technical survey. In August 2021, Chile submitted a detailed work plan in which it committed to conduct technical surveys of the affected areas in November to December 2021 and to complete the reports of the surveys in January to February 2022.
Average Score	4.6	4.9	Overall Programme Performance: POOR

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- Division of International Relations, Undersecretary of Defence (Subsecretaría de Defensa, División de Relaciones Internacionales)
- Joint Chiefs of Staff (Estado Mayor Conjunto EMCO)

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 2020 it had almost 65km² of cluster munition-contaminated area in three of its fifteen provinces (see Table 1). This is unchanged from the estimate as at the end of 2019 as no survey or clearance took place during 2020.¹

Contamination is the consequence of use of cluster munitions in exercises on 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.²

Chile has reported that, according to military procedures, clearance of unexploded submunitions or other unexploded ordnance (UXO) present in these areas was conducted after use so it is unclear how much CMR contamination remains but it is likely that the actual extent of contamination is significantly smaller than the revised estimate. The contaminated areas remain within military enclosures so are inaccessible to the public.³

Table 1: Cluster munition-contaminated area by province (at end 2020)⁴

Province	Military range	SHAs	Area (m ²)
Arica and Parinacota	Pampa Chaca Este	1	30,560,000
Tarapacá	Delta	1	28,291,563
Tarapacá	Barrancas	1	2,669,542
Magallanes and Antártica Chilena	Punta Zenteno	1	3,090,019
Totals		4	64,611,124

SHA = Suspected hazardous area

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Chile is also affected, to a limited extent, by other 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* report on Chile for further information).⁵

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.⁶ 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 other explosive remnants of war (ERW).⁷ 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.⁸ The Joint Chiefs of Staff are responsible for planning and coordinating the technical survey, which will then be conducted by the armed forces. The Joint Chiefs of

Staff, in coordination with the Undersecretariat of Defence and the Undersecretariat of the Armed Forces, are also responsible for planning and coordinating CMR clearance.⁹

Chile has estimated it will require US\$10.5 million to complete clearance of CMR. In 2020, no financial resources were allocated to CMR survey or clearance due to the COVID-19 outbreak.¹⁰ In accordance with Ministerial Order 02, the International Relations Division of the Ministry of Defence has considered obtaining special funds of \$34,000 for technical survey.¹¹ In June 2021, Chile stated that sufficient financial resources would not be available to conduct technical survey in 2021 and that it intended to fund survey in 2022 if it no longer has to divert those resources to COVID-19 relief efforts.¹² In August 2021, Chile submitted a detailed work plan in which it committed to conduct technical surveys of the affected areas in November to December 2021 and to complete the reports of the surveys in January to February 2022. The expected budget for the technical survey totalled US\$24,608,767 which will be covered by national funding.¹³

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 total armed forces personnel were female. 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.¹⁴ Chile reported that in 2019 of the 246 personnel carrying out roles within the demining units ten were women (4%). This included two demining section commanders and four women in support roles (one medic, two nurses, and one paramedic).¹⁵ 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.¹⁶

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.¹⁷ This system was deployed in 2019 alongside non-technical survey, with a view to calculating the area of possible CMR contamination.¹⁸

Chile has submitted its CCM Article 7 transparency report every year since 2012. Chile submitted its first interim one-year Article 4 extension request in 2020 (which was granted in May 2021), and then submitted a second interim one-year extension request in June 2021.

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 committee, Chile subsequently resubmitted the extension request in June 2020, asking instead for a one-year interim extension 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.¹⁹

Chile's interim extension request to 1 June 2022, was subsequently 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-19.²⁰ However, due to the impact of the COVID-19 pandemic, Chile

did not conduct technical survey and it submitted a second interim extension request in June 2021 for one further year, to 1 June 2023. Chile's first extension request referenced that in accordance with Ministerial Order 22, the Joint Chiefs of Staff were instructed to present a plan for clearance of cluster munition-contaminated areas, in coordination with the Undersecretariat for Defence and the Undersecretariat for the Armed Forces, at the latest by 15 May 2021.²¹

The second interim extension request will be considered by States Parties at Part 2 of the CCM Second Review Conference, scheduled for September 2021. The second interim extension request lacked a detailed and costed work plan for the technical survey, but Chile subsequently submitted a detailed costed work plan in August 2021, in which it committed to conduct technical surveys of the affected areas in November to December 2021 and to complete the reports of the surveys in January to February 2022.²²

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Chile is guided by the International Mine Action Standards (IMAS).²³ 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".²⁴

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.²⁵

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2020

No survey or clearance of CMR-contaminated area was conducted in 2020.²⁶ This compares to the 32.27km² of suspected hazardous area cancelled through non-technical survey in 2019.²⁷

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 2022, having been granted an interim one-year extension request in which it had planned to conduct technical survey of the four CMR-contaminated areas.

The decision on Chile’s first extension request had been due to be formally adopted during the Part 2 of the Review Conference, planned to take place in a hybrid format in February 2021. However, Part 2 of the Review Conference was postponed, due to COVID-19 restrictions preventing a hybrid meeting in Switzerland, and Chile’s request to extend its Article 4 deadline was instead granted by States Parties through a silence procedure in April 2021.²⁸ Chile’s second interim extension request for one year to 1 June 2023 will be considered at Part 2 of the Review Conference.²⁹

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. During this period Chile instead focused its efforts on implementation of Article 5 of the Anti-Personnel Mine Ban Convention (APMBC), completing anti-personnel mine clearance in February 2020.

Table 2: Five-year summary of CMR clearance

Year	Area cleared (m ²)
2020	0
2019	0
2018	0
2017	0
2016	0
Total	0

Chile has stated that national departmental budgets have been cut since the COVID-19 pandemic and it expects these restrictions to continue for the next two years. Chile intends to fund CMR survey and clearance activities itself but has stated that it may not have sufficient resources if it continues to have to address the effects of the COVID-19 pandemic and in that case will request international financial assistance.

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

Chile says it has a plan in place for dealing with residual risk after completion of clearance and will maintain a demining capacity within the Chilean military to address any residual contamination that may be discovered in the future.³⁰

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- 1 Article 7 Report (covering 2019), Form F; and Article 7 Report (covering 2020), Form J.
- 2 Article 7 Report (covering 1 May 2018 to 30 March 2019), Form F.
- 3 Ibid.
- 4 Article 7 Report (covering 2019), Form F; and Article 7 Report (covering 2020), Form J.
- 5 Statement of Chile, APMBC 18th Meeting of States Parties (virtual meeting), 16–20 November 2020.
- 6 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.
- 7 Revised Article 4 deadline Extension request, July 2020, p. 18.
- 8 Article 7 Report (covering 2020), Annex pp. 11–22.
- 9 Ibid., Annex, p. 15.
- 10 Revised Article 4 deadline Extension request, July 2020, p. 6.
- 11 Article 7 Report (covering 2020), Form J.
- 12 2021 Article 4 deadline extension request, p. 7.
- 13 'Work plan to complete the technical surveys in the 4 military ranges which is suspected there may be cluster munition remnants', 26 August 2021.
- 14 Statement from Chile during the Thematic Discussion on Integrating Gender into Mine Action, APMBC Intersessional Meetings, 23 May 2019; and emails from Col. Juan José López Demuth, Executive Secretary, CNAD, 22 and 27 June 2019.
- 15 Email from Carlos Rivera Bugueño, Senior Sub-Officer, CNAD, 6 August 2020.
- 16 2020 Article 4 deadline Extension Request, p. 6; and Revised Article 4 deadline Extension request, July 2020, p. 5.
- 17 Email from Col. Andres Caceres Cuadra, CNAD, 12 July 2018.
- 18 Revised Article 4 deadline Extension request, July 2020, p. 4.
- 19 Ibid., Annex, p. 15.
- 20 It is unclear how this procedure is compliant with Article 4(7) of the CCM.
- 21 2020 Article 4 deadline Extension Request, p. 6; and Revised Article 4 deadline Extension request, July 2020, Annex, p. 15.
- 22 'Work plan to complete the technical surveys in the 4 military ranges which is suspected there may be cluster munition remnants', 26 August 2021.
- 23 Article 7 Report (covering 2018), Form F.
- 24 Ibid; and Revised Article 4 deadline Extension request, July 2020, p. 6.
- 25 Email from Carlos Rivera Bugueño, CNAD, 6 August 2020.
- 26 Article 7 Report (covering 2020), Form J.
- 27 2020 Article 4 deadline Extension Request, p. 13; and Article 7 Report (covering 2019), Form F.
- 28 Email from the CCM Secretariat to CCM States Parties, 25 May 2021.
- 29 Article 7 Report (covering 2020), Form J.
- 30 Presentation by National Demining Commission Executive Secretary Col. Juan José López Demuth for the Regional Dialogue on Humanitarian Demining, 10 February 2021.

ARTICLE 4 DEADLINE: 1 AUGUST 2020
REPORTED FULFILMENT OF ARTICLE 4 OBLIGATIONS

KEY DATA

**CLUSTER MUNITION
CONTAMINATION:
COMPLETED CLEARANCE
OF ALL KNOWN CMR-CONTAMINATED AREAS**

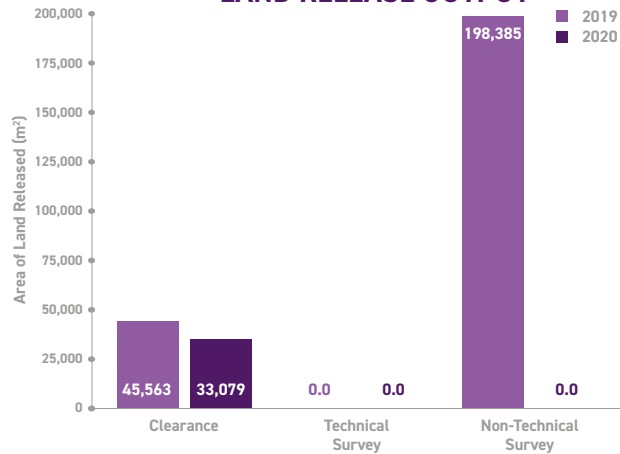
SUBMUNITION CLEARANCE IN 2020

33,079_{M²}

SUBMUNITIONS DESTROYED IN 2020

19 (INCLUDING 8 SUBMUNITIONS DESTROYED
AS PART OF THE "LESS ARMS, FEWER
TRAGEDIES" PROGRAMME)

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Croatia has reported fulfilling its Convention on Cluster Munitions (CCM) Article 4 obligations, completing clearance of remaining cluster munition remnants (CMR) on 10 July 2020, several weeks ahead of its 1 August deadline. Croatia submitted its Declaration of Compliance on 1 August 2020. Completion by its original 10-year deadline was the result of strong national ownership and political will, national funding, and effective planning. While Croatia has cleared all known CMR-contaminated areas, remnants may be discovered post completion (residual contamination). Addressing residual CMR will be the responsibility of the Ministry of the Interior – Police Directorate explosive ordnance disposal (EOD) teams and the Civil Protection Directorate – CROMAC.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2020)	Score (2019)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	9	9	On 10 July 2020, Croatia completed clearance of its last known CMR. As recently as 2019, however, areas of previously unrecorded CMR contamination continued to be discovered and Croatia recognises the importance of managing the residual risk from CMR. Addressing residual CMR will be the responsibility of the Police Directorate EOD teams and the Civil Protection Directorate – CROMAC.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	9	9	Croatia demonstrated strong national ownership and political will to fulfil its Article 4 obligations within its initial 10-year deadline, and with 100% national funding for CMR survey and clearance operations in 2020.
GENDER AND DIVERSITY (10% of overall score)	4	4	Gender policies and their implementation in mine action in Croatia are addressed under the national Gender Equality Act, which includes guidelines on gender equality and regulates against gender-based discrimination. However, the proportion of women employed in mine action, both at Civil Protection Directorate – CROMAC and in the commercial demining companies, is extremely low. In addition, CROMAC survey data are not disaggregated by sex and age.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	9	9	Croatia has an information management system that is compliant with the International Mine Action Standards (IMAS) and which allows disaggregation by type of contamination and method of land release. Croatia provided regular, accurate, and consistent updates on its progress in Article 4 implementation at CCM meetings and in its Article 7 reports, but as at June 2021 had yet to submit its Article 7 report covering 2020.
PLANNING AND TASKING (10% of overall score)	9	9	A "Mine Action Revised work plan 2020–26" has been adopted by the Deputy Prime Minister and Minister of the Interior. A new National Mine Action Strategy 2020–2026 was expected to be approved by the Croatian Parliament in the first half of 2021. In addition, Croatia had annual operational work plans for CMR survey and clearance.
LAND RELEASE SYSTEM (20% of overall score)	7	8	The 2015 law on mine action encompasses national mine action standards. CMR clearance in Croatia was focused on confirmed hazardous areas (CHAs), yet two of the three CMR-contaminated areas cleared in 2020 did not contain CMR or other unexploded ordnance (UXO). Croatia ensured sufficient demining capacity to enable it to release remaining CMR-contaminated areas ahead of its Article 4 deadline.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	10	9	On 10 July 2020, Croatia completed clearance of the last known CMR-contaminated area, fulfilling its Article 4 commitments ahead of its 1 August 2020 deadline. Croatia submitted a Declaration of Compliance on 1 August 2020.
Average Score	8.3	8.3	Overall Programme Performance: VERY GOOD

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- Ministry of the Interior, in which CROMAC and the Government Office for Mine Action (GOMA) were integrated within the Civil Protection Directorate, effective as at January 2019.

NATIONAL OPERATORS

- Forty-three commercial demining companies are accredited for mine and CMR clearance operations. Of these, three were engaged in CMR clearance operations in 2020: Capsula Interna, Istraživač, and Titan.

INTERNATIONAL OPERATORS

- None

OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)

UNDERSTANDING OF CMR CONTAMINATION

Croatia was contaminated with unexploded KB-1 and Mk-1 submunitions by the conflicts in the 1990s that followed the break-up of the Socialist Federal Republic of Yugoslavia.¹ It completed clearance of its last known CMR contamination on 10 July 2020, thereby fulfilling its obligations under Article 4 of the CCM.²

At the end of 2019, Croatia had only three remaining confirmed hazardous areas (CHAs) containing CMR, covering a total area of 33,079m², across four counties.³ All remaining cluster munition-contaminated area was then released in 2020, ahead of the 1 August 2020 treaty deadline.

During fulfilment of its Article 4 obligations, Croatia released cluster munition-contaminated land in a total of eight counties and twenty-eight municipalities.⁴ No areas of previously unrecorded CMR contamination were discovered in 2020, prior to completion of clearance in July,⁵ but Croatia recognises the possibility of future unforeseen CMR findings (residual contamination).⁶

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

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

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

In August 2018, the Croatian government formally concluded that some 54 government agencies, including the Croatian Mine Action Centre (CROMAC) and the Government Office for Mine Action (GOMA), were to be integrated within existing State administration bodies. This was formally concluded through two pieces of legislation enacted in December 2018 and which entered into force on 1 January 2019.⁷ As a consequence of these laws, CROMAC and GOMA ceased to exist as separate government entities and CROMAC became an "operational sector" within the Civil Protection Directorate, under the Ministry of the Interior.⁸ The main rationale for this was said to be "the establishment of a more relevant and operationally wider national institution (Civil Protection Directorate) that could more efficiently and effectively tackle all of the aspects of civil protection in the Republic of Croatia, including mine action activities".⁹

Prior to 2019, both CROMAC (established in 1998 as the umbrella organisation for mine action coordination),¹⁰ and the GOMA (created in 2012 as a government focal point for mine action),¹¹ had operated as independent entities.

A new law on mine action was adopted by the Croatian parliament on 21 October 2015.¹² While the 2015 Law, which was initiated by the GOMA with the text drafted by the Ministry of the Interior, marked an improvement in certain respects (for instance, by permitting land release through technical survey), there were concerns that the new law would impede efficient and effective mine action.¹³

Regarding accreditation, the Ministry of the Interior now provides three separate permits: approval for manual mine detection; approval for mechanical mine detection; and approval for operations by mine and explosive detection dogs (MDDs and EDDs). This replaces the former unified accreditation licence.¹⁴

In 2020, some €52,000 was spent on clearance of CMR-contaminated area, all from national funding.¹⁵

GENDER AND DIVERSITY

As an integral part of the Ministry of the Interior, the Civil Protection Directorate implements the Gender Equality Act (Official Gazette 82/08 and 69/17), which establishes national guidelines for gender equality, regulates against gender-based discrimination, and creates equal opportunities for men and women, including with regard to employment.¹⁶

According to the national authorities, women, men, boys and girls are all effectively consulted during survey and community liaison activities.¹⁷ CROMAC survey data are not, however, disaggregated by sex and age.¹⁸

Within the Civil Protection Directorate of the MoI, CROMAC employs 89 people, of whom 12% are women. As at April 2021, no women were employed in managerial or supervisory level positions in CROMAC, and only 2% of CROMAC field operations positions were held by women.¹⁹

INFORMATION MANAGEMENT AND REPORTING

For the purpose of information management, CROMAC established a mine information system (MIS), which is said to be compliant with the International Mine Action Standards (IMAS) and customised to meet CROMAC's needs. The MIS uses databases and a geographic information system (GIS) to deliver a fully integrated information management system.²⁰

Croatia submitted accurate and consistent annual Article 7 transparency reports and provided valuable updates on its progress in Article 4 implementation at the CCM meetings of States Parties. As at June 2021, however, Croatia had yet to submit its Article 7 report covering 2020.

PLANNING AND TASKING

Croatia's national mine action strategy for 2009–19 was drafted by CROMAC with the agreement of concerned ministries, the GOMA, the National Protection and Rescue Directorate, and local administration and self-administration bodies whose responsibility covers regions with hazardous areas.²¹ The strategy, which was adopted by Parliament, included among its main goals the completion of mine clearance by 2019. This was not achieved.²²

A "Mine Action Revised work plan 2020–26" has been adopted by the Deputy Prime Minister and Minister of the Interior. A new National Mine Action Strategy 2020–2026 was set to be approved by Parliament in the first half of 2021.²³

Based on approved funding, the Civil Protection Directorate – CROMAC drafts annual work plans, which are submitted to the responsible ministries and other State bodies for comment and approval.²⁴ All CMR-contaminated areas were said to be cleared in accordance with county and State priorities.²⁵ Croatia declared its fulfilment of CCM Article 4 on 1 August 2020, having completed CMR clearance several weeks previously.²⁶

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

The 2015 law eliminated the need for standing operating procedures (SOPs), as all aspects of mine action were defined in detail.²⁷ National mine action standards are also encompassed within it.²⁸

CMR clearance in Croatia was focused on releasing CHAs, though two of the three CMR-contaminated areas cleared in 2020 did not contain CMR or other UXO. Croatia noted that the two cleared areas without contamination were small.²⁹

OPERATORS AND OPERATIONAL TOOLS

In 2020, 43 commercial companies were accredited to conduct mine and CMR clearance.³⁰ Of this, three companies were awarded tenders to conduct CMR clearance operations in 2020.³¹

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2020

A total of 33,079m² of CMR-contaminated area was released in 2020, all through clearance. No cluster munition-contaminated area was cancelled through non-technical survey or reduced through technical survey.³² Croatia completed clearance of all known CMR contamination on 10 July 2020.³³

SURVEY IN 2020

No CMR-contaminated area was cancelled through non-technical survey or reduced through technical survey in 2020, and no previously unrecorded CMR contamination was added to the database.³⁴ This compares to 2019, when 198,385m² was cancelled through non-technical survey and no CMR-contaminated area was reduced through technical survey.³⁵

CLEARANCE IN 2020

Croatia completed clearance of all known CMR contamination on 10 July 2020.³⁶

Between January and July 2020, Croatia cleared the remaining 0.03km² of CMR-contaminated area, destroying 11 KB-1 submunitions and 274 other item of UXO (see Table 1).³⁷ In 2019, 45,563m² of CMR-contaminated area was cleared, destroying a total of 186 KB-1 submunitions.³⁸

Table 1: CMR clearance in 2020³⁹

County	Operator	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
Sisak-Moslavina	Capsula Interna	10,952	11	274
Šibenik-Knin	Titan	19,551	0	0
Zadar	Istraživač	2,576	0	0
Totals		33,079	11	274

Two of the three cluster munition-contaminated areas cleared in 2020 were thus found not to have CMR or other UXO.⁴⁰

As part of explosive ordnance disposal (EOD) spot tasks and the continued "less arms, fewer tragedies" programme, the Croatian police (under the Ministry of Interior), and in partnership with the UNDP, also collected 8 submunitions, 201 anti-personnel mines, and 34 anti-vehicle mines, along with items of UXO and abandoned explosive ordnance. All munitions were transported to Croatian military facilities and destroyed.⁴¹

ARTICLE 4 DEADLINE AND COMPLIANCE



Croatia completed CMR clearance on 10 July 2020, fulfilling its obligations under Article 4 of the CCM, three weeks ahead of its 1 August 2020 deadline. In its communiqué to the Implementation Support Unit of the CCM, dated 31 July 2020, Croatia said that "due to the pandemic COVID-19, the Declaration of Compliance is still being finalized and will be officially transmitted at a later stage".⁴² Croatia's Article 4 Declaration of Compliance, signed by the Deputy Prime Minister and Interior Minister, was submitted on 1 August 2020.⁴³

Croatia cleared a total of more than 3km² of CMR-contaminated area over the past five years (see Table 2), and completed clearance of all known CMR-contaminated area in July 2020. Challenges to CMR clearance were posed by rocky, forested, and mountainous areas, which prevented use of demining machines. In addition, use of demining machinery was not permitted in areas designated as protected for conservation.⁴⁴

In 2020, the impact of COVID-19 resulted in the shutdown of clearance operations from 23 March to 11 May (55 work days).⁴⁵

Table 2: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2020	0.03
2019	0.05
2018	0.86
2017	1.01
2016	1.20
Total	3.15

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

The Civil Protection Directorate continued research cooperation and discussions with the Geneva Centre for Humanitarian Demining (GICHD), on the issue of national survey and clearance capacity to address explosive ordnance discovered after the release of contaminated areas or post completion (i.e. residual contamination). In August 2019, a joint study entitled "National capacities and residual contamination – Croatia" was published, documenting the progress made on this issue so far and highlighting the importance of a participatory and transparent long-term strategic planning progress.⁴⁶

The integration of CROMAC within the Mol, which took effect from January 2019, is reported to be one of the first steps to deal with residual risk and liability, and it is believed that this will elevate the importance of the issue within the Mol.⁴⁷ The integration also means that the challenge of residual risk

will be handled within the responsibilities of the Mol – Police Directorate EOD teams and the Civil Protection Directorate – CROMAC.⁴⁸ Activities which must be conducted upon discovery of residual contamination are predefined by the Act on Mine Action.⁴⁹ In its Article 4 declaration of compliance, Croatia has said that if areas unknown to have been contaminated by CMR are identified after completion, it will:

- accurately identify the extent of the contaminated areas and destroy all the cluster munitions found in those areas; ensure effective exclusion of civilians to those areas;
- report such areas under Article 7 of the CCM;
- share relevant information to the general public, stakeholders, and CCM States Parties; and
- submit an additional declaration of compliance once clearance of those contaminated areas has been completed.⁵⁰

- 1 CCM Article 7 Report (covering 2017), Form F.
- 2 Written communiqué by Croatia to the CCM Implementation Support Unit, 31 July 2020.
- 3 Email from Slavenka Ivšić, Head of Unit, Civil Protection Directorate, Ministry of the Interior, 8 April 2020; and CCM Article 7 Report (covering 2019), Form F.
- 4 Statement of Croatia on Clearance, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020.
- 5 Email from Slavenka Ivšić, Civil Protection Directorate, 30 April 2021.
- 6 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020; and Article 7 Report (covering 2019), Form F.
- 7 Act on Amendments to the Act on Mine Action (OG No. 118/2018) and Act on Amendment to the Act on the Government (OG No. 116/2018).
- 8 Emails from Slavenka Ivšić, Civil Protection Directorate, 23 May 2019 and 8 April 2020; and Article 7 Report (covering 2018), Form J; and Article 7 Report (covering 2019), p. 1.
- 9 Article 7 Report (covering 2019), Section 4.1.
- 10 CROMAC, "National Mine Action Strategy of Croatia 2009–2019", Zagreb, June 2009, p. 2.
- 11 Interviews with Dijana Pleština, Director, GOMA, in Geneva, 23 May 2012 and 10 April 2014; and email from Miljenko Vahtarić, CROMAC, 4 July 2013.
- 12 OG No. 110/15; and Article 7 Report (covering 2017), Form A.
- 13 Interviews with Neven Karas, CROMAC; and Tomislav Ban, Assistant Director and Head of Sector for Operational Planning and Programming, CROMAC, Sisak, 18 May 2017.
- 14 Email from Miljenko Vahtarić, CROMAC, 24 August 2016.
- 15 Email from Slavenka Ivšić, Civil Protection Directorate, 30 April 2021.
- 16 Article 7 Report (covering 2017), Form C; Statement of Croatia, APMBC Intersessional Meetings, Geneva, 7 June 2018; and email from Davor Laura, CROMAC, 6 April 2018.
- 17 Ibid.
- 18 Email from Slavenka Ivšić, Civil Protection Directorate, 17 April 2020.
- 19 Email from Slavenka Ivšić, Civil Protection Directorate, 30 April 2021.
- 20 CROMAC website, "CROMAC's Mine Information System", accessed 26 June 2018.
- 21 2018 APMBC Article 5 deadline Extension Request, p. 25.
- 22 Convention on Certain Conventional Weapons (CCW) Protocol V Article 10 Report (covering 2015), Form B.
- 23 Email from Slavenka Ivšić, Civil Protection Directorate, 30 April 2021.
- 24 Email from Slavenka Ivšić, Civil Protection Directorate, 23 May 2019.
- 25 Emails from Miljenko Vahtarić, CROMAC, 10 June 2015; and Slavenka Ivšić, Civil Protection Directorate, 23 May 2019.
- 26 Statement of Croatia on Clearance, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020; and Article 4 Declaration of Compliance, 1 August 2020.
- 27 Email from Miljenko Vahtarić, CROMAC, 13 May 2016; and Article 7 Report (covering 2015), Form A.
- 28 Email from Miljenko Vahtarić, CROMAC, 13 May 2016.
- 29 Email from Slavenka Ivšić, Civil Protection Directorate, 7 July 2021.
- 30 Email from Slavenka Ivšić, Civil Protection Directorate, 30 April 2021.
- 31 Ibid.
- 32 Ibid.
- 33 Written communiqué by Croatia to the CCM Implementation Support Unit, 31 July 2020.
- 34 Email from Slavenka Ivšić, Civil Protection Directorate, 30 April 2021.
- 35 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020; and Article 7 Report (covering 2019), Form F.
- 36 Written communiqué by Croatia to the CCM Implementation Support Unit, 31 July 2020.
- 37 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020; and Article 7 Report (covering 2019), Form F.
- 38 Ibid.
- 39 Email from Slavenka Ivšić, Civil Protection Directorate, 30 April 2021; and Article 7 Report (covering 2020), Form F. There was a small discrepancy in Croatia's Article 7 report, which reported the total area released through clearance and technical survey as 33,259m², though the different geographical areas actually totalled 33,079m². The Civil Protection Directorate confirmed to Mine Action Review that 33,079m² was the correct total. Email from Ivana Odalj, Civil Protection Directorate, 9 August 2021.
- 40 Ibid.
- 41 Article 7 Report (covering 2020), Form F.
- 42 Written communiqué by Croatia to the CCM Implementation Support Unit, 31 July 2020.
- 43 Statement of Croatia on Clearance, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020; and Article 4 Declaration of Compliance, 1 August 2020, available at: <https://bit.ly/3vQWQIH>.
- 44 Email from Slavenka Ivšić, Civil Protection Directorate, 23 May 2019.
- 45 Email from Slavenka Ivšić, Civil Protection Directorate, 30 April 2021.
- 46 GICHD, "National capacities and residual contamination – Croatia", August 2019, at: <http://bit.ly/2EwKcTt>.
- 47 Emails from Slavenka Ivšić, Civil Protection Directorate, 23 May 2019 and 8 April 2020; and Article 7 Report (covering 2020), Form F.
- 48 Email from Slavenka Ivšić, Civil Protection Directorate, 8 April 2020; Article 7 Report (covering 2020), Form F; Statement of Croatia on Clearance, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020; and Croatia, Article 4 Declaration of Compliance, 1 August 2020.
- 49 Statement of Croatia on Clearance, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020.
- 50 Ibid.; and Article 4 Declaration of Compliance, 1 August 2020.

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

KEY DATA

CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

7.47 KM²

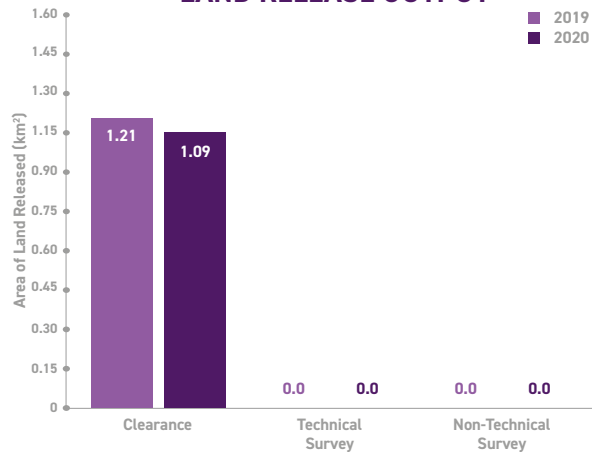
SUBMUNITION
CLEARANCE IN 2020

1.09 KM²

SUBMUNITIONS
DESTROYED IN 2020

971

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

In 2020, Germany again made solid process in clearance of cluster munition remnants (CMR) at the former military training facility at Wittstock. Almost 1.09km² of contaminated area was cleared during the year, with clearance capacity increasing to the planned 140 personnel, by the end of the year. Gains from the increased clearance capacity were however, offset by the heavier contamination from other explosive remnants of war (ERW) encountered during clearance compared to 2019.

RECOMMENDATIONS FOR ACTION

- Germany should assess ways in which it can speed up release of cluster munition-contaminated area, to ensure that it fulfils its Convention on Cluster Munitions (CCM) Article 4 obligations before its extended deadline of 1 August 2025. This could involve amending national legislation to allow international contractors in order that clearance may proceed more quickly.
- Germany should improve its reporting by ensuring that its annual CCM Article 7 transparency report complies with the CCM requirements, including both the amount of CMR contamination remaining at the end of the reporting period and the annual clearance output.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2020)	Score (2019)	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 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 now 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 a relatively high cost. German law prevents the contracting of foreign commercial clearance operators or non-governmental organisations (NGOs) for CMR clearance.
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. At Wittstock, two women hold an EOD licence, and a further ten female UXO specialists are engaged operationally – an increase of two UXO specialists on the previous year. The on-site project management and clearance supervision company employs one female engineer and three male engineers.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	7	7	In its Article 7 reporting, Germany should reduce the annual contamination baseline of CMR contamination, which has remained at 11km ² for several years, to reflect land released annually clearance as work progresses. In addition, Germany should report annual clearance output in its Article 7 reporting, as the CCM requires, and not solely cumulative clearance output to date.
PLANNING AND TASKING (10% of overall score)	8	8	Germany has a completion plan in place to address the remaining CMR contamination, with realistic annual clearance goals, based on forecast capacity and output.
LAND RELEASE SYSTEM (20% of overall score)	7	7	Technical survey and the use of mechanical assets is not possible during CMR clearance at Wittstock. This is due to the high level of explosive ordnance contamination 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)	6	6	In 2020, Germany cleared 1.09km ² of cluster munition-contaminated area, a slight decrease on the previous year, despite increased clearance capacity. This was due to the higher density of other ERW contamination in the areas cleared during 2020. While the clearance output in 2020 was below the annual target in its Article 4 deadline extension request, Germany was planning to further increase clearance capacity in the second half of 2021, to levels above those planned in the extension request.
Average Score	7.2	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 (BlmA), 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)) and Schollenberger Kampfmittelbergung GmbH (Celle)
- 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 2020, Germany reported 7.47km² 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 8.56km² as at the end of 2019,² and is all due to the CMR clearance in 2020.

In its latest Article 7 transparency report, covering calendar year 2020, Germany reported approximately 11km² of area suspected to contain CMR, unchanged from the original contamination level, despite clearance in 2017–20. However, while Germany did not specify the amount of remaining CMR contamination as at the end of 2020 in its Article 7 report, as required under the CCM, it did report the cumulative CMR clearance output at Wittstock to date (3.53km²), allowing calculation of the remaining contaminated area as at the end of 2020.³

A wide range of Soviet-era submunitions have been found at Wittstock: AO-1 Sch, AO-1 M, AO-2.5, AO-2.5 RTM, AO-10 Sch, ShOAB-0.5, PTAB-1, PTAB-1 M, PTAB-2.5 M, PTAB-2.5 TG, PTAB-10.5, ZAB 1-E, ZAB 2.5M, ZAB 2.5 S, and ZAB 2.5.⁴

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.⁵ From 2011 to early 2014, suspected CMR contamination was reported to total 4km².⁶ In August 2014, however, Germany reported that the total suspected hazardous area (SHA) was actually 11km².⁷ The increased estimate was ascribed to discovery of submunitions during non-technical survey across a wider area than previously reported.⁸ According to Germany, the dense vegetation cover and the special hazards posed by CMR and other explosive ordnance did not allow for technical survey.⁹

The entire Wittstock site, which extends over 120km², is heavily contaminated with various kinds of unexploded ordnance (UXO), in varying special distribution and overlapping contamination, as a result of use of the site for military training purposes in 1945–93.¹⁰ 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.¹¹

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”.¹² 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.¹³

Persistent delay in initiating clearance of CMR at Wittstock until March 2017¹⁴ 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.¹⁵ 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.¹⁶

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.¹⁷ Owing to contamination from large items of UXO, the fire-breaks were created using an unmanned, remote-controlled caterpillar by an explosive ordnance disposal (EOD) contractor in 2016.¹⁸ This was completed in 2016, with the exception of a small forested area on the eastern edge of the SHA.¹⁹ In total, 14 ShOAB-0.5 explosive submunitions were discovered during site preparation, which lasted until the end of 2016.²⁰

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.²¹

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 BlmA. The BlmA is an institution incorporated under public law and which is wholly owned by the federal government.²² 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.²³ Commercial UXO clearance contractors are contracted and managed by the local branch of the Federal Forestry Agency, Bundesforstbetrieb West Brandenburg.²⁴ The Regulatory Agency of the County of Ostprignitz-Ruppin is responsible for public security under the police law of the federal state of Brandenburg.²⁵

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.²⁶ Contracting foreign companies for CMR clearance in Wittstock is also not possible under German law.²⁷ This limits Germany’s ability to upscale demining capacity by preventing the contracting of non-governmental organisations (NGOs) or overseas commercial expertise.

All CMR clearance costs are, though, paid for by the federal BImA. National funding to complete CMR clearance has been fully secured and is said to cover unforeseen cost increases. Clearance costs were expected to increase from 2021, due to price inflations expected as part of the new tender planned for commercial UXO clearance.²⁸ 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 2019,²⁹ and over €12.9 million in 2020,³⁰ reflecting the upscaling of clearance operations.

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, who reportedly number far fewer than 10.³¹ At Wittstock, two women hold an EOD licence (required under the state law on explosives), and a further ten were working operationally as UXO specialists in 2020 (up from eight female UXO specialists working operationally in 2019).³² The on-site project management and clearance supervision company employs four engineers: one woman, the head of the supervision company, who holds an EOD licence, and three men.³³

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 2020,³⁵ Germany again reported cumulative clearance output for 2017–20, rather than the annual clearance output for the year, as the Convention requires.

Germany submitted 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. The request detailed progress in addressing CMR contamination, identified the extent of contamination remaining, and included a detailed and costed work plan covering the additional time sought, with measurable benchmarks for the extension period.

PLANNING AND TASKING

Germany has developed a national plan for the release of the CMR-contaminated area, as detailed in its 2019 extension request, with annual milestones for the release of areas confirmed or suspected to contain CMR. Based on current clearance projections of 1.5–2km² per year, CMR clearance is currently expected to be completed by the end of 2024, with associated documentation to be finalised in 2025.³⁶

A project coordination committee meets on a weekly basis with its core members and monthly 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.³⁷

Nature conservation requirements limit the controlled burning to a maximum of 200–300 hectares (2–3km²) annually, which, for safety reasons, is limited to 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.³⁸ In 2019, an adequate amount of heathland was burned, to guarantee sufficient area for CMR clearance operations in 2020 and 2021.³⁹ 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.⁴⁰

Germany planned to clear some 1.2–1.4km² of CMR-contaminated area in 2020,⁴¹ but fell slightly short of the target, in the 1.09km² cleared in 2020. Germany planned to clear 1.2m² of CMR-contaminated area in 2021.⁴² 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.⁴³

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.⁴⁴

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.⁴⁵

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.⁵⁰ Two commercial UXO clearance contractors won the public tender for CMR clearance at Wittstock: Röhl Munitionsbergung GmbH (Brandenburg (Havel)) and Schollenberger Kampfmittelbergung GmbH (Celle). On-site project management and supervision are provided by a separate company, which includes a consulting engineer.⁵¹ As previously mentioned, disposal, whether through destruction or other means, is conducted by the KMBD.⁵²

CMR clearance commenced at Wittstock in March 2017, with nine personnel, which increased to forty in the summer of 2017, and to one hundred in April 2018. As of June 2018, capacity stood at 120 personnel, with an average daily clearance rate per person of between 50m² and 60m².⁵³ Capacity as at the end of 2019 remained at 120 personnel,⁵⁴ and in 2020 was further increased to 135 deminers and then up to 140 by the end of the year.⁵⁵

There are staff shortages for deminers in Germany, in particular for the specially licenced team leaders required by German law.⁵⁶ The 150 demining personnel planned for deployment at Wittstock represent around 10% of the overall EOD personnel available in Germany.⁵⁷ In its Article 4 deadline extension request, Germany has assumed an annual

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.⁴⁶ 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.⁴⁷ The smallest target for detector sensitivity for clearance has been defined as a half sphere of a ShOAB-0.5 submunition.⁴⁸

Under state regulation on war material (“Kampfmittelverordnung”), the transport and disposal of explosive ordnance in Brandenburg state is the sole responsibility of the KMBD.⁴⁹

effective clearance capacity of 140 demining personnel, who will each work 225 days a year.⁵⁸ Since demining operations first started in 2017, Germany has annually increased its annual capacity, and by the end of 2020, it was up to the 140 personnel clearance capacity projected in Germany's extension request.⁵⁹ Furthermore, Germany planned to issue a tender for three clearance companies during the 2021 tender process – one additional company compared to existing capacity. While the new tender will result in increased capacity, basic works in the interim had to be postponed due to the tendering process, the adjustment of clearance efforts, and COVID-19 measures.⁶⁰

The basic works that were postponed included planning 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.⁶¹ Clearance organisations commissioned under the new tender were scheduled to start in mid-July, mid-August, and mid-September 2021 respectively, aimed at bringing the clearance capacity at the site up to around 180 to 200 personnel by mid-November, in order to achieve a significant increase in area cleared annually.⁶²

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 due to the presence of large quantities of air-dropped and shaped-charge munitions, which would pose a hazard to both the operators and the equipment.⁶³

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2020

A total of almost 1.09km² of CMR-contaminated area was cleared in 2020, with the destruction of 971 submunitions. No area was released by survey.⁶⁴

SURVEY IN 2020

No CMR-contaminated area was cancelled through non-technical survey or reduced through technical survey in 2020, or in the previous year.⁶⁵

CLEARANCE IN 2020

Germany cleared almost 1.09km² of CMR-contaminated area in 2020, destroying in the process 971 submunitions in situ or else in a nearby demolition site.⁶⁶

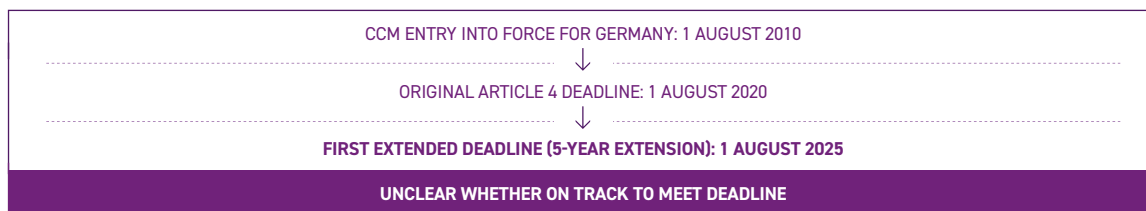
Clearance output in 2020 was a slight decrease on the previous year, when 1.21km² of CMR-contaminated area was cleared and 1,814 submunitions destroyed. The cluster munition-contaminated areas cleared in 2020 were more heavily contaminated with other forms of ERW than those addressed previously, but thanks to an increase in clearance personnel, Germany was still able to clear a similar size to 2019.⁶⁷

Of the 1,083,000m² cleared in 2020, nearly 442,000m² was cleared by Röhl Munitionsbergung (Brandenburg (Havel)), 640,000m² by Schollenberger Kampfmittelbergung GmbH

(Celle), and 1,000m² by Staschheit Kampfmittelräumung GmbH (Gardelegen).⁶⁸ In addition to the 971 submunitions destroyed, 21,280 items of other UXO (grenades, rockets, fuses, etc.) and 19,740kg of fragments (each of which was generally lighter than 100g) were also found and destroyed during CMR clearance operations in 2020. In addition, 347,560kg of scrap metal was removed in 2020, mainly consisting of smaller parts of ammunition (e.g. fragments without explosives, such as tails of rockets) and parts of vehicles (some 20%).⁶⁹

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.⁷⁰

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 remains confident it will be free of CMR by 2025,⁷¹ though it is currently behind its planned clearance targets, mainly due to the high amount of contamination from UXO and fragments at the CMR clearance site. The EU-required tender of the clearance companies in 2021 will reduce clearance output during the tender process, but should also lead to increased overall clearance capacity by the end of 2021.

Germany has said that once the tendering process has been completed in June 2021 and the clearance contractors identified, it will develop a new plan to ensure that the CMR clearance is completed by its Article 4 deadline of 1 August 2025. Furthermore, in order to allow for more efficient CMR clearance, Germany is considering assigning preparatory works to an additional contractor.⁷²

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 3.53km² of CMR contamination has been cleared since clearance of CMR contamination at Wittstock commenced (see Table 1).

Table 1: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2020	1.09
2019	1.21
2018	0.76
2017	0.47
2016	0
Total	3.53

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 2025.⁷³

Clearance output of 1.09km² in 2020 and 1.21km² in 2019 was a significant increase on the previous years, it still fell short of Germany's planned clearance output of 1.2–1.4km² in 2020⁷⁴ and the annual clearance target of 1.5–2km² per year in its extension request, indicating that Germany may be falling behind target on its planned Article 4 implementation. However, the tender process planned for 2021 planned to significantly increase clearance capacity from two operators totalling 140 clearance personnel by the end of 2020, to three operators totalling 180 to 200 clearance personnel.⁷⁵ This will increase annual CMR clearance output if it is achieved. Germany is confident the planned increase in clearance capacity will enable it to complete CMR clearance within its deadline.⁷⁶

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.⁷⁷ 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 metrological conditions, in particular, extended periods of frost, resulting in frozen ground that cannot be cleared.⁷⁸

As previously mentioned, there are also challenges posed in acquiring suitably qualified personnel for clearance, which could potentially lead to staffing shortfalls. Due to EU public procurement requirements, a new tender for the clearance at Wittstock was necessary for 2021. The experience gained in recent years has been considered in the invitation to tender. This will ensure further optimisation of the work. For this latest invitation to tender, three companies will be contracted, which together will employ around 180 to 200 people on a permanent basis.⁷⁹ The new clearance contracts were due to start during the third quarter of 2021. If new companies are commissioned, clearance could be impacted due to the necessary preparation and training required.⁸⁰

Due to extensive hygiene measures and controls, the COVID-19 pandemic did not result in any impairment of Germany's CMR clearance operations in 2020.⁸¹ Germany has, however, taken 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.⁸²

1 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.

2 CCM Article 7 Report (covering 2019), Form F; email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020; and Statement of Germany on Article 4, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020.

3 CCM Article 7 Report (covering 2020), Form F.

4 Article 7 Report (covering 2020), Form F.

5 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.

6 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.

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

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

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

10 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; and CCM Eighth Meeting of States Parties, Geneva, 3–5 September 2018.

11 CCM Extension Request 2019, p. 9.

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

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

- 14 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 5, at: <http://bit.ly/2DnYvGw>.
- 15 Article 7 Reports (covering 2015 and 2018), Form F.
- 16 CCM Extension Request 2019, pp. 16 and 36–37.
- 17 *Ibid.*, pp. 14, 16–17, and 36–37.
- 18 *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.
- 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.
- 20 CCM Extension Request 2019, p. 4.
- 21 *Ibid.*, p. 22.
- 22 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 5.
- 23 *Ibid.*
- 24 *Ibid.*
- 25 *Ibid.*, p. 6.
- 26 CCM Extension Request 2019, p. 12.
- 27 *Ibid.*, p. 34.
- 28 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 4.
- 29 Article 7 Report (covering 2019), Form I.
- 30 Article 7 Report (covering 2020), Form I; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021.
- 31 Emails from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020 and 10 May 2021.
- 32 Emails from official on the Desk for Conventional Arms Control, Federal Foreign Office, 16 April 2019, 31 July 2020, and 10 May 2021.
- 33 Emails from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020 and 10 May 2021.
- 34 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 16 April 2019.
- 35 Article 7 Report (covering 2020), Form F.
- 36 CCM Extension Request 2019, p. 3.
- 37 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.
- 38 CCM Extension Request 2019, p. 35.
- 39 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 40 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021.
- 41 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 42 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021.
- 43 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 3.
- 44 *Ibid.*, p. 2.
- 45 CCM Extension Request 2019, p. 12.
- 46 *Ibid.*, p. 25.
- 47 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 2.
- 48 *Ibid.*
- 49 2019 CCM Extension Request, p. 12.
- 50 *Ibid.*
- 51 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 5.
- 52 CCM Extension Request 2019, p. 12.
- 53 *Ibid.*, pp. 3 and 30.
- 54 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 55 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020; and Statement of Germany on Article 4, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020.
- 56 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 12 July 2018.
- 57 CCM Extension Request 2019, pp. 33 and 34; and Statement of Germany, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.
- 58 CCM Extension Request 2019, p. 33.
- 59 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020; and Statement of Germany on Article 4, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020.
- 60 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021.
- 61 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 16 June 2021.
- 62 Statement of Germany on Article 4, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020; Article 7 Report (covering 2020), Form F; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021.
- 63 CCM Extension Request 2019, p. 15.
- 64 Article 7 Reports (covering 2019 and 2020), Form F.
- 65 *Ibid.*; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021.
- 66 Article 7 Reports (covering 2019 and 2020), 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 2020 and cumulative clearance output as at the end of 2019.
- 67 Statement of Germany on Article 4, CCM Second 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.
- 68 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 16 June 2021. The clearance output of 1,083,000m² differs very slightly from the 1,086,000m² reported clearance output calculated from Germany's Article 7 report, due to rounding differences.
- 69 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021.
- 70 CCM Extension Request 2019, p. 28.
- 71 Statement of Germany on Article 4, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020.
- 72 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021.
- 73 CCM Extension Request 2019, pp. 33 and 37.
- 74 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020.
- 75 Article 7 Report (covering 2020), Form F.
- 76 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 16 June 2021.
- 77 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 7 May 2018; and CCM Extension Request 2019, pp. 35 and 36.
- 78 CCM Extension Request 2019, pp. 3, 34, and 36.
- 79 Article 7 Report (covering 2020), Form F; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021.
- 80 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2021.
- 81 Emails from official on the Desk for Conventional Arms Control, Federal Foreign Office, 21 September 2020 and 10 May 2021; Statement of Germany on Article 4, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020; and Article 7 Report (covering 2020), Form F.
- 82 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 21 September 2020.

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

KEY DATA

CLUSTER MUNITION CONTAMINATION: HEAVY

OFFICIAL ESTIMATE FOR FEDERAL IRAQ ONLY

163 KM²

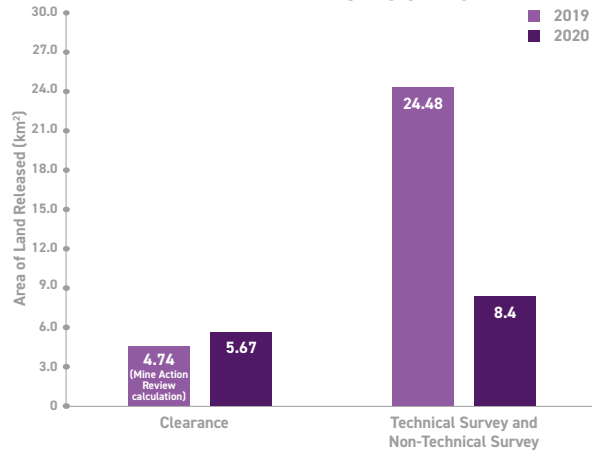
SUBMUNITION
CLEARANCE IN 2020

5.67 KM²

SUBMUNITIONS
DESTROYED IN 2020

5,831

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

Iraq appointed a new Directorate of Mine Action (DMA) director in September 2020 and a majority of the heads of key DMA departments also changed. Measures to combat the spread of COVID-19, including international airport closure, lockdowns, curfews, and visa restrictions, led to temporary suspension of operations and hampered movements of international staff in and out of the country while obstructing the deployment of survey and clearance teams. The amount of cluster munition-contaminated area released through survey and clearance declined for the second successive year.

RECOMMENDATIONS FOR ACTION

- Iraq should provide timely and comprehensive reports on cluster munition remnants (CMR) survey and clearance, providing data disaggregated by operator and region for Federal Iraq and the Kurdistan Region of Iraq (KRI).
- 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 CMR survey and clearance.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2020)	Score (2019)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	6	6	The progress of survey has provided a more accurate understanding of Federal Iraq's CMR contamination although it continued to find CMR contamination not previously recorded, underscoring the limitations of initial survey conducted after the 2003 war. The extent of CMR contamination in the KRI has not been reported by IKMAA to Mine Action Review since 2016.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	6	6	The DMA is responsible for planning, tasking, and coordinating mine action but is overshadowed by powerful government ministries. CMR operations are concentrated in southern governorates overseen by the Regional Mine Action Centre-South (RMAC-S), which has engaged constructively with operators on land release methodologies and priorities. Authorities in the KRI have not provided information on developments in the mine action sector.
GENDER AND DIVERSITY (10% of overall score)	6	5	The DMA has engaged with international organisations to strengthen gender and diversity in mine action. Operators are slowly increasing the number of women employees, as they strive for more gender-sensitive and inclusive programming, encouraged by donors, and possibly also helped by economic pressures that appear to be increasing the number of female applicants for jobs in the mine action sector. International operators have also expanded the roles performed by female staff beyond office support tasks. Most operators have mixed gender community liaison, survey, and risk education teams and some employ female deminers and medics, but opportunities to hire women for field work vary according to region and are particularly limited in the main CMR-affected governorates in the south.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	5	5	Iraq's mine action authorities operate Information Management System for Mine Action (IMSMA) data management systems but cumbersome procedures and reporting gaps can leave operators without access to timely or reliable data. The DMA says delays are also caused by major errors in many of the reports submitted by operators, which have to be sent back for correction. CMR data, which is concentrated in the Regional Mine Action Centre-South (RMAC-S) database where operators have reported improving access and accuracy. Iraq submitted an improved CCM Article 7 report in 2021 but gaps and inconsistencies in data continue to prevent an accurate determination of progress. Furthermore, Iraq does not disaggregate CMR-contaminated area cancelled through non-technical survey from that reduced through technical survey, and instead reports a combined total for both.
PLANNING AND TASKING (10% of overall score)	6	6	Planning and tasking for survey and clearance of cluster munition-contaminated areas have benefitted from good coordination between the RMAC-S and operators. However, there was no specific work plan for CMR.
LAND RELEASE SYSTEM (20% of overall score)	7	7	Federal Iraq adopted the Cluster Munition Remnant Survey (CMRS) methodology for survey and clearance as a national standard in 2019 and has reported benefits for accurate mapping, planning, and land release.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	5	5	Despite the impact of measures to curb the COVID-19 pandemic, Federal Iraq continued to make progress in CMR survey and clearance. Persistent inconsistencies in the data made it difficult to determine if the amount of land cleared in 2020 was more or less than the previous year but CMR areas cancelled or reduced through survey fell significantly.
Average Score	5.9	5.8	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)

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 163km² at the end of 2020 (see Table 1) and the northern KRI has a small, though unspecified amount of CMR contamination. CMR affect 11 of Federal Iraq's 15 governorates but around 90% of it is concentrated in the three governorates of Basrah, Muthanna, and Thi Qar.¹

Federal Iraq's end-2020 estimate of CMR contamination marked a drop of 15.8km² or about 9% less than a year earlier. A significantly higher estimate of the hazardous areas in Basrah governorate was offset by a substantial 18.4km² drop in Muthanna governorate and the elimination of a further 3.4km² previously reported in Kirkuk and Diyala.²

Iraq's Article 7 Report provided no data for the KRI and the overall national total will thus be slightly higher. The last data received from the Iraq Kurdistan Mine Action Agency (IKMAA) in 2016 indicated the KRI had identified CMR contamination totalling 1.85km² at the end of 2015: 10 confirmed hazardous areas (CHAs) affecting 1,176,128m²

and 11 suspected hazardous areas (SHAs) covering 672,158m².³ In addition, some conflict areas close to the Turkish border have yet to be surveyed. In subsequent years, IKMAA did not report on the extent of CMR contamination and Iraq's latest Article 7 report (covering 2020) did not include any data on CMR hazards or clearance in the KRI.

Federal Iraq's contamination dates back to the Gulf War of 1991 and the United States (US)-led invasion of Iraq in 2003, following 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 the latest data provided by Federal Iraq no longer identifies any CMR contamination in the governorate.⁴ The areas most heavily affected are the southern governorates of Basrah, Muthanna, and Thi Qar, which together account for nearly 90% of Iraq's CMR contamination. The most commonly found items there are BLU-63 and BLU-97 submunitions. Other CMR found in the area include BLU-61 and M42 submunitions.⁵

Table 1: Cluster munition-contaminated area in Federal Iraq (2018, 2019, and 2020⁶)

Province	End 2020 (m ²)	End 2019 (m ²)	End 2018 (m ²)
Anbar	15,726	15,726	N/R
Babylon	290,701	290,701	N/R
Basrah	36,365,119	30,512,131	27,851,470
Diyala	0	20,076	20,076
Karbala	2,107,444	2,107,444	2,107,444
Kirkuk	0	3,418,306	3,418,306
Missan	795,825	795,825	1,353,148
Muthanna	65,299,382	83,689,469	101,647,074
Najaf	5,157,539	5,010,038	5,321,629
Ninewa	4,157,090	4,157,090	N/R
Thi Qar	45,188,393	45,188,393	45,433,774
Qadisiya	3,137,824	3,137,824	3,966,337
Wassit	299,143	299,143	N/R
Totals	162,814,186	178,642,166	191,119,258

N/R = Not reported

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Cluster munitions make up only a modest part of Iraq's overall landmine and explosive remnants of war (ERW) contamination. Four southern governorates alone have close to 1,000km² of mined area and substantial areas affected by ERW. Central and northern areas liberated from Islamic State have hundreds of square kilometres affected by mines of an improvised nature and the KRI reports more than 200km² of known mined area as well as ERW contamination in areas bordering Turkey that have yet to be surveyed because of insecurity.⁷ See Mine Action Review's *Clearing the Mines* report on Iraq for further information on the mine problem.

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The mine action programme in Iraq is managed along regional lines. The DMA represents Iraq internationally and oversees mine action for humanitarian purposes in Federal Iraq, covering 15 of the country's 19 governorates.⁸ Mine action in the KRI's four governorates is overseen by the Iraqi Kurdistan Mine Action Agency (IKMAA), which reports to the Council of Ministers and is led by a director general who has ministerial rank.

FEDERAL IRAQ

The inter-ministerial Higher Council of Mine Action,⁹ 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.¹⁰

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

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

RMAC South, located in Basra City, is the focal point for Iraq's response to cluster munitions 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 2019.¹¹

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. Khaled Rashad Jabar al-Khaqani, appointed acting director in June 2019, was at least the twelfth director since 2003. He was replaced at the end of September 2020 by Dhafir Mahmood Khalaf, who was also appointed as acting director and as of May 2021 was awaiting confirmation in the post. The heads of five of nine DMA departments were also replaced in the course of 2020: Operations, Risk Education, RMAC-MEU, and Administration & Finance.¹²

KURDISTAN REGION OF IRAQ (KRI)

IKMAA functions as a regulator and 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 Sulimaniya (Sleman). Financial constraints halved salaries for all staff for the last three years and resulted in a number of posts being left vacant, but in 2019 payment of salaries resumed and IKMAA planned to fill vacant posts.¹³ IKMAA did not respond to requests for information about its capacity, priorities, and operating results in 2019 or 2020.

GENDER AND DIVERSITY

The Iraq National Strategic Mine Action Plan specifically refers to gender equality and gender mainstreaming within mine action activities as objectives of an effective programmatic response.¹⁴ The DMA set up a gender unit in 2016, which was soon followed by female staff participation in a number of activities, particularly non-technical survey and risk education. The DMA's first Gender Unit Action Plan was adopted, and a concept of the Gender Task Force was approved by the DMA's director in early 2021.¹⁵

Most operators employ women in administrative office roles, many also have a significant representation of women in community liaison, survey, and risk education functions, and some also employ women in clearance teams, including as team leaders.¹⁶ This follows increased focus from operators and donors on more gender-sensitive and inclusive programming.¹⁷ Social barriers to women working alone in activities undertaken mostly by men remain an obstacle to recruiting women but it appears economic pressures and the pandemic have created greater demand among women for jobs in mine action. Mines Advisory Group (MAG) received more than 1,000 applications in two days for employment as deminers, of which 12% were from women.¹⁸

The extent to which women participate varies according to cultural sensitivities in different parts of the country. Employing women for office jobs in Baghdad is easier than for operational roles in socially conservative governorates. Still, Norwegian People's Aid (NPA), after extensive outreach

to local officials and families, has found it possible to employ mixed gender teams in even the most conservative areas, although not yet in southern Basrah governorate, and after initial hirings NPA has found it easier to recruit women.¹⁹ 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.²⁰ By mid 2021, four women had progressed to become deputy team leaders and three women were team leaders.²¹

Most international operators are strengthening the contribution of women in their Iraq operations. The Swiss Foundation for Mine Action (FSD) set up a team of female deminers and a medic at the end of 2019 and has hired additional female staff for survey.²² HALO Trust employed 25 women out of a total staff of 125 and increased its female work force in 2020 after hiring women to work in multi-task teams undertaking EORE, survey and clearance in Anbar governorate.²³ In MAG, which employed a gender focal point in 2020, women make up 13% of its total staff in Iraq and 14% of its operations staff, a proportion expected to rise with the recruitment of more women in 2021.²⁴ One-third of NPA's 89 support staff are women as are one in twelve of its operational staff, including three female team leaders. NPA plans to increase the number of women in managerial positions.²⁵

INFORMATION MANAGEMENT AND REPORTING

The DMA and IKMAA maintain databases using Information Management System for Mine Action New Generation (IMSMA NG) with technical support from iMMAP, a non-governmental organisation based in Erbil and working under contract to the US Department of State's Office of Weapons Removal and Abatement (WRA).

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 every three months.²⁶

Operators are required to submit results to DMA in hard copy in Arabic delivered by hand every month. DMA then uploads results manually into the database. The procedure meets Iraqi legal requirements, but can cause delays uploading results of survey and clearance. As a result, operators say data available with task orders and online is often not up to date.²⁷ RMAC-S database has accepted data electronically since March 2019. The DMA says delays are caused by serious error and inaccuracies in thousands of operator reports which it needs to send back for correction.²⁸ For projects funded by UNMAS, operators

contracted submit reports electronically and in English to the United Nations Mine Action Service (UNMAS) which then provides data to the DMA.²⁹ However, interruptions and reduced hours of work caused by measures to deal with the COVID-19 pandemic have resulted in further serious delays in uploading survey and clearance results. As a result, operators report that delays uploading data which commonly ran to several months pre-COVID can now stretch to up to a year. The DMA disputes that there are such delays and says all reports are entered.³⁰

Since 2019, the DMA has given operators access to an online dashboard presenting mine action data and to an Online Task Management System developed by iMMAP. In December 2020, the DMA organised a workshop for mine action stakeholders to review information management. Operators say the Online Task Management System is easy to navigate, and enables them to obtain information on known contamination and the CHAs that are available for clearance. The system provides a clear indicator of DMA regional priorities and allows operators to get a snapshot of current activity in particular areas, but they say the data it presents are not up to date and the Online Task Management System does not record completed tasks, which prevents the identification of areas already cleared.³¹

PLANNING AND TASKING

Federal Iraq has a strategic plan for 2017–21 setting out general aims and guidelines for mine action and in 2021 has worked with the Geneva International Centre for Humanitarian Demining (GICHD) drafting a new strategic plan for 2022–28.³² Iraq does not have a strategic plan for clearance of CMR. Few resources have been available for survey and clearance of CMR as a result of the priority given in the last four years to clearance of areas liberated from Islamic State occupation.³³

Against that background, RMAC-S said it gave priority to survey to better define contamination and clearance of areas that are close to communities, which have experienced recent casualties, or where contamination hinders development projects.³⁴ RMAC-S works closely with operators on planning and task selection.

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

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 have started to review and update 13 chapters of Iraq's national mine action standards (NMAS) and bring them into line with international standards.³⁵ In the meantime, operators apply their own standing operating procedures (SOPs) approved by the DMA.

However, the DMA has applied the Cluster Munition Remnant Survey (CMRS) methodology to CM operations since 2018, and in 2019 adopted CMRS as a national standard citing the benefits it has delivered for survey, planning and clearance.³⁶

OPERATORS AND OPERATIONAL TOOLS

The DMA reported that two national organisations were involved in tackling cluster munitions in 2020, the Ministry of Interior's Civil Defence (survey) and the Ministry of Defence (survey and clearance), but it gave no details of the extent of their operations.³⁷ Three other organisations dealing with cluster munitions included NPA, Danish Demining Group (DDG) (now rebranded as Danish Refugee Council Humanitarian Disarmament and Peacebuilding Sector), and Taaz Demining Company,³⁸ a commercial operator believed to be contracted by the Ministry of Oil.

DDG operated in 2020 with a total staff of 61, including three Basra-based BAC teams with 35 personnel, two QA/QC teams, and four risk education teams. DDG's registration with the NGO Directorate, which was suspended in 2019, halting operations for several months, was renewed with effect from January 2020.³⁹

Most CMR survey and clearance was conducted by NPA, which employed a total of 96 staff based in Basrah, including seven multi-task teams with fifty-seven personnel and two non-technical survey and one technical survey teams working mainly in Basrah and Muthanna governorates.⁴⁰

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

COVID-19 response measures that severely affected Iraq's mine action sector included a countrywide lockdown between March and July 2020. The government stopped issuing visas to international staff for a period of some months after March 2020, which, together with closures of international airports, disrupted international staff deployments. Curfews and COVID-testing requirements restricted in-country movement of survey and clearance teams and inconsistent application of directives at checkpoints further complicated access.⁴¹

LAND RELEASE OUTPUTS IN 2020

Iraq said it released a total of 14.07km² of cluster munition-contaminated area in 2020, of which 8,396,798m² was through survey and 5,671,250m² through clearance.⁴² If confirmed, this would be less than half the amount recorded in 2019 and represent a second successive year of sharp falls in productivity. International operators reported releasing a slightly higher total of 15.06km² of CMR-contaminated area, but also differed from national authorities over the amount of land release attributed to survey and clearance.⁴³

Iraq did not report any survey or clearance of cluster munitions in the KRI in 2020. It is unclear if IKMAA teams conducted any activity targeting CMR but the authority gives cluster munitions a lower priority than survey and clearance of mined areas.

SURVEY IN 2020

Federal Iraq's official data showed the biggest fall in results came in land released through survey with a total of 8.4km² cancelled or reduced in 2020, barely a quarter of the amount the DMA recorded the previous year. RMAC-S attributed the downturn to earlier progress releasing much of the hazardous area in the database.⁴⁴ NPA noted that two years earlier it had access to large, easily accessible hazardous areas in which it was possible to cancel large areas. In 2020, NPA reduced more area through technical survey than in 2019 but it reported working on smaller tasks located further away from bases and requiring more travel, as well as interruptions related to COVID-19 response restrictions.⁴⁵

The different data reported by the authorities and operators are set out in Tables 2 and 3.

Table 2: Area cancellation and reduction through survey in Federal Iraq in 2020 (government data)⁴⁶

	Activity	Area released (m ²)
RMAC-S	Cancellation by NTS	6,580,886
RMAC-N	Cancellation by NTS and reduction by TS	1,816,093
Total		8,396,979

Table 3: Area cancellation and reduction through survey in 2020 (international NGO data)⁴⁷

Operator	Governorate	Area cancelled through NTS (m ²)	Area reduced through TS (m ²)
NPA	Basrah	10,100	77,799
NPA	Muthanna	0	6,160,221
Totals		10,100	6,238,020

Survey and area reduction in 2020 occurred predominantly in the south but for the first time in recent years the DMA reported releasing a significant CMR-contaminated area in the northern Kirkuk governorate, but it was not immediately clear what brought about removal of 3.2km² previously reported in the area. Non-technical and technical survey by Ministry of Interior Civil Defence teams reportedly released 1.8km².⁴⁸

CLEARANCE IN 2020

Persistent discrepancies between results reported by national authorities and by their international implementing partners continue to prevent a clear determination about the progress of land release by clearance. The area that Federal Iraq said was cleared in 2020 amounted to 5.67km², representing a slight drop compared with the 6.58km² reported the previous year, but was consistent with the average annual clearance of 5km² over the past five years.⁴⁹ The 2020 result was, however, more than the 4.7km² that the Mine Action Review calculated was the real amount released by clearance in 2019. Iraq did not provide details of clearance disaggregated by operator.⁵⁰

Table 4: CMR clearance in Federal Iraq in 2020 (government data)⁵¹

Region	Authority	Operator	Area cleared (m ²)	Submunitions destroyed
Federal Iraq	RMAC South	DDG	20,236	N/R
		Ministry of Defence	78,358	N/R
		NPA	5,496,730	N/R
		Taaz	75,927	N/R
Totals			5,671,250	5,826

N/R = Not reported

Moreover, NPA, which conducted most of the survey and clearance of CMR in Iraq, reported clearing 8.82km² in 2020 (see Table 5), 55% more than the DMA's estimate of clearance. The difference is believed to be mostly due to delays in uploading results into the database. NPA's figure also included work on a major CHA that was conducted in 2019 but only recorded by NPA after it completed the task in 2020.⁵² DRC, which has previously conducted CMR clearance, said RMAC-S only tasked it for other BAC in 2020. In the course of those operations in Basrah governorate it reported clearing five submunitions.⁵³

Table 5: International NGO CMR clearance in 2020⁵⁴

Operator	Governorate	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
NPA	Basrah, Muthanna	8,820,519	4,421	261
Totals		8,820,519	4,421	261

Similar discrepancies affect data on the number of CMR cleared in 2020. Federal Iraq reported 5,826 submunitions removed in clearance operations and a further 320 items cleared in the course of technical survey, for a total of 6,146 items cleared in 2020, a sharp fall from 9,905 submunitions cleared in 2019.⁵⁵ NPA's results show that the CMR it cleared rose from 1,533 in 2019 to 4,421 in 2020.⁵⁶

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.

The DMA acknowledges that the extent of Federal Iraq's CMR contamination exceeds the capacity available for CMR survey and clearance to enable clearance by its Article 4 deadline in three years' time. With the adoption of CMRS methodology in 2019, Iraq increased the efficiency of survey and clearance but productivity remains constrained by the limited capacity deployed on CMR tasks. National authorities and donors have continued to give priority to clearing the dense mine contamination in areas liberated from Islamic State. As a result, the time needed to complete CMR clearance will depend largely on funding available for this sector of Iraq's extensive ERW challenge.

Table 6: Five-year summary of CMR clearance

Year	Federal Iraq (km ²)	KRI (km ²)	Totals (km ²)
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
2016	2.9	0.2	3.1
Totals	24.5	0.9	25.4

* Based on Mine Action Review calculation

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- 1 CCM Article 7 Report (covering 2020), Form F.
- 2 Ibid.; and email from Haitham Lafta, Head of Operations, RMAC-S, 21 April 2021.
- 3 Email from Khatab Omer Ahmed, Planning Manager, Directorate General of Technical Affairs, Iraqi Kurdistan Mine Action Agency (IKMAA), 20 May 2016.
- 4 Ibid.; and email from Haitham Lafta, DMA/RMAC-S, 21 April 2021.
- 5 Interview with Nibras Fakhir Matrood, Director, DMA 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.
- 6 Article 7 Report (covering 2020), Form F.
- 7 Interviews with Nibras Fakhir Matrood and Haitham Fattah Lafta, RMAC-S, Basrah, 29 April 2019; and Siraj Barzani, Director General, IKMAA, in Erbil, 9 May 2019.
- 8 DMA presentation to 2015 Mine Action Country Planning Workshop for Iraq, Istanbul, 13 May 2015; Geneva International Centre for Humanitarian Demining (GICHD), "Capacity Development Support to National Mine Action Authorities in Iraq, Phase 1: Initial Assessment Mission", February 2012.
- 9 The Council is led by the Prime Minister and includes representatives of the ministries of defence, interior, oil, and environment, as well as the National Security Adviser and the head of IKMAA.
- 10 "Document of roles and responsibilities", undated but 2019, received by email from the DMA, 13 May 2019.
- 11 Interview with Gus Guthrie, NPA, in Geneva, 12 February 2020.
- 12 Email from Ahmed Aljasim, Head of Planning and Information, DMA, 15 April 2021; DMA Facebook post, 30 September 2020, at: <https://bit.ly/3eKuljX>.
- 13 Interview with Siraj Barzani, IKMAA, Erbil, 9 May 2019.
- 14 National Strategic Mine Action Plan, pp. 12, 18, 20, and 30.
- 15 Emails from Hannane Boulmaoui, Head of Programme Section, UNMAS Iraq, 16 April 2021; and Ahmed Aljasim, DMA, 23 July 2021.
- 16 Interviews with mine action stakeholders in Iraq, 28 April–6 May 2019.
- 17 Email from Arianna Calza Bini, GICHD, 27 July 2021.
- 18 Email from Jack Morgan, Country Director, MAG, 19 April 2021.
- 19 Email from Gus Guthrie, Country Director, NPA, 23 March 2021.
- 20 Email from Jack Morgan, MAG, 19 April 2021.
- 21 Email from Katie Shaw, Programme Manager, MAG, 29 June 2021.
- 22 FSD Blog, "Demining: women make their mark", January 2021.
- 23 Email from Nicholas Torbet, Deputy Head of Region, Middle East, North Africa and Afghanistan, HALO Trust, 12 April 2021.
- 24 Email from Jack Morgan, MAG, 19 April 2021.
- 25 Email from Gus Guthrie, NPA, 23 March 2021.
- 26 Interview with Nibras Fakhir Matrood, DMA RMAC South, Basrah, 29 April 2019; and email from Ahmed Aljasim, DMA, 23 July 2021.
- 27 Interviews with operators in Iraq, 28 April–6 May 2019.
- 28 Email from Ahmed Aljasim, DMA, 23 July 2021.
- 29 Emails from international operators, April 2021.
- 30 Email from Ahmed Aljasim, DMA, 23 July 2021.
- 31 Emails from international operators, April 2021.
- 32 Email from Ahmed Aljasim, DMA, 15 March 2021.
- 33 Statement of Iraq to the Ninth Meeting of States Parties to the CCM, Geneva, 2 September 2019.
- 34 Interview with Nibras Fakhir Matrood and Haitham Fattah Lafta, RMAC-S, Basrah, 29 April 2019.
- 35 Emails from Ahmed Aljasim, DMA, 15 April 2021; and from Hannane Boulmaoui, UNMAS Iraq, 16 April 2021.
- 36 Email from Haitham Fattah Lafta, RMAC-S, 12 August 2020.
- 37 Email from Haitham Fattah Lafta, RMAC-S, 26 April 2021.
- 38 Ibid.
- 39 Email from Marie-Josée Hamel, Regional Coordinator – Humanitarian Disarmament and Peacebuilding, DRC, 4 May 2021.
- 40 Emails from Gus Guthrie, NPA, and Chris Ramsden, Project Manager NPA South, 11 August 2020.
- 41 Emails from mine action implementing partners, April 2021.
- 42 Article 7 Report (covering 2020), Form F.
- 43 Email from Gus Guthrie, NPA, 23 March 2021.
- 44 Email from Haitham Fattah Lafta, RMAC-S, 26 April 2021.
- 45 Email from Chris Ramsden, NPA, 6 May 2021.
- 46 Article 7 Report (covering 2020), Form F.
- 47 Email from Gus Guthrie, NPA, 23 March 2021.
- 48 Article 7 Report (covering 2020), Form F; email from Haitham Fattah Lafta, RMAC-S, 26 April 2021.
- 49 Email from Ahmed Aljasim, DMA, 15 April 2021.
- 50 Article 7 Report (covering 2020), Form F.
- 51 Ibid; email from Haitham Fattah Lafta, RMAC-S, 13 May 2021.
- 52 Emails from Gus Guthrie, NPA, 23 and 26 March 2021.
- 53 Email from Marie-Josée Hamel, DRC, 4 May 2021.
- 54 Emails from Gus Guthrie, NPA, 23 March 2021; and Marie-Josée Hamel, DRC, 4 May 2021.
- 55 Email from Ahmed Aljasim, DMA, 15 April 2021.
- 56 Emails from Gus Guthrie, NPA, 11 May 2020 and 23 March 2021.

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 2020

42.90 KM²

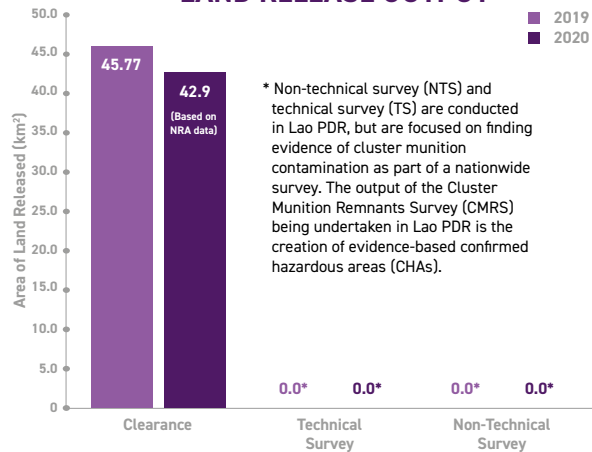
(BASED ON HUMANITARIAN CLEARANCE DATA THE NRA REPORTED TO MINE ACTION REVIEW)

SUBMUNITIONS DESTROYED IN 2020

71,235

(BASED ON CCM ARTICLE 7 REPORT)

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

The national programme in the Lao People’s Democratic Republic (Lao PDR) continued to make solid progress in the destruction of cluster munition remnants (CMR) in 2020. However, the amount of confirmed hazardous area (CHA) confirmed through survey and the amount of cluster munition-contaminated area cleared, both decreased in 2020 compared to the previous year, according to the National Regulatory Authority (NRA). This is likely, in part, related to the impact of COVID-19 on operations.

In consultation with stakeholders, the NRA elaborated a sector-wide work plan for 2020, however the work plan was not then shared with operators. As at June 2021, the new National Strategy for the UXO [unexploded ordnance] Sector (2021–30), “The Safe Path Forward III” was in the process of being elaborated.

RECOMMENDATIONS FOR ACTION

- The NRA should facilitate the development, together with inclusive participation from all operators and other relevant mine action stakeholders, of a new Safe Path Forward III strategy for the sector for 2021–30.
- The NRA should prioritise the development of a planning and prioritisation system to support the CMR survey and clearance process.
- 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 comprehensive and up to date, especially given the increased volume of data resulting from the ongoing nationwide CMRS.
- The NRA should be more consistent in its reporting on which of Lao PDR’s 18 provinces are contaminated with CMR. Those provinces which contain UXO other than unexploded submunitions, should not be classified as CMR-contaminated and should not be included in Lao PDR’s baseline of CMR contamination.

- Cooperation and coordination between clearance operators should be further strengthened. In particular, the NRA should ensure that UXO Lao data from historic tasks, which is not already on the database, be made readily available to international operators to help inform survey and clearance operations.
- 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 establish a country coalition, to bring together key stakeholders on a quarterly basis to discuss progress and challenges in Article 4 implementation.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2020)	Score (2019)	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 2020, almost 1,300km ² of 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.
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 remain complex and heavy, causing notable delays and significantly impeding the 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	In Lao PDR, 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 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 March 2021.
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 June 2021, the new National Strategy for the UXO Sector (2021–30), "The Safe Path Forward III", was still being elaborated. The NRA did, however, have a sector-wide annual work plan in place for Lao PDR for 2020. No comprehensive national-level prioritisation matrix of clearance tasks exists.
LAND RELEASE SYSTEM (20% of overall score)	8	8	Lao PDR's UXO Survey Standards, which specify the minimum standards and requirements for the survey of all cluster munition-contaminated areas, are well adapted to the local threat and context and adopt an evidence-based land release methodology. Land release operations in Lao PDR are conducted by a range of implementing partners, which includes the national operator UXO Lao; international non-governmental organisations (INGOs), HALO Trust, Humanity and Inclusion (HI), Mines Advisory Group (MAG), and Norwegian People's Aid (NPA); commercial clearance operators; and humanitarian teams of the Lao People's Army (Unit 58).
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. However, the amount of land confirmed through survey as CHA decreased in 2020, compared to 2019, and the cluster munition clearance output also decreased.
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 contamination of all types, rather than CMR specifically.⁴ In Lao PDR's statement to Part 1 of the Convention on Cluster Munitions (CCM) Second Review Conference in November 2020, 15 provinces were said to be contaminated by cluster munitions.⁵ However, in its latest Article 7 report (covering 2020), all 18 provinces were listed as having cluster munition-contaminated area.⁶ Furthermore, in its previous Article 7 report (covering 2019), 14 provinces were reported as contaminated, but in the same report CMR clearance was recorded in an additional two provinces not

listed as contaminated.⁷ The latter may be because Lao PDR included commercial clearance data in its Article 7 report, much of which is conducted in areas not contaminated by CMR. Those provinces which contain UXO other than submunitions should not be classified as CMR-contaminated and should not be included in Lao PDR's baseline of CMR contamination. Most recently, in July 2021, 18 provinces (17 plus Vientiane) have cluster munition remnants.⁸

The nine most heavily affected provinces are: Attapeu, Champasak, Houaphanh, Khammouane, Luang Prabang, Saravan, Savannakhet, Xekong, and Xiengkhouang.⁹

As at end of 2020, a total of more than 1,299km² of CHA had been identified through survey,¹⁰ an increase on the 1,115km² of CMR-contaminated area as at the end of 2019.¹¹ The nationwide survey is ongoing in ten provinces (see Table 1), and has yet to be completed in any province.¹² The amount of CHA is expected to continue to increase and may double or even triple over the next few years.¹³

Table 1: Cluster munition-contaminated area confirmed through survey (at end 2020)¹⁴

Province	No. of villages	CHAs	Total area (km ²)
Attapeu	121	1,496	140.78
Bolikhamxai	29	21	1.31
Champasak	108	367	19.78
Houaphanh	109	399	40.87
Khammouane	98	537	98.86
Luang Prabang	48	244	25.68
Saravan	357	2,359	109.09
Savannakhet	355	4,037	173.16
Xekong	151	1,295	88.86
Xiengkhouang	225	1,400	600.92
Totals	1,601	12,155	1,299.31

In both its 2019 Article 4 deadline extension request and its latest Article 7 transparency report covering 2020, 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.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

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.¹⁸ 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.¹⁹

Through survey at the village level, the current baseline of CMR contamination is being established through inclusive consultation with women, girls, boys, and men, including, where relevant, from minority groups.²⁰

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.²¹ Lao PDR is also contaminated, but to a much lesser extent, by anti-personnel mines and anti-vehicle mines (See Mine Action Review's *Clearing the Mines* report on Lao PDR for more information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The NRA, created by government decree in 2004 and active since mid 2006, has an interministerial board composed of representatives from government ministries and is chaired by the Minister of Labour and Social Welfare.²² 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.²³

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.²⁴ 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.²⁵ A new Director of the NRA was appointed in June 2019.²⁶

Lao PDR contributed \$30,911 towards rental of the NRA office in 2020 and training of UXO Lao deminers; the same amount as contributed in 2019. 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.²⁷ 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 2018.²⁸ In addition, a new Income Tax Law means that NGO international staff now pay income tax since the start of 2021.²⁹

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 (NSED) for 2021–2025, launched in April 2021, demonstrates Lao PDR's commitment to removing UXO as a barrier to development. The new NSED aims to clear an average of 10,000 hectares (10km²) of land per year for socio-economic development purposes. This ambitious goal more than doubles the clearance achievements of 2020. Furthermore, thanks to the UXO survey which began in 2015, significant amounts of CHA have been identified and clearance capacity of humanitarian operators in 2021 has been strengthened to address these, which will positively impact the scope and efficiency of UXO removal.³⁰

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.³¹ 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.³² In 2020, the Geneva International Centre for Humanitarian Demining (GICHD) was supporting the development of Lao's new national strategy, as well as mine action IM and risk management.³³ Norwegian People's Aid (NPA) provided capacity development to the NRA, primarily on IM, under the United Kingdom's Foreign and Commonwealth Development Office (FCDO, previously the Department for International Development (DFID)) project, until the project's conclusion at the end of March 2020.³⁴ Humanity and Inclusion (HI) provides capacity development support to the provincial NRA in Houaphanh province.

There is 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 and brings together key stakeholders, including donors, to share information and enhance coordination and resource mobilisation.³⁵ There were two SWG meetings in 2020.³⁶ The NRA plans to diversify the sources of funding in the extension period, including engaging the private sector and non-institutional donors. The Lao government also planned to approach new potential donors, such as China, India, and Russia.³⁷

International clearance operators continued to have good cooperation and coordination with the NRA at the national level, and at provincial and district levels.³⁸ Lack of resources and capacity of some of the provincial NRAs can, however, impact their ability to fulfil their roles. Humanitarian clearance operators are involved in key decision-making processes by the NRA, including through participation in sector meetings and Technical Working Groups (TWGs), and during discussions during informal meetings and field visits.³⁹ There have been four TWGs, namely: for survey and clearance, IM, UXO/mine risk education, and victim assistance. The TWGs, which meet regularly, are designed to promote information sharing and progress in the four thematic aspects.⁴⁰

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.⁴¹ Where existing teams are deployed, MAG typically requests and receives interim approval to enable the continued deployment of these teams until the MoU process is complete, which MAG believe is a useful process that ensures the continuity of operations.⁴² The lack of an MoU prevents expansion of operations or procurement of new equipment.⁴³ Typically it takes a minimum of six months for an MoU to be approved; sometimes it is significantly longer, and the process may even take several years to complete, sometimes resulting in donor funding not being spent and being returned.⁴⁴ According to Ministry of Foreign Affairs (MoFA) rules, it

is not possible to present a consortium of international organisations in the same MoU, and it is also difficult to present projects over more than one province within the same framework.⁴⁵ Furthermore, even after formal approval of an MoU, operators may still experience challenges importing necessary equipment⁴⁶ or small items of additional equipment, which require time-intensive MoU amendments.⁴⁷

HI reported that the turnover of many key positions in 2020 at the central NRA, in particular the International Cooperation Unit, had slowed down its ability to support the project administration process, mainly regarding accreditation renewal, project extension requests, and obtaining MOU. There remains a lack of understanding regarding the accreditation process, which authorities kept [incorrectly] attaching to the MOU process.⁴⁸

There were, however, efforts made by the national authorities in 2020, in particular by the national level NRA and MoFA offices, to shorten the turn-around time for approval.⁴⁹ The MoFA asserted a two-week time line for Ministerial approval of documents and held a workshop of local staff of international non-governmental organisation (INGO) operators to review the MoU submission protocols.⁵⁰ Mines Advisory Group (MAG) reported that in late 2020 it was able to organise a round table at the central level, following the provincial and district level sign-off of the MoU. MAG organised a joint meeting 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.⁵¹ NPA also reported similar roundtable meetings with the key decision-makers from the NRA, MoLSW, MoFA in both 2020 and 2021.⁵²

Operators were consulted during the elaboration of the 2019 Article 4 extension request.⁵³ 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.⁵⁴ 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-19.⁵⁵

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 60 employees at the NRA (including the national training centre), 16 (27%) were women, including two NRA Officers.⁵⁶

Gender mainstreaming in the UXO sector is led by Lao Women's Union, as well as the NRA.⁵⁷ 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 2019.⁵⁸

In partnership with the government of Lao PDR, and with the support of the GICHD, the ASEAN Regional Mine Action Center (ARMAC) delivered a Regional Workshop on Gender Equality and Empowerment in ASEAN Mine/ERW Action in October 2019, in Vientiane.⁵⁹

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.⁶⁰

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.⁶¹ 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 six staff with disabilities, two of whom are UXO victims. As at the end of 2020, HALO Laos employed 373 female staff (50%) out of a total of 744; including 50% of operational roles. Of the programme's 20 most senior managerial positions, half were filled by women.⁶²

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. HI has developed marker tools to support the mainstreaming of gender and diversity into projects.⁶³ Of HI's 95 staff in Lao PDR, 40% are women, including 60% of managerial/supervisory positions and 35% of provincial positions (which include operations positions).⁶⁴

During recruitment for the 17 new teams in Xiengkhouang, MAG employed a weighted application system to promote the recruitment of women and people from traditionally disadvantaged backgrounds. In 2020, MAG underwent a country strategy development, of which an organisational priority is that MAG will embed gender-sensitivity and diversity and inclusion into its programming and practices. Women account for 36% of MAG's employees in Lao PDR, including 32% of those in operational positions and 35% of managerial level/supervisory positions.⁶⁵

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. In 2020, NPA Laos invited "Proud To Be Us Laos", a national organisation campaigning for greater respect for and recognition of gender identity, sexual orientation, and diversity, to carry out a "Gender and Diversity Audit" of NPA's programme. Results of the audit report will inform NPA's new strategy for gender and diversity in 2021.⁶⁶ NPA also prioritises ethnic and language minorities and women as part of its recruitment process. In 2020, women made up more than one quarter of NPA Lao PDR's 346 staff members. This included 79 women (26%) in a total of 307 operational staff, including IM and field interpreter-assistant personnel. Approximately 30% of managerial positions in the programme were held by women. Once the MoU is approved, NPA will have 39 new female "searchers", which is 55% of 71 selected trainees to be deployed in its new teams for 2021 project implementation.⁶⁷

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 standing operating procedures (SOPs). UXO Lao also ensures its survey and community liaison teams are inclusive and gender balanced, to facilitate access and participation from all groups.⁶⁸ UXO Lao reported that it offers employment opportunity to all and is trying to increase the number of women in survey and clearance teams and in management positions.⁶⁹ UXO Lao reported that it is working to improve gender mainstreaming. It advocates for equality in the workplace and that its human resource policies encourage female applicants at all levels, and has one female unit chief and three deputy unit chiefs. Of its 1,467 staff employed, 400 (27%) are female, including 35 women in managerial and supervisory positions.⁷⁰

On 21 December 2020, "Proud To Be Us Laos" led an intensive workshop for 13 members of management staff from UXO Lao's Head Office in Vientiane. The workshop aimed to gauge the level of knowledge and attitudes of participants and provide an overview of definitions of key terms, as well as a global and cultural history of the Lesbian, gay, bisexual, transgender, queer, and intersex (LGBTQI) rights movement.⁷¹

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.⁷² The NRA has identified the need for better quality control of data in the IMSMA database.⁷³ In 2020, it was reported to be continuing to improve data quality, focusing again on the quality of forms and correcting data errors.⁷⁴ It has also stressed that upgrading IM systems will be crucial given the greatly increased volume of data resulting from the ongoing nationwide CMRS.⁷⁵ The TWG on IM met quarterly in 2020.⁷⁶

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.⁷⁷ 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.⁷⁸ 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. As at March 2021, this process had not yet been fully completed or reflected in the IMSMA database.⁷⁹

When the organisation conducting the CMRS is different to the one holding historical records, the nationwide CMRS demands good cooperation and timely sharing of data relating to villages between clearance operators. This pertains to historical information on EOD roving tasks, area clearance, and accident data.⁸⁰ 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 is often slow to be made available.⁸¹ Delays in the timely provision of historical data by UXO Lao are understood to be partly connected to the lack of an appropriate and clear structure for the granting of permissions for data sharing at the provincial level. UXO Lao reported that it is not permitted to share corrected data not in IMSMA directly with operators, unless approval is granted by the NRA.⁸² UXO Lao said that efforts to ensure and improve the quality of data in the mine action database were ongoing.⁸³

In July 2019–March 2020, NPA provided support to strengthen the IM capacity of the NRA and provincial authorities, as part of the UK FCDO funded project.⁸⁴ NPA supported the NRA in its revision of the IM national mine action standard (NMAS), based on the International Mine Action Standards (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.⁸⁵ However, as at June 2021, the revised IM NMAS had yet to be officially approved.⁸⁶ IMSMA data collection forms were revised in 2020 to better collect socio-economic and impact data.⁸⁷

Following the NPA capacity development, four provincial authorities in the south (Attapeu, Champasak, Saravan, and Xekong) were equipped with necessary technology and provided training. They are now in a position to 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.⁸⁸ This is a positive development, but will require continuous follow-up and commitment.⁸⁹

In 2020, HI continued to provide training, including on IMSMA, to provincial NRA offices in Houaphanh province in IM.⁹⁰

Operators reported that data submitted to the NRA were typically updated in a timely manner and accurately.⁹¹ IMSMA virtual private network (VPN) was tested from July to September 2018, with technical support from NPA, and was considered successful and subsequently rolled out. As at May 2021, all operators, except for UXO Lao, were using IMSMA VPN.⁹² It has helped improve the accessibility of data, the speed and quality of the data entry, and the reporting process, with crosschecks raising any discrepancies for correction.⁹³ 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.⁹⁴

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.⁹⁵ 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.⁹⁶ This topic had been discussed at the IM TWG and the survey and clearance TWG, but it had yet to be agreed as of writing how conclusion reports should be recorded in IMSMA.⁹⁷

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.”

Safe Path Forward II was reviewed in June 2015, when the NRA set a number of specific targets for the remaining five years up to 2020.⁹⁸ Many of these were superseded in March 2016 when the NRA issued a landmark paper committing to time-bound nationwide non-technical and technical survey through the CMRS project, with a view to producing Lao PDR’s first baseline estimate of CMR contamination.⁹⁹ There was a corresponding multi-year work plan 2016–20 for implementation of the Safe Path Forward II strategy,¹⁰⁰ which called for spending on clearance of \$57 million, and targeted clearance for 2017–21 of 45km² a year, considerably in excess of previous clearance rates.¹⁰¹

A new national strategic plan for the UXO Sector is being elaborated for 10 years, in line with SDG 18 under the 2030 SDG agenda.¹⁰² A GICHD-facilitated strategy stakeholder workshop, planned for March 2020 in Vientiane, unfortunately had to be postponed due to the COVID-19 outbreak. A GICHD-led online/hybrid strategy stakeholder workshop was scheduled for November 2020, but was cancelled at the last minute by the NRA.¹⁰³

Lao PDR said in November 2020 that it planned to adopt the new National Strategy for the UXO Sector (2021–30), “The Safe Path Forward III”, in 2021.¹⁰⁴ As of early 2021, UNDP was supporting the development of Safe Path Forward III, and had informed operators that an initial draft would be developed by June 2021.¹⁰⁵ As at June 2021, the NRA reported that the new strategy was in the process of being drafted.¹⁰⁶ Through its funding of the agreement between Tetra Tech and the NRA, the United States is continuing 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.”¹⁰⁷ HALO, MAG, NPA, and the US Embassy met with UNDP in March 2021 to discuss sector priorities.¹⁰⁸

In a positive development, a first-ever sector-wide annual work plan for Lao PDR for 2018 was developed in an inclusive manner with input from all relevant stakeholders and subsequently approved by the NRA Board.¹⁰⁹ Stakeholders were not brought together in the same way to help inform elaboration of the annual sector-wide work plan for 2019, reportedly due to lack of budget,¹¹⁰ but a consultative workshop was, however, held in June 2019 to support the development of the sector-wide work plan for 2020.¹¹¹ 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 2021.¹¹² However, the resultant sector-wide work plans (for either 2020 or 2021), were not shared with clearance operators, therefore limiting their utility.

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, Champasak, 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.¹¹³ 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 2021.¹¹⁴ However, survey has fallen behind schedule and had yet to be completed in any province as at June 2021.¹¹⁵

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.

According to Lao PDR’s 2019 Article 4 deadline extension request, “all sector activities are implemented in order to achieve SDG18 “Lives Safe from UXO”, to remove the UXO obstacle to national development and the activities should be implemented in line with the strategic documents and policies”.¹¹⁶ The UXO Sector has been further integrated into the national development agenda, such as the National Policy on Rural Development and Poverty Eradication, including the National Socio-Economic Development Plan (2016–20), on the approval of priority development areas.¹¹⁷

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.¹¹⁸

WORK PLAN ESTIMATES FOR THE ARTICLE 4 EXTENSION REQUEST PERIOD (2020–25)

The 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.¹¹⁹

Based on existing capacity, over the five-year period of Lao PDR’s extension (1 August 2020–31 July 2025), 25 non-technical survey teams will survey 1,463 cluster munition-contaminated villages (292 villages per year), at a total cost of US\$4.5 million and 76 technical survey teams would 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.¹²⁰

As at the end of 2020, 12,155 CHAs, equivalent to nearly 1,300km² in size, had already been identified through the ongoing CMRS and entered into IMSMA, representing several years of clearance efforts based on current clearance capacity.¹²¹ 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.¹²²

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 \$62.5 million, during the five-year extension request period.¹²³ This seems highly ambitious, based on current output.

The second 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.¹²⁴

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.¹²⁵

Lao PDR will, “for the foreseeable future”, integrate the Article 4 Extension Plan into the indicators of the 9th National Social-Economic Development Plan (NSED) 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) (average 50,000 Ha/500km² per year); and conduct UXO clearance of 50,000 hectares (500km²) (average 10,000 Ha/100km² per year).¹²⁶

Prioritisation of clearance is a critical step in the land release cycle and a key component of an integrated survey and clearance programme, especially given the large and increasing number of CHAs produced by the ongoing nationwide CMRS. However, at present, there is no comprehensive national-level guidance on the prioritisation of clearance tasks and prioritisation systems and criteria vary markedly between the operators.¹²⁷ 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.¹²⁸ 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.¹²⁹ The NRA acknowledges difficulties in sector planning and prioritisation by local authorities.¹³⁰ Prioritisation workshops were first organised in 2019 and continued into 2020.¹³¹

Under the UK FCDO contract, which commenced in 2019, NPA was assisting the NRA in developing national capacity and creating a nationwide prioritisation matrix, with input from fellow consortium partners, HALO Trust and MAG.¹³² However, due to a delay in the MoU process and the resulting reduction in the implementation timeframe of the capacity development project (cut from 18 months to 9 months), the planning and prioritisation outputs of the related work plan could not be implemented.¹³³ As at March 2021, no further progress had been made regarding a nationwide prioritisation matrix, but operators believe this remained a critical area requiring further development.¹³⁴ The NRA reported that, as at June 2021, the prioritisation matrix was in the process of being drafted.¹³⁵

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.¹³⁶

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.¹³⁷ The standards were officially approved by chair of the NRA on 4 July 2018.¹³⁸ They are said to conform to the International Mine Action Standards (IMAS)¹³⁹ and are fully reflected in the SOPs of clearance operators, who reported that they are well adapted to the local threat and context.¹⁴⁰

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.¹⁴¹ Operators understand that the NRA is planning to review the national standards in 2021.¹⁴²

With capacity development support from NPA, revisions to the IM NMAS were submitted to the NRA for consideration in 2019, but as at March 2021 had yet to be approved. IM SOPs for the NRA, including IM process maps and guidelines, were also drafted.¹⁴³

Prior to 2014, UXO operators in Lao PDR primarily carried out general survey on areas intended for clearance and roving clearance tasks, based on requests and reports from villagers.¹⁴⁴ 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 2015.¹⁴⁵ As part of the new CMRS procedure, and the corresponding national standard, non-technical survey is to be carried out 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.¹⁴⁶

The survey approach has been strengthened over the last couple of years, with more emphasis on the importance of desk assessment of historical data and comprehensive non-technical survey. Technical survey is only carried out based on CMR evidence points and is also conducted on whole villages.¹⁴⁷ 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.¹⁴⁸

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.¹⁴⁹

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).¹⁵⁰

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".¹⁵¹ 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.¹⁵² In late 2016, the Prime Minister issued Order No. 43/PM, which stipulates that development projects in provinces and districts affected by UXO must undergo survey and clearance before project implementation, and these development projects must also allocate funding for survey and clearance.¹⁵³

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.¹⁵⁴ Interpretation and understanding as to what constitutes "inaccessible" is not clearly defined and can vary between clearance operators,¹⁵⁵ but according to the national survey standards, dense vegetation and seasonal flooding are not valid reasons for the non-completion of technical survey.¹⁵⁶ 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.¹⁵⁷ The minimum clearance depth in Lao PDR is 25cm, which is intended to capture all surface and shallow CMR contamination.¹⁵⁸ Operators have been collecting data on the depth at which CMR are found.¹⁵⁹

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.¹⁶⁰ 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.¹⁶¹

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.¹⁶² 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.¹⁶³ Similarly, in places with severe contamination, UXO Lao is in favour of having the option to forego survey and move directly to clearance.¹⁶⁴ UXO Lao is focusing its technical survey on its annual clearance work plan, which is based on the needs of local authorities and communities.¹⁶⁵

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,¹⁶⁶ 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.¹⁶⁷

According to the NRA, understanding of the CMRS process, especially at the local and field levels, is sometimes limited.¹⁶⁸ 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.¹⁶⁹

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.¹⁷⁰ HI has revised the clearance SOP to integrate CWS and submitted it to the NRA. As at March 2021, it was still pending approval.¹⁷¹

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).¹⁷²

With regard to survey capacity in 2020: the Lao People's Army (Unit 58) deployed three non-technical survey teams, totalling six personnel and three technical survey teams totalling twenty-one personnel;¹⁷³ HALO deployed 21 technical teams, totalling 168 personnel;¹⁷⁴ HI had 1 non-technical survey team of 2 personnel and 1 technical survey team of 6 personnel;¹⁷⁵ MAG had 4 non-technical survey (community liaison) teams, totalling 16 personnel and 21 technical survey teams, totalling 168 personnel;¹⁷⁶ NPA had 24 CMRS (non-technical survey and technical survey) teams totalling 120 survey personnel (5 searchers per team, excluding team leaders);¹⁷⁷ and UXO Lao had 10 non-technical survey teams totalling 42 personnel and 16 technical survey teams totalling 128 personnel.¹⁷⁸

Table 2: Operational clearance capacities deployed in 2020¹⁷⁹

Operator	Manual teams	Total clearance personnel	Machines	Comments
Lao People's Army (Unit 58)	7	91	0	Each team consists of 13 people, including 1 team leader, 1 deputy team leader, 1 medic, 1 driver, and 9 deminers.
HALO	25	269	0	Medics are included as HALO has technician medics.
HI	1	7	0	In addition, HI also has a part-time roving team of 6 people for EOD spot tasks. When there are no spot tasks the roving team is used for area clearance.
MAG	30	240	0	MAG has 15 clearance teams (8 technicians per team) in both Khammouane province and Xiengkhouang province. It does not have any mechanical assets for clearance, but does have five machines for ground preparation.
NPA	9	108	0	
UXO Lao	81	567	9*	*Two cluster munition demolition machines in Xiengkhouang province. The seven machines operating across Saravan, Xekong, and Champasak provinces only provide support to area clearance operations, by preparing access roads and vegetation cutting where this cannot be done by hand.
Total		More than 1,250 clearance personnel		

UXO Lao, the oldest and largest clearance operator in Lao PDR, is a government organisation working under the Ministry of Labour and Social Welfare,¹⁸⁰ operating in nine provinces (Attapeu, Champasak, Houaphanh, Khammouane, Luang Prabang, Savannakhet, Saravan, Xekong, and Xiengkhouang).¹⁸¹ 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.¹⁸² 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.

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 was expected to double its clearance capacity in the second half of 2021.¹⁸³

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.¹⁸⁴ HI also implements projects in Champasak, Savannakhet and Vientiane Provinces, relating to other fields (such as disability inclusion and health and rehabilitation).¹⁸⁵ HI expected to increase its EOD capacity in 2021, with funding approved from the Netherlands for extension of the project into Phongsaly province (two districts) and Houaphan province (two districts, including the current one of Houameuang).¹⁸⁶

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 capacity in 2020 remained the same as in 2019. MAG expected to expand its operations in Xiengkhouang province in 2021 thanks to US funding, adding an additional 17 clearance teams.¹⁸⁷

NPA is operational in the four southern and heavily contaminated provinces of Attapeu, Champasak, Saravan, and Xekong. NPA saw significant increases in operational efficiency of BAC in Lao PDR in 2020. This was due to improved internal task selection procedures and coordination with the provincial NRA and UXO Lao, and improved operational planning which reduced the amount of operational time spent not conducting clearance or EOD spot tasks. NPA relocated all operational staff and equipment to a new office in Pakse, Champasak province. The new location improved the logistical management of the programme. In 2021, NPA planned to shift focus from CMRS to clearance of CHAs identified through survey, and expected to increase clearance capacity to 20 BAC teams, while retaining a survey capacity of 8 CMRS teams to address any limited additional survey requirements.¹⁸⁸

In addition to its survey and clearance operations in 2020, NPA also supported capacity development of the NRA and UXO Lao. In July 2019–March 2020, NPA provided capacity development support to strengthen the IM capacity of the NRA and provincial authorities, as part of the FCDO-funded project. NPA also provided on-the-job capacity development support on CMRS to UXO Lao teams in Luang Prabang province during operational monitoring and support in 2020, in addition to training on gender and on EOD. NPA was the project coordinator for Norwegian Ministry of Foreign Affairs' bilateral support to Lao PDR from 2018 to 2020, through UXO Lao's operations in Luang Prabang. The multi-year government-to-government bilateral agreement between Norway and Lao PDR ended on 31 December 2020, and Lao PDR did not seek to renew it.¹⁸⁹

The capacity of the Lao armed forces was increased from five humanitarian demining teams to seven in November 2019, funded by the Lao PDR Ministry of Defence.¹⁹⁰ According to the NRA, the humanitarian clearance teams of the Lao Army (Unit 58) 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.¹⁹¹

From October 2018 to March 2019, personnel from Russian armed forces and Lao People's Army (Unit 58) worked in partnership to survey and clear 1km² of land in Bolikhamxai province, with equipment supplied by Russia. The partnership project is part of a broader framework of cooperation between the governments and armed forces of the two countries.¹⁹² During the period from October 2018 to March 2019, servicemen from the International Mine Action Centre of the Russian Armed Forces completed joint tasks with members of the Unit 58 mine clearance team of the Laos People's Army. Russia reporting clearing just over 1km² in Lao PDR, during which 344 items of explosive ordnance were destroyed. As part of the same project, it also reported training 20 deminers from the Lao PDR Army and provided demining equipment.¹⁹³ The partnership in Bolikhamxai province finished in 2020. There is, however, another joint project in Xiengkhouang province.¹⁹⁴ 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.¹⁹⁵

The use of drones is now permitted to assist CMR operations in Lao PDR, but requires several separate certifications and licenses before approval for an MOU can be sought from the NRA.¹⁹⁶ MAG secured a drone permit in late 2019, and in 2020 mainly used the drone to assess the ground situation.¹⁹⁷ 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.¹⁹⁸ As at June 2021, NPA was in the process of licencing one drone and had requested permission from the NRA for additional drones.¹⁹⁹ NPA was also seeking permission to use innovations already approved in Lao PDR's National Standards, such as the use of what the organisation prefers to call 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.²⁰⁰

UXO Lao has reportedly begun implementing innovations in the use of mechanical methods of excavation, and MAG is currently reviewing its use of mechanical excavation tools.²⁰¹

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2020

According to data reported by NRA to Mine Action Review, humanitarian CMR clearance output in Lao PDR in 2020, was nearly 42.90km².²⁰² A total of 71,235 submunitions were destroyed in 2020, during area clearance and EOD operations (including EOD as part of survey).²⁰³

According to Lao PDR's Article 7 report covering 2020, CMR clearance output in 2020 was more than 53.92km², with the destruction of 71,235 submunitions.²⁰⁴ However, this includes commercial clearance, which unlike humanitarian clearance, is not typically of CHAs and includes large areas not containing CMR, therefore inflating true data on release of CMR-contaminated areas. Furthermore, in Lao PDR's Article 7 report, the total amount of submunitions reported as destroyed in 2020 was significantly less than the total

reported by the NRA and humanitarian operators to Mine Action Review.

As at July 2021, the NRA had yet to publish its Annual UXO Sector Report for 2020, which contains a breakdown of clearance by operator, including by humanitarian and commercial operators. However, the NRA Annual Progress Report to UNDP stated that of a total of 54.26km² cleared in 2020, with the destruction of 71,235 submunitions, 43.27km² was cleared by NGOs and the humanitarian teams of the Army (Lao Army 58), with the destruction of 71,167 submunitions; and the remaining 11km² was cleared by commercial operators with the destruction of 68 submunitions.²⁰⁵

SURVEY IN 2020

According to the NRA data reported to Mine Action Review, a total of more than 181km² of CHA containing CMR was identified in 2020 (see Table 3). This is a significant reduction on the nearly 246km² of CHA identified in 2019, which the NRA explained was due to a decrease in funding and survey teams, and the impact of COVID-19.²⁰⁶

HALO surveyed 46% more area in 2020, compared to the previous year, thanks to increased survey capacity and surveying areas with less vegetation than during the previous year. HALO discovered both emplaced and aerially-dispersed mines in 2020, which resulted in the temporary suspension of CMRS activities until landmine-specific non-technical survey could be conducted in affected villages.²⁰⁷

The amount of area surveyed by HI in 2020 was a reduction on the previous year, due to the impact of anti-personnel mines. HI reported the mines it found in Houameuang district to the NRA and locations were mapped and hazard marked. HI technical survey or clearance operations near these areas were ordered to avoid entering the hazardous area. As at end of 2020, HI had identified 46 suspected minefields in 20 villages during non-technical survey in Houamuang district of Houaphanh province. In 2020, a US-made M7 anti-tank blast mine was discovered during the clearance of a CHA in Ban Vaek following the CMRS. HI applied its "clearance while surveying" (CWS) procedure which enabled the complete CHA to be identified and also cleared.²⁰⁸

UXO Lao also reported discovering of mines during its operations in 2020, which impacted the team from being able to conduct further survey.²⁰⁹

Table 3: Technical survey of CMR-suspected area in 2020 (based on NRA data reported to Mine Action Review)²¹⁰

Operator	Area surveyed (m ²)	Area identified (m ²)	Submunitions destroyed	Other UXO destroyed	Mines destroyed
Lao People's Army (Unit 58)	4,139,700	312,742	49	5	0
HALO Trust	52,417,500	10,542,043	3,314	932	0
HI	1,252,500	603,164	215	5	1
MAG	108,954,622	104,910,952	8,305	39	0
NPA	58,470,000	20,339,085	2,211	164	0
UXO Lao	70,477,000	44,525,560	5,230	1,141	0
Totals	295,711,322	181,233,546	19,324*	2,286	1

* Already included in EOD roving task total

CLEARANCE IN 2020

According to the NRA data reported to Mine Action Review, a total of nearly 42.90km² of cluster munition-contaminated area was cleared in 2020, with the destruction of 39,864 submunitions, 9,592 other items of UXO, and 3 anti-personnel mines during area clearance (see Table 4).²¹¹ In addition, the NRA reported that a 31,178 submunitions were destroyed during roving tasks in 2020, which is also believed to include submunitions destroyed during technical survey) by Lao People's Army humanitarian teams (Unit 58), HALO, HI, MAG, Milsearch, NPA, and UXO Lao.²¹² The NRA data was considerably lower than that reported directly to Mine Action Review by the operators.

Table 4: CMR clearance in 2020 (based on NRA data reported to Mine Action Review)²¹³

Operator	Area cleared (m ²)	Submunitions destroyed	UXO destroyed	Anti-personnel mines destroyed
Lao People's Army (Unit 58)	252,989	332	179	0
HALO Trust	2,891,302	2,697	1,174	0
HI	529,734	835	439	1
MAG	8,956,924	6,115	528	0
MMG	304,870	6	1	0
NPA	4,454,346	5,256	313	0
UXO Lao	25,506,859	24,623	6,958	2
Totals	42,897,024	39,864	9,592	3

N/K = not known

According to Lao PDR's Article 7 report, a total of more than 53.92km² was cleared in 2020, across 15 provinces, with the destruction of nearly 71,235 CMR, in addition to 32 mines, 144 big bombs, and 20,888 items of other UXO, during clearance, technical survey, and roving tasks (see Table 5).²¹⁴ However, as occurred in previous years, this total includes CMR clearance data from all stakeholders, including not only humanitarian clearance by NGOs and the humanitarian demining teams of the Lao Army (Unit 58), but also commercial clearance by commercial operators (See Table 6).

As at June 2021, the NRA had yet to publish its Annual UXO Sector Report for 2020, which contains a breakdown of clearance by operator/by humanitarian and commercial clearance. It was therefore not possible to determine exactly how much of the 53.92km² was humanitarian clearance and how much was commercial clearance. However, as revealed in the NRA's Annual Project Progress Report to UNDP for 2020 (Table 6),²¹⁵ which reported a higher annual clearance total for 2020 (54.26km²), large areas of land were cleared by commercial operators with no or very few submunitions 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 2020 humanitarian clearance output reported by the NRA to Mine Action Review of 42.90km², was a decrease on the 45.77km² of humanitarian clearance of CMR in the data for 2019 used by Mine Action Review in last year's *Clearing the Mines* report on Lao PDR.²¹⁶ The 53.92km² of total CMR clearance (including humanitarian and commercial clearance) reported in Lao PDR's Article 7 report covering 2020, is also a reduction compared to the reported 64.95km² of total clearance in 2019 (similarly including humanitarian and commercial clearance), with the destruction of nearly 79,400 submunitions.²¹⁷ According to the NRA, the reduction on clearance output in 2020 compared to the previous year was due to decreased funding and the impact of the COVID-19 pandemic.²¹⁸

Table 5: CMR clearance by province in 2020 (Article 7 data, including commercial clearance)²¹⁹

Province	Area cleared (m ²)
Attapeu	5,779,326
Bolikhambxai	274,149
Champasak	2,800,483
Houaphanh	1,441,014
Khammouane	7,317,676
Luangnamtha	20
Luang Prabang	2,757,297
Oudomxay	3,846,690
Saravan	3,786,310
Savannakhet	8,140,057
Vientiane Province	2,023,259
Vientiane Capital	1,383,931
Xaisomboun	399,165
Xekong	2,706,294
Xiengkhouang	11,267,440
Total	53,923,111

Table 6: CMR clearance disaggregated by humanitarian clearance operators and commercial operators in 2020 (NRA Annual Project Progress Report data)²²⁰

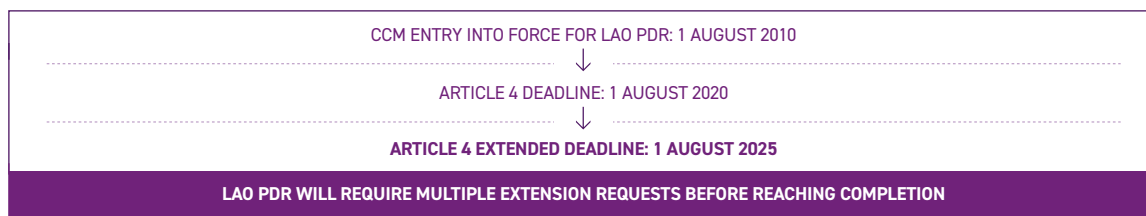
	Operator	Area cleared (m ²)	Submunitions destroyed*	Bombs	Other UXO destroyed	Mines destroyed
Humanitarian clearance operations	Lao People's Army (Unit 58)	399,861	618	8	999	1
	HALO Trust	2,895,891	8,350	34	2,969	0
	HI	546,370	1,060	0	1,154	11
	MAG	9,073,145	17,882	16	2,697	1
	NPA	4,468,784	10,152	39	2,729	12
	UXO Lao	25,886,799	33,105	47	10,113	7
Sub-totals		43,270,850	71,167	144	20,661	32
Commercial clearance operations	L&B	9,205,503	0	0	0	0
	MMG	458,851	41	0	40	0
	Milsearch	387,710	8	0	184	0
	OUMMA	939,482	19	0	3	0
Sub-totals		10,991,546	68	0	227	0
Grand totals		54,262,396	71,235*	144	20,888	32

* Includes submunitions destroyed during survey and EOD roving tasks.

Compared to the previous year, and based on operator data, HI, HALO, and NPA's clearance output was slightly higher in 2020;²²¹ and MAG's clearance output was slightly lower, due to losing operational time as a result of COVID-19.²²² Among the commercial operators, only MMG's could reasonably be considered clearance of cluster munition-contaminated area.

All clearance organisations in Lao PDR are required to have a documented internal QM system, covering both quality assurance (QA) and quality control procedures (QC). External QM inspections of clearance organisations are carried out by the NRA.²²³ However, the NRA's QM capacity is extremely limited, with only two QM teams to cover sector-wide clearance.²²⁴

ARTICLE 4 DEADLINE AND COMPLIANCE



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".²²⁵

As at end of 2020, a total of more than 1,299km² of CHA had already been identified through the ongoing nationwide survey,²²⁶ and 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,²²⁷ which the NRA expects will take place by 2025.²²⁸

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 50km²,²²⁹ though annual humanitarian clearance output over the last five years has been significantly less (see Table 7).

Table 7: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2020	42.90*
2019	45.77*
2018	36.20
2017	33.02
2016	30.17
Total	188.06

* 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.²³⁰ Commencement of FCDO-funded clearance operations in Lao PDR in 2019 helped increase clearance output of HALO Trust, MAG, and NPA. In addition, the United States has planned to support increased clearance capacity of both international clearance operators and UXO Lao,²³¹ which will result in a significant increase in clearance capacity in 2021.²³²

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.²³³ 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.²³⁴

In addition to insufficient clearance capacity, in its Article 7 report covering 2020, Lao PDR also cites mountainous terrain; unpredictable funding; and outdated clearance equipment as other challenges (e.g. in struggling to distinguish between CMR and scrap metal), and the national authorities highlight the need for more advanced clearance equipment and vehicles. The NRA is also 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.²³⁵

In 2020, COVID-19 resulted in a six-week nationwide lockdown from the start of April to mid-May. HALO's operations were suspended during the lockdown and when operations resumed, HALO re-worked its operational calendar so that only ten working days were lost.²³⁶ HI's field operations were suspended for around one month, but as HI EOD staff work on three-month campaign/one-month break rota, HI was able to discuss a flexible plan with the team, which helped mitigate the impact of the lockdown.²³⁷ MAG was unable to operate during the lockdown and gradually returned its teams to operations at the end of May/early June, with SOPs in place to adhere to government regulations.²³⁸

NPA reported that COVID-19 did not significantly affect its operations in 2020, as the national COVID-19 lockdown occurred during the planned full month of operational stand-down corresponding with Pii Mai (the Lao new year holiday). May's schedule was adjusted slightly in order not

to lose operational days. NPA then deployed its teams on a staggered schedule to limit the number of staff gathering in one place, and COVID-19 prevention social distancing/hygiene measures were systematically applied.²³⁹ UXO Lao field operations were stood down for two months (April-May) as the result of the COVID-19 pandemic, and the annual work plan was revised for remaining months of works. The impact of COVID-19 resulted in 10% of its UXO Lao's 2020 annual work plan being cancelled.²⁴⁰

As mentioned previously, and currently impacting HI's operations in Houaphanh province, discovery of mines during CMRS significantly impedes operations.²⁴¹ 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.²⁴²

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

Lao PDR is still determining the extent of its baseline of CMR contamination and is many years from completion, but planning for sustainable national capacity to address previously unknown cluster munition contamination following completion (i.e. residual contamination) will be essential.

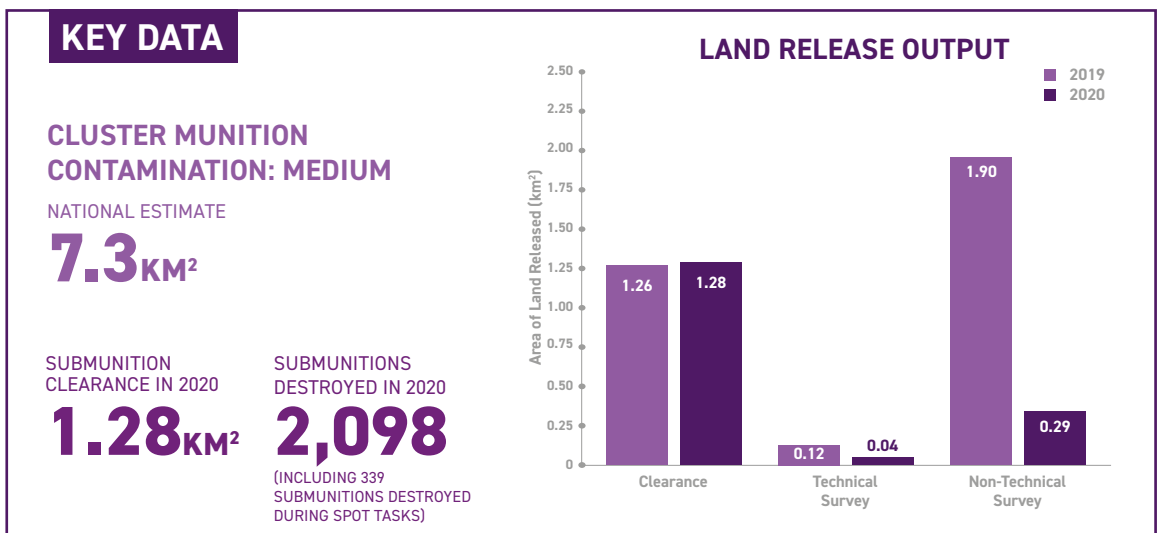
- 1 Article 4 deadline Extension Request 2019 (hereafter, CCM Extension Request 2019), Part B, Detailed Narrative, p. 5.
- 2 Interview with Phoukhieo Chanthasomboune, Director, National Regulatory Authority (NRA), Vientiane, 4 May 2016; and NRA, "From Survey to Safety, Quantifying and Clearing UXO Contamination 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 1 capital city contain "UXO contamination" (email from Nicholas Tan, UNDP, 21 July 2021).
- 5 Statement of Lao PDR on Clearance and Risk Reduction, CCM Second Review Conference (Part 1, virtual meeting), 25-27 November 2020.
- 6 Article 7 Report (covering 2020), Form F.
- 7 Ibid. The four provinces not reported as having CMR contamination were Borkeo, Luangnamtha, Sayyabouly, and Xaisomnoun. The two additional provinces not listed as having CMR contamination, but where CMR clearance was reported to have taken place in 2019 were Luangnamtha and Xaisomboun.
- 8 Email from Nicholas Tan, UNDP, 6 August 2021.
- 9 CCM Extension Request 2019, Part B, Detailed Narrative, pp. 1 and 5; and Executive Summary, p. 1.
- 10 Email from Chomyaeng Phengthongsawat, Director General, NRA, 21 June 2021. Lao PDR's Article 7 Report (covering 2020), Form F, put the total amount of cluster munition contaminated areas at end of 2020 at 1,298.34km².
- 11 Email from Mark Frankish, Chief Technical Advisor UXO Unit, UNDP, 26 August 2020. According to the foreword of the 2019 UXO Sector Annual Report, p. iii, a total of 102,112 hectares (1,021km²) of CHA had been identified and registered in the database, but no date was specified.
- 12 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.
- 13 Interview with Phoukhieo Chanthasomboune, NRA, in Geneva, 7 February 2019.
- 14 Email from Mark Frankish, UNDP, 26 August 2020.
- 15 CCM Extension Request 2019, Part B, Detailed Narrative, pp. 3 and 5; and Executive Summary, p. 4; and Article 7 Report (covering 2020), Form F.
- 16 CCM Extension Request 2019, Part B, Detailed Narrative, pp. 1 and 5.
- 17 Ibid., Part B, Detailed Narrative, p. 1.
- 18 CCM Extension Request 2019, Executive Summary, p. 5; and Part B, Detailed Narrative, p. 23.
- 19 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.
- 20 Emails from Mark Frankish, UNDP, 26 August 2020; and Chomyaeng Phengthongsawat, NRA, 21 June 2021.
- 21 CCM Extension Request 2019, Part B, Detailed Narrative, p. 1.
- 22 Ibid., Part B, Detailed Narrative, p. 18.
- 23 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.
- 24 CCM Extension Request 2019, Part B, Detailed Narrative, p. 18.
- 25 Ibid., p. 26.
- 26 Email from Olivier Bauduin, US PMWRA, 29 September 2020.
- 27 Article 7 Report (covering 2020), Form I.
- 28 Emails from Katherine Harrison, Programme Coordinator, NPA, 9 September 2020; Cameron Imber, 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.
- 29 Emails from Cameron Imber, HALO, 11 June 2021; and Katherine Harrison, NPA, 19 June 2021.
- 30 Email from Olivier Bauduin, US PMWRA, 6 July 2021.
- 31 Interview with Olivier Bauduin, UNDP, Vientiane, 2 May 2018; and email, 10 July 2018.
- 32 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>.
- 33 Email from Robert White, Advisor, Strategic Management & Residual Contamination, GICHD, 22 July 2020.

- 34 Email from Katherine Harrison, NPA, 19 June 2021.
- 35 Interview with Phil Bean, US PMWRA, 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.
- 36 Emails from Rebecca Letven, MAG, 26 March 2021; Cameron Imber, Programme Manager, HALO, 14 March 2021; and Julien Kempeneers, HI, 16 March 2021.
- 37 CCM Extension Request 2019, Part B, Detailed Narrative, p. 7.
- 38 Emails from Rebecca Letven, MAG, 26 March 2021; Cameron Imber, HALO, 14 March 2021; Katherine Harrison, NPA, 22 March 2021; and Julien Kempeneers, HI, 16 March 2021.
- 39 Emails from Simon Rea, Regional Director, South and South East Asia, MAG, 17 June 2020; Rebecca Letven, MAG, 26 March 2021; Katherine Harrison, NPA, 6 May 2020 and 31 March 2021; and Cameron Imber, HALO, 14 March 2021.
- 40 CCM Extension Request 2019, Part B, Detailed Narrative, p. 25.
- 41 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.
- 42 Email from Rebecca Letven, MAG, 19 June 2021.
- 43 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.
- 44 Email from Katherine Harrison, NPA, 9 September 2020.
- 45 Email from Julien Kempeneers, HI, 16 June 2021.
- 46 Interviews with international operators, Lao PDR, 1–12 May 2018.
- 47 Email from Julien Kempeneers, on behalf of Yvon Le Chevanton, Technical Survey/Clearance Operations Manager, HI, 25 March 2020.
- 48 Email from Julien Kempeneers, HI, 16 March 2021.
- 49 Emails from Katherine Harrison, NPA, 22 March 2021 and Julien Kempeneers, on behalf of Minla Nanthavong, Deputy Operations Manager, HI, 16 March 2021.
- 50 Email from Katherine Harrison, NPA, 22 March 2021.
- 51 Email from Rebecca Letven, MAG, 26 March 2021.
- 52 Email from Katherine Harrison, NPA, 19 June 2021.
- 53 Email from Fiona Kilpatrick, HALO Trust, 29 March 2019.
- 54 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 Convention on Cluster Munitions, Geneva, 2 September 2019.
- 55 Statement of Lao PDR on International Cooperation and Assistance, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020.
- 56 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.
- 57 Statement of Lao PDR on National Implementation Measures, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020.
- 58 UN Lao PDR, "Training of Trainer's Workshop Promotes Gender Equality in UXO Sector", 13 December 2018, available at: <http://bit.ly/3haKMnB>.
- 59 ASEAN Regional Mine Action Center (ARMAC), Annual Report 2019, p. 17; and email from Arianna Calza Bini, GICHD, 27 July 2021.
- 60 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.
- 61 Email from Cameron Imber, HALO, 14 March 2021.
- 62 Ibid.
- 63 Emails from Julien Kempeneers, HI, 25 March 2020; and on behalf of Minla Nanthavong, HI, 16 March 2021.
- 64 Email from Julien Kempeneers, HI, 16 March 2021.
- 65 Email from Rebecca Letven, MAG, 26 March 2021.
- 66 Email from Katherine Harrison, NPA, 31 March 2021.
- 67 Ibid.
- 68 Email from Saomany Manivong, UXO Lao, 10 May 2019.
- 69 Ibid.
- 70 Email from Saomany Manivong, UXO Lao, 3 August 2020.
- 71 Email from Katherine Harrison, NPA, 21 June 2021.
- 72 Emails from Bouala Thongsavanh, NRA, on behalf of Phoukhio Chanthasomboune, NRA, 30 April 2018; and Aubrey Sutherland, NPA, 25 March 2019; NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017; interview with Phoukhio Chanthasomboune, NRA, Vientiane, 2 May 2018; and interview with Hugh Hosman and Marco Heuscher, (then with) Sterling International, Vientiane, 2 May 2018.
- 73 CCM Extension Request 2019, Part B, Detailed Narrative, p. 4.
- 74 Emails from Mark Frankish, UNDP, 26 August 2020; and Chomyaeng Phengthongsawat, NRA, 21 June 2021.
- 75 CCM Extension Request 2019, Executive Summary, p. 1, and Part B, Detailed Narrative, p. 6; and Article 7 Report (covering 2019), Form F.
- 76 Emails from Katherine Harrison, NPA, 22 March 2021; Rebecca Letven, MAG, 26 March 2021; Cameron Imber, HALO, 14 March 2021; and Julien Kempeneers, HI, 16 March 2021.
- 77 "Data errors on IMSMA", Nigel Orr, Technical Adviser, (then with) Sterling International, 26 April 2017.
- 78 Presentation by HALO Trust, Sepon, 10 May 2018.
- 79 Email from Katherine Harrison, NPA, 22 March 2021.
- 80 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 Phoukhio Chanthasomboune, NRA, Vientiane, 2 May 2018; and interviews with national and international clearance operators, Laos, 1–12 May 2018.
- 81 Emails from Fiona Kilpatrick, HALO Trust, 29 March 2019; and Blossum Gilmour, MAG, 21 March 2019.
- 82 Email from Saomany Manivong, UXO Lao, 11 May 2021.
- 83 Email from Saomany Manivong, UXO Lao, 11 May 2021.
- 84 Email from Katherine Harrison, NPA, 31 March 2021.
- 85 Emails from Katherine Harrison, NPA, 6 May and 9 September 2020.
- 86 Emails from Katherine Harrison, NPA, 22 March and 21 June 2021.
- 87 Emails from Katherine Harrison, NPA, 22 March 2021; Rebecca Letven, MAG, 26 March 2021; and Julien Kempeneers, on behalf of Vilaysack Xaysana, Community Safety and Information Manager, HI, 16 March 2021.
- 88 Emails from Katherine Harrison, NPA, 6 May and 9 September 2020 and 31 March 2021.
- 89 Email from Katherine Harrison, NPA, 31 March 2021.
- 90 Email from Julien Kempeneers, HI, 16 March 2021.
- 91 Emails from Katherine Harrison, NPA, 6 May and 9 September 2020; Cameron Imber, HALO, 7 April 2020; and Julien Kempeneers, HI, 25 March 2020.
- 92 Emails from Mark Frankish, UNDP, 26 August 2020 and Saomany Manivong, UXO Lao, 11 May 2021.
- 93 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.
- 94 Emails from Cameron Imber, HALO, 7 April 2020; Julien Kempeneers, HI, 25 March 2020; and Katherine Harrison, NPA, 9 September 2020.
- 95 CCM Extension Request 2019, Part B, Detailed Narrative, p. 3.
- 96 Interview with Phil Bean, US PMWRA, in Geneva, 6 February 2018.
- 97 Emails from Rebecca Letven, MAG, 19 June 2021; and Chomyaeng Phengthongsawat, NRA, 21 June 2021.
- 98 Interview with Phoukhio Chanthasomboune, NRA, Vientiane, 4 May 2016.
- 99 NRA, "From Survey to Safety, Quantifying and Clearing UXO Contamination in Lao PDR", March 2016.
- 100 CCM Extension Request 2019, Part B, Detailed Narrative, p. 26.
- 101 "Survey and clearance plan for UXO/mine action sector in Lao PDR, 2017–2021".
- 102 Email from Olivier Bauduin, US PMWRA, 29 September 2020.
- 103 Emails from Katherine Harrison, NPA, 22 March 2021; and Rebecca Letven, MAG, 26 March 2021.
- 104 Statement of Lao PDR on National Implementation Measures, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020.
- 105 Email from Katherine Harrison, NPA, 22 March 2021.
- 106 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.
- 107 "US Renews Partnership with Lao PDR to Build Capacity in UXO Sector", US Embassy in Lao PDR, 31 January 2020.

- 108 Email from Katherine Harrison, NPA, 22 March 2021.
- 109 Email from Bouala Thongsavanh, NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018; and interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.
- 110 Interview with Phoukhieo Chanthasomboune, NRA, in Geneva, 7 February 2019.
- 111 Email from Amanda Shiel, UXO Unit Programme and Partnership Support Officer, UNDP, 4 September 2020.
- 112 Emails from Olivier Bauduin, US PMWRA, 29 September 2020; Rebecca Letven, MAG, 26 March 2021; Katherine Harrison, NPA, 22 March 2021; and Julien Kempeneers, HI, 16 March 2021.
- 113 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 PMWRA, and Machut Shishak, Political/Economic Counselor, US Embassy, Vientiane, 3 May 2018.
- 114 Statement of Lao PDR on National Implementation Efforts, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.
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- 116 CCM Extension Request 2019, Part B, Detailed Narrative, p. 26.
- 117 CCM Extension Request 2019, Executive Summary, p. 3; and Part B, Detailed Narrative, p. 4.
- 118 Statement of Lao PDR on Clearance and Risk Reduction, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020.
- 119 2019 UXO Sector Annual Report, NRA, undated, p. 14.
- 120 CCM Extension Request 2019, Executive Summary, p. 4; and Part B, Detailed Narrative, p. 21.
- 121 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.
- 122 CCM Extension Request 2019, Executive Summary, pp. 1, 4, and 6, and Part B, Detailed Narrative, pp. 22 and 25.
- 123 CCM Extension Request 2019, Executive Summary, p. 4; and Part B, Detailed Narrative, pp. 7 and 22.
- 124 Ibid.
- 125 Ibid.
- 126 Statement of Lao PDR on Clearance and Risk Reduction, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020; and the 9th Five-year National Socio-Economic Development Plan (2021–2025), draft report.
- 127 Interviews with national and international clearance operators, Laos, 1–12 May 2018.
- 128 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.
- 129 Interviews with international operators, UNDP, and US Embassy in Vientiane, Lao PDR, 1–12 May 2018.
- 130 Email from Bouala Thongsavanh, Assistant to the Director of the NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018.
- 131 Emails from Mark Frankish, UNDP, 26 August 2020; and Chomyaeng Phengthongsawat, NRA, 21 June 2021.
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- 133 Emails from Katherine Harrison, NPA, 6 May 2020; and Simon Rea, MAG, 17 June 2020.
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- 138 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.
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- 140 Emails from Email 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.
- 141 CCM Extension Request 2019, Part B, Detailed Narrative, p. 18.
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- 143 Emails from Katherine Harrison, NPA, 6 May and 9 September 2020.
- 144 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.
- 145 CCM Extension Request 2019, Executive Summary, p. 2; and Part B, Detailed Narrative, p. 9.
- 146 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.
- 147 Ibid.; and emails from Cameron Imber, HALO, 11 June; Rebecca Letven, MAG, 18 June; and Katherine Harrison, NPA, 18 June.
- 148 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.
- 149 Ibid.; p. 17; and interviews with Neil Arnold, MAG, Phonsavanh, 6 May 2018, and Robby Dehondt, (then with) Sterling International, Sepon, 11 May 2018; and email from Ulric Eriksson, NPA, 1 May 2018.
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- 151 Ibid.
- 152 Interviews with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018 and 7 February 2019, Geneva.
- 153 Statement of Lao PDR on National Implementation Efforts, CCM Seventh Meeting of States Parties, Geneva, 4–5 September 2017.
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- 161 Interview with Neil Arnold, MAG, Phonsavanh, 6 May 2018.
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- 163 Email from Julien Kempeneers, on behalf of Yvon Le Chevanton, HI, 16 March 2021.
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- 165 Email from Saomany Manivong, UXO Lao, 11 May 2021.
- 166 Email from Katherine Harrison, NPA, 6 May 2020.
- 167 Interview with Neil Arnold, MAG, Phonsavanh, 6 May 2018.
- 168 Email from Bouala Thongsavanh, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018.
- 169 Response to Mine Action Review questionnaire from Olivia Meader, HALO Trust, 11 May 2018; and interview with Olivier Bauduin, UNDP, Vientiane, 2 May 2018.
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- 172 CCM Extension Request 2019, Part B, Detailed Narrative, p. 20.
- 173 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.
- 174 Email from Cameron Imber, HALO, 14 March 2021.
- 175 Email from Julien Kempeneers, HI, 16 March 2021.
- 176 Email from Rebecca Letven, MAG, 26 March 2021.
- 177 Emails from Katherine Harrison, NPA, 6 May 2020 and 22 March 2021.
- 178 Email from Saomany Manivong, UXO Lao, 11 May 2021.
- 179 Emails from Cameron Imber, HALO, 14 March 2021; Julien Kempeneers, HI, 16 March 2021; Rebecca Letven, MAG, 26 March 2021; Katherine Harrison, NPA, 22 March 2021; and Saomany Manivong, UXO Lao, 11 May 2021.
- 180 Presentation by Saomany Manivong, UXO Lao, Vientiane, 2 May 2018.
- 181 Email from Saomany Manivong, UXO Lao, 11 May 2021.
- 182 Emails from Katherine Harrison, NPA, 31 March 2021; and Saomany Manivong, UXO Lao, 11 May 2021.
- 183 Emails from Cameron Imber, HALO, 14 March and 11 June 2021.
- 184 Email from Julien Kempeneers, HI, 16 March 2021.
- 185 Emails from Julien Kempeneers, HI, 25 March 2020 and 16 June 2021.
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- 188 Email from Katherine Harrison, NPA, 31 March 2021.
- 189 *Ibid.*, and 19 June 2021.
- 190 Email from Amanda Shiel, UNDP, 4 September 2020; and 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.
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- 193 Russia's Convention on Certain Conventional Weapons (CCW) Protocol V Article 10 Report (covering 2019); and Russian Ministry of Defence, "International Mine Action Centre squad completes humanitarian demining of Laos", 30 March 2020, at: <http://bit.ly/3182CCS>.
- 194 Statement of Russia, Mine Action and Sustaining Peace: Stronger Partnerships for Better Delivery, UN Security Council discussion, 8 April 2021.
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- 196 Email from Katherine Harrison, NPA, 6 May 2020.
- 197 Email from Rebecca Letven, MAG, 26 March 2021.
- 198 Email from Julien Kempeneers, HI, 16 March 2021.
- 199 Email from Katherine Harrison, NPA, 19 June 2021.
- 200 *Ibid.*
- 201 Email from Rebecca Letven, MAG, 26 March 2021.
- 202 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.
- 203 Article 7 Report (covering 2020), Form F; and email from Nicholas Tan, UNDP, 9 August 2021.
- 204 Article 7 Report (covering 2020), Form F; and NRA Annual Project Progress Report to UNDP for 2020 reporting period, p.17.
- 205 NRA Annual Project Progress Report to UNDP for 2020 reporting period, p.17.
- 206 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.
- 207 Email from Cameron Imber, HALO, 14 March 2021.
- 208 Emails from Julien Kempeneers and from Julien Kempeneers on behalf of Yvon Le Chevanton, HI, 16 March 2021.
- 209 Email from Saomany Manivong, UXO Lao, 11 May 2021.
- 210 There was a discrepancy in data reported by the NRA and data reported directly by some operators. HALO Trust reported that it surveyed 66,980,000m², identified 10,613,156m², and destroyed 2,486 submunitions and 609 other UXO (email from Cameron Imber, HALO, 14 March 2021); HI reported that it surveyed 1,235,000m², identified 623,164m², and destroyed 215 submunitions, 932 other UXO, and 1 anti-personnel mine (email from Julien Kempeneers, HI, 16 March 2021); MAG's data matched that reported by the NRA (email from Rebecca Letven, MAG, 26 March 2021); NPA reported that it surveyed 58,385,000m², identified 20,339,085m², and destroyed 2,152 submunitions and 186 other UXO (email from Katherine Harrison, NPA, 31 March 2021); and UXO Lao reported that it surveyed 71,657,000m², identified 47,044,587m², and destroyed 5,554 submunitions and 1,197 other UXO (email from Saomany Manivong, UXO Lao, 11 May 2021).
- 211 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.
- 212 *Ibid.* HALO Trust reported that it destroyed 3,263 submunitions during spot tasks (email from Cameron Imber, HALO, 14 March 2021); HI reported that it destroyed 225 submunitions (email from Julien Kempeneers, HI, 16 March 2021); MAG reported that it 11,687 submunitions (email from Rebecca Letven, MAG, 26 March 2021); NPA reported that it destroyed 1,371 submunitions (email from Katherine Harrison, NPA, 31 March 2021); and UXO Lao reported that it destroyed 8,845 submunitions during spot tasks (email from Saomany Manivong, UXO Lao, 11 May 2021).
- 213 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021. There was a discrepancy in data reported by the NRA and data reported directly by some operators. HALO Trust reported that it cleared 2,891,709m², and destroyed 2,139 submunitions and 1,386 other UXO (email from Cameron Imber, HALO, 14 March 2021); HI reported that it cleared 546,370m², and destroyed 842 submunitions, 448 other UXO, and 1 anti-vehicle mine (email from Julien Kempeneers, HI, 16 March 2021); MAG reported that it cleared 9,073,145m², and destroyed 6,195 submunitions, and 560 other UXO (email from Rebecca Letven, MAG, 26 March 2021); NPA reported that it cleared 4,244,214m², destroyed 4,891 submunitions, and 315 other UXO (email from Katherine Harrison, NPA, 31 March 2021); and UXO Lao reported that it cleared 26,743,417m², and destroyed 26,227 submunitions, 7,432 other UXO, and 2 anti-personnel mines (email from Saomany Manivong, UXO Lao, 11 May 2021).
- 214 Article 7 Report (covering 2020), Form F.
- 215 NRA Annual Project Progress Report to UNDP for 2020 reporting period, p.17.
- 216 2019 UXO Sector Annual Report, NRA, undated, pp. 5 and 7.
- 217 Article 7 Report (covering 2019), Form F.
- 218 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.
- 219 Article 7 Report (covering 2020), Form F.
- 220 NRA Annual Project Progress Report to UNDP for 2020 reporting period, p.17.
- 221 Emails from Julien Kempeneers, HI, 16 March 2021; Cameron Imber, HALO, 14 March 2021; and Katherine Harrison, NPA, 31 March 2021.
- 222 Email from Rebecca Letven, MAG, 26 March 2021.
- 223 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.
- 224 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.
- 225 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.
- 226 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.
- 227 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.
- 228 Email from Nicholas Tan, UNDP, 21 July 2021.
- 229 CCM Extension Request 2019, Executive Summary, p. 3.
- 230 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.
- 231 Interview with Olivier Bauduin, US PMWRA, in Geneva, 13 February 2020.
- 232 Emails from Rebecca Letven, MAG, 26 March 2021; Cameron Imber, HALO, 14 March 2021; and Katherine Harrison, NPA, 22 March 2021.
- 233 Statement of Lao PDR on National Implementation Efforts, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.
- 234 CCM Extension Request 2019, Executive Summary, p. 5; and Part B, Detailed Narrative, pp. 24-25.
- 235 CCM Article 7 Report (covering 2020), Form F.
- 236 Email from Cameron Imber, HALO, 14 March 2021.
- 237 Email from Julien Kempeneers, HI, 16 March 2021.
- 238 Email from Rebecca Letven, MAG, 26 March 2021.
- 239 Email from Katherine Harrison, NPA, 22 March 2021.
- 240 Email from Saomany Manivong, UXO Lao, 11 May 2021.
- 241 Emails from Julien Kempeneers, HI, 25 March 2020 and 16 March 2021.
- 242 Presentation by HALO Trust, Sepon, 10 May 2018.

ARTICLE 4 DEADLINE: 1 MAY 2026
UNCLEAR WHETHER ON TRACK TO MEET DEADLINE



KEY DEVELOPMENTS

The Lebanon Mine Action Centre (LMAC) continued to make good progress in releasing cluster munition-contaminated area in 2020, clearing slightly more than the previous year, despite challenges posed by COVID-19. Lebanon was granted a five-year extension to its Convention on Cluster Munitions (CCM) Article 4 deadline, to 1 May 2026, and plans to complete cluster munition remnants (CMR) clearance by the end of 2025, in line with its new National Mine Action Strategy for 2020–25. However, in order to achieve this LMAC will have to overcome funding challenges and also increase operational efficiencies. In a positive development, LMAC commissioned an external study on operational efficiency in 2020, and plans to review and adopt the recommendations from the study, especially those related to the need for increased emphasis on evidence-based technical survey prior to clearance.

RECOMMENDATIONS FOR ACTION

- LMAC should, in collaboration with clearance operators, continue to expand and strengthen the use of evidence-based survey, especially technical survey (manual, mechanical, and with the use of explosive detection dogs (EDDs)), as a routine part of the toolbox for all operators for the release of CMR tasks.
- LMAC should determine how it plans to address CMR in especially difficult terrain, such as deep canyons and very steep cliffs, and publish details of the number and size of CMR tasks affected.
- Lebanon should provide regular updates to its Article 4 planning, based on actual annual output achieved.
- Lebanon should develop a resource mobilisation strategy, to help it secure the necessary funding required to meet the annual CMR clearance targets in its Article 4 deadline extension request.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2020)	Score (2019)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	8	7	LMAC completed non-technical re-survey of all CMR tasks in 2020, improving the accuracy of the national estimate of CMR contamination. The baseline was further improved by the correction of duplicate records, identified as part of the LMAC's upcoming 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	9	LMAC continued to demonstrate effective programme management in 2020, maintaining Mine Action Forum and technical working group (TWG) meetings, though both were disrupted by COVID-19 during the course of the year. Regrettably, due to continued political and financial unrest in Lebanon, as well as the impact of the COVID-19 pandemic, none of the 50 billion Lebanese Pounds (approximately US\$33 million) for CMR clearance over five years (2019–23) was allocated in 2020 (or in 2019).
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 at its regional demining school. Gender and diversity considerations are included in the National Mine Action Strategy 2020–25 and LMAC has appointed a new gender focal point who will help mainstream gender-sensitive policies and procedures, and monitor their implementation, in the mine action centre. 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	7	LMAC is in the process of migrating to IMSMA Core, and is in the testing phase, prior to migration. During preparation for the migration, new maps developed using IMSMA Core revealed duplications in the hazardous areas, including some areas contaminated with CMR. LMAC identified the causes of these duplications, their location, and corrected the baseline of remaining CMR contamination accordingly.
PLANNING AND TASKING (10% of overall score)	8	8	LMAC has a new National Mine Action Strategy for 2020–25, which was approved in June 2020. The new strategy was elaborated with support from the European Union (EU)-funded United Nations Development Programme (UNDP) project, in a participatory approach with all stakeholders. An accompanying plan for the implementation and monitoring of the strategy will be updated annually. Lebanon was also granted a five-year extension to its Article 4 deadline to 1 May 2026. While Lebanon's new deadline is 1 May 2026, LMAC aims to complete clearance by the end of 2025, in line with its new strategy. LMAC has also developed a new national prioritisation system in 2020, which will be applied in 2021.
LAND RELEASE SYSTEM (20% of overall score)	7	8	LMAC revised its national mine action standards (NMAS) in 2017 and 2018, then made revisions in 2019, and completed a review of the NMAS at the start of 2020. At present, however, technical survey and non-technical survey activities are still not a routine part of the toolbox for all operators for the release of CMR tasks. LMAC commissioned an external study on operational efficiency in 2020, and plans to actively review and apply recommendations from the study related to the need for increased use of technical survey as an essential component of land release operations.

Table continued...

Criterion	Score (2020)	Score (2019)	Performance Commentary
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	7	7	Clearance output of 1.28km ² in 2020 was a slight increase on output in 2019. Lebanon has been granted a five-year extension to its Article 4 deadline to 1 May 2026 and plans to complete clearance by the end of 2025. 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 2020. Furthermore, the United Kingdom (UK) Foreign, Commonwealth & Development Office (FCDO) unexpectedly ceased its mine action funding to Lebanon at the end of 2020, which represents a US\$2 million (29%) drop in total funding. These funding shortfalls significantly affect LMAC's ability to meet the annual targets, which assume the same clearance average as the last three years and provision of national funding for additional CMR clearance capacity.
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)
- Lebanese Association for Mine and Natural Disaster Action (LAMINDA) (which ceased land release operations in Lebanon in August 2020)
- 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 2020, Lebanon had 749 confirmed hazardous areas (CHAs) containing CMR covering a total area of nearly 7.3km² (see Table 1).¹ This is a decrease in CMR contamination compared to the end of 2019, when 814 CHAs were confirmed to contain CMR, over a total area of almost 9km².²

In 2020, 0.7km² of previously unrecorded CMR contamination was added to the database (608,748m² in Bekaa, mostly in the north-east; 60,000m² in Mount Lebanon; and 37,996m² in South Lebanon), all of which are included in Table 1.³

In addition, LMAC has corrected duplication of some cluster munition-contaminated areas, revealed during the ongoing process to upgrade the Information Management System for Mine Action (IMSMA) to the new version IMSMA Core.⁴

Table 1: Cluster munition-contaminated area by province (at end 2020)⁵

Province	CHAs	Area (m ²)
Beqaa	81	329,487
Janoub and Nabatiyeh (South)	615	6,659,774
Jabal Loubnan (Mount Lebanon)	53	297,265
Totals	749	7,286,526

In 2018, Lebanon reviewed its baseline of CMR contamination and changed the way it reflects clearance data. A significant problem had been a difference in the way land release figures were recorded between the Regional Mine Action Centre (RMAC) and LMAC. In many cases, actual clearance output of tasks was greater than the original task size recorded in the database, due to large fade-out requirements.⁶ Upon task completion, LMAC was reducing its initial baseline by the original task size in the database, whereas RMAC was adding the additional cleared area in excess of the task size to the initial database and then reducing the whole size of the clearance task from the database. LMAC has now corrected the national CMR baseline retrospectively to reflect its approach.⁷

Also as part of its 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.⁸ This is reflected in Lebanon's baseline of cluster munition-contaminated area (see Table 1).⁹ 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.¹⁰ 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.¹¹

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.¹² This included emergency clearance undertaken by the Lebanese Armed Forces (LAF) in and around infrastructure, schools, and roads, and clearance contracted out to non-governmental organisations (NGOs), commercial operators, and government groups by the UN Mine Action Coordination Centre – south Lebanon (MACC-SL), which assumed the role of coordinating CMR clearance in 2007, in cooperation with the National Demining Office (now known as LMAC).¹³

In order to determine its baseline of CMR contamination more accurately and inform Article 4 planning, LMAC re-surveyed all cluster munition-contaminated areas. The nationwide non-technical re-survey was completed in November 2020,¹⁴ but additional non-technical survey will still be conducted, in line with best practice.

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.¹⁵

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.¹⁶ An estimated one million submunitions failed to explode.¹⁷ Some Israeli bombing data have been provided – most recently through the UN Interim Force in Lebanon (UNIFIL) – but has proved to be very inaccurate.¹⁸ In addition, some CMR still remain from earlier conflicts with Israel in 1978 and 1982,¹⁹ 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 2014–17.²⁰ Types of submunitions found in Lebanon include Israeli, Soviet, and US submunitions, types AO-2.5 RT, BLU-18, BLU-26, BLU-61, BLU-63, M42, M43, M46, M77, M85, MK118, and MZD-2.²¹ Some areas contain unexploded submunitions resulting from both ground-launched and air-dropped cluster munitions, which can further complicate the picture.²²

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.²³

LMAC, part of the LAF, is based in Beirut. Since 2009, the RMAC-N, based in Nabatiyeh, which is a part of LMAC, has overseen operations in south Lebanon and western Beqaa, under LMAC supervision.²⁴ At the end of 2018, a new regional centre, RMAC-RB, was established in the north-east of Lebanon in the village of Ras Baalbek, to oversee the mine action operations in this region.²⁵ 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.²⁶ The current director of LMAC started in March 2019, replacing his predecessor who had served as director for two years.²⁷

A new standing operating procedure (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.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 2020, there was one team of seven UNDP personnel supporting LMAC.²⁹

EU funding for UNDP institutional support to LMAC, which had been due to finish at the end of 2019, but which would have resulted in a gap in capacity development,³⁰ was extended. During this period, UNDP was providing expertise and support on operational efficiency, prioritisation, research into clearance in difficult terrains, and risk education for Syrian refugees.³¹ UNDP also mobilised funds in 2020 from the Norwegian Embassy, and developed a three-year project proposal for 2020–23 in order to: assist with the strengthening of national capacity to document and prioritise clearance operations in line with Mine Action Forum recommendations; to help LMAC to meet its national, regional, and international obligations and coordination functions and ensure follow-up of Mine Action Forum action points; and to support LMAC in effectively communicating its results and establishing partnerships.³² In April 2021, the Netherlands signed a three-year contract with UNDP for international funding to support LMAC in capacity building and institutional support.³³

With regard to difficult terrain, the Geneva International Centre for Humanitarian Demining (GICHD) is partnering with LMAC on a study.³⁴

A “Mine Action Forum” has been 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-Coordination 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 to follow up on action points and develop progress reports.³⁵ It provides an informal platform for LMAC to continue open dialogue and information sharing between the national authorities, implementing partners, and donors, on priorities and needs for the survey and clearance of cluster munitions and landmines in Lebanon.³⁶ 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, and not just CMR. The Mine Action Forum in Lebanon is said to have resulted in better coordination and greater transparency as well as on enhancements to land release methodology, enshrined in the revised national mine action standards (NMAS).³⁷

As of writing, the most recent Mine Action Forum was held on 22 January 2020, during which LMAC presented and discussed the new 2020–25 national mine action strategy, operational efficiencies, and a new explosive ordnance risk education (EORE) project.³⁸ LMAC also presented its Article 4 deadline Extension Request plan at the January 2020 Mine Action Forum meeting.³⁹ An open air Mine Action Forum meeting had been planned for November 2020, but could not take place because of COVID-19 restrictions. The meeting will take place in 2021, if the situation permits.⁴⁰

There is good coordination and collaboration between LMAC/the RMAC and clearance operators, with the operators consulted before key decisions are taken.⁴¹ International clearance operators reported that an enabling environment exists for mine action in Lebanon, with no obstacles regarding visas for international staff, approval of memoranda of understanding (MoUs), or the importation of equipment.⁴²

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.⁴³ The TWG had been meeting quarterly, but due to the impact of COVID-19, TWG meetings were postponed during the first two quarters of 2020 and then resumed in September 2020.⁴⁴

As in the previous year, Lebanon reported contributing US\$9 million annually in 2020 towards mine action in Lebanon (for both mine- and CMR-related work): to support costs associated with the running of LMAC (facilities and staff); 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, LMAC noted that the devaluation of the Lebanese Pound and the economic crisis Lebanon is facing will affect this amount.⁴⁵

In addition, the Lebanese government had committed 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 Article 4 obligations under the CCM. Corresponding clearance contracts with DanChurchAid (DCA), LAMINDA, and Peace Generation Organization for Demining (POD) were finalised at the end of 2018, but signature by the Minister of Defense was delayed due to the announcement of a new government at the end of January 2019. NGOs took the decision to go ahead and begin CMR clearance operations in February 2019, using their own funds. However, they subsequently elected to stop operations after three months, pending formal signature of the clearance contracts by the Minister of Defence.⁴⁶ Unfortunately, due to political and financial unrest in Lebanon, the clearance contracts were not signed and none of the pledged additional national funding was spent during 2019.⁴⁷ LMAC was expecting that an average of US\$3 million national funding for CMR clearance will be allocated to CMR clearance yearly,⁴⁸ less than half of what had been previously pledged. Unfortunately, however, due to continued political and financial unrest, and the impact of the COVID-19 pandemic, no national funds were allocated for CMR in 2020.⁴⁹ Furthermore, LMAC will also need to re-evaluate the value of the NGO CMR clearance contracts, due to the devaluation of the Lebanese Pound.⁵⁰

A Regional School for Humanitarian Demining in Lebanon (RSHDL) was established in partnership between Lebanon and France.⁵¹ 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, EOD, operational efficiency, and gender and diversity.⁵²

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.⁵³

LMAC reported that it 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.⁵⁴ In agreement with LMAC, 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.⁵⁵ 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.⁵⁶ LMAC's gender focal point participated in the Remote regional Arab Regional Cooperation Programme (ARCP) Gender Equality and Inclusion (GEI) capacity development programme held online from November 2020 to March 2021.⁵⁷

Lebanon's new National Mine Action Strategy 2020–25, approved by the LMAA in June 2020, includes considerations on gender and diversity.⁵⁸ 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".⁵⁹ According to its strategic implementation plan, LMAC is working on a draft code of conduct regarding gender, diversity, and inclusion which it planned to share with all stakeholders in 2021. Furthermore, national mine action standards will be updated no later than the end of 2022, to reflect a gender sensitive approach and to comply with international standards.⁶⁰

Of LMAC's 175 personnel, 19 (11%) are female, a slight increase on the 16 reported previously. With respect to operational roles, four women work for the operations section (double the number previously reported), one woman is a member of the non-technical survey team, and two women work in the Mine Risk Education section. With respect to managerial/supervisory level positions at LMAC, the head of the admin section is a woman.⁶¹ 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.⁶² 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.⁶³

DCA reported that 18% of its overall staff in Lebanon are female, with women accounting for 3% of managerial/supervisory positions and 9% of all operations positions, not only demining teams.⁶⁴

Prior to ceasing land release operations in Lebanon in August 2020, women had been employed in LAMINDA's clearance teams and one female staff member had been in a managerial position, as clearance team leader.⁶⁵

Mines Advisory Group (MAG), Norwegian People's Aid (NPA), and POD all reported having gender policies in place.⁶⁶

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 and age. Overall, women account for 18% of MAG's Lebanon programme, including 16% of operational roles in MAG's survey and clearance teams in Lebanon, and 13% of managerial level/supervisory positions.⁶⁷ 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.⁶⁸

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 also conducted training in gender equality, safeguarding, and its code of conduct in 2020. As at June 2021, following restructuring due to funding losses, NPA reported that 30% of its employees are women, including 23% of employees in operational roles, 50% of support staff, and 50% of senior management.⁶⁹ NPA disaggregates data by sex and age.⁷⁰

Women, girls, boys, and men are said to be consulted during survey and community liaison activities.⁷¹ 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.⁷²

INFORMATION MANAGEMENT AND REPORTING

LMAC is in the process of migrating from its current version of IMSMA (New Generation) to IMSMA Core, which it hopes will help facilitate the production of clearer reports that can be translated into dashboards for stakeholders, including donors, to monitor and follow.⁷³ As at March 2021, the risk education data had been migrated and was due to be tested, along with the non-technical survey data in the coming months. The remaining data will be migrated once it has been confirmed that the system is operating as planned and meets LMAC's needs.⁷⁴

During preparation for the migration, new maps developed using IMSMA Core revealed duplications in the hazardous areas, including some areas contaminated with CMR. LMAC identified the causes of these duplications, their location, and corrected the baseline of remaining CMR contamination accordingly.⁷⁵

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.⁷⁶ The GICHD also provides support to LMAC under its Information Management Capacity Development Framework and conducted IM training sessions and workshops in 2020.⁷⁷

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.⁷⁸ According to its 2020 Article 4 deadline extension request, there were 116 disclaimed areas on the database, totalling 338,932m².⁷⁹

Lebanon's latest revision of NMAS, allows technical survey of CMR-contaminated areas. By May 2019, LMAC had updated data forms to allow for the correct reporting of land reduced through technical survey.⁸⁰

DCA has been using Tiramisu Information Management Tool (T-IMS) for the past three years.⁸¹ MAG is in the process of launching "survey123" software in Lebanon. It has completed the design stage and prepared training material, but training and implementation had been postponed to mid-2021, due to the impact of COVID-19.⁸² In the second half of 2020, NPA introduced the ARC-GIS program 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

PLANNING AND TASKING

In September 2011, LMAC adopted a strategic mine action plan for 2011–20.⁸⁴ 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.⁸⁵ One of the objectives of the new strategy is to complete clearance of all known cluster munition contaminated areas by the end of 2025.⁸⁶ The new strategy was signed by the LMAA in June 2020. A mid-term and final external review are planned, as well as annual reporting on progress.⁸⁷ 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.⁸⁸ Results from the monitoring of the strategic implementation plan shall 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.⁸⁹ The implementation plan will be revised annually by LMAC, the Institutional Support Programme (UNDP at present), and in consultation with humanitarian clearance operators.⁹⁰ LMAC also plans to develop annual work plans.⁹¹

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 CCM Second Review Conference in November 2019. It was subsequently 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-19.⁹² Clearance operators were consulted by LMAC on the extension request, including in a workshop prior to the request being elaborated.⁹³ While Lebanon's new deadline is 1 May 2026, LMAC aims to complete clearance by the end of 2025, in line with its new strategy.

LMAC aims to release 1.6km² of cluster munition-contaminated area each year, subject to the availability of funding.⁹⁴ The projected clearance rates in Lebanon's extension request are based on an average of the last 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.⁹⁵

Table 2 outlines the predicted annual clearance output and capacity up to the end of 2025. Planned output considers fade-out and the possible increase in the area to be cleared in the 10,000m² sites, using a factor of 2.5.⁹⁶ LMAC plans to conduct technical survey, where appropriate, but has not provided predictions of the amount of area expected to be reduced through technical survey.

With regards to prioritisation of tasks, LMAC conducted a study, the results of which 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.⁹⁷ The re-prioritisation of clearance tasks was planned to start in 2021 based on the new system and corresponding criteria. LMAC will adopt a district-by-district prioritisation approach. Large districts may also be subdivided into sub-districts depending on size.⁹⁸ Updated information from the completed non-technical re-survey of CMR tasks is being used to update IMSMA and for prioritisation of the remaining CMR tasks.⁹⁹

Table 2: Planned CMR clearance and capacity (2021–25)¹⁰⁰

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 2010.¹⁰¹ In 2017, LMAC revised and harmonised national standards with IMAS, adding new modules not present in the original standards.¹⁰² The revised NMAS, formally approved in March 2018 and made effective from 1 January 2019, have a solid focus on land release and evidence-based decision-making, in line with the IMAS, and based on recommendations and analysis of operational data. Notable enhancements in relation to battle area clearance (BAC) included reduction of the required clearance depth of CMR from 20cm to 15cm and changes to fade-out distances.

Further updates were made to the NMAS in late 2019 and a full review of the standards was completed at the beginning of 2020¹⁰³ and released to implementing partners in July 2020.¹⁰⁴ These included the introduction of a new NMAS (07.14) on Risk Assessment, and a new standard (09.31) on improvised explosive device (IED) Disposal (IEDD), which were adopted in March 2020.¹⁰⁵ With regard to technical survey, the NMAS no longer specifies a minimum percentage of area over which technical survey must be conducted, which permits LMAC to reduce technical survey when appropriate, especially on the Blue Line minefields and for CMR.¹⁰⁶ The NMAS also allows for areas under full clearance to be reduced (or in part reduced), based on information gathered during clearance, as well as for the original task boundaries to be changed based on experience during clearance. Changes were also made to the NMAS (09.31) on demolitions.¹⁰⁷

Of particular significance, the NMAS now allow technical survey to be used for CMR tasks.¹⁰⁸ In the last couple of years, LMAC has increasingly relied on non-technical and technical survey to more accurately define the presence of an explosive threat (or confirm its absence).¹⁰⁹ Historically, clearance tasks assigned to operators by LMAC were typically deemed to already reflect non-technical survey data, and LMAC did not formally permit operators to conduct additional survey on assigned tasks prior to clearance.¹¹⁰ In November 2020, LMAC completed re-survey all CMR tasks in order to have a clearer estimation of the remaining contamination for Article 4 planning.¹¹¹ LMAC has 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.¹¹²

Operators now have an opportunity to discuss specific land release considerations with LMAC for assigned clearance tasks, which arise during the pre-clearance assessment stage of operations. Such discussions might result in the refining of the task size or approved land release specifications (e.g. use of technical survey, for all or part of the task, rather than full clearance).¹¹³

As the use of EDDs for technical survey requires special operating conditions (temperature, wind speeds, levels of vegetation etc.), manual technical survey will also be applied on a case-by-case basis. Each decision over the percentage and type of technical survey has to be approved by the operations section head in LMAC.¹¹⁴

At present, however, technical and non-technical survey activities are still not a routine part of the toolbox for all NGO operators for the release of cluster munition tasks.¹¹⁵ Instead non-technical survey is assigned by LMAC, and a decision on the need for technical survey is based on the recommendations resulting from the results of non-technical survey. NGOs can also request permission from LMAC to conduct non-technical survey and technical survey.¹¹⁶ International NGOs see collaboration between LMAC and clearance operators on application of evidence-based non-technical survey and technical survey, where needed, as being essential to targeted clearance.¹¹⁷

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.¹¹⁸ As at May 2021, further updates to the NMAS on technical survey, battle area clearance, and minefield clearance were discussed in the TWG in 2021, shared with operators for feedback, and subsequently adopted by LMAC. LMAC has requested that operators review their SOPs in conformity with the changes made.¹¹⁹

An external international consultant was contracted by LMAC in 2020, with UNDP's support and EU funding, to conduct a study on operational efficiency.¹²⁰ The outcomes of the study recommended that there should be a comprehensive and in-depth harmonised understanding of, and training on, land release across stakeholders, with an emphasis on the importance of the use of evidence-based technical survey before moving into clearance.¹²¹ Training was subsequently conducted in April 2021.¹²² National land release standards should be revised accordingly. In addition, the study also recommended the use of technical survey for fade-out in many instances, as the current system stipulates clearance of areas that are 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).¹²³ The study also reportedly noted that the NMAS generally places heavy limitations on how mine action operators are able to operate and that this drastically affects efficiency. This was particularly evident in the north east operations where full clearance activities have to be undertaken although more appropriate methods of land release could be used.¹²⁴

Based on the conclusions and recommendations of the study, LMAC said it would update the CMR methodology and rely more on technical survey.¹²⁵ A final review of the recommendations made by LMAC's contracted consultant and proposed by mine action operators was scheduled for January 2021, but as at time of writing had been postponed due to COVID-19.¹²⁶ LMAC planned to test the recommendations of the operational efficiency study in 2021 and apply them across the whole sector.¹²⁷ As at June 2021, LMAC had updated its strategic implementation plan to reflect the increased focus on technical survey.¹²⁸

MAG noted that the metal-free concept demands all metal to be removed, regardless of the size, which reduces productivity and increases the disciplinary actions. MAG resolved this issue through deploying new Vallon software that discriminates a large percentage of metal contamination and reduces the time taken to excavate scrap metal on BAC tasks.¹²⁹ MAG also noted that excessive marking reduces productivity and increases the cost. It presented and demonstrated to LMAC a new marking system for the BAC tasks, which was positively received.¹³⁰ Finally, MAG believes that fade-out should be divided between the part that requires mandatory full clearance and the part that can be released by technical survey. The possibility of employing technical survey to reduce the amount of fade-out area requiring full clearance, was discussed between operators and LMAC in early 2021.¹³¹ The NMAS have been amended accordingly and LMAC reported that this approach is now being applied.¹³²

OPERATORS AND OPERATIONAL TOOLS

In 2020, CMR clearance was conducted by international operators DCA, MAG, and NPA; and national operators POD and LAMINDA. The Engineering Regiment of the LAF also conducted CMR clearance in 2020.¹³³

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.¹³⁴ The LAF has seven MDD teams¹³⁵ 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.¹³⁶ 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).¹³⁷ Often, however, the terrain is not suitable for machines.

Table 3: NGO operational CMR clearance capacities deployed in 2020¹³⁸

Operator	Manual teams	Total clearance personnel*	Dogs and handlers	Machines**	Comments***
DCA	3	24	0	0	Combined mine and BAC capacity.
LAMINDA	1	N/K	N/K	N/K	LAMINDA ceased land release operations in Lebanon in August 2020. ¹³⁹
MAG	7	65	0	12	This represents six full teams and one smaller team. LMAC reported MAG as having 12 manual CMR clearance teams, most likely splitting the 6 large teams into sub-teams.
NPA	8	44	0	0	LMAC reported NPA as having 5 manual CMR clearance teams.
POD	5	N/K	N/K	N/K	
Totals	23	133	0	12	

* Clearance personnel may also conduct technical survey.
N/K = not known.

** Excluding vegetation cutters and sifters.

*** Clearance teams also work on technical survey tasks.

DCA's clearance capacity was a decrease on the previous year, due to a reduction in funding. DCA did not expect any significant changes to its clearance capacity in 2021.¹⁴⁰

National operator LAMINDA, unfortunately ceased survey and clearance operations in Lebanon in August 2020, due to the economic situation in Lebanon and the inability to fund overhead expenses.¹⁴¹

MAG increased its 2020 BAC capacity by two teams (20 deminers), as a result of an increase to the donor base in north-east Lebanon.¹⁴² However, MAG's EU grant ended on 31 January 2021, resulting in a reduction of one multi-task team in the north-east, and MAG's FCDO grant ended on 31 March 2021, reducing capacity by 2.5 teams in the South.¹⁴³ Likewise, due to large and abrupt funding cuts at the start of 2021 (UK Foreign, Commonwealth & Development Office (FCDO), EU, and United States (US)) and depending on the success of new fund applications, major changes were expected in the number of NPA personnel in Lebanon 2021. NPA will no longer operate its base in north-east Lebanon as a result of these funding cuts, and as at June 2021, NPA had lost 51 operations staff due to the funding losses.¹⁴⁴

With respect to non-technical survey capacity, in 2020, there were five non-technical survey teams deployed for both mines and CMR: LMAC had two teams (totalling four personnel);¹⁴⁵ Humanity and Inclusion (HI) had one person team;¹⁴⁶ MAG had one team of two personnel;¹⁴⁷ and NPA had one team of four personnel.¹⁴⁸

With respect to technical survey, NPA had one technical survey (EDD) team comprising two EDDs and two dog handlers, and two manual technical surveyor personnel.¹⁴⁹ However, the EDD team was stood down at the end of May 2021 due to lack of funding. NPA hoped to redeploy the team, subject to securing funding. NPA's technical survey team had been being tasked by the RMAC as follow-up to previous non-technical survey, to confirm CMR contamination prior to areas being tasked for clearance. However, not all areas undergo technical survey before being tasked by LMAC for clearance.¹⁵⁰ In all other instances, NGO clearance personnel conduct technical survey as and when required.¹⁵¹

NPA has moved to a multi-task approach, with all deminers, team leaders, and team supervisors trained to address all explosive ordnance types in Lebanon, which has enabled NPA to respond to changing priorities and operational constraints. This has been helpful in mitigating the impact of COVID-19 disruptions, such as reassigning deminers between mine and CMR tasks in the event the site supervisor tests positive for COVID-19.¹⁵²

As part of non-technical survey on the north-east border of Lebanon, contaminated during spill-over of the Syrian conflict in 2014–17, drones were used for the first time, and proved very helpful in helping inform survey efforts.¹⁵³

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2020

A total of 1.6km² of CMR-contaminated area was released in 2020, of which almost 1.28km² was cleared, almost 0.04km² was reduced through technical survey, and almost 0.29km² was cancelled through non-technical survey.¹⁵⁴

In addition, over 0.7km² of new CMR contamination was added to the database in 2020, predominantly in north-east Lebanon.¹⁵⁵

SURVEY IN 2020

Table 4: Cancellation through non-technical survey in 2020¹⁵⁶

Province	Operator	Area cancelled (m ²)
Bekaa	LMAC	67,012
South of Lebanon	LMAC, MAG, and NPA	219,431
Total		286,443

In 2020, almost 0.29km² was cancelled through non-technical survey (see Table 4) and a further 0.04km² was reduced through technical survey (see Table 5).¹⁵⁷

Non-technical survey output in 2020 marked a decrease compared In 2019, when almost 1.90km² was cancelled through non-technical survey as part of efforts to complete re-survey of all CMR tasks.¹⁵⁸ Technical survey output in 2020 was also a decrease on the 0.12km² reduced through technical survey in 2019.¹⁵⁹

NPA cancelled significantly more area in 2020 compared to the one non-technical task the previous year. This was because an 'official' NPA non-technical survey team was trained in late 2019 and began receiving non-technical survey tasking from LMAC in 2020. The amount of cluster munition-contaminated area reduced and cleared by NPA in 2020 was similar to the previous year, despite the impact of COVID-19 lockdowns. This was due to NPA being deployed to several tasks suitable for the use of large-loop detectors,

which was not the case in 2019.¹⁶⁰ NPA continued to use EDDs for technical survey of CMR tasks in 2020 and the start of 2021, but this requires special conditions (e.g. wind speeds, temperature, vegetation levels), and while it helps to reduce some areas where no evidence of CMR is found, output is relatively low.¹⁶¹ As at end of May the EDDs had been stood down, due to lack of funding.¹⁶²

In addition, 0.7km² of previously unrecorded CMR contamination was added to the database (608,748m² in Bekaa, mostly in the north-east, 60,000m² in Mount Lebanon, and 37,996m in South Lebanon).¹⁶³

Table 5: Reduction through technical survey in 2020¹⁶⁴

Province	Operator	Area reduced (m ²)
South Lebanon	NPA (EDD team)	35,209
Total		35,209

CLEARANCE IN 2020

Lebanon reported clearing almost 1.28km² of CMR-contaminated land in 2020, destroying in the process 2,098 submunitions (see Tables 6 and 7).¹⁶⁵ This includes 339 submunitions destroyed during rapid response/EOD spot tasks.¹⁶⁶

Clearance during the year was a slight increase on the 1.26km² of CMR-contaminated land cleared in 2019.¹⁶⁷

In 2020, LMAC said that on average NGOs lost 46 working days because of the impact of the COVID-19 pandemic, compared to the 2020 implementation plan.¹⁶⁸ DCA said COVID-19 impacted its land release operations and resulted in 33 working days (across mine and CMR operations) being

lost in 2020.¹⁶⁹ According to MAG, the 42 working days it lost due to COVID-19 related lockdown periods and curfew, were the equivalent of around 150,000m² of land release.¹⁷⁰ NPA reported 40 operational days lost due to COVID-19 related lockdowns and said that operational capacity was often further reduced due to individual staff contracting COVID-19 and needing to isolate.¹⁷¹

As in the previous year, roadblocks due to civil unrest also prevented teams from getting to their site on some days.¹⁷² DCA, MAG, and NPA reported that the political unrest did not, however, impact their CMR operations in 2020.¹⁷³

Table 6: CMR clearance by region in 2020¹⁷⁴

Province	Area cleared (m ²)	Submunitions destroyed*
Bekaa	761,439	
Mount Lebanon	116,699	
South of Lebanon	399,625	
Totals	1,277,763	2,098

* Figures include items destroyed during technical survey and EOD spot tasks.

Table 7: CMR clearance in 2020 by implementing agency¹⁷⁵

Operator	Area cleared (m ²)	Submunitions destroyed
DCA	118,071	260
LAF	90,555	34
LAMINDA	18,305	11
MAG	793,666	127
NPA	140,640	845
POD	116,526	482
Totals	1,277,763	1,759*

* Figures include items destroyed during technical survey but not EOD spot tasks.

A further 339 submunitions were destroyed during spot tasks in 2020.¹⁷⁶

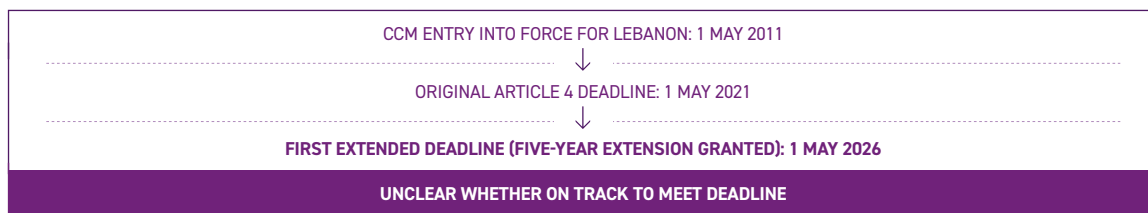
DCA's clearance output significantly decreased in 2020, compared to the previous year, due to a reduction in funding and also loss of 33 working days due to COVID-19. DCA reported that all its CMR-clearance tasks in 2020 contained submunitions.¹⁷⁷

MAG's clearance in 2020 was an increase on the previous year, due to increased capacity in north-east Lebanon.¹⁷⁸ But clearance included four CMR tasks in Mount Lebanon, Jezzine, Nabatiyeh, and Rass Baalbek in 2020, totalling 417,829m², which proved to contain no cluster munition remnants.¹⁷⁹

NPA reported releasing five cluster munition clearance tasks on confirmed hazardous areas in 2020 which did not contain CMR, totalling 44,732m². NPA did not conduct technical survey in any of the five tasks prior to starting clearance. The decision on whether technical survey is conducted in advance of clearance, is taken by LMAC/RMAC.¹⁸⁰

Technical survey, prior to clearance, would help prevent the unnecessary clearance of uncontaminated areas. As at May 2021, technical survey of BAC tasks was not in the NMAS, but under discussion with LMAC.¹⁸¹

ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM, Lebanon is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 May 2026, having been granted a five-year extension (the maximum that can be requested per extension request under the CCM). It is unclear whether Lebanon will meet the extended deadline, based on current CMR clearance capacity and national and international funding pressures. However, there is the potential for improvements in operational efficiency through increased use of technical survey, which if applied, will help increase annual land release output.

The decision on Lebanon's extension request was due to be formally adopted during the Part 2 of the Review Conference, planned to take place in a hybrid format in February 2021. However, Part 2 of the Review Conference was postponed, due to COVID-19 restrictions preventing a hybrid meeting in Switzerland, and Lebanon's request to extend its Article 4 deadline was instead granted by States Parties through a silence procedure in April 2021.¹⁸²

Clearance of CMR-contaminated land had been expected to be completed by the end of 2016, in accordance with the 2011–20 national strategy.¹⁸³ 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.¹⁸⁴ 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 aims to complete clearance by the end of 2025, in line with objective 4 of Lebanon's Mine Action Strategy 2020–25.¹⁸⁵ This is, however, contingent on LMAC securing the same level of international funding it has received over the last three years 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.¹⁸⁶

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 2020. 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.¹⁸⁷ These funding shortfalls significantly affect LMAC's ability to meet the annual targets, and 2025 deadline, which assume the same clearance average as the last three years and provision of national funding for additional CMR clearance capacity.

In addition to the challenge of maintaining funding for CMR clearance and securing funding for additional capacity in order to meet the newly granted deadline of 1 May 2026, LMAC also lists other challenges in Article 4 implementation, including: discovery of new unreported contaminated areas, and the impact of working in difficult terrains and extreme weather conditions which is slowing down clearance in some regions.¹⁸⁸

There is also a concern that funding in some cases risks being diverted from BAC towards other objectives, such as mine clearance on the Blue Line, or clearance on the north-east border with Syria.¹⁸⁹ Furthermore, LMAC reported that donors mostly look to fund clearance of high-impact sites, whereas many of the remaining CMR tasks are viewed as moderate or low impact.¹⁹⁰

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.¹⁹¹

In order to meet its international commitment, Lebanon has recognised it must maintain international interest in CMR clearance; secure necessary funds as stated in the extension request plan (US\$6.6 million per year) to achieve the final goal; and develop a study to tackle the difficult terrain release.¹⁹² With national capacity (LAF teams) only, LMAC has calculated that it would take until 2048 to reach Article 4 completion.¹⁹³ LMAC will, with the support of UNDP, develop a fundraising strategy.¹⁹⁴

Given the challenges Lebanon already faces in implementation of Article 4, it is essential that LMAC continues to make progress to increase operational efficiencies and it is therefore positive that LMAC commissioned an external study of operational efficiencies. Technical survey and non-technical survey activities should become a routine part of the toolbox for all operators for the release of cluster munition tasks. Lebanon has cleared approximately 7km² of cluster munition-contaminated area in the last five years (see Table 8). In its 2020 Article 4 extension request, Lebanon used the same average clearance rates as in previous three years, despite the fact that new methodologies 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.¹⁹⁵

Table 8: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2020	1.28
2019	1.26
2018	1.15
2017	1.41
2016	*1.90
Total	7.00

* In addition, a further 99,641m² of re-clearance was conducted.

A significant 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.¹⁹⁶

According to LMAC, there are two types of scenarios related to the challenge of difficult areas, which may require different approaches from an Article 4 compliance perspective: i) CHAs in which all known CMR contamination has already been cleared, but where part of the normal 50 metre fade-out falls within an area of difficult terrain; and ii) CHAs or suspected hazardous areas (SHAs) located within difficult terrain, given the footprint of known cluster munition strikes.

In relation to the first scenario, LMAC considers that in cases where its quality management procedures can determine, with confidence, that all evidence of CMR contamination has been identified and removed, then the deployment of additional clearance assets into inaccessible areas where no evidence of contamination exists may be unnecessary. Regarding the second scenario, where the footprint of the cluster munition strike covers part of a difficult terrain, this is registered in the database as CHA and requires clearance.¹⁹⁷

In partnership with the GICHD, a study was started in November 2020 to find a solution on how to address this terrain and satisfy the requirements of the CCM. However, due to the COVID-19 pandemic, the GICHD representative had still not been able to visit Lebanon as at March 2021, but field visits were planned for 2021. Field visits together with GICHD are required in order to better assess the sites, the conditions, and determine the best solution.¹⁹⁸

In 2020, LMAC said 46 working days were lost because of the impact of the COVID-19 pandemic.¹⁹⁹ The COVID-19 pandemic impacted the whole of Lebanon's mine action programme and all operations were suspended from 12 March 2020 for more than two months. After the relaxation of general mobilisation measures by the government of Lebanon, a TWG meeting was held and the phases for restarting operations and necessary safety measures relating to COVID-19 were developed and adopted. Operations resumed in early May 2020, under the new guidelines and safety measures, and as at July 2020 NGO clearance operators were fully operational.²⁰⁰ Furthermore, each new positive COVID-19 case resulted in colleagues from their clearance team needing to self-isolate, further impacting operational output.²⁰¹

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

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 planned to share the draft exit strategy with partners in 2021, for collective discussion in a workshop. It emphasised the importance of the exit strategy being viewed a living document, which will need to be regularly discussed and updated, according to the situational context and evolution of the programme.²⁰²

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- 1 Email from Lt.-Col. Fadi Wazen, Operations Section Head, LMAC, 15 March 2021.
 - 2 Article 7 Report (covering 2019), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
 - 3 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021. Mines Advisory Group (MAG) reported adding 292,069m² of CMR contamination to the database, through survey in Rass Baalbek in north-east Lebanon (email from Sylvain Lefort, Country Director, MAG, 24 March 2021). Norwegian People's Aid (NPA) surveyed nine locations where LAF personnel had previously destroyed items in Arsal in north-east Lebanon, creating a fade-out for each item, totalling 85,812m² (email from Hala Amhaz, Mine Action Programme Officer, NPA, 15 March 2021).
 - 4 Article 7 Report (covering 2020), Form F.
 - 5 Ibid.; LMAC, "Annual Report 2020", p. 14; and email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
 - 6 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 9 and 10.
 - 7 Ibid., p. 9.
 - 8 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.
 - 9 Email from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021.
 - 10 Email from Valerie Warmington, Programme Manager, NPA, 28 May 2020.
 - 11 Email from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020.
 - 12 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 12.
 - 13 Human Rights Watch, "Flooding South Lebanon. Israel's use of cluster munitions in Lebanon in July and August 2006", 16 February 2008.
 - 14 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
 - 15 LMAC, "Annual Report 2020", p. 36.
 - 16 Landmine Action, "Foreseeable Harm: the use and impact of cluster munitions in Lebanon: 2006", 2006.
 - 17 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; and Article 7 Report (covering 2019), Form F.
 - 18 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.
 - 19 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.
 - 20 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 2.
 - 21 Ibid., p. 23.
 - 22 Interview with Oussama Merhi, UNDP, in Geneva, 26 June 2015.
 - 23 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014, pp. 4–5.
 - 24 LMAC, "Lebanon Mine Action Strategy 2011–2020", September 2011, p. 4.
 - 25 Email from Lt.-Col. Fadi Wazen, LMAC, 21 August 2019.
 - 26 LMAC, Lebanon Mine Action Strategy 2020–25, signed June 2020, p. 4.
 - 27 Email from Brig.-Gen. Ziad Nasr, Director, LMAC, 26 March 2019.
 - 28 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020 and 15 March 2021; and LMAC, "Annual Report 2020", p. 28.
 - 29 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
 - 30 LMAC, "2018 Annual Report Lebanon Mine Action Centre", p. 36; interview with Brig.-Gen. Jihad Bechelany, LMAC Director, Lt.-Col. Fadi Wazen, LMAC, and Ariane Elmas, Mine Action Advisor, UNDP, Beirut, 16 April 2019; and email from Emile Ollivier, NPA, 19 March 2019.
 - 31 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
 - 32 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and LMAC, "Annual Report 2020", p. 28.
 - 33 Email from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021.
 - 34 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
 - 35 LMAC, "2018 Annual Report Lebanon Mine Action Centre", p. 23.
 - 36 Ibid.; 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).
 - 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 LMAC, "5th Mine Action Forum", 24 January 2020, LMAC website.
 - 39 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 39; and email from Valerie Warmington, NPA, 28 May 2020.
 - 40 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
 - 41 Emails from Sylvain Lefort, MAG, 24 March 2021; Hala Amhaz, NPA, 15 March 2021; Mahmoud Rahhal, POD, 8 March 2019; and David Ligneau, Mine Action Programme Manager, Humanity and Inclusion (HI), 21 April 2020.
 - 42 Emails from Emile Ollivier, NPA, 19 March 2019; and David Willey, MAG, 7 March 2019.
 - 43 LMAC, "2018 Annual Report Lebanon Mine Action Centre", pp. 4, 7, and 17; and emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; and Emile Ollivier, NPA, 19 March 2019; and Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 8 and 54.
 - 44 Emails from Sylvain Lefort, MAG, 24 March 2021; and Hala Amhaz, NPA, 15 March 2021.
 - 45 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021; and Article 7 Report (covering 2020), Form I.
 - 46 Emails from Lt.-Col. Fadi Wazen, LMAC, 31 May and 7 June 2019; and interview, Beirut, 16 April 2019.
 - 47 Article 7 Report (covering 2019), Form I; and email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
 - 48 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.
 - 49 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021; and Article 7 Report (covering 2020), Form I.
 - 50 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
 - 51 LMAC, "Lebanon Mine Action Strategy. Second Milestone Review 2014–2016", March 2018.

- 52 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.
- 53 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 54 LMAC, "Annual Report 2018", p. 5; and email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019.
- 55 Email from Rana Elias, Cooperation Programmes Coordinator, GICHD, 26 August 2020.
- 56 Email from Lt.-Col. Fadi Wazen, LMAC, 21 August 2019.
- 57 Email from GICHD, 14 May 2021.
- 58 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March and 22 July 2020.
- 59 LMAC, Lebanon Mine Action Strategy 2020–25.
- 60 LMAC, "Plan for the Implementation and Monitoring of the LMAP Strategy (2020–25)", p. 19.
- 61 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
- 62 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.
- 63 LMAC, "Annual Report 2020", p. 37.
- 64 Email from Matthew Benson, Country Director, DCA, 24 May 2021.
- 65 Email from Ret. Brig. General Badwi El Sakkal, President, LAMINDA, 18 March 2020.
- 66 Emails from Emile Ollivier, NPA, 19 March 2019; David Willey, MAG, 7 March 2019; and Mahmoud Rahhal, POD, 8 March 2019.
- 67 Email from Sylvain Lefort, MAG, 24 March 2021.
- 68 *Ibid.*, 27 May 2021.
- 69 Email from Valerie Warmington, NPA, 2 June 2021.
- 70 Email from Valerie Warmington, NPA, 28 May 2020.
- 71 Email from Lt.-Col. Fadi Wazen, LMAC, 5 April 2019.
- 72 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 73 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.
- 74 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
- 75 LMAC, "Annual Report 2020", p. 12; and Article 7 Report (covering 2020), Form F.
- 76 Email from Valerie Warmington, NPA, 28 May 2020.
- 77 Email from GICHD, 14 May 2021.
- 78 Emails from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020 and 15 June 2021.
- 79 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 36.
- 80 Email from Lt.-Col. Fadi Wazen, LMAC, 31 May 2019.
- 81 Email from Matthew Benson, DCA, 4 June 2021.
- 82 Email from Sylvain Lefort, MAG, 24 March 2021.
- 83 Email from Hala Amhaz, NPA, 15 March 2021.
- 84 LMAC, "Lebanon Mine Action Strategy 2011–2020", September 2011, p. 4.
- 85 LMAC, Lebanon Mine Action Strategy 2020–25; and LMAC, "Annual Report 2019", p. 7.
- 86 LMAC, Lebanon Mine Action Strategy 2020–25, p. 4.
- 87 Email from Lt.-Col. Fadi Wazen, LMAC, 22 July 2020; and LMAC, Lebanon Mine Action Strategy 2020–25, p. 4.
- 88 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.
- 89 LMAC, "Plan for the Implementation and Monitoring of the LMAP Strategy (2020–25)", p. 21.
- 90 LMAC, "Annual Report 2020", p. 33.
- 91 Email from Lt.-Col. Fadi Wazen, LMAC, 22 July 2020; and LMAC, "Annual Report 2019", pp. 7 and 30.
- 92 It is unclear how this procedure is compliant with Article 4(7) of the CCM.
- 93 Emails from Sylvain Lefort, MAG, 3 April 2020; and Valerie Warmington, NPA, 28 May 2020.
- 94 Article 7 Report (covering 2020), Form F.
- 95 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 5 and 34.
- 96 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 97 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021; and LMAC, "Annual Report 2020", p. 35.
- 98 LMAC, "Annual Report 2020", p. 34; and LMAC, "Lebanon Mine Action Prioritization System", p. 1.
- 99 Email from Sylvain Lefort, MAG, 24 March 2021.
- 100 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 37.
- 101 Email from Brig.-Gen. Elie Nassif, LMAC, 17 June 2015.
- 102 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.
- 103 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
- 104 Email from Hala Amhaz, NPA, 15 March 2021.
- 105 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March and 2 September 2020.
- 106 *Ibid.*
- 107 *Ibid.*
- 108 Email from Valerie Warmington, NPA, 28 May 2020.
- 109 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.
- 110 Emails from Bekim Shala, MAG, 21 June 2016; and Craig McDiarmid, NPA, 30 March 2017.
- 111 Article 7 Report (covering 2019), Form F; and LMAC, "Annual Report 2019", p. 12.
- 112 Emails from Lt.-Col. Fadi Wazen, LMAC, 5 April 2019 and 19 March 2020.
- 113 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.
- 114 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 5 and 32.
- 115 Email from Hala Amhaz, NPA, 15 March 2021.
- 116 Email from Lt.-Col. Fadi Wazen, LMAC, 15 June 2020.
- 117 Email from Valerie Warmington, NPA, 28 May 2020.
- 118 LMAC, "Annual Report 2020", p. 26.
- 119 Emails from Matthew Benson, DCA, 24 May and 4 June 2021.
- 120 LMAC, "Annual Report 2020", p. 26.
- 121 *Ibid.*, p. 36.
- 122 Email from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021.
- 123 LMAC, "Annual Report 2020", p. 36.
- 124 Email from Hala Amhaz, NPA, 15 March 2021.
- 125 LMAC, "Annual Report 2020", p. 10; and email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
- 126 Email from Hala Amhaz, NPA, 15 March 2021.
- 127 LMAC, "Annual Report 2020", p. 42.
- 128 Email from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021.
- 129 Emails from Sylvain Lefort, MAG, 24 March and 27 May 2021
- 130 *Ibid.*
- 131 *Ibid.*; and email from Valerie Warmington, NPA, 2 June 2021.
- 132 Email from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021.
- 133 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
- 134 LMAC, "Annual Report 2019", p. 11; emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020 and 15 June 2021; and Article 7 Report (covering 2019), Form I.
- 135 LMAC, "Annual Report 2019", p. 13.
- 136 *Ibid.*, p. 11; and email from Brig.-Gen. (ret.) Badwi El Sakkal, LAMINDA, 18 March 2020.
- 137 Emails from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017; Samuel Devaux, HI, 4 April 2017; Dave Willey, MAG, 25 April 2017; and Lt.-Col. Fadi Wazen, LMAC, 5 April 2019.
- 138 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021; Matthew Benson, DCA, 24 May 2021; Sylvain Lefort, MAG, 24 March 2021; and Hala Amhaz, NPA, 15 March 2021.
- 139 LMAC, "Annual Report 2020", p. 8.

- 140 Email from Matthew Benson, DCA, 24 May 2021.
- 141 LMAC, "Annual Report 2020", p. 8; and email from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021.
- 142 Email from Sylvain Lefort, MAG, 24 March 2021.
- 143 Emails from Sylvain Lefort, MAG, 24 March and 27 May 2021.
- 144 Emails from Hala Amhaz, NPA, 15 March 2021 and Valerie Warmington, NPA, 2 June 2021.
- 145 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
- 146 Ibid.
- 147 Email from Sylvain Lefort, MAG, 24 March 2021. LMAC reported MAG as having three non-technical survey teams. Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
- 148 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021; and Hala Amhaz, NPA, 15 March 2021.
- 149 Ibid. LMAC reported NPA had three technical survey personnel, whereas NPA reported it had four technical survey personnel in 2020.
- 150 Emails from Emile Ollivier, NPA, 19 March 2019; and Valerie Warmington, NPA, 2 June 2021.
- 151 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021 and Sylvain Lefort, MAG, 24 March 2021.
- 152 Email from Hala Amhaz, NPA, 15 March 2021.
- 153 Presentation by Lt.-Col. Fadi Wazen, LMAC, at the Regional School for Humanitarian Demining in Lebanon (RHDSL), Beirut, 8 April 2019.
- 154 Article 7 Report (covering 2020), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
- 155 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
- 156 LMAC, "Annual Report 2020", pp. 11 and 15; Article 7 Report (covering 2020), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021. MAG reported that it cancelled 34,839m² in Nabatiyeh. Email from Sylvain Lefort, MAG, 24 March 2021. NPA reported that it cancelled 105,859m² in 2020, in Al-Beqaa, South Lebanon, and Nabatiyeh. Email from Hala Amhaz, NPA, 15 March 2021.
- 157 Ibid.
- 158 Article 7 Report (covering 2019), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 159 Ibid.
- 160 Emails from Hala Amhaz, NPA, 15 March 2021 and Valerie Warmington, NPA, 2 June 2021.
- 161 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 162 Email from Valerie Warmington, NPA, 2 June 2021.
- 163 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021. Of this, MAG reported adding 292,069m² of CMR contamination to the database, through survey in Rass Baalbek in north-east Lebanon. Email from Sylvain Lefort, MAG, 24 March 2021. NPA surveyed nine locations where LAF personnel had previously destroyed items in Arsal in north-east Lebanon, creating a fade-out for each item, totalling 85,812m². Email from Hala Amhaz, NPA, 15 March 2021.
- 164 LMAC, "Annual Report 2020", pp. 10 and 15; Article 7 Report (covering 2020), Form E; and emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021 and Hala Amhaz, NPA, 15 March 2021. In addition, DCA reported reducing 95,776m² in Aley District, Mount Lebanon (email from Matthew Benson, DCA, 24 May 2021) and MAG reported reducing 6,900m² in Nabatiyeh/Kfour (email from Sylvain Lefort, MAG, 24 March 2021). The differences between LMAC and operator data may be due to LMAC only reporting land release after full completion and hand over.
- 165 Article 7 Report (covering 2020), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
- 166 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021
- 167 Article 7 Report (covering 2019), Form F; and LMAC, "Annual Report 2019", pp. 10 and 11.
- 168 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March and 15 June 2021.
- 169 Email from Matthew Benson, DCA, 24 May 2021.
- 170 Email from Sylvain Lefort, MAG, 24 March 2021.
- 171 Email from Hala Amhaz, NPA, 15 March 2021.
- 172 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021
- 173 Emails from Matthew Benson, DCA, 24 May 2021; Sylvain Lefort, MAG, 24 March 2021; and Hala Amhaz, NPA, 15 March 2021.
- 174 Article 7 Report (covering 2020), Form E; and email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
- 175 LMAC, "Annual Report 2020", pp. 8, 9, and 15; and email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021; and email from Matthew Benson, DCA, 4 June 2021. MAG reported clearing the same number of submunitions, but a slightly higher amount of CMR-contaminated area (803,089m²) in 2020 (email from Sylvain Lefort, MAG, 24 March 2021). NPA reported clearing 139,288m² of cluster munition contaminated areas, with the discovery of 838 submunitions. All ERW found and marked by NPA in Al-Beqaa are destroyed by the LMAC. Three submunitions marked by NPA were taken by RMAC for training purposes (email from Hala Amhaz, NPA, 15 March 2021).
- 176 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021. Of this, MAG reported clearing two submunitions during spot tasks in 2020 (email from Sylvain Lefort, MAG, 24 March 2021).
- 177 Email from Matthew Benson, DCA, 24 May 2021.
- 178 Email from Sylvain Lefort, MAG, 24 March 2021.
- 179 Ibid.
- 180 Email from Valerie Warmington, NPA, 2 May 2020.
- 181 Email from Sylvain Lefort, MAG, 27 May 2021.
- 182 Email from the CCM Secretariat to CCM States Parties, 23 April 2021.
- 183 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014.
- 184 LMAC, "Lebanon Mine Action Strategy 2011–2020", September 2011.
- 185 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 36; and LMAC, Lebanon Mine Action Strategy 2020–25, p. 4.
- 186 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 28 and 36.
- 187 Article 7 Report (covering 2020), Form I.
- 188 Ibid., Form F.
- 189 Expert workshop under the framework of supporting Lebanon in meeting its CCM Article 4 obligations, Beirut, 17 November 2016; and Article 7 Report (covering 2018), Form F.
- 190 Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019.
- 191 Email from Matthew Benson, DCA, 24 May 2021.
- 192 Article 7 Report (covering 2020), Forms F and I.
- 193 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020.
- 194 Article 7 Report (covering 2020), Forms F and I.
- 195 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 5.
- 196 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 40–42.
- 197 Ibid.
- 198 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021; and GICHD, 14 May 2021.
- 199 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
- 200 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.
- 201 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
- 202 LMAC, "Annual Report 2020", p. 31.

ARTICLE 4 DEADLINE: 1 AUGUST 2022
 NOT ON TRACK TO MEET DEADLINE; TWO-YEAR EXTENSION REQUESTED

KEY DATA

CLUSTER MUNITION CONTAMINATION:

NATIONAL ESTIMATE¹

14km²

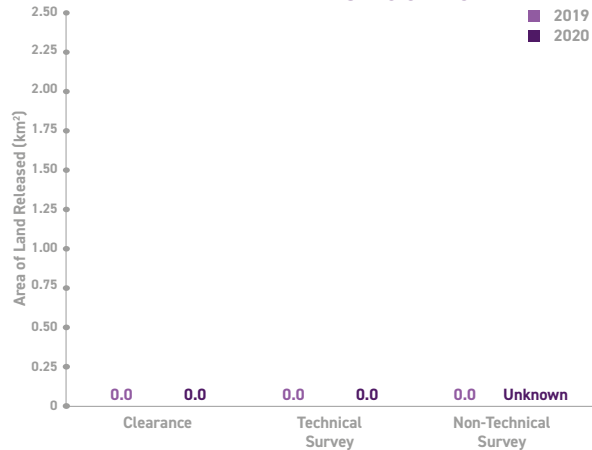
SUBMUNITION CLEARANCE IN 2020

0km²

SUBMUNITIONS DESTROYED IN 2020

0

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, upon request from 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 also newly reported in 2019.

The assessment identified a total of 14km² of cluster munition remnants (CMR) contamination across nine suspected hazardous areas (SHAs), though further survey is likely to reduce this figure.² NPA estimates that CMR clearance can be completed in approximately one year.³ In June 2021, Mauritania submitted an Article 4 deadline extension request of two years, through to 1 August 2024, but had yet to secure funding and operational support to commence clearance. Mauritania identifies the contaminated areas as confirmed hazardous areas (CHAs), but adds that more survey is needed to better determine their final size.⁴

RECOMMENDATIONS FOR ACTION

- Mauritania should conduct further 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)
- Mauritania should mobilise the necessary funds and operational support to enable survey and clearance of CMR contamination within Mauritania's jurisdiction or control as soon as possible.
- If CMR contamination closest to Mauritania's northern border extends into the territory of the Saharawi Arab Democratic Republic (Western Sahara), and outside of Mauritania's jurisdiction or control, then Mauritania should consider discussing with Western Sahara the potential for cooperation to jointly address CMR close to the border.

- 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 (2020)	Score (2019)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	7	Not scored	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. 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	Not scored	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	Not scored	It is believed that Mauritania does not have a gender and diversity policy for mine action, and gender and diversity are not 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, 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	Not scored	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 lacks accuracy and consistency and data it provides often vary across the reports.
PLANNING AND TASKING (10% of overall score)	3	Not scored	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	Not scored	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 NMAS are supposed to be reviewed annually, but have not been revised since 2006.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	5	Not scored	In June 2021, Mauritania submitted an Article 4 deadline extension request seeking two years to complete CMR clearance. The PNDHD had planned for NPA to conduct the baseline survey assessment in 2020, but it was not possible until 2021 due to the COVID-19 pandemic.
Average Score	5.1	Not scored	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

- Norwegian People's Aid (NPA)

UNDERSTANDING OF CMR CONTAMINATION

Having previously declared fulfilment of its Article 4 obligations in September 2014 at the Fifth CCM Meeting of States Parties,⁵ Mauritania reported newly discovered cluster-munition-contaminated areas in its CCM Article 7 report covering 2019.⁶ These areas are reported to be located in the “Tighert 2” region of Tiris-Zemmour in the north of Mauritania, which borders Western Sahara.⁷

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 2021.⁸ Based on direct evidence, NPA confirmed the presence of a little over 14km² of CMR contamination across nine SHAs in Tiris Zemour state (in the far north of the country).⁹ However, NPA reported that the contamination lies in very remote and sparsely populated areas, and future residual risk post completion is likely.¹⁰ The contamination resulted from the use of MK118 and BLU-63 cluster munitions.¹¹

In June 2021, Mauritania requested a two-year extension, through to 1 August 2024, of its Article 4 deadline. The PNDHD declared the presence of a little over 14km² of CMR contamination across nine hazardous areas. Mauritania did not clearly spell out the type of hazardous areas in its extension request, but in its answers to the CCM Article 4 Analysis Group in July 2021, Mauritania identified the areas as CHAs due to the presence of direct evidence in all of them. Mauritania added that further survey is required to define the exact perimeter of the CHAs.¹²

In its latest Article 7 Report under the CCM, submitted in July 2021, Mauritania reported, contrary to the data it had provided a month earlier in its Article 4 deadline extension request, a little over 23km² of cluster munition contamination in eleven hazardous areas: Boudheir, Boudheir 1, Boudheir 2, Dalet Tigert, Gneive, Gneive 1, Gneive 2, Lemreir, Motlani, Oudeyat Lekhayme, and Tigert. According to the Article 7 report, contamination had been visibly confirmed in each of the areas, with submunitions most recently discovered on 21 October 2020.¹³ It is believed that Mauritania did not provide updated contamination data in its latest Article 7 report, and that the 14km² is a more accurate contamination figure, having been confirmed by the more recent NPA’s assessment (February–March 2021).

Mauritania reported that all identified cluster munition-contaminated areas lie clearly within its jurisdiction and control,¹⁴ bringing the duty to clear within Mauritania’s international legal obligations under the CCM.¹⁵ In the case of the most northerly SHAs located close to the border, it is possible that CMR contamination extends into the territory of Western Sahara. Such contamination, if it is found to exist, is outside of Mauritania’s jurisdiction or control and therefore, its clearance would need to be discussed and coordinated with the Saharawi Arab Democratic Republic and potentially also Morocco.¹⁶

Prior to reporting discovery of new CMR contamination in 2019, Mauritania had previously submitted its declaration of compliance with Article 4 in 2014, having completed CMR clearance the previous year.¹⁷ 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 Zemour.¹⁸ In Mauritania’s first CCM Article 7 report, submitted in 2013 and covering 2012, it was reported that CMR contamination totalled 10km², covering eight areas north of the village of Bir Moghrein in the north-east of the country.¹⁹ Following survey by NPA in 2013, the estimated area was revised substantially downwards.²⁰

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, across nine locations: Agwachin, Aldouik, Ayadiyatt, Bir Mariam, Eweineget, Gharet El hemeid, Oudeyat bozeyan, Oum Edhbait, and Teghert.²¹ However, based on its technical and non-technical survey, NPA revealed that after cancellation through non-technical survey of 70,000m² of area suspected to contain CMR in 2012, the total area confirmed to contain CMR, and which was subject to clearance in 2013, actually totalled 2.4km². Clearance covered the same nine locations listed above.

Mauritania has also reported discovering anti-personnel mine contamination.²² Please see Mine Action Review’s *Clearing the Mines* report on Mauritania for more information.

Table 1: Cluster munition-contaminated area by region (at June 2021)²³

Region	Location ID	Submunition Type	CHA ²⁴	Area (m ²)
Tiris Zemour	Boudheir	BLU-63	1	20,556
Tiris Zemour	Boudheir 1	BLU-63	1	38,667
Tiris Zemour	Boudheir 2	BLU-63	1	243,147
Tiris Zemour	Dalet tigert	MK118	1	345,703
Tiris Zemour	Gneive	BLU-63	1	4,683,196
Tiris Zemour	Lemreir	BLU-63	1	2,587,276
Tiris Zemour	Motlani	BLU-63	1	120,365
Tiris Zemour	Oudeyat Lekhyame	MK118	1	5,326,856
Tiris Zemour	Tigert	MK118	1	651,830
Totals			9	14,017,596

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The PNDHD, which was created in 2000, coordinates mine action operations in Mauritania.²⁵ Since 2007, the programme has been the responsibility of the Ministry of Interior and Decentralisation, with oversight from an interministerial steering committee.²⁶ 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 who can conduct quality control (QC) and quality assurance (QA) activities.²⁷ The Mauritanian government allocated a budget of €91,000 to the PNDHD in 2020.²⁸

Mauritania estimates in its extension request that it requires a total two-year budget of US\$1.8 million to address the newly reported cluster munition contamination, 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 protection equipment (PPE), and field equipment, in addition to US\$1.15 million of running costs.²⁹

According to its 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.³⁰ 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".³¹

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 Mauritania's latest Article 7 report (covering 2020) or in 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 to its mine action programme, and that it intends to include consultation of women, boys, and girls 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".³²

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 are employed in the financial management and victim assistance.³³

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.³⁴ 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 2020 or its Article 4 deadline extension request submitted in June 2021.

PLANNING AND TASKING

Mauritania's CCM Article 4 deadline Extension Request plans for one year to technically survey and clear the CMR: six months for the resource mobilisation process, 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.³⁵ Mauritania also presented an action plan for its proposed extension period.³⁶ The plan, however, is over-simplified and lacks the necessary details to be meaningful.

According to its Article 7 report under the 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 2020.³⁷

In its 2021 APMBC Article 5 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.³⁸ Mauritania makes no reference to prioritisation of CMR tasks in its 2021 CCM Article 4 extension request.

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Survey and clearance operations are conducted in accordance with the Mauritanian NMAS, which are said to accord with IMAS. The NMAS include standards on non-technical survey, technical survey, mine clearance, and QC. The NMAS, were adopted in 2007. They were revised with the help of the Geneva International Centre for Humanitarian Demining (GICHD) and in partnership with operators, especially NPA in 2010, and were translated into Arabic in 2011.³⁹ The NMAS are supposed to be reviewed annually based on experiences in the field,⁴⁰ but have not been revised since 2006.⁴¹

Mauritania recognises that an update to its NMAS is overdue 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”.⁴²

OPERATORS AND OPERATIONAL TOOLS

In accordance with a 2006 decree, all clearance activities were conducted by the Army Engineering Corps operating under the PNDHD. 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 2015.⁴³

In 2021, NPA conducted a one-month assessment mission to determine the details of CMR and mined areas discovered or reported since Mauritania’s respective declarations of APMBC Article 5 completion in November 2018 and CCM Article 4 declaration of compliance in September 2014. As at June 2021, the PNDHD had requested NPA to return to Mauritania and assist in the clearance of the remaining contamination but NPA had not yet decided whether to do so.⁴⁴

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.⁴⁵ Mauritania intends to address the CMR contamination using BAC methodology and it said that its Army Engineering Corps will second the BAC searchers to the PNDHD.⁴⁶

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2020

Mauritania reported the release of four CMR contaminated areas in 2020 through non-technical survey. The size of area released has not been reported.⁴⁷

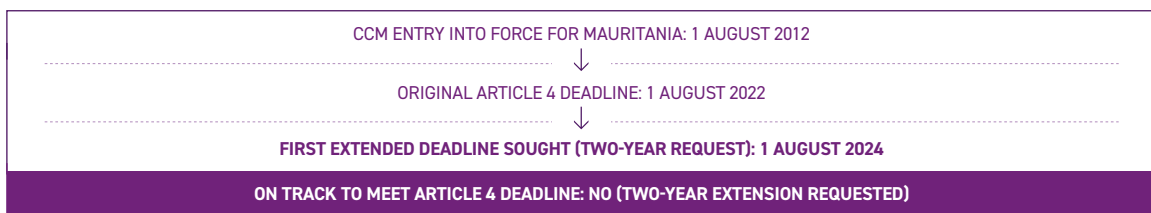
SURVEY IN 2020

Mauritania reported land release of four CMR-contaminated areas through non-technical survey in 2020, namely at: Boukhzame, Tamreiket, Dhar el Kelba, and Lakhneigue. Mauritania did not mention the area of the land released.⁴⁸ The assessments conducted in 2021 have been reported above.

CLEARANCE IN 2020

There were no reports of clearance of any CMR in Mauritania in 2020.

ARTICLE 4 DEADLINE AND COMPLIANCE



Under Article 4 of the CCM, Mauritania is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 August 2022. Mauritania is not on track to meet its current deadline and submitted a two-year extension to its Article 4 deadline on June 2021. Mauritania will need to secure and sustain resources to be able to meet its newly requested deadline of 1 August 2024.

Mauritania had reported completing clearance of CMR in 2014, almost eight years before its treaty deadline. In its declaration of Article 4 compliance, Mauritania stated that as of 9 September 2013 it had made every effort to identify all areas under its jurisdiction or control contaminated by CMR, and that as of that date it had cleared and destroyed all CMR found, in accordance with Article 4(1) of the CCM.⁴⁹

Mauritania's Article 4 deadline Extension Request plans for one year to technically survey and clear the cluster munitions; six months for the resource mobilisation process, 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.⁵⁰

In its Request, Mauritania stated that it intends to form a country coalition among the government of Mauritania, a willing donor government, and a willing international operator to assist its clearance operation; reach out to international partners and State Parties in a position to support; reach out to partners with representation in Mauritania and invite them to participate in a briefing on Mauritania's humanitarian demining programme; continue to provide information on the status of implementation through its national website, the country's page on the Convention's website and during informal and formal meetings of the Convention, as well as, in its Article 7 transparency reports.⁵¹ Mauritania intends to engage with States Parties who have previously provided donations to its demining programme, including Germany, Japan, and Norway.⁵²

Mauritania participated in an individualised approach initiative meeting with the support of the Committee on the Enhancement of Cooperation and Assistance (ISU) of the APMB on 17 June 2021. Mauritania also presented its request for extension that included both the newly discovered mined and CMR contaminated areas to the APMB intersessional meetings on 22–24 June 2021.

Mauritania underlines the following as risks to its ability to meet the 2024 requested CCM Article 4 deadline: resource mobilisation, lack of national political will and international support, change of the security situation, and the continued impact of the COVID-19 pandemic. It also works on the assumption that no or limited additional contamination will be discovered in the course of the two-year period.⁵³ Despite having identified the lack of national political will as one potential risk to meeting its CCM Article 4 deadline, Mauritania subsequently reaffirmed that it has the requisite political will to comply with its CCM Article 4 obligations and expected this to "continue into the future".⁵⁴

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

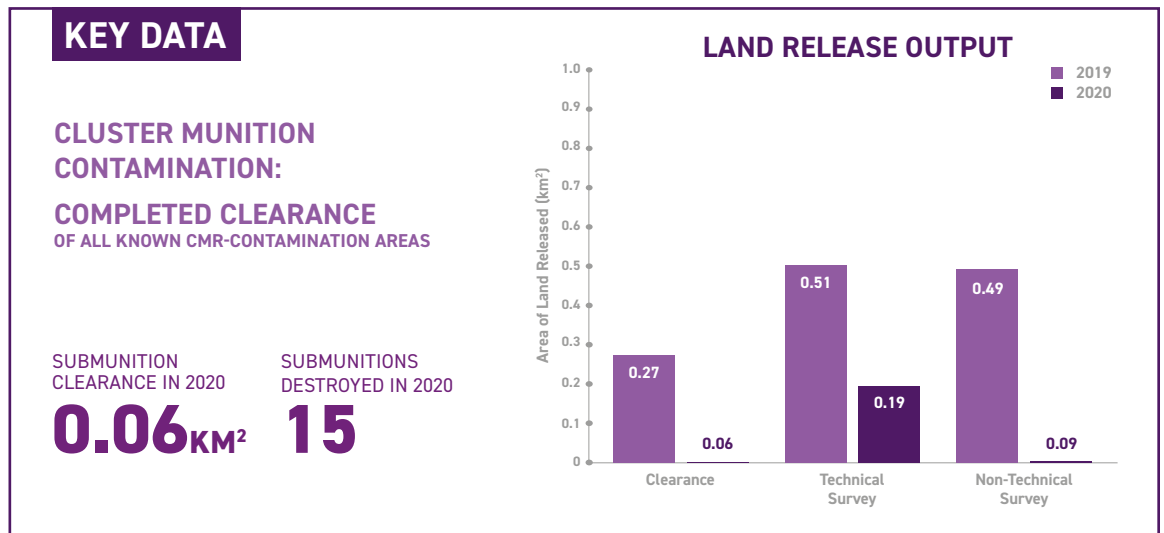
As noted above, as the newly discovered CMR contamination is located in very remote and sparsely populated areas, it is likely that Mauritania will discover additional contamination in the course of the one-year clearance period and beyond. According to Mauritania's Article 4 deadline Extension Request, "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".⁵⁵

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 2017.⁵⁶ 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.⁵⁷

- 1 Mauritania has alternatively reported its newly discovered cluster munition remnant (CMR) contamination to be 23km², and 14km², in its Article 7 report (covering 2020) and Article 4 Extension Request under the Convention on Cluster Munition (CCM) respectively. The latter figure is believed to be the more accurate one as it was confirmed by the Norwegian People's Aid (NPA)'s assessment in February–March 2021.
- 2 NPA, Mauritania Assessment Report, 12 April 2021, pp. 2 – 8.
- 3 Ibid., p. 12.
- 4 Mauritania's answers to the Article 4 CCM Analysis Group in relation to its deadline extension request, 28 July 2021, p. 1.
- 5 Declaration of Compliance with Art. 4(1)(a) of the CCM, submitted by Mauritania, 3 September 2014.
- 6 CCM Article 7 Report (covering 2019), Form F.
- 7 Ibid.
- 8 NPA, Mauritania Assessment Report, 12 April 2021, p. 2.
- 9 Ibid., p. 8.
- 10 Ibid., pp. 2–3.
- 11 Ibid., p. 8.
- 12 Mauritania's answers to the CCM Article 4 Analysis Group, 28 July 2021, p. 1.
- 13 CCM Article 7 Report (covering 2020), Form F.
- 14 2021 Article 4 deadline Extension Request, 30 June 2021, p. 2.
- 15 In its Assessment Report, NPA included a disclaimer noting that as an impartial international non-governmental organisation (NGO), NPA is not in a position to define the borders of Mauritania or any other State or country. This is political question that must be resolved between Mauritania, Morocco, and the Saharawi Arab Democratic Republic. See NPA, Mauritania Assessment Report, 12 April 2021, p. 2.
- 16 NPA, Mauritania Assessment Report, 12 April 2021, pp. 2–5.
- 17 Declaration of Compliance with Art. 4(1)(a) of the CCM, submitted by Mauritania, 3 September 2014.
- 18 Ibid.
- 19 Article 7 Report (covering 2012), Form F.
- 20 Article 7 Report (covering 2013), Form F; and Declaration of Compliance with Art. 4(1)(a) of the CCM, 3 September 2014.
- 21 Article 7 Report (covering 2019), Form F.
- 22 Third Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, received June 2020.
- 23 Mauritania's Article 4 deadline Extension Request under the CCM, 30 June 2021, p. 5.
- 24 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.
- 25 Decree No. 1960/MDAT/MDN establishing the PNDHD, 14 August 2007; and Third APMBC Article 5 deadline Extension Request, received June 2020, p. 2.
- 26 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.
- 27 Mauritania Assessment Report, NPA, 12 April 2021, p. 10.
- 28 CCM Article 7 Report (covering 2020), Form I.
- 29 2021 Article 4 deadline Extension Request, 30 June 2021, pp. 7–8.
- 30 Ibid., p. 8.
- 31 Ibid., p. 7.
- 32 Mauritania's answers to the CCM Analysis Group, 28 July 2021, p. 3.
- 33 Third Article 5 deadline Extension Request under the APMBC, additional information received 16 September 2020, response 5.
- 34 APMBC Article 7 Report (covering 2017), Form D.
- 35 2021 Article 4 deadline Extension Request, 30 June 2021, pp. 5–6.
- 36 Ibid., p. 11.
- 37 APMBC Article 7 Report (covering 2019), pp. 13–14.
- 38 Fourth Article 5 deadline Extension Request under the APMBC, received June 2021, p. 12.
- 39 Email from Alioune O. Mohamed El Hacen, PNDHD, 17 April 2011; and Third APMBC Article 5 deadline Extension Request, received June 2020, pp. 5 and 8.
- 40 2021 Article 4 deadline Extension Request, 30 June 2021, p. 6. In its third APMBC Article 5 deadline Extension Request, received June 2020, pp. 5 and 8, Mauritania reported that its NMAS are reviewed once every three years.
- 41 CCM Article 7 Report (covering 2019), Annex II.
- 42 Fourth Article 5 deadline Extension Request under the APMBC, received June 2021, p. 9; and Mauritania's answers to the CCM Analysis Group, 29 July 2021, p. 2.
- 43 Emails from Alioune Ould Menane, PNDHD, 1 September 2016; and Melissa Andersson, Country Director, NPA, 12 September 2016 and 13 March 2017.
- 44 Interview with Hans Risser, Head Office Management Team; and Melissa Andersson, NPA, 19 April 2021.
- 45 2021 Article 4 deadline Extension Request, 30 June 2021, p. 6; and NPA, Mauritania Assessment Report, 12 April 2021, p. 12.
- 46 Mauritania's response to the CCM Article 4 Analysis Group, 29 July 2021, p. 2.
- 47 CCM Article 7 Report (covering 2020), Form F.
- 48 Ibid.
- 49 Declaration of Compliance with Art. 4(1)(a) of the CCM, submitted by Mauritania, 3 September 2014.
- 50 2021 Article 4 deadline Extension Request, 30 June 2021, pp. 5–6.
- 51 Ibid., p. 7.
- 52 Mauritania's response to the CCM Article 4 Analysis Group, 29 July 2021, p. 2.
- 53 2021 Article 4 deadline Extension Request, 30 June 2021, p. 2.
- 54 Mauritania's response to the CCM Article 4 Analysis Group, 29 July 2021, p. 4.
- 55 2021 Article 4 deadline Extension Request, 30 June 2021, p. 8.
- 56 NPA, Mauritania Assessment Report, 12 April 2021, p. 4.
- 57 Email from Alioune Ould Menane, PNDHD, 23 July 2018.

ARTICLE 4 DEADLINE: 1 AUGUST 2020 REPORTED FULFILMENT OF ARTICLE 4 OBLIGATIONS



KEY DEVELOPMENTS

Montenegro has fulfilled its Convention on Cluster Munitions (CCM) Article 4 obligations, having completed clearance of remaining cluster munition remnants (CMR) contamination on 20 July 2020, and declared fulfilment of its Article 4 obligation as at 21 July, ahead of its 1 August deadline. Montenegro submitted its Declaration of Compliance on 13 October 2020. Completion was facilitated by the creation of a “Country Coalition”, in which Norway, as the lead support State/donor, partnered with Montenegro, with Norwegian People’s Aid (NPA) as the implementing partner. This Coalition enabled effective planning and completion of CMR clearance by Montenegro’s Article 4 deadline.¹

Land release operations re-started in October 2018, implemented by NPA in collaboration with the Department for UXO [Unexploded Ordnance] within the Directorate for Emergency Situations. Operations had been scheduled to be completed by the end of April 2020, but this was delayed by two and a half months due to the impact of the COVID-19 pandemic on operations.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2020)	Score (2019)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	9	9	Montenegro completed clearance of all known CMR contamination in July 2020. This was achieved following re-commencement of land release operations in October 2018, following earlier non-technical survey in 2012–13. Addressing residual CMR will be the responsibility of the Department for UXO within the Directorate for Emergency Situations.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	8	8	The Country Coalition, formed in 2018 between Montenegro, Norway and NPA, provided an excellent basis on which to effectively plan for completion of clearance by Montenegro's 1 August 2020 Article 4 deadline. The Directorate for Emergency Situations within the Ministry of Interior was responsible for overseeing CMR survey and clearance, and provided an enabling environment with strong national ownership. While national resources (both technical and financial) were relatively limited, Montenegro did provide funding for its UXO team and for quality management of CMR operations.
GENDER AND DIVERSITY (10% of overall score)	7	7	The capacity of the national mine action programme in Montenegro was small, but there was a gender policy in place. NPA's survey and clearance personnel were seconded from its programme in Bosnia and Herzegovina and while all NPA operations staff deployed in Montenegro were male, NPA's Programme Manager was a woman and there was one additional female member of staff. Women and children were consulted during survey activities, and data were disaggregated by sex and age.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	6	6	There is no national information management system in place, such as the Information Management System for Mine Action (IMSMA). NPA supported the Department for UXO in providing all data from the CMR programme to the Ministry of Interior, upon completion. While Montenegro did report disaggregated CMR contamination data and land release data to Mine Action Review, in its Article 7 transparency report it did not disaggregate CMR contamination data into suspected hazardous area (SHA) and confirmed hazardous area (CHA) or disaggregate land reduced through technical survey from land released through clearance.
PLANNING AND TASKING (10% of overall score)	8	8	There was no national mine strategy in place, but a joint working group was established and the Ministry of Interior and NPA elaborated a work plan to plan and prioritise CMR survey and clearance operations and achieve fulfilment of Article 4 by the treaty deadline of 1 August 2020.
LAND RELEASE SYSTEM (20% of overall score)	8	8	While no national mine action standards exist, CMR survey and clearance operations were conducted in accordance to the International Mine Action Standards (IMAS) and to national standing operating procedures (SOPs). Evidence-based survey was used to release uncontaminated land and confirm CMR contamination prior to clearance. Survey and clearance capacity was sufficient to enable Montenegro to complete CMR clearance ahead of its deadline.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	10	9	Clearance of remaining known CMR contamination was completed on 20 July 2020 and Montenegro declared it had fulfilled its Article 4 obligation on the following day, 21 July. Montenegro submitted a Declaration of Compliance on 13 October 2020.
Average Score	8.3	8.1	Overall Programme Performance: VERY GOOD

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- The Directorate for Emergency Situations, Ministry of Interior

NATIONAL OPERATORS

- The Department for UXO (within the Directorate for Emergency Situations)

INTERNATIONAL OPERATORS

- Norwegian People's Aid (NPA)

OTHER ACTORS

- None

UNDERSTANDING OF CMR CONTAMINATION

Clearance of remaining known CMR contamination was completed on 20 July 2020 and Montenegro declared it had fulfilled its Article 4 obligation on the following day, 21 July. No areas of previously unrecorded CMR contamination were discovered in 2020, prior to the completion of clearance.²

At the end of 2019, contamination had totalled almost 0.5km² (two confirmed hazardous areas (CHAs) totalling 0.2km² and two suspected hazardous areas (SHAs) totalling nearly 0.3km²), all in Golubovci municipality.³ Prior to re-starting land release operations in October 2018, remaining CMR contamination had stood at almost 1.72km² across three municipalities (Golubovci, Rožaje, and Tuzi).⁴ The contamination was identified during detailed non-technical survey conducted between December 2012 and April 2013. During the survey, NPA made 87 polygons of SHAs and CHAs across 11 locations in three municipalities. Contamination was found to affect five communities.⁵

Having secured new funding from Norway, CMR land release operations re-started in late 2018 and hazardous areas were re-surveyed through non-technical survey, prior to tasking of technical survey and clearance.⁶

Montenegro became contaminated with CMR in 1999 as a consequence of the North Atlantic Treaty Organization (NATO) bombing of Yugoslavia during the war over Kosovo. NATO air strikes in Montenegro between March and June 1999 included use of 22 cluster munitions of four different types: AGM-154A JSOW guided missiles, BL755s, CBU-87/Bs, and MK-20 Rockeye IIs. These scattered a total of some 4,000 submunitions (BLU-97A/B, BL755, MK-1, and MK118).⁷ In addition, there was CMR contamination in Rožaje resulting from the dumping of cluster munitions by the Yugoslav army.⁸

OTHER EXPLOSIVE REMNANTS OF WAR

Montenegro is also heavily contaminated with multiple types of explosive remnants of war (ERW) from the First and Second World Wars, with items of UXO discovered daily throughout the country, on land as well as in rivers and the sea.⁹

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Directorate for Emergency Situations, established in 2006 by the Ministry of Interior, is responsible for mine action in Montenegro, performing the role of a national mine action centre.¹⁰ Prior to 2017, due to lack of human resources and equipment, the role of the national mine action centre had previously been undertaken by the Regional Centre for Divers' Training and Underwater Demining (RCUD), which was set up in 2002.¹¹

A Memorandum of Understanding (MoU) was signed in July 2018 between the Ministry of Interior and NPA for a Norwegian funded project to complete CMR clearance. The partnership took the form of a Country Coalition, a concept launched under Germany's presidency of the Seventh Meeting of States Parties in 2017. Norway, as the lead support State/donor, partnered with the Montenegrin national authority, with NPA as the implementing partner. The aim of the Country Coalition was to achieve fulfilment of Montenegro's Article 4 clearance obligations by its August 2020 deadline,

and cooperation and collaboration between the Directorate for Emergency Situations, its UXO Department, and NPA were both effective and professional.

The approach included establishment of a joint working group to support the planning and prioritisation of CMR tasks; a clear division of roles and responsibilities; transparent discussions and sense of common ownership; and an enabling environment for mine action.¹² NPA provided capacity development support to national authorities regarding refresher training on destruction of BLU-97 and MK118 Rockeye submunitions, and the development of new standing operating procedures (SOPs) for both non-technical and technical survey.¹³

All activities performed by the Ministry of Interior team, including destruction of submunitions and external quality control, were nationally funded.¹⁴

GENDER AND DIVERSITY

National authorities in Montenegro reported that a gender policy is in place, and that procedures for conducting non-technical survey include ensuring a gender-balanced approach to survey teams and consulting with all members of the community, including women and children.¹⁵

There is said to be equal access to employment for qualified women and men in survey and clearance teams in Montenegro, and women account for 20% of operational roles, and 30% of managerial level/supervisory positions.¹⁶

Implementing partner NPA has a gender equality policy in place and provided coaching and support for key staff on the policy in 2019. While NPA's Programme Manager and Administration Officer in Montenegro were both women, its survey and clearance team were seconded from NPA's programme in BiH and were all men.¹⁷

Relevant data was disaggregated data by sex and age by both the Ministry of Interior and NPA.¹⁸

INFORMATION MANAGEMENT AND REPORTING

There is no national information management system in place, such as the information management system for mine action (IMSMA). NPA supported the Department for UXO within the Directorate for Emergency Situations in providing all data from the CMR programme, both hard copies and digital data, to the Ministry of Interior upon completion.¹⁹

In its Article 7 report (covering 2020), the land reduced through technical survey in 2020 was not disaggregated from release through clearance, even though these data were available and were reported to Mine Action Review.²⁰

PLANNING AND TASKING

RCUD and NPA signed an MoU in December 2012 under which NPA agreed to fund and implement a two-phase project – the “Cluster Munition Convention Completion Initiative for Montenegro”. This involved first, non-technical survey, and then, technical survey and clearance of areas where the presence of CMR was confirmed. NPA agreed to set up a database and to develop capacity for non-technical survey and quality management.²¹ The non-technical survey was completed but funding for the second phase of the project involving technical survey and clearance, originally expected to start in 2013 and continue throughout 2014,²² was not secured.

In May 2018, in a welcome development, Norwegian government funding was secured for the CMR survey and clearance operations necessary for Montenegro to release remaining CMR-contaminated areas and fulfil its CCM Article 4 obligations. An MoU between the Ministry of Interior and

NPA was signed in July with CMR land release operations beginning in October 2018. There was a work plan in place aimed at completion of Montenegro's Article 4 clearance obligations by its 1 August 2020 deadline, and plans for realisation of the CMR completion project were entered into the medium-term work plan of the Montenegro government.²³

Following the signature of the MoU, a joint working group was established to support the planning, prioritisation, and collaboration for CMR tasks.²⁴ Criteria for prioritising CMR-contaminated areas for clearance were agreed between the national authorities and NPA,²⁵ designed to enable access based on national priorities, including aviation needs, geographic locations and linkages, and weather conditions.²⁶

Montenegro successfully fulfilled its clearance obligations in July 2020, ahead of its August Article 4 deadline.

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

In March 2018, the Directorate for Emergency Situations reported that it had prepared a rule book on the destruction of UXO and was currently working on drafting national mine action legislation.²⁷ In February 2019, it reported that mine action legislation was in place.²⁸

No national standards exist for survey and clearance of CMR in Montenegro, but operations were conducted according to the International Mine Action Standards (IMAS) and to national SOPs developed for non-technical survey, technical survey, clearance, and use of explosives detection dogs (EDDs).²⁹ Aviation security procedures require that SOPs for CMR survey and clearance operations at Podgorica airport be adapted to meet specific international standards.³⁰

OPERATORS AND OPERATIONAL TOOLS

The Department for UXO within the Directorate for Emergency Situations has only five staff, who are primarily dedicated to clearance of UXO other than submunitions, which comprises the bulk of ERW contamination in Montenegro.³¹ Due to lack of funding, responsibility for explosive ordnance disposal (EOD) has remained with the police.³²

Having previously completed a nationwide non-technical survey in April 2013, NPA, re-started CMR land release operations in October 2018, thanks to Norwegian government funding.³³

NPA technical survey/clearance capacity in 2020 comprised six deminers.³⁴ NPA's Operations Manager continued to work on non-technical survey together with trained personnel from the Ministry of Interior.³⁵

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2020

A total of 343,185m² of CMR-contaminated area was released in 2020, of which 56,040m² was cleared, 194,200m² was reduced through technical survey, and 92,945m² was cancelled through non-technical survey. Montenegro completed clearance of all known CMR contamination on 20 July 2020.³⁶

SURVEY IN 2020

A total 287,145m² of CMR-contaminated area was released through survey in 2020, prior to completion of survey and clearance operations in July. Of this, 92,945m² was cancelled through non-technical survey by the joint Ministry of Interior/NPA team and 194,200m² was reduced through technical survey. No previously unrecorded CMR contamination was added to the database.³⁷ This compares to 2019, when 0.49km² of CMR-contaminated area was cancelled and 0.51km² reduced.³⁸

CLEARANCE IN 2020

Clearance of all remaining known CMR contamination was completed on 20 July 2020 and Montenegro declared it had fulfilled its Article 4 obligation.³⁹ Between January and July 2020, 56,040m² of CMR-contaminated area was cleared, during which 15 submunitions were destroyed.⁴⁰

CMR clearance in 2020, which was completed in July 2020, marked a decrease on 2019, when 0.27km² of cluster munition-contaminated area was cleared, with 64 submunitions destroyed.⁴¹

ARTICLE 4 DEADLINE AND COMPLIANCE



CMR clearance was completed on 20 July 2020 and Montenegro declared it had fulfilled its obligations under Article 4 obligation of the CCM as at 21 July, ahead of its 1 August 2020 deadline.⁴² In its communiqué to the Implementation Support Unit of the CCM, dated 29 July 2020, Montenegro said that "the official declaration of compliance will be submitted as soon as it is finalised."⁴³ Montenegro's Article 4 Declaration of Compliance was submitted on 13 October 2020.⁴⁴

Following completion of earlier non-technical survey in 2013, land release operations only re-commenced in Montenegro in October 2018, supported by the establishment of the Country Coalition between Norway, Montenegro, and NPA. It had been expected that CMR clearance operations would be completed by 30 April 2020, but progress was impacted by the COVID-19 pandemic, which caused clearance operations to be suspended from 16 March to 1 June 2020.⁴⁵

Table 1: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2020	0.06
2019	0.27
2018	0.02
2017	0
2016	0
Total	0.35

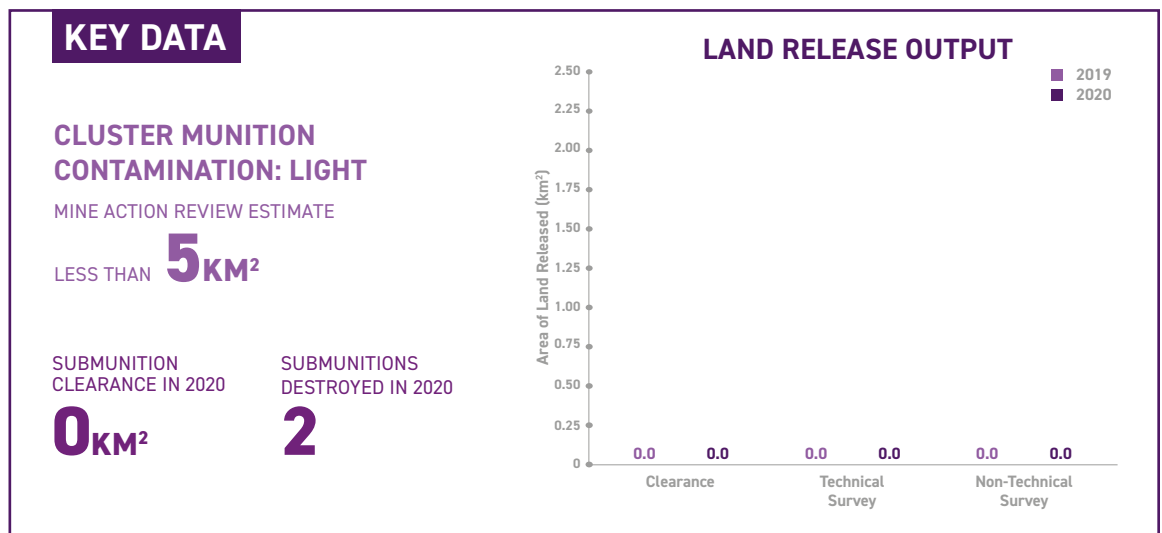
PLANNING FOR RESIDUAL RISK AFTER COMPLETION

Montenegro has a sustainable national capacity in place to address CMR discovered following Article 4 completion.⁴⁶ All five members of the Department for UXO within the Directorate for Emergency Situations have been trained and are equipped to address CMR, with respect to information management as well as for survey and clearance.⁴⁷ In its Article 4 declaration of compliance, Montenegro has said that if areas unknown to have been contaminated by CMR are identified after completion, it will:

- accurately identify the extent of the contaminated areas and destroy all CMR in those areas;
- ensure effective exclusion of civilians from those areas;
- report such areas under Article 7 of the CCM;
- share relevant information to the general public, stakeholders, and CCM States Parties; and
- submit an additional declaration of compliance once clearance of those contaminated areas has been completed.⁴⁸

- 1 Statement of Montenegro, CCM Second Review Conference (Part 1, virtual meeting), 25–27 November 2020.
- 2 Emails from Milovan Joksimović, Head, Department for UXO, Directorate for Emergency Situations, Ministry of Interior, 6 May 2021; and Goran Šehić, Deputy Programme Manager, NPA Bosnia and Herzegovina, 21 April 2021.
- 3 Email from Milovan Joksimović, Directorate for Emergency Situations, 20 March 2020.
- 4 Article 7 Reports (covering 2018, 2019, and 2020), Form F; and emails from Milovan Joksimović, Directorate for Emergency Situations, 28 March 2018 and 25 February 2019.
- 5 NPA, "Cluster Munition Remnants in Montenegro", July 2013, p. 26.
- 6 Article 7 Reports (covering 2018 and 2019), Form F; and emails from Alyson Lewis, Programme Manager, NPA, 27 February 2019 and 17 March 2020.
- 7 NPA, "Cluster Munition Remnants in Montenegro", July 2013, p. 21.
- 8 Interview with Milovan Joksimović, Directorate for Emergency Situations, Podgorica, 15 May 2017.
- 9 Ibid.
- 10 Article 7 Report (covering 2016); and interview with Milovan Joksimović, Directorate for Emergency Situations, Podgorica, 15 May 2017.
- 11 Email from Veselin Mijajilovic, RCUD, 29 July 2012; and Official Gazette, No. 66, pp. 28–32.
- 12 CCM Side event presentation by Milovan Joksimović, Directorate for Emergency Situations, 9MSP, Geneva, 4 September 2019; and email from Alyson Lewis, NPA, 27 February 2019.
- 13 Email from Alyson Lewis, NPA, 27 February 2019.
- 14 CCM Side event presentation by Milovan Joksimović, Directorate for Emergency Situations, 9MSP, Geneva, 3 September 2019; and Article 7 Report (covering 2019), Form I.
- 15 Emails from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019; and Alyson Lewis, NPA, 27 February 2019.
- 16 Email Milovan Joksimović, Directorate for Emergency Situations, 20 March 2020.
- 17 Email from Kristina Đurić, NPA, 21 August 2020.
- 18 Emails from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019, and Alyson Lewis, NPA, 27 February 2019.
- 19 Emails from Alyson Lewis, NPA, 17 March 2020 and email from Kristina Đurić, Acting Country Director, NPA, 17 May 2021.
- 20 Article 7 Report (covering 2020), Form F; and email from Milovan Joksimović, Directorate for Emergency Situations, 6 May 2021.
- 21 NPA, "Cluster Munition Remnants in Montenegro", July 2013, p. 9.
- 22 Ibid., p. 6.
- 23 Emails from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019; and Alyson Lewis, NPA, 27 February 2019.
- 24 Email from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019.
- 25 Email from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019; and email from Alyson Lewis, NPA, 27 February 2019.
- 26 Email from Alyson Lewis, NPA, 27 February 2019.
- 27 Email from Milovan Joksimović, Directorate for Emergency Situations, 28 March 2018.
- 28 Email from Milovan Joksimović, Directorate for Emergency Situations, 25 February 2019.
- 29 Email from Alyson Lewis, NPA, 27 February 2019.
- 30 Ibid.
- 31 Email from Milovan Joksimović, Directorate for Emergency Situations, 6 May 2021.
- 32 Ibid.
- 33 Email from Alyson Lewis, NPA, 27 February 2019.
- 34 Emails from Milovan Joksimović, Directorate for Emergency Situations, 6 May 2021; and Goran Šehić, NPA, 21 April 2021.
- 35 Email from Kristina Đurić, NPA, 17 May 2021.
- 36 Email from Milovan Joksimović, Directorate for Emergency Situations, 6 May 2021.
- 37 Ibid. There was a slight discrepancy between the survey data reported by Montenegro for 2020 and the data reported by NPA. NPA reported zero cancellation in 2020 and 204,931m² as reduced through technical survey in 2020. This is different to 92,945m² reported as cancelled through non-technical survey and 194,200m² reduced through technical survey in 2020, as reported by the UXO department and by NPA previously. According to NPA, the discrepancy was due to a difference between NPA and the UXO department in the reporting approach and classification of results per reporting periods. Email from Kristina Đurić, NPA, 17 May 2021.
- 38 Article 7 Report (covering 2019), Form F; and emails from Milovan Joksimović, Directorate for Emergency Situations, 20 March 2020; and Alyson Lewis, NPA, 17 March 2020.
- 39 Written communiqué by Montenegro to the CCM Implementation Support Unit, 29 July 2020.
- 40 Emails from Kristina Đurić, NPA, 21 August 2020; and Milovan Joksimović, Directorate for Emergency Situations, 6 May 2021. There was a slight discrepancy in that in its Article 7 report (covering 2019), Montenegro reported that 0.5km² of CMR contamination remained as at end of 2019. However, the remaining CMR-contaminated area released in 2020 was reported to total only 0.34km². However, this is believed to be due to inconsistencies in reporting of the extent of CMR contamination and NPA was confident that all known remaining contamination had been cleared as at 20 July 2020. In addition, there was a slight discrepancy between the clearance data reported by Montenegro for 2020 and the data reported by NPA. NPA reported clearing 48,690m² in 2020. This is different to the 56,040m² NPA reported previously for 2020, which was also reported by the UXO department. According to NPA, the discrepancy was due to a difference between NPA and the UXO department in the reporting approach and classification of results per reporting periods. Email from Kristina Đurić, NPA, 17 May 2021.
- 41 Emails from Milovan Joksimović, Directorate for Emergency Situations, 20 March 2020; and Alyson Lewis, NPA, 17 March 2020.
- 42 Email from Jonas Zachrisson, Country Director, NPA, 23 September 2020; and written communiqué by Montenegro to the CCM Implementation Support Unit, 29 July 2020.
- 43 Written communiqué by Montenegro to the CCM Implementation Support Unit, 29 July 2020.
- 44 Article 4 Declaration of Compliance, 13 October 2020, available at: <https://bit.ly/3havfHO>.
- 45 Emails from Milovan Joksimović, Directorate for Emergency Situations, 20 March 2020 and 6 May 2021; Alyson Lewis, NPA, 17 March 2020; and Kristina Đurić, NPA, 21 August 2020.
- 46 Email from Kristina Đurić, NPA, 21 August 2020.
- 47 Email from Milovan Joksimović, Directorate for Emergency Situations, 6 May 2021.
- 48 Article 4 Declaration of Compliance, 13 October August 2020.

ARTICLE 4 DEADLINE: 1 MARCH 2026
NOT ON TRACK TO MEET DEADLINE



KEY DEVELOPMENTS

No overview of the extent of contamination from 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). A major obstacle to mine action operations is the continued lack of formal recognition of the Somali Explosive Management Authority (SEMA) in domestic law, limiting SEMA's ability to access State funding and cover its costs. Two submunitions were found and destroyed during battle area clearance (BAC) in Bakol.

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 (2020)	Score (2019)	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 is planned for 2021, but as yet it is unclear whether this will include CMR.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	4	4	SEMA continued to receive capacity development support and financial support with salaries during 2020. 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 resulting in SEMA being unable to access state funding.
GENDER AND DIVERSITY (10% of overall score)	5	5	Somalia's National Mine Action Strategic Plan 2018–2020 includes 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 2020.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	5	6	SEMA has assumed full ownership and responsibility for the national mine action database, though it has been reported that the database is neither up to date nor accurate. As at May 2021, Somalia had not submitted its Article 7 report covering 2020.
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. However, the strategy does not contain any specific provisions of survey or clearance of CMR. While there have been some improvements in the tasking process, there are no agreed prioritisation criteria 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 2020 but two submunitions were found and destroyed during battle area clearance (BAC) operations. Somalia is not currently on track to meet its Article 4 deadline of 2026.
Average Score	3.9	4.0	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 Demining Group (DDG)

OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

UNDERSTANDING OF CMR CONTAMINATION

The extent of CMR contamination in Somalia is unknown. There were no reports of previously unrecorded CMR contamination being added to the database in 2020.¹ 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

The United Nations Development Programme (UNDP) planned to launch a capacity building project in July 2021 to support SEMA and an implementing partner to carry out a pilot non-technical survey in the fourth quarter of 2021, but whether this would include CMR contamination is still under discussion with SEMA. This pilot will help to build SEMA's capacity to undertake a nationwide non-technical survey at a later date.⁴ There is no reported CMR contamination in Somaliland.

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.⁵ CMR were also identified around the town of Galdogob in the north-central Mudug province of Puntland, further north on the border with Ethiopia.⁶ More contamination was expected to be found in south-central Somalia's Lower and Upper Juba regions.⁷

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.⁸ 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.⁹ In 2015, UNMAS reported that eight reports were submitted in September from Rabbdhure, in the Bakool region of South West state, showing empty RBK-250-275 cluster bomb containers, which can contain both AO-1-Sch and PTAB-2.5M submunitions.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

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 its three major regions: south-central Somalia (including Mogadishu), Puntland (a semi-autonomous administration in the north-east), and Somaliland (a self-proclaimed, though 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

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 The United Nations Mine Action Service (UNMAS) was supporting SEMA state offices with operational incentives from January to December 2021.²⁴ UNDP was planning to launch a project in July 2021 to build administrative capacity in SEMA in order to improve their administrative function, but there are no plans to pay salaries at SEMA under this project.²⁵

The lack of parliamentary approval of SEMA is seen as a major obstacle to mine action in Somalia as this hampers SEMA's ability to become an integrated part of the annual State budget and hinders their capacity for long-term planning for staff. This results in high staff turnover within SEMA outside senior management.²⁶

In July 2018, the SEMA central office at the Ministry of Internal Security in Mogadishu was attacked and significantly damaged, some of its staff injured, and much of SEMA's office equipment and materials, including computers and documents, were destroyed.²⁷ In 2020, UNMAS provided support to SEMA in the reconstruction of a solid-walled office and provided office furniture and IT equipment for SEMA's central and regional offices. UNMAS also provided training on basic quality assurance monitoring for SEMA personnel; paid for a consultant to support SEMA's Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request; and provided financial support for mine action related events and meetings.²⁸

In 2019, as part of the UK Foreign, Commonwealth and Development Office's (FCDO, formerly the Department for International Development (DFID))-funded consortium project with The HALO Trust, who provide technical training and support with quality assurance (QA) to SEMA, NPA continued its capacity development work with SEMA. In 2020, key activities included supporting information management and operational planning, providing QA and quality control (QC) training, and providing training in financial, administrative and logistical procedures, and supporting with donor coordination. According to NPA, SEMA is now in a position where most of their organisational environment has been established, although they are not fully capable of implementation due to a lack of financial support from the government.²⁹

SEMA began conducting quarterly meetings with all mine action implementing partners in 2018, with a focus on monitoring of operations. Operators considered this a major step forward towards improving the cooperation, consultation, and coordination between SEMA and the clearance operators within Somalia.³⁰ However, SEMA has raised concerns about the level of coordination by the operators, on issues such as tasking and prioritisation, and SEMA does believe that operators fully adhere to it as the national authority.³¹

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, throughout 2020 the implementing partners were NPA and the Puntland Risk Solution Consortium.³² It runs the only police explosive ordnance disposal (EOD) team in Puntland, which is responsible for collecting and destroying explosive ordnance.³³

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.³⁴ It was then renamed the Mine Action Department in January 2019.³⁵

The HALO Trust reported that within Somaliland it is involved in key decision-making processes by the national authorities; and that there is an enabling environment for mine action as international staff can easily obtain visas, memorandums of understanding can be drawn up with line ministries, and there are favourable tax regulations in place (as for international NGOs in other sectors). The HALO Trust established a committee for "Explosives Hazards Management" within the government to collectively discuss progress, challenges and support for Article 5 implementation in Somaliland.³⁶

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.³⁷ SEMA reported that gender and diversity have also been integrated into the national mine action standards.³⁸

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.³⁹ As at May 2021, SEMA had not reported on whether it has developed a gender or diversity policy or implementation plan.

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.⁴⁰ 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 take up leadership roles.⁴¹ 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,⁴² 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.⁴³ Employing more women typically enables operators to access all strata of Somali society to gain information and consider the views of all relevant groups.⁴⁴ 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.⁴⁵

In 2020, 34% of NPA's total workforce are women with 40% of managerial/supervisory roles held by women and 29% of operational roles.⁴⁶ In 2020, UNMAS introduced social impact surveys with participation from women and ethnic minority groups on impact of land release in their communities. Overall 27% of UNMAS contracted employees are women with 40% of managerial/supervisory positions held by women and in operational positions 25% of UNMAS employees are women.⁴⁷ In Somaliland, the number of female demining staff employed by HALO Trust doubled in 2020 to include four all-female clearance teams. In October 2020, the HALO Somaliland programme recruited ten women from the marginalised Gaboye ethnic minority group, to be trained and deployed as deminers. Overall, 12% of HALO Somaliland staff are female with 16% of managerial/supervisory positions held by women and 11% of operations positions.⁴⁸ In HALO Somalia, 20% of all employees are women with women filling 15% of managerial/supervisory positions and 17% of operations positions.⁴⁹ In SEMA, 17% of the current workforce are female.⁵⁰

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.⁵¹ Under the database reporting formats, CMR are recorded separately from other types of ERW.⁵² In 2020, NPA continued to support SEMA with information management but, according to NPA, high turnover of SEMA staff has hampered progress.⁵³ According to UNMAS, however, SEMA's database is neither up to date nor accurate.⁵⁴ In 2020, SEMA met with operators to discuss synchronising operator data with the national database and operators provided SEMA with information not already within the national database.⁵⁵ SEMA and UNMAS have agreed to work together to consolidate the national data.⁵⁶

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.⁵⁷

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 but there was no mention of CMR contamination, survey, or clearance in the request. As at June 2021, Somalia had still to submit its CCM Article 7 report covering 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 2017.⁵⁸ 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 new strategy.⁵⁹

The plan focuses on setting "achievable" goals over the three-year period. The strategy's five goals, identified by SEMA, are 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 notes Somalia's status as a State Party to the CCM and its reporting obligations and commits to complying with the Convention, but does not contain specific provisions on survey and clearance of CMR.

SEMA developed a mine action work plan for 2020, in cooperation with the SEMA state offices, and operators. As at May 2021, it has not been reported by SEMA whether this work plan contained planned CMR survey or clearance activities. 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 2021.⁶⁰

In Somaliland, The HALO Trust has encountered a lack of political will to conclude a strategic plan or handle residual risk.⁶¹

NPA reported that in Puntland survey and clearance task dossiers are issued in a timely and effective manner.⁶² 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.⁶³ 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.⁶⁴ SEMA, however, expressed concern that operators task themselves without its agreement.⁶⁵

NPA reported that in Puntland task dossiers are issued in a timely and effective manner.⁶⁶ In Somaliland, The HALO Trust manages its own tasking and prioritisation.⁶⁷

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 2012-13.⁶⁸ SEMA conducted a review of the NTSGs in 2019 with technical support from NPA and in compliance with the International Mine Action Standards (IMAS). As at April 2021, the NTSGs were awaiting approval from the Ministry of Internal Security before they can be adopted.⁶⁹

OPERATORS AND OPERATIONAL TOOLS

In 2020, one international NGO, The HALO Trust, conducted battle area clearance (BAC) and mine clearance operations in Somalia and Somaliland, along with UNMAS-contracted commercial clearance company, Ukroboronservice. NPA also conducted clearance in 2020, but only of mined areas.⁷⁰

UNMAS, through its implementing partner Ukroboronservice, deployed six manual demining teams (MDTs) which are trained to carry out manual demining and technical survey. Two additional manual demining teams began operations in 2021.⁷¹

In 2019, HALO Somalia only conducted BAC. In 2020, there was a large increase in anti-personnel mine clearance personnel. In addition, HALO Trust deployed 14 non-technical survey teams totalling 59 personnel. In 2021, there might be an increase in clearance and non-technical survey capacity

dependent on funding.⁷² The HALO Trust reported that there was no significant change in operational capacity in Somaliland between 2019 and 2020.⁷³ As well as clearance capacity the HALO Trust also deployed two non-technical survey teams totalling eight personnel.⁷⁴

In 2020, NPA was working in Puntland conducting survey and clearance and capacity building, entering into partnership with the local NGO consortia.⁷⁵ NPA's operational capacity decreased by two thirds from 2020 compared to 2019 as a result of completed capacity development of the Galmudug NGO consortia non-technical survey staff. NPA deployed five non-technical survey teams totalling ten personnel and one technical survey team of six personnel in 2020 and plans to increase its non-technical survey and manual clearance capacity by mid-2021.⁷⁶

Table 1: Operational clearance capacities deployed in 2020⁷⁷

Operator	Manual teams	Total deminers*	Dogs and handlers	Machines**	Comments
Ukroboronservice (UNMAS)	6	46	0	0	Decrease from 4 MTTs and 6 MDTs in 2019 Conduct BAC and mine clearance
HALO Somalia	20	169	0	0	Increase from 2019 Conduct BAC and mine clearance
HALO Somaliland	34	272	0	3	Increase from 2019 Conduct BAC and mine clearance
Totals	60	487	0	3	

* Excluding team leaders, medics, and drivers. ** Excluding vegetation cutters and sifters. MTT= Mobile multi-tasking team MDT= Manual demining team.

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2020

In 2020, the HALO Trust found two submunitions in Bakol during BAC operations.⁷⁸

There was no reported release of land contaminated with CMR in 2019.⁷⁹

ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR SOMALIA: 1 MARCH 2016
ARTICLE 4 DEADLINE: 1 MARCH 2026
NOT ON TRACK TO MEET DEADLINE

Under Article 4 of the CCM, Somalia is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 March 2026.

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 as of yet has not conducted a general survey to have a comprehensive picture of remaining CMR contamination.⁸⁰ These challenges remain in 2021.

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.⁸¹ 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.⁸² These concerns were also repeated by UNMAS who believed that it is unlikely Somalia will meet its Article 4 obligations due to lack of access, continued insecurity, and the lack of available resources to carry out survey and clearance.⁸³

Table 2: Five-year summary of CMR clearance

Year	Area cleared (m ²)
2020	0
2019	0
2018	0
2017	0
2016	0
Total	0

- 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 Emails from Helen Olafsdottir, Technical Specialist on SSR and Team Leader JSSGP, UNDP, 16 April and 27 May 2021.
- 5 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.
- 6 Response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.
- 7 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.
- 8 Emails from Ghirmay Kiros, Explosive Threat Mitigation Operations Officer, UNMAS, 27 June and 29 June 2018.
- 9 Ibid.
- 10 Email from Mohammad Sediq Rashid, UNMAS, 8 June 2017.
- 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.
- 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, 16 April and 27 May 2021.
- 26 Email from Claus Nielsen, NPA, 6 April 2021.
- 27 Email from Chris Pym, HALO Trust, 9 May 2019.
- 28 Email from Mustafa Bawar, UNMAS, 4 April 2021.
- 29 Email from Claus Nielsen, NPA, 6 April 2021.
- 30 Emails from Chris Pym, HALO Trust, 9 May 2019; and Claus Nielsen, NPA, 13 April 2019.
- 31 Email from Dahir Abdirahman Abdulle, SEMA, 3 July 2021.
- 32 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.
- 33 Response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.
- 34 Email from Chris Pym, HALO Trust, 9 May 2019.
- 35 Email from Chris Pym, HALO Trust, 2 June 2019.
- 36 Email from Lawrie Clapton, HALO Trust, 14 June 2020.
- 37 SEMA, "Somalia National Strategic Plan, 2019", pp. 21-22.
- 38 Email from Dahir Abdirahman Abdulle, SEMA, 11 May 2020.
- 39 Email from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019.
- 40 Ibid.
- 41 Email from Lawrie Clapton, HALO Trust, 14 June 2020.
- 42 Email from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019.
- 43 Emails from Mustafa Bawar, UNMAS, 17 March 2020; Claus Nielsen, NPA, 14 April 2020; and Lawrie Clapton, HALO Trust, 14 June 2020.
- 44 Email from Lawrie Clapton, HALO Trust, 14 June 2020.
- 45 Ibid.
- 46 Email from Claus Nielsen, NPA, 6 April 2021.
- 47 Email from Mustafa Bawar, UNMAS, 4 April 2021.
- 48 Email from Chris Pym, HALO Trust, 20 May 2021.
- 49 Email from Abdullah Alkhasawneh, Country Director, HALO Trust, 16 May 2021.
- 50 Email from Mustafa Bawar, UNMAS, 4 July 2021.
- 51 Email from Claus Nielsen, NPA, 22 March 2018.
- 52 Email from Claus Nielsen, NPA, 13 April 2019.
- 53 Email from Claus Nielsen, NPA, 6 April 2021.
- 54 Interview with Qurat-al-Ain, Head of UNMAS Somalia Programme, UNMAS, in Geneva, 14 February 2020.
- 55 Interview with Dahir Abdirahman Abdulle, SEMA, 19 August 2020; and email from Claus Nielsen, NPA, 26 May 2021.
- 56 Email from Mustafa Bawar, UNMAS, 4 July 2021.
- 57 Email from Lawrie Clapton, HALO Trust, 14 June 2020.
- 58 Emails from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019; and Claus Nielsen, NPA, 13 April 2019.
- 59 Email from Claus Nielsen, NPA, 26 May 2021.
- 60 Skype interview with Claus Nielsen, NPA, 10 February 2020 and email from Claus Nielsen, NPA, 26 May 2021.
- 61 Email from Lawrie Clapton, HALO Trust, 10 July 2020.
- 62 Email from Claus Nielsen, NPA, 6 April 2021.
- 63 Email from Abdullah Alkhasawneh, HALO Trust, 16 May 2021.
- 64 Email from Mustafa Bawar, UNMAS, 4 April 2021.
- 65 Email from Dahir Abdirahman Abdulle, SEMA, 3 July 2021.
- 66 Email from Claus Nielsen, NPA, 6 April 2021.
- 67 Email from Lawrie Clapton, HALO Trust, 14 June 2020.
- 68 Email from Terje Eldøen, NPA, 5 June 2016; and response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.
- 69 Email from Claus Nielsen, NPA, 6 April 2021.
- 70 DDG and MAG continued to operate in Somalia and Somaliland in 2020, but did not carry out demining.
- 71 Email from Mustafa Bawar, UNMAS, 4 April 2021.
- 72 Email from Abdullah Alkhasawneh, HALO Trust, 16 May 2021.
- 73 Email from Chris Pym, HALO Trust, 20 May 2021.
- 74 Ibid.
- 75 Skype interview with Claus Nielsen, NPA, 10 February 2020.
- 76 Email from Claus Nielsen, NPA, 6 April 2021.
- 77 Emails from Mustafa Bawar, UNMAS, 4 April 2021; Abdullah Alkhasawneh, HALO Trust, 16 May 2021; and Chris Pym, HALO Trust, 20 May 2021.
- 78 Email from Abdullah Alkhasawneh, HALO Trust, 14 June 2021.
- 79 Article 7 Report (covering 2019), Form F.
- 80 Email from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019.
- 81 Email from Abdullah Alkhasawneh, HALO Trust, 14 June 2021.
- 82 Email from Claus Nielsen, NPA, 26 May 2021.
- 83 Email from Mustafa Bawar, UNMAS, 23 August 2020.

SIGNATORY STATES

The background of the page is composed of several overlapping, angular shapes in various shades of purple, ranging from a light lavender to a deep, dark indigo. The shapes are arranged in a way that creates a sense of depth and movement, with some shapes appearing to be in front of others. The overall effect is a modern, abstract, and monochromatic design.

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 would 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.

UNDERSTANDING OF CMR CONTAMINATION

The Mine Action Review no longer considers that Angola is affected by CMR. There are no reports of confirmed contamination and it is believed that there is minimal CMR contamination nationwide beyond the occasional unexploded submunition found during spot tasks.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 There were no reports of submunitions being found in 2019 or 2020 by either Angola's national mine action authority, the National Intersectoral Commission for Demining and Humanitarian Assistance (Comissão Nacional Intersectorial de Desminagem e Assistência Humanitária, CNIDAH) or operators. Prior to 2017, CNIDAH had not reported discovering submunitions.³

CNIDAH reported that no CMR-specific survey or clearance was carried out in 2020 and the national database does not contain any polygons pertaining to areas of CMR contamination.⁴ None of the international mine action operators working in Angola has reported finding any significant areas of CMR contamination or submunitions since 2008.⁵ 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.⁶

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.⁷ Prior to this, HALO Trust reported finding and destroying 12 submunitions in 2012. The HALO Trust informed Mine Action Review that these were isolated cases and noted that it had seen very little evidence of cluster munition strikes in Angola.

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.⁸

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.⁹

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 CNIDAH, which served as the national mine action authority and reported to the Council of Ministers. CNIDAH received approval in April 2021 to change its legal status from a commission to a national agency to further strengthen coordination mechanisms and information sharing between the different national bodies.¹⁰

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).¹¹ This has made it difficult for Angola to describe in detail and with any degree of accuracy the extent of land released over the years as the CED operators are not accredited by CNIDAH, nor are their activities quality assured in line with International Mine Action Standards (IMAS).¹² This has resulted in limited oversight of where the CED-coordinated operations are conducted, the kind of activities that are implemented, and the results achieved.¹³

Angola's mine action programme has faced critical challenges in securing financial resources in recent years. In Angola's Article 5 Implementation Work Plan 2020–2025, based on an estimate of remaining mine contamination of 92km², clearance is budgeted to cost US\$286 million through to completion by 2025. The Angolan government has committed to clear all roads in the country through its budgetary allocations for the CED. This would leave 90km² of clearance and a budget projection of \$279 million. A total of \$66 million of funding had been committed to international operators from October 2019 onwards, with Japan and the United Kingdom also expressing an interest in funding the sector further into the future. Based on these projections, this would leave a funding shortfall of \$213 million for the period through to the end of 2025.¹⁴

In 2019, a draft resource mobilisation strategy was developed and, as at March 2021, was still under review.¹⁵ According to the National Mine Action Strategy 2020–2025 Objective 5 the resource mobilisation strategy should have been developed and approved before the end of 2020 with CNIDAH taking the lead in its development.¹⁶ In 2018, Angola participated in the Anti-Personnel Mine Ban Convention (APMBC) individualised approach following which donor support was increased with funding provided by the Belgium, Japan, Norway, the UK, and the US along with private sector funding from, for example, British Petroleum (BP).¹⁷

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.¹⁸ 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.

INFORMATION MANAGEMENT AND REPORTING

CNIDAH manages a national Information Management System for Mine Action (IMSMA) database which is now considered to be a reliable source of information as it has been fully reconciled with operators' data, and the previous data backlog and inflated contamination figures have been cleared.¹⁹ 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 a Norwegian People's Aid (NPA) Capacity Development Adviser has been embedded in the CNIDAH team focused on establishing an up-to-date and more accurate mine contamination database, with assistance from operators. As part of the improvements to information management a monthly data-sharing mechanism between CNIDAH and operators has been in place since 2018 as part of the mine action and information management coordination meetings.²⁰ Throughout 2020, database cleaning and updating took place to maintain data quality.²¹ Operators have reported that data collection forms are consistent and enable collection of the necessary data.²²

PLANNING AND TASKING

Angola's National Mine Action Strategy 2020–2025 was developed by CNIDAH, in 2019, with support from the Geneva International Centre for Humanitarian Demining (GICHD). As at April 2021, the strategy had still to be formally approved by the Government of Angola. The approval process has been delayed by the COVID-19 pandemic.²³ 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.

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

While national mine action standards (NMAS) are in place in Angola, they do not contain provisions specific to CMR survey or clearance.

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 carried out any CMR-specific survey or clearance in 2020.

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

There was no reported survey or clearance of cluster munition-contaminated area in 2020 or in 2019, and no CMR were found during EOD spot tasks.

SURVEY IN 2020

There was no reported survey of cluster munition-contaminated area in 2020.

CLEARANCE IN 2020

There was no reported clearance of cluster munition-contaminated area in 2020 and no submunitions were reported as having been destroyed in EOD spot tasks.

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.²⁴ 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 Angola could in fact consider declaring completion of CMR, as there are no reports of suspected or confirmed cluster munition-contaminated areas and evidence suggests only a residual CMR threat remains.

- 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; and emails from Manuel João Agostinho, Programme Manager, APOPO, 22 March 2021; Miroslav Pisarević, Country Director, NPA, 5 April 2021; Jeanette Dijkstra, Country Director, MAG, 27 April 2021; and Rob Syfret, Programme Manager, HALO Trust, 26 April 2021.
- 4 Telephone interview with Robert Iga Afedra, NPA, 22 February 2021.
- 5 Prior to this, in February 2008, NPA reported clearing 13 submunitions in Kwanza Sul province; MAG reported clearing 140 submunitions in Moxico province; and The HALO Trust reported clearing 230 submunitions in Bié province. NPA reported finding no CMR during its operations in northern Angola, with the exception of a small number of submunitions found in 2008. Menschen gegen Minen (MgM) reported that no CMR had been discovered in its areas of operations in south-east Angola from 1997 through to May 2016 including near Jamba, an area in the south-east of the province where contamination might have been expected. Response to questionnaire by Gerhard Zank, Programme Manager, HALO Trust, 19 March 2013; and emails from Vanja Sikirica, Country Director, NPA, 11 May 2016; Kenneth O'Connell, Technical Director, MgM, 5 May and 15 June 2016; Gerhard Zank, HALO Trust, 17 May 2016; Bill Marsden, Regional Director, East and Southern Africa, MAG, 18 May 2016; and Mohammad Qasim, United Nations Development Programme (UNDP)/CNIDAH, 22 February 2008.
- 6 Email from Shadrack Njamba, Programme Operations Coordinator, MAG, 18 April 2019; and Jeanette Dijkstra, MAG, 27 April 2021.
- 7 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/2JdO1hL>.
- 8 Response to questionnaire by Gerhard Zank, HALO Trust, 19 March 2013.
- 9 Interviews with Jose Antonio, Site Manager, Cuando Cubango, HALO Trust; and with Coxe Sucama, Director, INAD, in Menongue, 24 June 2011.
- 10 Telephone interview with Robert Iga Afedra, NPA, 22 February 2021; and email, 28 April 2021.
- 11 Angola National Mine Action Strategy 2020–2025, pp. 5–6.
- 12 Email from Robert Iga Afedra, NPA (on behalf of CNIDAH), 14 July 2020.
- 13 Angola National Mine Action Strategy 2020–2025, p. 10.
- 14 CNIDAH, APMBC Article 5 Implementation Work Plan 2020–2025, November 2019, p. 7.
- 15 Email from Robert Iga Afedra, NPA (on behalf of CNIDAH), 1 April 2020.
- 16 Angola National Mine Action Strategy 2020–2025, pp. 29–31.
- 17 Email from Robert Iga Afedra, NPA (on behalf of CNIDAH), 22 March 2021.
- 18 Email from Robert Iga Afedra, NPA (on behalf of CNIDAH), 1 April 2020.
- 19 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.
- 20 Emails from Robert Iga Afedra, NPA, 3 June 2019; Ralph Legg, HALO Trust, 30 March 2020; and Jeanette Dijkstra, MAG, 20 May 2020.
- 21 Email from Robert Iga Afedra, NPA (on behalf of CNIDAH), 22 March 2021.
- 22 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.
- 23 Email from GICHD, 30 April 2021.
- 24 Telephone interview with Robert Iga Afedra, NPA, 22 February 2021.

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 report progress of CMR survey and clearance at least annually.
- 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 national capacity to tackle residual contamination post-completion.

UNDERSTANDING OF CMR CONTAMINATION

The DRC has a small amount of contamination by CMR but has not produced an estimate of contamination since the end of 2018 and the precise extent remaining is not known. CCLAM reported that DRC's end-2018 contamination included six confirmed hazardous areas (CHAs) areas in four provinces and covering a total of 81,484m² (see Table 1).¹ Mine Action Review believes at least three of these areas have already been cleared, but has received no further information from CCLAM in this regard.

The first estimate of CMR contamination came from a national survey that CCLAM said was carried out in tandem with a survey of anti-personnel mine contamination in 2013–14. It identified five CHAs 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 by 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".²

Table 1: Cluster munition-contaminated area by province (at end 2018)³

Province	Territory	CHAs	Area (m ²)
Ituri	Aru	3	40,750
South Kivu	Shabunda	1	719
Tanganyika	Kalemie	1	37,000
Tshopo	Bangelema	1	3,015
Totals		6	81,484

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

DRC is also contaminated by other unexploded ordnance (UXO) and anti-personnel mines (see Mine Action Review's *Clearing the Mines* report on DRC for more information).

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.⁴

CCLAM, which was established in 2012, manages the sector with support from the United Nations Mine Action Coordination Centre (UNMACC) and the UN Mine Action Service (UNMAS).⁵ 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.⁶ 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.⁷ The government provided US\$530,000 in funding for CCLAM's operating expenses in 2018, but has not provided funding for operations.⁸

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.⁹

UNMAS continued to support CCLAM working in 2020 with 24 staff, including 13 internationals and 11 national staff. In 2021, UNMAS added three more international and three national staff and as of June 2021 was recruiting three more posts.¹⁰ UNMAS support focused on planning and implementing CCLAM's 2018–19 mine action strategy and, until 2020, building CCLAM's capacity on information management.¹¹

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 are involved in all essential stages of mine action (planning, implementation, monitoring, and evaluation), and that activities consider the special needs of women and girls.¹²

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, but 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.¹³

At the end of 2020, UNMAS employed seven women among its staff of twenty-four, five of them international staff, including the programme manager, and two national staff working in administration and human resources.¹⁴

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. 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.¹⁵ Continuing issues in 2019 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.¹⁶

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.¹⁷ Norwegian People's Aid (NPA) also previously provided refresher training for CCLAM staff in use of IMSMA and the associated Geographic Information System (GIS).¹⁸ In 2020, CCLAM did not request IM support from UNMAS and a request it submitted to GICHD reportedly was not satisfied due to GICHD's lack of capacity and the onset of the COVID-19 pandemic.¹⁹

PLANNING AND TASKING

The National Mine Action Strategy 2018–19, prepared with support from UNMAS and the GICHD, 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.²⁰ The strategy also set out the objective of completing procedures for ratifying the Convention on Cluster Munitions by the end of 2018.²¹ CCLAM has not reported any action to implement this plan.

The strategy 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.²² 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 mine contamination and the addition of hazards to the database without robust evidence of the presence of explosive ordnance. Before closing its DRC programme in March 2020, NPA had 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.²³

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

The DRC has 24 national standards developed with support from the GICHD²⁴ and the national strategy for 2018–19 called for revision of the standards and awareness raising of their content through training.²⁵ 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.²⁶

OPERATORS AND OPERATIONAL TOOLS

DanChurchAid (DCA) and TDI were the only international organisations active in survey and clearance for the whole of 2020. NPA had three teams conducting non-technical survey, manual mine clearance, and explosive ordnance disposal (EOD) spot tasks in 2019²⁷ but it ceased operations in February 2020 and closed the programme at the end of March 2020.²⁸

TDI continued operating under contract to UNMAS in 2020, working with three multi-task teams (MTT) from January to June, then reduced to one MTT from July to November. It conducted survey and battle area clearance in Kalemie district of Tanganyika Province. It also conducted EOD as civilian protection tasks or to support the UN peacekeeping operation, MONUSCO, in Ituri, North Kivu, South Kivu and Tanganyika provinces.²⁹

UNMAS also contracted the national NGO, Afrique pour la Lutte Antimines (AFRILAM), to conduct EOD in Haut Katanga, Ituri, North Kivu, South Kivu, and Tanganyika. In 2020, it operated with two MTTs and in 2021 was scheduled to add a third, with the three teams providing the only EOD capacity under contract to UNMAS.³⁰

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

The DRC did not report on the progress of CMR survey and clearance in 2020 or in 2019.

In 2019, TDI, through the two MTTs contracted by UNMAS, released a total of 174,315m² of battle area, including an unspecified amount of cluster munition-contaminated area. Of this total 107,194m² was released by clearance.³¹

SURVEY IN 2020

UNMAS reported that TDI conducted two surveys in Kalemie, Tanganyika province, in 2020 but that these did not result in release of any land.³²

CLEARANCE IN 2020

TDI conducted battle area clearance (BAC) on 57,425m² in Tanganyika province, starting in August 2019 and ending in February 2020 when TDI demobilised its teams. Over the roughly six months of operations TDI destroyed 80 submunitions.³³

PROGRESS TOWARDS COMPLETION

The lack of reporting by DRC on any aspect of CMR 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.

-
- 1 Email from Maître Sudi Alimasi Kimputu, Coordinator, CCLAM, 3 June 2019.
- 2 "Stratégie Nationale de Lutte Antimines en République Démocratique du Congo 2018–2019", CCLAM, November 2017, p. 8.
- 3 Ibid.
- 4 Ibid., p. 11.
- 5 Ibid.
- 6 Email from Maître Sudi Alimasi Kimputu, CCLAM, 3 June 2019.
- 7 Emails from Jean-Denis Larsen, NPA, 5 March 2018; Bill Marsden, MAG, 11 May 2018; and Guillaume Zerr, Humanity and Inclusion, 24 May 2018.
- 8 Email from Maître Sudi Alimasi Kimputu, CCLAM, 3 June 2019.
- 9 UN Security Council Resolution 2147, 28 March 2014.
- 10 Email from Aurelie Fabry, Programme Officer, UNMAS, 28 April 2021.
- 11 Emails from Aurelie Fabry, UNMAS, 13 April 2020 and 28 April 2021.
- 12 "Stratégie Nationale de Lutte Antimines 2018–2019", November 2017, pp. 15–16.
- 13 Email from Maître Sudi Alimasi Kimputu, CCLAM, 3 June 2019.
- 14 Email from Aurelie Fabry, UNMAS, 28 April 2021.
- 15 "Stratégie Nationale de Lutte Antimines 2018–2019", November 2017, p. 14.
- 16 Skype interview with Jean-Denis Larsen, NPA, 24 April 2019; and email, 24 May 2019.
- 17 Email from Aurelie Fabry, UNMAS, 13 April 2020.
- 18 Email from Jean-Denis Larsen, NPA, 24 May 2019.
- 19 Emails from Aurelie Fabry, UNMAS, 28 April and 7 June 2021.
- 20 "Stratégie Nationale de Lutte Antimines 2018–2019", November 2017, p. 4.
- 21 Ibid., p. 23.
- 22 Ibid., p. 5.
- 23 Skype interviews with Jean-Denis Larsen, NPA, 24 April 2019 and 16 May 2020; and email, 24 May 2019.
- 24 Statement of DRC, APMBIC Intersessional Meetings, 2 July 2020.
- 25 "Stratégie Nationale de Lutte Antimines 2018–2019", November 2017, p. 34.
- 26 Skype interview with Jean-Denis Larsen, NPA, 24 April 2019; and email, 24 May 2019.
- 27 Ibid.
- 28 Skype interview with Jean-Denis Larsen, NPA, 16 April 2020.
- 29 Email from Aurelie Fabry, UNMAS, 28 April 2021.
- 30 Ibid.
- 31 Email from Aurelie Fabry, UNMAS, 20 August 2020.
- 32 Email from Aurelie Fabry, UNMAS, 28 April 2021.
- 33 Ibid.

**STATES
NOT PARTY**

The background consists of several overlapping, angular shapes in various shades of purple, ranging from a light lavender to a deep, dark indigo. The shapes are arranged in a way that creates a sense of depth and movement, with some shapes appearing to be in front of others. The overall effect is a modern, abstract composition.

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.

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. In the course of the fighting, both Armenia and Azerbaijan are reported to have targeted

cluster munitions against each other's territory, as well as in Nagorno-Karabakh. Armenia's Humanitarian Centre for Demining and Expertise (CHDE) reported new cluster munition-contaminated area within Armenia's jurisdiction and control as a result of the recent hostilities, the extent of which has not yet been determined.

UNDERSTANDING OF CMR CONTAMINATION

Prior to the 2020 conflict with Azerbaijan, Armenia had one confirmed hazardous area (CHA) of CMR contamination in Kornidzor, Syunik province,¹ the size of which was not reported. The CHDE reported based on direct evidence of new explosive ordnance (EO) contamination, including M095 cluster munition, in Gegharkunik, Syunik, and Tavush provinces bordering Azerbaijan as a result of the recent conflict. According to CHDE, artillery, including BM-21 rocket launchers, were used to bomb the Armenian settlements bordering Azerbaijan. As at July 2021, the extent and precise nature of the contamination had yet to be determined though the CHDE was planning to conduct non-technical surveys to clarify the situation.²

In November 2020, Amnesty International documented one Grad rocket strike by Azerbaijan that landed in Armenia, in the village of Davit Bek in Syunik province. The report did not confirm whether that rocket contained submunitions but said that some Azerbaijani attacks were carried out using cluster munitions.³

The HALO Trust could not confirm the presence of new CMR contamination in Armenian territories as the area had not yet been surveyed. But HALO expected new EO contamination in Kornidzor in Syunik province and said that there have been reports of submunitions being identified in certain areas, including in Davit Bek.⁴

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 in the autonomous Nagorno-Karabakh region⁵ that remained under effective Armenian control. Amnesty International also recorded four strikes in Stepanakert, five in Martuni, and two in Martakert in Nagorno-Karabakh, all of which were carried out by Azerbaijan forces. Some of these attacks involved the use of cluster munitions.⁶ (see Mine Action Review's *Clearing Cluster Munition Remnants 2021* report on Nagorno-Karabakh for further information).

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 civilian, non-commercial State body responsible for conducting survey and clearance and identifying contaminated areas. In 2014, the CHDE was designated as Armenia's national mine action authority (NMAA).⁷

In 2013, in conformity with a government decree, the CHDE began developing national mine action legislation. The CHDE began drafting the law in 2015⁸ with the support of the Organization for Security and Co-operation in Europe (OSCE)

office in Yerevan.⁹ 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.¹⁰ As at April 2021, however, no progress towards the adoption of the mine action law had been reported.¹¹

In 2020, the government allocated AMD208 million (approx. US\$400,000) to cover the costs of the CHDE and AMD130 million (approx. \$250,000) for survey and clearance operations.¹²

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 community liaison activities, all groups affected by contamination are consulted, including women and children. The CHDE is said to offer equal employment opportunities for both men and women. Two of the department heads within the CHDE are female and, of a total of 47 employees, 17 are women (36%), most of whom occupy senior or specialist roles. In addition, two women work in the non-technical survey teams, though there are no women deminers.¹³

INFORMATION MANAGEMENT AND REPORTING

With support from the Swiss Foundation for Mine Action (FSD), the CHDE set up and manages the national Information Management System for Mine Action (IMSMA) database.¹⁴ The CHDE had been planning to install IMSMA Core in 2019, but as at April 2021, this had been delayed for an unspecified amount of time due to the outbreak of COVID-19. In 2020, the CHDE elaborated quality assurance (QA) and quality control (QC) forms using KoboCollect Software to improve data collection in the field. IMSMA Core will allow the direct import of data into the database using KoboCollect forms.¹⁵

PLANNING AND TASKING

The draft National Strategic Plan on Mine Action was presented for the approval to the Armenian Government in 2018, but as at April 2021, the plan was being reconsidered due to the emergence of new challenges (primarily the contamination resulting from the 2020 conflict).¹⁶ 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).¹⁷

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.¹⁸

Armenia's annual work plan of 2021 envisaged the following activities: battle area clearance (BAC) of 45,000m² of CMR and EO contamination in Kornidzor area of Togh community (Syunik province); technical survey and clearance of 15,000m² of EO contaminated land in Davit Bek of Kapan community (Syunik province); and non-technical survey in Gegharkunik, Syunik, and Tavush provinces. The CHDE noted that survey and clearance foreseen in Gegharkunik, Syunik, and Tavush provinces will identify and target the new contamination resulting from the 2020 conflict with Azerbaijan.¹⁹

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

In 2013, with the assistance of FSD, the CHDE developed the Armenian National Mine Action Standards (NMAS) and submitted them for government approval. The NMAS were approved by the government in April 2014.²⁰ 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 2020. According to CHDE, reviews of the NMAS are conducted following the International Mine Action Standards (IMAS) and international best practice.²¹

The CHDE has been developing standard operating procedures (SOPs) for several years.²² SOPs on manual mine clearance, BAC, marking of hazardous areas, and medical support were elaborated by 2018.²³ In 2020, the CHDE elaborated SOPs on Information Management (IM), non-technical survey, technical survey, explosive ordnance disposal (EOD) and quality management (QM).²⁴

OPERATORS AND OPERATIONAL TOOLS

Armenia only conducted BAC and EO clearance in 2020, all of which was all performed by the Foundation for Demining and Demolition, a national non-governmental organisation. The CHDE deployed one non-technical survey team of three personnel while the Foundation for Demining and Demolition deployed three clearance teams totalling 18 deminers.²⁵

The CHDE had been planning to add one manual clearance team, one mechanical demining team, and one non-technical survey team to its demining capacity for 2020. The envisaged increase did not happen, though, and survey and clearance capacity remained constant. Plans by the CHDE to acquire mechanical clearance equipment also did not materialise due to changes in domestic law, which have impeded procurement.²⁶ Currently all clearance is conducted manually following the failure of six MDDs to obtain accreditation in 2017 following which they were "demobilised".²⁷ The CHDE has foreseen an increase in capacity in 2021 of one new non-technical survey team and one to two demining teams.²⁸

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.²⁹ QC is conducted once clearance of the land has been completed, prior to handover.³⁰

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE

In 2020, the Foundation for Demining and Demolition conducted BAC on a total area of 66,746m², of which 3,850m², containing EO and CMR contamination, was cleared in Kornidzor in Togh municipality, Syunik province with one item of ERW detected and destroyed. In addition, 62,896m² was cleared of EO in Mayakovski community of Kotayk province.³¹

In 2019, an area of 56,580m² was cleared and 16,271m² was cancelled during BAC operations in Armenia. Davit Bek, which had been fully cleared and handed over to the community in 2019, is now suspected to be re-contaminated with EO and CMR as a result of the 2020 conflict.³²

PROGRESS IN 2021

As at July 2021, CHDE conducted technical surveys and EOD tasks in Syunik province destroying more than 30 submunitions as a result. The CHDE was also conducting non-technical survey of the new cluster munition-contaminated areas in Gegharkunik, Syunik, and Tavush to ascertain the extent and type of contamination.³³

- | | | | |
|----|--|----|--|
| 1 | Email from Margaret Lazyan, Head of Mine Risk Education and Victim Assistance, CHDE, 26 July 2021. | 16 | Emails from Margaret Lazyan, CHDE, 10 August 2020 and 26 April 2021. |
| 2 | Emails from Margaret Lazyan, CHDE, 26 April and 26 July 2021. | 17 | Email from Margaret Lazyan, CHDE, 19 April 2017. |
| 3 | Amnesty International, "In the Line of Fire", 2021, at: https://bit.ly/3zHXp3H , pp. 13 and 18. | 18 | Email from Ruben Arakelyan, CHDE, 28 April 2017. |
| 4 | Email from Miles Hawthorn, Programme Manager, HALO Trust, 18 June 2021. | 19 | Emails from Margaret Lazyan, CHDE, 26 April 2021. |
| 5 | Human Rights Watch (HRW), Azerbaijan: Cluster Munitions Used in Nagorno-Karabakh, 23 October 2020, at: https://bit.ly/3bT3QXE . | 20 | Email from Margaret Lazyan, CHDE, 19 April 2019. |
| 6 | Amnesty International, "In the Line of Fire", 2021, p. 13. | 21 | Emails from Margaret Lazyan, CHDE, 19 April 2019 and 26 April 2021. |
| 7 | Emails from Ruben Arakelyan, CHDE, 8 June 2015; and Margaret Lazyan, CHDE, 10 August 2020. | 22 | Email from Varsine Miskaryan, CHDE, 8 August 2016. |
| 8 | Email from Varsine Miskaryan, CHDE, 8 August 2016. | 23 | Email from Margaret Lazyan, CHDE, 8 August 2018. |
| 9 | Email from Ruben Arakelyan, CHDE, 28 April 2017. | 24 | Email from Margaret Lazyan, CHDE, 26 April 2021. |
| 10 | Email from Margaret Lazyan, CHDE, 19 April 2019. | 25 | Ibid. |
| 11 | Email from Margaret Lazyan, CHDE, 26 April 2021. | 26 | Ibid. |
| 12 | Ibid. | 27 | Emails from Margaret Lazyan, CHDE, 19 April 2019, 25 June 2020, and 26 April 2021. |
| 13 | Emails from Margaret Lazyan, CHDE, 25 June 2020 and 26 April 2021. | 28 | Email from Margaret Lazyan, CHDE, 26 April 2021. |
| 14 | Email from Ruben Arakelyan, CHDE, 19 March 2014. | 29 | Email from Ruben Arakelyan, CHDE, 8 June 2015. |
| 15 | Emails from Margaret Lazyan, CHDE, 25 June 2020 and 26 April 2021. | 30 | Email from Margaret Lazyan, CHDE, 8 August 2018. |
| | | 31 | Email from Margaret Lazyan, CHDE, 26 April 2021. |
| | | 32 | Ibid. |
| | | 33 | Emails from Margaret Lazyan, CHDE, 26 April and 26 July 2021. |

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, in addition to 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. The work involves the Army, the Ministry of Interior, and the Mine Action Agency of the Republic of Azerbaijan (ANAMA, formerly the Azerbaijan National Agency for Mine Action).

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 robust nationwide baseline of CMR-contaminated area using evidence-based non-technical and technical survey.
- Azerbaijan should mobilise funds to enable survey and clearance of all contaminated areas as quickly as possible.
- Azerbaijan should reinforce the necessary national structures to oversee efficient and safe mine action in the mined areas recently returned to its control. This process should be underpinned by the adoption or revision of national mine action legislation that reflects the International Mine Action Standards (IMAS).
- ANAMA should ensure that National Mine Action Standards (NMAS) are updated in line with IMAS.
- ANAMA should draft a new mine action strategy, to replace the one expired in 2018, reflecting the significant increase in explosive ordnance (EO) contamination now under Azerbaijan's control.
- ANAMA should complete the transition to Information Management System for Mine Action (IMSMA) Core as soon as possible.
- Azerbaijan should systematically collect and report publicly on data on contaminated areas as well as progress in survey and clearance.
- ANAMA should elaborate a gender and diversity policy for mine action and an associated implementation plan.

UNDERSTANDING OF CMR CONTAMINATION

The precise extent of contamination from CMR in Azerbaijan is unknown. A significant portion of the CMR contamination, including abandoned cluster munitions and other abandoned explosive ordnance (AXO), is found in areas previously occupied by Armenia outside the Nagorno-Karabakh region. There may also be some residual contamination in territory under government control.¹

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 Line of Contact (LOC). While ground fighting was confined to areas close to the LOC, artillery fire penetrated more than 10km into Nagorno-Karabakh, and included use of cluster munitions. The hostilities added 2.4km² of CMR contamination,

all of which has since been cleared (see the Mine Action Review *Clearing Cluster Munition Remnants* report on Nagorno-Karabakh for further information).² No CMR contamination was reported on the Azerbaijan-controlled side of the LOC following the 2016 fighting.

In July 2020, fighting broke out on the international borders between Armenia and Azerbaijan, and in September 2020, Azerbaijan launched a fully-fledged military operation. Fierce fighting for six weeks was brought to an end on 8 November 2020 by a Russian-brokered ceasefire agreement. Under the terms of the "trilateral statement", Azerbaijan took full control of the five major cities of Fuzuli, Gubadi, Jabrail, Shusha, and Zangilan. Armenian troops also left the districts of Aghdam, Kalbajar, and Lachin, returning them to Azerbaijani control by 1 December 2020.³ Azerbaijan also

gained control of a substantial part of Nagorno-Karabakh where a new LOC is patrolled by Russian peacekeeping forces, with the Nagorno-Karabakh local authorities retaining control over the north of the region.⁴

Both Armenia and Azerbaijan used cluster munitions in the course of the six-week conflict. 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).⁵ Another Human Rights Watch report

described cluster munition use by Armenia in Barda, Goranboy, and Tartar districts, including Smerch rockets containing 9N235 submunitions.⁶ Amnesty International documented four cluster munition strikes resulting in civilians casualties by Armenian forces in towns and villages in Azerbaijan in October 2020. These consisted of three strikes in Barda dispersing dozens of 9N235 submunitions and a fourth in Qarayusufli.⁷ CMR contamination in areas under Azerbaijan's control may be extensive.

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Many areas, including those formerly occupied by Armenia, are confirmed or suspected to contain ERW, both unexploded ordnance (UXO) and AXO. These include former military testing areas and a former shooting range.⁸ 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 for the Republic of Azerbaijan.⁷

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.¹⁰ Following the 2020 conflict, clearance operations were rapidly scaled up with the involvement of the Army and the Ministry of Interior (MoI) to address the significant mine and ERW contamination newly under Azerbaijan's control.

The United Nations Development Programme (UNDP) provides capacity development to ANAMA. In 2020, the capacity development project was extended to 2023.¹¹ 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.¹²

In its Article 7 report covering 2020 under the Anti-Personnel Mine Ban Convention (APMBC), Turkey reported it had

donated US\$200,000 to Azerbaijan for mine and UXO clearance of approximately 22km² in Azerbaijan.¹³ According to media reports, Turkey exported seven remote-controlled demining machines to Azerbaijan between February and May 2021.¹⁴ In addition, 140 personnel from Turkey's Special Mine Detection and Clearance Teams were deployed to assist in clearance operations in Azerbaijan.¹⁵ Media sources also reported support from Russia in mine clearance. As at April 2021, 100 Russian military personnel were said to be using IMP-52 mine detectors and Uran-6 robotic systems in the region.¹⁶ It is unclear if Turkish and Russian personnel are also addressing CMR as part of their demining operations in Azerbaijan.

As at May 2021, a draft national mine action law was being considered by the cabinet of ministers (CoM).¹⁷ The process of elaborating the law has been ongoing for seven years.¹⁸ In 2019, the Azerbaijani government funded 90% of ANAMA's operating costs and 90% of all survey and clearance in Azerbaijan.¹⁹ The proportion of international contributions to ANAMA's budget is believed to have significantly increased since 2020.

ANAMA remains significantly underfunded and understaffed when compared to the huge needs resulting from the contamination in the territories regained in 2020. ANAMA is seeking international funds to clear the mined and ERW-contaminated areas in a timely manner and in compliance with the NMAS and IMAS.

GENDER AND DIVERSITY

ANAMA does not have a gender and diversity policy in place. While women made up 30% of managerial and supervisory positions at ANAMA in 2020, as at May 2021, none was working in an operational role. ANAMA was planning to deploy a ten-strong all-woman demining team by the middle of 2021, but as at July 2021, the process was still ongoing.²⁰ 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.²¹ Women participate in risk education sessions and are said to be consulted during survey.²²

INFORMATION MANAGEMENT AND REPORTING

As at May 2021, 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 quality control (QC) were created and translated into Azeri. ANAMA intended to launch the new system for testing by August 2021.²³

ANAMA reports that it regularly checks the quality of data in its database. Verification occurs initially at regional level and then at headquarters. With the significant increase in the scale of operations and area of responsibilities in 2020, the reporting period for progress was reduced from 15 days to one week and, as at May 2021, it was planned to generate daily progress reports.²⁴

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.²⁵ The strategy expired at the end of 2018 and has not yet been replaced. As at 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.²⁶

In the absence of a new multiyear strategic plan, tasks were being prioritised according to the State development plan and instructions from the government.²⁷ Since the 2020 conflict, however, and according to a secondary data review, ANAMA was prioritising clearance in former settlements in the newly-gained territories in preparation for population resettlement and despite surrounding areas being potentially highly contaminated and thus off-limits.²⁸

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Azerbaijan has its own NMAS which were adopted in 2001 and subsequently revised in 2003, 2004, and 2010 in accordance with the IMAS and best practice.²⁹ No major modifications to the standards were made in 2020.³⁰

OPERATORS AND OPERATIONAL TOOLS

ANAMA had a total capacity of 300 deminers, 6 machines, and 40 MDDs in 2020, and was planning to significantly increase the numbers of its non-technical and technical survey personnel in 2021 in order to implement its countrywide survey and resurvey operation.³¹ According to media reports, ANAMA was undergoing a huge restructuring with plans to increase its capacity from 500 to between 12,000 and 15,000 employees in 2021. ANAMA was planning to deploy its deminers mainly in the regions around Nagorno-Karabakh.³²

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, envisaging to strengthen its role as the national mine action centre.³³

In 2019, the Azerbaijan mine action programme had more than 300 deminers/explosive ordnance disposal (EOD) personnel, 32 mine detection dogs (MDDs), and an 18-man team operating six machines.³⁴ MDDs and mechanical assets were used to support release through technical survey and manual clearance.³⁵

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

ANAMA released 100,977m² of cluster munition-contaminated area through survey and clearance in 2020. The breakdown of land release through survey as opposed to clearance was not reported. ANAMA reported the same area of mined land released in 2020,³⁶ indicating that the 0.1km² figure includes clearance of all EO contamination, and not only of cluster munition-contaminated area. A total of 293 submunitions were destroyed during spot tasks in 2020.³⁷

In a statement to the APMBC intersessional meetings in July 2021, Azerbaijan declared that ANAMA has cleared about 30km² since the start of the demining operation in its reclaimed territories, destroying in the process 8,256 anti-personnel mines, 3,792 anti-vehicle mines, 9,211 items of UXO.³⁸ The 30km² released includes clearance of all EO contamination, and not only cluster munition-contaminated area.

SURVEY IN 2020

ANAMA released a total of 100,977m² of cluster munition-contaminated area through survey and clearance in 2020.³⁹ The breakdown of land release through survey as opposed to clearance was not made available. The 100,977m² figure is thought to combine all EO contaminated land released, and not only of cluster munition-contaminated area.

No CMR survey took place in 2019.

CLEARANCE IN 2020

A total of 100,977m² of cluster munition-contaminated area was released through survey and clearance combined in 2020. The breakdown of land release through survey as opposed to clearance was not made available. A total of 293 submunitions were destroyed during spot tasks in 2020.⁴⁰ ANAMA reports that more than 1,600 spot tasks were conducted between September 2020 and May 2021.⁴¹

No CMR clearance took place in 2019.

PROGRESS TOWARDS COMPLETION

No target date has been set for the completion of CMR clearance in Azerbaijan.⁴² ANAMA's long-term strategy was to be ready to start clearance of the occupied territories as and when this is possible.⁴³ 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.⁴⁴

Azerbaijan has called on all States Parties to the APMBBC to support its mine action efforts. According to its statement: "despite the huge resources allocated by Azerbaijan, the [demining operation] still requires more resources given the size of the contaminated areas. Azerbaijan urgently seeks broad international donor support, also in terms of funds and provision of technical equipment required to continue its demining efforts".⁴⁵

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- 2 Emails from Amasia Zargarian, Programme Support Officer, HALO Trust, 4 May 2018; and Asqanaz Hambardzumyan, HALO Trust, 26 April 2019.
- 3 ACAPS, Azerbaijan: Pre-Existing Situation and Impact of the 2020 Nagorno-Karabakh Conflict, 21 December 2020, at: <https://bit.ly/3hUwt2>; "Armenia-Azerbaijan: Why Did Nagorno-Karabakh Spark a Conflict", BBC, 12 November 2020, at: <https://bbc.in/3ywhU2V>; and "The Armenia and Azerbaijan War, Explained", VOX, 3 December 2020, at: <https://bit.ly/3yrmqjj>.
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- 5 Human Rights Watch (HRW), Azerbaijan: Cluster Munitions Used in Nagorno-Karabakh, 23 October 2020, at: <https://bit.ly/3bT3QXE>.
- 6 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>.
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- 20 Emails from Nijat Karimov, ANAMA, 21 May and 23 July 2021.
- 21 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.
- 22 Emails from Sabina Sarkarova, ANAMA, 2 April 2019 and 8 June 2020.
- 23 Email from Nijat Karimov, ANAMA, 21 May 2021.
- 24 Ibid.
- 25 Email from Sabina Sarkarova, ANAMA 2 May 2018.
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- 27 Emails from Sabina Sarkarova, ANAMA, 2 April 2019 and 8 June 2020.
- 28 ACAPS, "Azerbaijan: Pre-Existing Situation and Impact of the 2020 Nagorno-Karabakh Conflict", 21 December 2020, p. 25.
- 29 Email from Tural Mammadov, ANAMA, 19 October 2016.
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- 33 Email from Guy Rhodes, Chief Technical Advisor, UNDP, 23 June 2021.
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- 36 Email from Nijat Karimov, ANAMA, 23 July 2021.
- 37 Ibid.
- 38 Statement of Azerbaijan, APMBBC Intersessional Meetings, 22–24 June 2021.
- 39 Email from Nijat Karimov, ANAMA, 23 July 2021.
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- 41 Email from Nijat Karimov, ANAMA, 21 May 2021.
- 42 Email from Sabina Sarkarova, ANAMA, 8 June 2020.
- 43 ANAMA, "Azerbaijan National Agency for Mine Action 2014"; and GICHD, "Transitioning Mine Action Programmes to National Ownership: Azerbaijan", March 2012, Executive Summary.
- 44 Email from Sabina Sarkarova, ANAMA, 21 May 2019.
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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 Cambodian Mine Action and Victim Assistance Authority (CMAA) should ensure technical survey of CMR-contaminated areas is a key part of land release, in order to reduce the extent of clearance of areas that do not contain contamination.
- The 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 improve CMR planning and prioritisation guidelines and implement a more targeted and systematic clearance prioritisation process for confirmed hazardous areas (CHAs).
- The CMAA should review and revise the existing national standard on CMR clearance, in collaboration with operators and other stakeholders.

UNDERSTANDING OF CMR CONTAMINATION

CMR resulted from intensive bombing by the United States during the Vietnam War, 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.¹

As the end of 2020, CMR contamination was estimated at over 744km² across 18 provinces: 2,002 suspected hazardous areas (SHAs) totalling almost 658km² and 420 CHAs totalling more than 86km² (see Table 1).² This is an increase in total size compared to the more than 716km² across 18 provinces as at the end of 2019 (1,748 SHAs totalling more than 638.5km² and 374 CHAs totalling more than 77.5km²).³ Cambodia’s National Mine Action Strategy 2018–2025 states that known CMR contamination covers 645km².⁴ A large proportion of the CMR contamination is located in the eastern provinces close to the border with Vietnam.⁵ The actual extent of CMR contamination is likely to be significantly smaller than the current total estimate, as a sizeable proportion of the SHA is expected to be further reduced through technical and non-technical evidence-based survey.⁶

The original BLS of all explosive ordnance (EO) contamination, including CMR, other explosive remnants of war (ERW), and mines, was implemented between 2009 and 2012 across 124 districts. In 2015, the CMAA introduced the land reclamation non-technical survey and baseline survey (LRNTS+BLS) methodology, a stand-alone process to re-survey or re-verify SHAs identified during the BLS. The re-survey/

re-verification efforts, which are now complete for CMR, have helped more accurately define the extent of remaining contamination and cancel those areas currently on the database that are found to have no evidence of contamination and/or which meet the CMAA criteria for reclamation.⁷

The baseline re-survey of cluster munition-contaminated areas was completed in 2020.⁸ In the eight provinces in the east and north-east of Cambodia, where most of the CMR are concentrated, the Norwegian People’s Aid (NPA)/Cambodian Mine Action Centre (CMAC) partnership project completed the resurvey BLS in December 2020.⁹ Mines Advisory Group (MAG) completed the resurvey BLS in other provinces to the south with suspected cluster munition contamination. Cluster munition technical survey (CMTS) has confirmed CMR contamination in the seven eastern provinces of Kampong Cham, Kratié, Prey Veng, Ratanakiri, Stung Treng, Svay Rieng, and Tboung Khmum, and technical survey was also planned in the eastern province of Mondulkiri too. In the remaining ten provinces, contamination is in suspected hazardous areas (SHA) and the actual extent of CMR contamination is likely to be further reduced through evidence-based survey, as and when it takes place.¹⁰

Furthermore, historically the BLS employed a landmine survey methodology. Non-technical survey applied during the BLS was sometimes limited in scope and therefore failed to take into consideration comprehensively or accurately all relevant evidence. In a number of instances, empirical evidence of the inaccuracy of SHA polygons generated from the BLS has been

demonstrated during subsequent clearance of BLS-generated polygons. The BLS often generated inflated polygons, which contained large amounts of uncontaminated land. But in some other cases, the polygons cleared proved to be far larger than the original SHA polygons recorded during the BLS. Furthermore, there are numerous examples of explosive ordnance disposal (EOD) reports of CMR in Ratanakiri province in areas surveyed as part of the BLS but for which no SHAs were generated as part of the BLS process.¹¹

NPA emphasised that, as the BLS only generates SHAs, extensive technical survey will be required in all eastern provinces to determine the extent and location of CMR contamination more accurately and to identify CHAs for clearance.¹² Similarly, MAG believes that more comprehensive and systematic survey, appropriate to CMR and incorporating best practice from across the region, is required to determine the scale of the CMR problem accurately. Any such process should use the data generated through the BLS as a point of departure and must be evidence-based.¹³

Table 1: Cluster munition-contaminated area by province (at end 2020)¹⁴

Province	CHA	Area (m ²)	SHA	Area (m ²)
Battambang	0	0	1	26,872
Kampong Cham	36	6,714,812	197	39,737,187
Kampong Chhnang	0	0	18	2,046,122
Kampong Speu	0	0	85	12,366,578
Kampong Thom	0	0	380	62,612,902
Kampot	0	0	2	103,392
Kandal	0	0	57	5,511,202
Kratié	91	25,922,537	180	57,616,148
Mondulkiri	0	0	77	27,412,322
Phnom Penh	0	0	17	1,512,696
Preah Sihanouk	0	0	14	2,984,350
Preah Vihear	0	0	46	177,087,266
Prey Veng	52	10,178,479	232	39,956,892
Ratanakiri	74	7,888,599	251	52,381,879
Stung Treng	25	5,251,773	159	121,882,327
Svay Rieng	51	11,248,628	177	38,576,931
Takeo	0	0	10	1,973,835
Tboung Khmum	91	19,486,392	99	13,874,253
Totals	420	86,691,220	2,002	657,663,154

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Cambodia estimated that in 2018 it had around 468km² of ERW contamination apart from CMR.¹⁵ ERW contamination, including air-dropped bombs and ground artillery, is heaviest in the eastern provinces. Cambodia also has an estimated 817km² of anti-personnel mine contamination concentrated in, though not limited to, west and north-west Cambodia (see Mine Action Review's *Clearing the Mines* report on Cambodia for further information).

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.¹⁶ The CMAA has noticeably strengthened in recent years, and its roles and responsibilities have become more clearly defined.¹⁷ 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.¹⁸ CMAC, which conducts both humanitarian and commercial survey and clearance, is Cambodia's largest mine action operator.¹⁹

Provincial Mine Action Committees (PMACs) and Mine Action Planning Units (MAPUs) were established in 2004, tasked with establishing clearance priorities in consultation with affected communities to ensure that clearance addresses their housing, agricultural, and infrastructure needs.²⁰ MAPUs meet regularly with all mine action operators to plan annual mine action activities.²¹

The Cambodian government established the Technical Working Group on Mine Action (TWG-MA) as a consultative mechanism between the government and implementing

partners.²² It meets on a bi-annual basis and is attended by the CMAA, relevant ministries, operators, and donors.²³ In 2020, however, TWG meetings were suspended due to the COVID-19 pandemic.²⁴ 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.²⁵ In March 2020, clearance operators proposed the creation of a separate TRG for the survey and clearance of CMR, which was agreed by the CMAA.²⁶ The CMAA subsequently established a TRG on CMR survey and clearance to share best practice among operators and address challenges. The first meeting of the newly formed TRG, which was expected to meet twice yearly, took place in October 2020.²⁷

The operating environment in Cambodia is permissive, with the Cambodian 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), and importation procedures. The CMAA is open to the trialling and use of innovative clearance methods and tools to improve efficiency.²⁸

The GICHD provides information management and risk management support to the CMAA. In 2019, GICHD support to capacity development included stakeholder workshops on the IMSMA Core migration; initial development of the new database; support on developing residual capacity in line with Cambodia's mine action strategy; gender mainstreaming activities in mine action; and workshops on risk management and national mine action standard development.²⁹

NPA, as part of a United Kingdom Foreign, Commonwealth & Development Office (FCDO, previously the Department for International Development (DFID))-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), and strategic planning.³⁰

The Cambodian government contributes funding for clearance and management of the sector.³¹ 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.³² The cost of the database unit is, however, shared by NPA and UNDP.³³ The Cambodian government also provides a 10% in-kind contribution to any new donor funding.³⁴ 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 2010–18.³⁵ 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).³⁶ Indirectly, tax exemptions on mine action equipment have contributed to humanitarian demining.³⁷ Local authorities coordinate and provide security support to survey and clearance operations on the ground.³⁸ Cambodia has estimated it will need almost \$119 million for CMR clearance in 2020–25.³⁹

Cambodia is not yet a State Party to the CCM but made accession by 2020 a goal of the National Mine Action Strategy 2018–2025.⁴⁰ This goal has not yet been realised.

GENDER AND DIVERSITY

The CMAA has developed a Gender Mainstreaming in Mine Action Plan (GMAP 2018–2022), an objective of the National Mine Action Strategy 2018–2025, which consists of six goals. These include: the preparation of guidelines to aid gender mainstreaming across all mine action; capacity building of relevant stakeholders to implement the GMAP 2018–2022; and the representation and participation of women in planning and prioritisation, risk education, and in mine action and advocacy at all levels. As at July 2021, a new GMAP 2021–2025 had been drafted to supersede the GMAP 2018–2022, and was due to be approved after the CMAA Gender team had held a consultation meeting with operators and relevant stakeholders.⁴¹

The latest National Mine Action Strategy three-year Implementation Plan (2021–23) sets out activities in support of these goals.⁴² NPA, as part of its capacity development, is supporting the CMAA with training on gender mainstreaming in mine action, on implementation of the GMAP 2018–22 and the development of associated guidelines, and on how to use gender- and age-disaggregated data in planning and prioritisation processes.⁴³ Guidelines for Gender Mainstreaming in Mine Action were approved in December 2019. In 2020, trainings were provided to MAPU and quality management team (QMT) staff on the new guidelines, as well as on implementation of the GMAP 2018–22,⁴⁴ and on disaggregating data by sex and age (SADD).⁴⁵ Twenty-six data collection forms now need to be updated to fully roll out the collection of SADD. Further training is needed with

the MAPUs, operators, and CMAA staff to ensure that SADD are used for prioritisation and planning.⁴⁶ Furthermore, an assessment has been conducted on capacity, efficiency, and challenges of all demining operators and stakeholders in gender mainstreaming, in order to update the GMAP 2018–22 to GMAP 2021–25.⁴⁷

The GICHD, which conducted a gender and diversity baseline assessment of the CMAA in 2019, has a joint action plan to support gender and diversity mainstreaming efforts for the remainder of the GMAP strategy period.⁴⁸

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 mine risk education (MRE) and victim assistance (VA).⁴⁹ Of the CMAA's 150 employees in 2020, 39 (26%) were female, with women in 15 of 71 (21%) managerial level positions and 13 of 44 (29%) supervisory positions.⁵⁰

Survey and community liaison teams are said to be inclusive and mixed gender. Women are given access to job announcements and female candidates are given priority during the recruitment process. Women and children in affected communities are consulted during village meetings and community liaison activities, including regarding

prioritisation. This commitment is reinforced by the demand for all reporting forms to have SADD and by the provision of training to MAPU and QMT staff.⁵¹

Support for increased and inclusive engagement of women and marginalised populations in the planning and prioritisation process was also demonstrated by the development and approval of a new “Village Meeting to Prioritize Minefields for Clearance (coordinated by Village Chief)” guideline. Drafted with input from the CMAA SEPD (Socio-economic planning and database management) and Gender Team, the UNDP Clearing for Results project team, and MAPUs, the guidance aims to support village chiefs to undertake inclusive village consultations. These are to be held before the commune meetings at which chiefs and other key village members present the minefields and ERW-contaminated areas they want cleared as a priority.⁵²

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.⁵³

CMAC’s strategy addresses gender sensitivity and it is working to promote gender in its strategic goal. CMAC said this is achieved through promoting gender in mine action through policies and procedures, by providing equal opportunities for women to work at CMAC, nurturing a gender-friendly working environment, continuing to encourage the recruitment of women to management positions, and promoting gender mainstreaming in all CMAC’s activities. CMAC also said its strategy considers social norms and promotes gender mainstreaming in a culturally sensitive fashion. CMAC ensures its mine action teams are gender-balanced, and an increasing number of women have been employed as deminers and in operational support positions in the field. At the beginning of 2020, CMAC recruited mostly women for vocational training (64 female trainees) and appointed a large number of women as team

leaders, office workers, and office chief.⁵⁴ CMAC operates in accordance with Cambodian labour law and is actively recruiting women with a view to reaching an aggregate of 15% women in its workforce. Women currently work across all levels of the organisation, including in managerial level/supervisory positions. Two of the six directors were women in 2020.⁵⁵ As at June 2021, there were 178 female staff at CMAC, which is 13% of CMAC’s workforce. Of these, 23 women were in managerial/supervisory positions and 86 women in operational positions.⁵⁶

During non-technical survey and pre-clearance impact assessments, MAG deploys mixed-gender community liaison teams to gather information on the suspected location of CMR and the impact on the community. Of MAG’s total employees in Cambodia, 32% are women. In its survey and clearance teams, 29% of staff are women, as are 24% of managerial level/supervisory positions.⁵⁷ In Q4 2020, MAG secured funding to conduct a gender analysis of its programme, in order to promote gender equity and mainstreaming and ensure more women in operational supervisory and management roles within the programme. The assessment was planned for the first half of 2021.⁵⁸

NPA considers the needs of women and children in communities affected by CMR-contaminated areas in prioritising, planning, and tasking its survey and clearance. It is working towards achieving gender equality in its Cambodia programme, both in the composition of its survey and clearance teams and in the consultation of all groups affected by CMR contamination.⁵⁹ Overall, 56% of NPA’s employees in Cambodia are women: this includes 68% of operational staff and 55% of managerial level/supervisory positions.⁶⁰

According to CMAA data, as at March 2019, NPMEC had a total of 294 employees (290 operational), all of whom were men.⁶¹

All international operators in Cambodia disaggregate relevant mine action data by gender and age.

INFORMATION MANAGEMENT AND REPORTING

The CMAA has used the Information Management System for Mine Action New Generation (IMSMA-NG) since 2014. The CMAA is now upgrading the system to IMSMA Core. As at May 2021, however, the COVID-19 pandemic was slowing progress towards this goal.⁶² A significant backlog of data entry was resolved in 2019/20, to enable large-scale migration of existing data to IMSMA Core to begin.⁶³ CMAC, with support from NPA, finished uploading 8,381 backlogged CMAC records from EOD spot tasks onto the national database in 2020.⁶⁴ International Mine Action Standards (IMAS) minimum data requirements will be incorporated as Cambodia migrates to IMSMA Core.⁶⁵ All the standardised data collection forms are being digitised and tested in the new system.⁶⁶

The CMAA’s database unit (DBU) is responsible for collecting, storing, analysing, and disseminating data in support of planning and prioritisation.⁶⁷ Improvements to information management are ongoing in Cambodia,⁶⁸ and 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 verify the data submitted by operators.⁶⁹

Strengthening the national information management system for mine action is an objective of the National Mine Action Strategy 2018–25.⁷⁰ NPA has been conducting capacity development activities with the CMAA under an FCDO consortium project.⁷¹ This included introduction of a web-based application for MAPUs to enable better prioritisation of the tasks for operators’ annual work plans, which is expected to increase the effectiveness of mine clearance across the sector in Cambodia.⁷² It also included the development of a national mine action standard (IM-CMAS [Cambodian Mine Action Standard]) on information management. The IM-CMAS has been implemented since 2019 and the CMAA ensures compliance internally within the CMAA and by clearance operators.⁷³

Regular TRG meetings organised by the CMAA DBU and held with operators continued throughout 2020, to discuss challenges, lessons learnt, and areas of improvement. They also allowed for reconciliation of data and the updating of IMSMA.⁷⁴ The main operators (CMAC, HALO, MAG, and NPA) agree that data collection forms are consistent.⁷⁵

The CMAA shares all available data with operators every one or two months.⁷⁶ In 2018, the DBU set up a virtual private network (VPN), which allows operators to send their daily data input directly into the DBU IMSMA database. The DBU controls the quality of all submitted reports and approves them via this online network.⁷⁷ The CMAA plans to move everything related to data submission online in the near future.⁷⁸ In 2020, the CMAA successfully tested a new system and deployed it to CSHD to support field data collection and their daily operation.⁷⁹

The CMAA has introduced a new reporting form following the endorsement of the national standard on CMRS in November 2018.⁸⁰ 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. This is because operators are now able to submit the actual CHA after completing technical survey, which improves the quality of clearance work plans.⁸¹

Between August and December 2019, NPA/CMAC deployed 11 BLS teams in the eastern provinces, creating a huge number of records. Due to lack of capacity, there had been a delay in entry of the BLS reports into the national database. However, NPA confirmed in May 2021 that the backlog of data entry of records had now been resolved.⁸² But issues remain with the accuracy of historical information on CMR contamination collected under the BLS.⁸³

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 of total 130.2km² by 2025" and specified two broad CMR-related objectives:⁸⁴

- 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.⁸⁵

Development of the planning and prioritisation guidelines on CMR were finalised by the CMAA in 2018, although according to operators, they lack clarity and are not systematically applied.⁸⁶ The CMAA has developed a new three-year implementation plan 2021–23, which it planned to launch in Q2 of 2021.⁸⁷

Since March 2018, CMAC, the CMAA, and NPA have been working together as part of a United States (US)-funded project to define and draft a comprehensive plan that references the Cambodian National Mine Action Strategy 2018–2025, with a view to freeing eight targeted provinces in eastern Cambodia from the humanitarian impact of ERW, including CMR.⁸⁸ The significant deployment of BLS teams in 2019 and early 2020 was expected to contribute to more accurate data on the scope of CMR contamination and to inform the third draft of the work plan.⁸⁹ The third work plan was elaborated in July 2020, with a long-term objective of reducing the effects of mines, CMR, and other ERW to a level requiring only a reactive response capacity. Specific objectives include resolving data backlogs; completing

the BLS in districts allocated by the CMAA to CMAC/NPA; capacity building of CMAC staff to update CMRS methodology and conduct CMRS in target provinces; and releasing prioritised CMR-contaminated areas.⁹⁰

The CMAA maintains 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.⁹¹

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.⁹²

However, the prioritisation process for the selection of CMR tasks is not as well established as the prioritisation 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 > commune workshop > SHA reconnaissance > SHA prioritisation > district workshop > provincial workshop > work plan finalisation.⁹³ 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.⁹⁴ As at May 2021, the CMAA was planning to review the planning and prioritisation guidelines on CMR "soon".⁹⁵

According to NGO operators, survey and clearance task dossiers are issued in a timely and effective manner.⁹⁶

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Mine action is conducted according to Cambodian Mine Action Standards (CMAS), which are broadly consistent with IMAS.⁹⁷

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.⁹⁸ CMAS-16 is largely based on the experience of other programmes implementing the CMRS method across the region.⁹⁹ The CMAA has agreed that operators can apply evidence-based technical survey to SHA polygons generated through the BLS, which are often inflated, in order to reduce the area and ensure a more efficient use of resources.¹⁰⁰ Previously, operators were expected to fully clear the entire BLS polygon regardless of whether technical survey had defined a much smaller CHA within the original SHA.¹⁰¹

No changes were made to CMRS methodology in 2020,¹⁰² but a TRG meeting took place in Ratanakiri on 17 October 2020 to discuss land release with regards to cluster munitions and CMAS-16. It was agreed that further work was needed to review and amend the standard over the course of 2021.¹⁰³ According to international operators, further discussion is required on the criteria for application of technical survey to reduce those areas in existing BLS polygons that are not

contaminated with CMR, especially given that the BLS was EO based. This will improve the speed and efficiency of CMR clearance.¹⁰⁴ As at April 2021, however, the requisite meeting of the TRG had yet to take place owing to the COVID-19 pandemic.¹⁰⁵

In 2019–21, the CMAA, with support from NPA with FCDO funding and in consultation with other mine clearance operators, is in the process of developing new standards.¹⁰⁶ New standards on animal detection, mechanical demining, information management, and the environment were elaborated in 2019.¹⁰⁷

As at April 2021, the CMAS chapter on mechanical clearance was pending approval having received comments from international operators, CMAC, and armed forces; the CMAS on animal detection systems and on the environment were finalised and awaiting approval by the CMAA; and the CMAS on information management had been finalised and approved by the CMAA.¹⁰⁸ In addition, the CMAS on explosive ordnance risk education (EORE) has also been revised and updated to bring it in line with IMAS.¹⁰⁹ A comprehensive review of CMAS, referenced in the National Strategy, was planned for 2021.¹¹⁰

OPERATORS AND OPERATIONAL TOOLS

CMR clearance in 2020 was undertaken by national operators CMAC and CSHD, and international operators MAG and NPA (see Table 2). In addition, from November 2020, APOPO began CMRS using technical survey dog teams, in partnership with CMAC.¹¹¹

Table 2: Operational CMR clearance capacities deployed in 2020¹¹²

Operator	Manual teams	Total clearance personnel	Animal detection capacity	Machines	Comments
APOPO (in partnership with CMAC)	1	6	APOPO, in partnership with CMAC, has 4 TSD units using SMART systems, used for CMRS in Preah Vihear province.	0	Commenced CMRS and follow-on cluster munition clearance in November 2020.
CMAC	4 BAC; 4 BAC-TS; 5 BAC-FC; and 4 BAC-MTT	153		N/A	Excluding 1 brush cutter
CSHD	1	12	0	0	
MAG	10	100	0	4	Increased capacity of three additional BAC teams from Q3.
NPA	3	15	2 teams, totalling 4 dogs and 4 handlers.	0	The three clearance teams also conduct EOD and cluster munition survey, as required.
Totals		286	8 dogs	4	

APOPO, in partnership with CMAC, had previously only undertaken anti-personnel mine operations in Cambodia, but began CMRS operations on 10 November 2020 in the east of Preah Vihear province. APOPO, in partnership with CMAC, is using technical survey dog (TSD) teams on cluster munition-contaminated areas, to reduce areas found not to contain CMR and identify CHAs. Following technical survey using dogs, APOPO's manual clearance teams then clear the CHA under the same project.

CMRS operations were started as part of the GICHD SMART TSD Evaluation Project, which had been working for 18

months in mined areas in Preah Vihear. The methodology combines long-range search dogs with the use of track and trace systems and unmanned aerial vehicles (UAVs). The results of the project were expected to be published in the course of 2021. Based on the promising productivity and cost-efficiency gains seen during the project, APOPO has decided to continue use of technical survey dogs for CMRS. APOPO has one survey team with six personnel and four TSD units using track and trace systems, and one manual clearance team with six personnel. The project was due to end on 31 July 2021, but APOPO is planning to increase the number of TSD teams working in CMRS in 2021–2023.¹¹³

CMAC had 14 non-technical survey teams, totalling 70 survey personnel and 4 technical survey teams totalling 20 personnel;¹¹⁴ MAG had two non-technical survey teams, totalling four survey personnel and three technical survey teams (including two new teams from Q3), totalling thirty survey personnel;¹¹⁵ and NPA had three survey teams (also referred to in Table 2), totalling fifteen survey personnel, who conduct survey, clearance, and EOD as required.¹¹⁶

CMAC's operational capacity for CMR in 2020 remained broadly the same as in 2019, and then increased its technical survey and clearance capacity slightly from March 2021.¹¹⁷

CMAC and NPA have an ongoing CMR partnership project in eastern Cambodia. Under this project CMAC Demining Unit 5 (DU5) teams conduct survey and clearance while NPA provides mentoring and monitoring of all aspects of the project. In addition, CMAC conducts EOD with one team based in Takeo province (mainly working around Takeo and Kandal provinces around Phnom Penh, but sometimes further afield). CMAC's DU5 (191 CMAC staff) has been fully supported by NPA since 2014 with US funding.¹¹⁸ The objectives of the project were to complete baseline survey to define the CMR contamination in the remaining districts allocated to NPA/CMAC (achieved in 2020), develop the capacity of CMAC staff to conduct CMRS in the targeted provinces (ongoing), and to release prioritised CMR-contaminated areas in the targeted provinces (ongoing).¹¹⁹ In addition, Norway funded the project to resolve the CMAC data backlog, which was completed in 2020.¹²⁰

CSHD clearance capacity remained constant in 2020, compared to the previous year, and no changes to capacity were expected in 2021.¹²¹

As well as having its main operational base in the west of the country focused on minefield survey and clearance, MAG also has an operations base in Ratanakiri province concentrating on CMR survey and clearance. MAG uses the data from EOD tasks to plot initial CHAs using its Evidence Point Polygon (EPP) mapping approach pioneered in the Lao People's Democratic Republic. 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.¹²²

NPA's survey and clearance capacity remained stable between 2019 and 2020, and NPA expected it to remain constant in 2021.¹²³ NPA conducted a successful trial of explosive detection dogs (EDDs) for technical survey in 2018, but did not deploy EDDs for technical survey of CMR in 2019 or 2020.¹²⁴ NPA deploys drones for aerial mapping of both technical survey and BAC tasks. Drones are also used during EOD tasks and for quality assurance. NPA has also been conducting field tests of all-terrain vehicles (ATVs) and have found them particularly useful in transporting personnel and EDDs in hard-to-reach areas.¹²⁵

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

Based on data provided by the CMAA, in 2020, clearance operators in Cambodia released a total of 38.56km² of cluster munition-contaminated area, of which 30.99km² was cleared, 7.50km² was reduced through technical survey, and nearly 0.07km² was cancelled through non-technical survey. A total of 8,181 submunitions were destroyed during clearance and technical survey in 2020, and a further 2,529 submunitions were destroyed during EOD spot tasks.¹²⁶

A total of nearly 20.53km² was confirmed as cluster munition-contaminated by operators through technical survey in 2020.¹²⁷

SURVEY IN 2020

In 2020, CMAC, MAG, and NPA surveyed nearly 55.84km² and confirmed more than 20.53km² as containing CMR (see Table 5). In addition, more than 7.50km² of CMR-contaminated area was reduced through technical survey, more than half by CMAC (see Table 4) and nearly 0.07km² was cancelled by NPA (see Table 3).¹²⁸ This represents an increase compared to 2020, when 4.48km² of CMR-contaminated area was reduced through technical survey and no area was cancelled.¹²⁹

In its partnership with CMAC, APOPO conducted CMRS as part of a GICHD Evaluation Project of the SMART TSDs. More than 0.79km² were surveyed, of which 0.29km² was confirmed.¹³⁰

NPA said that the size of the CHAs created in 2020 was, on average, smaller than those in 2019 owing to less CMR evidence being found. Overall land release, however, did increase due to the teams deploying tools such as drones for assistance during the survey process.¹³¹

Table 3: Cancellation through non-technical survey in 2020 (CMAA data)¹³²

Operator	Province	Area cancelled (m ²)
NPA	Ratanakiri	69,477
Total		69,477

Table 4: Reduction through technical survey in 2020 (CMAA data)^{133*}

Operator	Area reduced from BLS (m ²)
CMAC	4,959,266
MAG	1,251,892
NPA	1,292,475
Total	7,503,633

* Submunitions destroyed during technical survey are included in Table 4.

Table 5: Cluster munition-contaminated area confirmed through technical survey in 2020 (CMAA data)^{134*}

Operator	Area surveyed (m ²)	Area confirmed (m ²)
CMAC	42,015,607	7,619,074
MAG	8,390,000	9,294,963
NPA	5,432,500	3,617,870
Totals	55,838,107	20,531,903

* Submunitions destroyed during technical survey are included in Table 5.

CLEARANCE IN 2020

In 2020, almost 31km² of CMR-contaminated area was cleared by CMAC, CSHD, MAG, and NPA (see Table 6). This is an increase on the equivalent 25km² cleared in 2019. According to the CMAA, the higher clearance output in 2020 is explained by the increased clearance capacity of operators.¹³⁵

According to CMAA, during EOD spot tasks in 2020, a further 2,529 submunitions were destroyed: 1,077 by CMAC; 5 by CSHD; 1,192 by MAG; 194 by NPA; and 61 by the HALO Trust.¹³⁶

In 2020, 15 cluster munition-contaminated areas, totalling nearly 1.48km², were subject to technical survey and clearance, but found not to contain submunitions.¹³⁷

In partnership with CMAC, APOPO conducted clearance of CHAs identified through its SMART TSD team. APOPO cleared 286,150m² of cluster munition-contaminated area in 2020 and destroyed 54 submunitions (36 during technical survey and 18 during clearance) and 25 other items of UXO (19 during technical survey and 6 during clearance).¹³⁸

The amount of CMR-contaminated areas cleared by CMAC in 2020 was slightly less than the previous year.¹³⁹ CSHD's CMR clearance output increased in 2020 compared to 2019.¹⁴⁰ MAG's clearance output also increased in 2020 over the previous year, due to additional funding to support clearance in Ratanakiri. CMR were found in all MAG's clearance tasks in 2020.¹⁴¹

Table 6: CMAA data on CMR clearance in 2020¹⁴²

Operator	Area cleared (m ²)	Submunitions destroyed*	Other UXO destroyed
CMAC	26,158,331	6,576	19,048
CSHD	217,865	65	115
MAG	3,498,347	774	62
NPA	1,114,936	766	43
Totals	30,989,479	8,181	19,268

* Includes submunitions destroyed during technical survey.

PROGRESS TOWARDS COMPLETION

The CMAA expects to complete CMR clearance on remaining contaminated areas after 2025, as Cambodia's first priority is clearing anti-personnel mines.¹⁴³ Cambodia has, however, committed to address 80% of the total known CMR contamination by 2025: 499km² of an estimated total of 645km² in the National Mine Action Strategy 2018–2025. The remaining 20% of CMR will be categorised as "residual" contamination and dealt with accordingly. To reach its clearance goal, Cambodia planned to release 62km² every year from 2018 to 2025, of which 30% would be through land reclamation/cancellation and the remaining 70% through land release methodology. Based on this analysis, Cambodia calculated that approximately 44km² will need to be released annually through technical survey and full clearance. From 2014 to 2016, Cambodia released an average of 11km² per year through technical survey and clearance.¹⁴⁴

Clearance output has significantly increased in recent years, with more than 141km² cleared in the last five years (see Table 7).¹⁴⁵ The implementation of the CMRS should mean that operators are more effective in their approach and focus clearance on CHAs while reducing SHAs through technical

survey. However, the CMAA will need to ensure that the standard is being applied consistently by all operators and in the most efficient and effective way possible.

Table 7: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2020	30.99
2019	25.23
2018	39.60
2017	23.50
2016	22.38
Total	141.70

Cambodia made steady progress in 2020 despite the COVID-19 pandemic, with the BLS completed and CHA identified in the eastern provinces of Kampong Cham, Tboung Khmum, Prey Veng, Svay Rieng, Kratié, Stung Treng, and Ratanakiri, and CMRS also planned for Mondulkiiri.

While further evidence-based survey is needed to further reduce the size of SHA and confirm the actual extent of contamination, this nonetheless represents significant progress for Cambodia in developing a comprehensive understanding of the scope of its cluster munition contamination.¹⁴⁶ More than 20.53km² was confirmed as cluster munition-contaminated by operators through technical survey in 2020 alone.¹⁴⁷ This is the first step in the development of a multi-year plan to define the cluster munition CHAs and clear them.¹⁴⁸

NPA is now working with CMAC in seven of the eight provinces to conduct CMTS to define the cluster munition CHAs. Under this project there will be approximately a 70%/30% split of resources between technical survey and clearance, with clearance resources used to verify and improve the survey (where necessary) as well as for high priority tasks.¹⁴⁹ In Ratanakiri, the eighth CMR-affected province, both NPA and MAG are conducting technical survey and clearance. Technical survey is both conducted of SHAs created from the BLS as well as from CMR evidence points

that have been captured from EOD spot tasks rather than through the BLS. NPA and MAG, working with MAPU, will look to develop a multi-year technical survey and clearance plan in 2021.¹⁵⁰

According to the CMAA, survey and clearance of CMR in Cambodia were not badly affected by the COVID-19 pandemic in 2020. CMR land release operations were generally in remote areas where population movement is limited.¹⁵¹ CMAC reported that its demining operations in 2020 had not been interrupted by COVID-19.¹⁵² CSHD said that its deployment plan was sometimes delayed or changed in 2020 due to COVID-19, and it also saw an increase in costs due to required personal protective equipment (PPE) and COVID-19 health checks twice a month.¹⁵³ NPA reported its operations were largely able to continue as normal with staff abiding by COVID-19 hygiene measures.¹⁵⁴ MAG said its operations in Ratanakiri province were suspended for the months of April and May 2020, with teams redeployed to the field in June, following training on COVID-19 prevention and mitigation measures as well as undergoing refresher training.¹⁵⁵

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

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. Objectives include reviewing by 2020 the legal, institutional, and operational framework, strategy, and capacity needed to address residual threats.¹⁵⁶ As at July 2021, the review had yet to take place, but was planned for 2022 under the current National Mine Action Strategy's three-year implementation plan 2021–2023.¹⁵⁷

In Phase I (2018–22) of the national strategy Cambodia planned to “develop a comprehensive residual threats strategy; establish a residual threat legal and institutional framework; and establish residual threats regulatory and operational frameworks including coordination, planning, and prioritisation, and sustained information management system”. In Phase II (2023–25), Cambodia plans to “develop residual threat capacity in preparation to transition from

the traditional mine action program; determine resource mobilisation schemes to support the development of residual threat capacity and its future activities; and to conduct post-programme evaluation of achievements and outcomes after the conclusion of the strategy in 2025 to evaluate performance, lessons learned, recommendations for efficiencies and improvements in any remaining mine action”.¹⁵⁸

Operators believe that the establishment of a residual-risk-management framework will be essential to define and manage the long-term risk posed by CMR.¹⁵⁹ In its 2019 APMBC Article 5 extension request, the CMAA said it is likely that the Royal Cambodian Army will be tasked with addressing explosive threats after 2025.¹⁶⁰ 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.¹⁶¹

- 1 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.
- 2 Email from Ros Sophal, Database Unit Manager, on behalf of Prum Sophakmonkol, Director, CMAA, 14 May 2021.
- 3 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 6 September 2020.
- 4 CMAA, *National Mine Action Strategy 2018–2025*, p. 9.
- 5 Email from CMAA, 22 May 2018.
- 6 Interview with Ros Sophal, CMAA, 30 June 2021.
- 7 Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, 27 March 2019, p. 21; and email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 8 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 9 Email from Portia Stratton, Programme Manager, NPA, 21 April 2021.
- 10 Interview with Ros Sophal, CMAA, 30 June 2021.
- 11 Emails from Rebecca Letven, Programme Manager, MAG, 7 April and 4 September 2020.
- 12 Email from Zlatko Vezilic, Programme Manager, NPA, 19 March 2020.
- 13 Email from Rebecca Letven, MAG, 7 April 2020.
- 14 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 15 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 6.
- 16 CMAA, “Legal framework and mandate”, at: <http://bit.ly/2W7r3dJ>.
- 17 Interviews with Su Yeon Yang, and Tong Try, UNDP, 23 April 2019; and Rebecca Letven, MAG, Phnom Penh, 25 April 2019.
- 18 CMAC, “20 Years’ Achievement in Mine Action 1998-2018 and Path Ahead”, 2018.
- 19 Interview with Heng Rattana, Director General, CMAC, Phnom Penh, 25 April 2019.
- 20 GICHD, “Landmines and Land Rights in Cambodia”, December 2010, pp. 9 and 13.
- 21 Email from Zlatko Vezilic, NPA, 5 May 2020.
- 22 CMAA, *National Mine Action Strategy 2018–2025*, p. 24; and email from Tong Try, UNDP, 18 June 2019.
- 23 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.
- 24 Email from Matthew Hovell, Head of Region SE Asia, HALO, 9 April 2021.

- 25 CMAA, National Mine Action Strategy 2018–2025, p. 24; and emails from Tong Try, UNDP, 18 June 2019 and 27 July 2021.
- 26 Emails from Portia Stratton, NPA, 4 September 2020; and Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 6 September 2020.
- 27 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 28 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.
- 29 Email from GICHD, 1 July 2020.
- 30 Email from Portia Stratton, NPA, 21 April 2021.
- 31 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 12.
- 32 Email from Prum Sophakmonkol, CMAA, 1 July 2020.
- 33 Emails from Rune Dale-Andresen, Country Director, NPA, 26 September 2020; and Portia Stratton, NPA, 21 June 2021.
- 34 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 6 September 2020.
- 35 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 6.
- 36 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 37 Emails from Prum Sophakmonkol, CMAA, 11 September 2019; Rebecca Letven, MAG, 7 April 2020; and Lasha Lomidze, HALO Trust, 15 May 2020.
- 38 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 39 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 55.
- 40 National Mine Action Strategy 2018–2025, p. 13.
- 41 Email from Tong Try, UNDP, 27 July 2021.
- 42 CMAA, Three-Year Implementation Plan 2018–2020, Phnom Penh, undated but 2018, p. 14.
- 43 DFID Capacity Development Report, Activity Detail Extract, 18 September 2018.
- 44 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021; and Portia Stratton, NPA, 21 April 2021.
- 45 Email from Portia Stratton, NPA, 21 April 2021.
- 46 Emails from Portia Stratton, NPA, 21 April 2021; and Tong Try, UNDP, 27 July 2021.
- 47 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 48 Email from Arianna Calza Bini, Head of GMAP division, GICHD, 7 September 2020.
- 49 CMAA, National Mine Action Strategy 2018–2025, p. 22; and email from Tong Try, UNDP, 27 July 2021.
- 50 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 51 Email from Prum Sophakmonkol, CMAA, 1 July 2020.
- 52 Email from Tong Try, UNDP, 27 July 2021.
- 53 Email from Chhun Bora, Training and Monitor Officer, CSHD, 19 April 2021.
- 54 Email from Oum Phumro, CMAC, 9 June 2021.
- 55 CMAC, "20 Years' Achievement in Mine Action 1998-2018 and Path Ahead", 2018; interview with Heng Rattana, CMAC, Phnom Penh, 25 April 2019; and email from Oum Phumro, Deputy Director General, CMAC, 28 July 2020.
- 56 Email from Oum Phumro, CMAC, 9 June 2021.
- 57 Emails from Alexey Kruk, Programme Manager, MAG, 29 March and 28 May 2021.
- 58 Emails from Rebecca Letven, MAG, 7 April 2020; and Alexey Kruk, MAG, 29 March 2021.
- 59 Email from Zlatko Vezilic, NPA, 4 April 2019.
- 60 Email from Portia Stratton, NPA, 20 April 2021.
- 61 APMBC Article 5 deadline Extension Request, Additional Information, undated but August 2019, Annex 18.
- 62 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 63 Email from GICHD, 1 July 2020.
- 64 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021; Oum Phumro, CMAC, 9 June 2021; and Portia Stratton, NPA, 20 April 2021.
- 65 Email from GICHD, 1 July 2020.
- 66 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 67 CMAA, National Mine Action Strategy 2018–2025, p. 22.
- 68 Email from Zlatko Vezilic, NPA, 5 May 2020.
- 69 Emails from Prum Sophakmonkol, CMAA, 1 July 2020; and Ros Sophal, CMAA, 16 August 2021; and interview with Ros Sophal, CMAA, 30 June 2021.
- 70 CMAA, National Mine Action Strategy 2018–2025, pp. 14–15.
- 71 Email from Portia Stratton, NPA, 20 April 2021.
- 72 Email from Lasha Lomidze, HALO Trust, 15 May 2020.
- 73 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 74 Email from Alexey Kruk, MAG, 29 March 2021.
- 75 Email from Zlatko Vezilic, NPA, 5 May 2020.
- 76 Ibid.
- 77 Email from Rebecca Letven, MAG, 9 May 2019; and interview with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2019.
- 78 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 79 Ibid.
- 80 Emails from Zlatko Vezilic, NPA, 4 April 2019; and Rebecca Letven, MAG, 9 May 2019.
- 81 Email from Portia Stratton, NPA, 21 April 2021.
- 82 Emails from Zlatko Vezilic, NPA, 19 March 2020; and Portia Stratton, NPA, 4 September 2020 and 20 April 2021.
- 83 Email from Rebecca Letven, MAG, 7 April 2020.
- 84 CMAA, National Mine Action Strategy 2018–2025, pp. 11–12.
- 85 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 86 Email from Rebecca Letven, MAG, 9 May 2019; and Skype interview with Fredrik Holmegaard, Operations Manager, NPA, 30 May 2019.
- 87 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 88 Email from Zlatko Vezilic, NPA, 25 June 2019.
- 89 Email from Zlatko Vezilic, NPA, 19 March 2020.
- 90 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 6 September 2020.
- 91 APMBC Article 5 Extension Request, 27 March 2019, p. 5.
- 92 Ibid., p. 8; and interviews with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2018; and Geneva, 11 February 2020.
- 93 Emails from Rebecca Letven, MAG, 7 April and 4 September 2020.
- 94 Email from Zlatko Vezilic, NPA, 4 April 2019.
- 95 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 96 Email from Rebecca Letven, MAG, 7 April 2020.
- 97 Emails from Rebecca Letven, MAG, 7 April 2020; and Zlatko Vezilic, NPA, 19 March 2020.
- 98 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 6 September 2020; and Portia Stratton, NPA, 4 September 2020.
- 99 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 100 Emails from Rebecca Letven, MAG, 9 May 2019; and Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 101 Email from Rebecca Letven, MAG, 28 June 2019.
- 102 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 103 Emails from Portia Stratton, NPA, 21 April 2021; and Alexey Kruk, MAG, 29 March 2021.
- 104 Ibid.
- 105 Email from Alexey Kruk, MAG, 29 March 2021.
- 106 Emails from Prum Sophakmonkol, CMAA, 11 September 2019; and Zlatko Vezilic, NPA, 4 April 2019.
- 107 Emails from Zlatko Vezilic, NPA, 5 May 2020; and Lasha Lomidze, HALO Trust, 15 May 2020.
- 108 Email from Portia Stratton, NPA, 21 April 2021.
- 109 Emails from Portia Stratton, NPA, 21 April 2021; and Matthew Hovell, HALO, 9 April 2021.
- 110 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.

- 111 Email from Michael Heiman, APOPO, 8 June 2021.
- 112 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021; Oum Phumro, CMAC, 9 June 2021; Chhun Bora, CSHD, 19 April 2021; Alexey Kruk, MAG, 29 March 2021; and Portia Stratton, NPA, 21 April 2021.
- 113 Emails from Michael Heiman, APOPO, 4 May 2020, 22 March 2021, 8 June 2021, and 28 July 2021.
- 114 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021; and Oum Phumro, CMAC, 9 June 2021.
- 115 Email from Alexey Kruk, MAG, 29 March 2021.
- 116 Email from Portia Stratton, NPA, 21 April 2021.
- 117 Email from Oum Phumro, CMAC, 9 June 2021.
- 118 Email from Rune Dale-Andresen, NPA, 29 September 2020.
- 119 Skype interview with Fredrik Holmegaard, NPA, 30 May 2019; and emails from Prum Suonpraseth, CMAC, 21 June 2019; Zlatko Vezilic, NPA, 2 July 2019; and Portia Stratton, NPA, 21 April 2021.
- 120 Email from Portia Stratton, NPA, 21 June 2021.
- 121 Email from Chhun Bora, CSHD, 19 April 2021.
- 122 Emails from Rebecca Letven, MAG, 9 May 2019 and 4 September 2020; and Alexey Kruk, MAG, 29 March 2021.
- 123 Email from Portia Stratton, NPA, 21 April 2021.
- 124 Emails from Portia Stratton, NPA, 4 September 2020 and 21 April 2021.
- 125 Email from Zlatko Vezilic, NPA, 4 April 2019.
- 126 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May and 1 July 2021.
- 127 Email from Ros Sophal, CMAA, 1 July 2021.
- 128 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May and 1 July 2021.
- 129 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 6 September 2020; and Zlatko Vezilic, NPA, 19 March 2020. There was a discrepancy in the CMAA's data on area reduced through technical survey for MAG compared to the 226,118m² reported by MAG. Email from Rebecca Letven, MAG, 7 April 2020.
- 130 Emails from Michael Heiman, APOPO, 4 May 2020 and 22 March 2021.
- 131 Email from Portia Stratton, NPA, 21 April 2021.
- 132 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021; and Portia Stratton, NPA, 21 April 2021.
- 133 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May and 1 July 2021; Alexey Kruk, MAG, 29 March 2021; and Portia Stratton, NPA, 21 April 2021. There was a discrepancy in the CMAA's data on area reduced through technical survey for CMAC compared to the 3,885,517m² reported by CMAC. Email from Oum Phumro, CMAC, 9 June 2021, MAG, 7 April 2020. In addition, APOPO, in partnership with CMAC, reported reducing 506,068m² in Preah Vihear province, as part of its CMRS using technical survey dogs. Email from Michael Heiman, APOPO, 8 June 2021.
- 134 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021; Alexey Kruk, MAG, 29 March and 28 May 2021; and Portia Stratton, NPA, 20 April 2021. There was a discrepancy in data reported by the CMAA and data reported directly by CMAC. CMAC reported surveying 26,020,219m² and confirming 24,569,333m² (email from Oum Phumro, CMAC, 9 June 2021), of which APOPO, in partnership with CMAC, reported surveying 792,218m² and confirming 286,150m² in 2020, as part of the CMRS with technical survey dogs (email from Michael Heiman, APOPO, 8 June 2021).
- 135 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 136 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May and 1 July 2021; and Chhun Bora, CSHD, 19 April 2021. There was a discrepancy in data reported by the CMAA and data reported directly by some operators. CMAC reported destroying 1,069 CMR during spot tasks in 2020 (email from Oum Phumro, CMAC, 9 June 2021). MAG reported destroying 1,185 CMR during spot tasks in 2020. The discrepancy with CMAA spot task data is believed to be because MAG had yet to enter all data into IMSMA. It expected to have completed data entry by end of June 2021 (email from Alexey Kruk, MAG, 29 March 2021). NPA reported destroying 37 CMR during spot tasks in 2020 (email from Portia Stratton, NPA, 20 April 2021).
- 137 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021. CMAC reported clearing 3 cluster munition-contaminated areas, totalling 98,033m² without finding submunitions (email from Oum Phumro, CMAC, 9 June 2021); NPA reported clearing cluster munition-contaminated areas, totalling 38,101m² without finding submunitions (email from Portia Stratton, NPA, 21 April 2021); MAG reported discovering CMR in all its CMR clearance tasks (email from Alexey Kruk, MAG, 29 March 2021).
- 138 Email from Michael Heiman, APOPO, 8 June 2021.
- 139 Email from Oum Phumro, CMAC, 9 June 2021.
- 140 Email from Chhun Bora, CSHD, 19 April 2021.
- 141 Email from Alexey Kruk, MAG, 29 March 2021.
- 142 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021; Alexey Kruk, MAG, 29 March 2021; Portia Stratton, NPA, 21 April 2021; and Chhun Bora, CSHD, 19 April 2021. There were some small discrepancies in the number of items destroyed reported by operators in comparison to the clearance data reported by the CMAA. CMAC reported clearing 20,347,065m² during clearance and destroying 5,552 submunitions and 1,260 other UXO (email from Oum Phumro, CMAC, 9 June 2021), of which APOPO, in partnership with CMAC, reported it cleared 286,150m² of cluster munition contaminated area in 2020, and destroyed 54 submunitions (36 during technical survey and 18 during clearance) and 25 other items of UXO (19 during technical survey and 6 during clearance) (email from Michael Heiman, APOPO, 8 June 2021). CSHD reported destroying 2 items of UXO (and 65 submunitions) during clearance (email from Chhun Bora, CSHD, 19 April 2021.); and MAG reported destroying 610 submunitions and 11 items of UXO during clearance (email from Alexey Kruk, MAG, 29 March 2021).
- 143 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 144 National Mine Action Strategy 2018–2025, pp. 9–10.
- 145 Ibid.
- 146 Emails from Portia Stratton, NPA, 21 April 2021; and interview with Ros Sophal, CMAA, 30 June 2021.
- 147 Email from Ros Sophal, CMAA, 1 July 2021.
- 148 Email from Portia Stratton, NPA, 21 April 2021.
- 149 Ibid.
- 150 Ibid.
- 151 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 152 Email from Oum Phumro, CMAC, 9 June 2021.
- 153 Email from Chhun Bora, CSHD, 19 April 2021.
- 154 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
- 155 Email from Alexey Kruk, MAG, 29 March 2021.
- 156 CMAA, National Mine Action Strategy 2018–2025, p. 14.
- 157 Email from Tong Try, UNDP, 27 July 2021.
- 158 CMAA, National Mine Action Strategy 2018–2025, p. 16.
- 159 Email from Rebecca Letven, MAG, 7 April 2020.
- 160 APMBC Article 5 deadline Extension Request, Additional Information, undated but August 2019, p. 5.
- 161 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.

RECOMMENDATIONS FOR ACTION

- Georgia should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.

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

In May 2010, Norwegian People's Aid (NPA) completed clearance of its tasked areas.³ In 2016, two submunitions were reported in the Shida Kartli region and then destroyed by the State Security Agency, as part of explosive ordnance disposal (EOD) call-outs.⁴ In 2017, The HALO Trust conducted survey in the Shida Kartli region to investigate each of the call-outs.⁵ During survey, three submunitions were found, which were identified as residual contamination and destroyed.⁶ In 2019–20, a total of six submunitions were found and destroyed during spot tasks.⁷

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

The Humanitarian Demining Control Division (HDCD), renamed after a reorganisation in January 2019, sits under the State Military Scientific Technical Centre, known as DELTA, within the Ministry of Defence (MoD).⁸ 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 carries out some survey and battle area clearance (BAC).⁹

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.¹⁰ The GICHD has provided training for HDCD staff on the Information Management System for Mine Action (IMSMA) Core database, ammunition storage, and technical survey.¹¹ In 2020, one HDCD staff member conducted an online course on IMAS and Compliance organised by the GICHD.¹²

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 2020 staff, one of seven members—the GIS/IMSMA specialist—was a woman. No women were employed in operational roles or in managerial/supervisory positions.¹³

HALO Trust supports use of mixed-gender teams to conduct survey, which allows for greater engagement with women and children.¹⁴ HALO Trust's EOD teams in Abkhazia are mixed ethnic Georgian and ethnic Abkhaz and comprise both men and women.¹⁵ As at May 2020, HALO had increased the percentage of women in the Abkhazia programme to 36%. A total of 43% of HALO's administrative/managerial staff and 42% of its operational staff in Abkhazia were women.¹⁶

INFORMATION MANAGEMENT AND REPORTING

The HDCD uses the IMSMA database and, according to The HALO Trust, the data are accurate. Data archives go back to 2009 and are regularly updated, based on HALO Trust's operations reports and on work by the Engineering Brigade.¹⁷ The data in the national information management system are accessible to the HALO Trust.¹⁸ HALO Trust 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.¹⁹

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.²⁰ With respect to the 2020 annual operational mine action plan, DELTA prioritised clearance in areas of high risk to the population.²¹ 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.²²

Due to shortfalls of funding, The HALO Trust did not carry out any activities in 2020, only maintaining a residual presence in The Tbilisi Administered Territory (TAT). In Abkhazia, HALO's BAC operations continued in Primorsky alongside responding to EOD call-outs. HALO secured three-year funding for its EOD work in Abkhazia and will maintain this capacity until at least 2023.²³

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

As at April 2021, Georgian national mine action standards (NMAS) and National Technical Standards and Guidelines were still under development. The International Ammunition Technical Guidelines (IATG) have been translated to Georgian but the translation of the IMAS was still ongoing.²⁴ HALO expected Georgia's NMAS and non-technical survey guidelines to be finalised in the course of 2021.²⁵

HALO was in the process of updating its standing operating procedures (SOPs) for clearance of four minefield tasks in Abkhazia, slated to take place in June–December 2021.²⁶

OPERATORS AND OPERATIONAL TOOLS

DELTA retains a small demining and EOD capacity in TAT. In 2020, all clearance activities were suspended in TAT due to the COVID-19 pandemic but the Georgian State Security Service (SSS) EOD team continued to respond to call-outs and EOD spot tasks.²⁷ 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.²⁸

The HALO Trust, which is the only international operator working in the country, conducts survey and both BAC and mine clearance.²⁹ 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.³⁰ HALO secured three-year funding for its EOD work in Abkhazia and will maintain this capacity until at least 2023.³¹

In TAT, quality management (QM) is conducted by DELTA. In Abkhazia, The HALO Trust is responsible for its own QM.³²

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

No CMR survey or clearance took place in 2020 or in the previous year. The Georgian SSS EOD unit destroyed five submunitions during EOD spot tasks but this was found to be residual contamination not evidence of a broader problem.³³

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.³⁴

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

The engineering brigade of the MoD has been trained to carry out EOD, demining, and BAC by the North Atlantic Treaty Organization (NATO) Partnership for Peace and has the capacity to deal with any residual contamination.³⁵

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- 1 Emails from Oleg Gochashvili, Head of Division, DELTA, 12 May 2020.
 - 2 Explosive Remnants of War Coordination Centre, "Explosive Remnants of War Coordination Centre (ERWCC) in Facts and Figures", November 2009, p. 17.
 - 3 Email from Jonathon Guthrie, Programme Manager, NPA, 27 May 2010.
 - 4 Email from Oleg Gochashvili, DELTA, 20 June 2017.
 - 5 Emails from Oleg Gochashvili, DELTA, 25 April 2018; and Irakli Chitanava, Programme Manager, HALO Trust, 25 May 2018.
 - 6 Emails from Oleg Gochashvili, DELTA, 25 April 2018; and Irakli Chitanava, HALO Trust, 25 May 2018.
 - 7 Emails from Oleg Gochashvili, DELTA, 12 May 2020 and 28 May 2021.
 - 8 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 (for 21 March 2017 to 31 March 2018), Form A.
 - 9 Email from Oleg Gochashvili, DELTA, 12 May 2020.
 - 10 Emails from Matthew Walker, 8 April 2019; Michael Montafi, HALO Trust, 8 May 2020; and Oleg Gochashvili, DELTA, 10 June 2019.
 - 11 Email from Oleg Gochashvili, DELTA, 12 May 2020.
 - 12 Email from Oleg Gochashvili, DELTA, 28 April 2021.
 - 13 Ibid.
 - 14 Email from Matthew Walker, HALO Trust, 8 April 2019.
 - 15 Email from Michael Montafi, HALO Trust, 8 May 2020.
 - 16 Email from Michael Montafi, HALO Trust, 30 May 2021.
 - 17 Email from Michael Montafi, HALO Trust, 8 May 2020.
 - 18 Email from Matthew Walker, HALO Trust, 8 April 2019.
 - 19 Emails from Oleg Gochashvili, DELTA, 28 March 2019; and Michael Montafi, HALO Trust, 8 May 2020.
 - 20 Email from Oleg Gochashvili, DELTA, 28 March 2019.
 - 21 Email from Oleg Gochashvili, DELTA, 28 April 2021.
 - 22 Email from Michael Montafi, HALO Trust, 30 April 2021.
 - 23 Ibid.
 - 24 Email from Oleg Gochashvili, DELTA, 28 April 2021.
 - 25 Email from Michael Montafi, HALO Trust, 30 April 2021.
 - 26 Ibid.
 - 27 Email from Oleg Gochashvili, DELTA, 28 April 2021.
 - 28 Emails from Oleg Gochashvili, DELTA, 28 March 2019 and 12 May 2020; and Matthew Walker, HALO Trust, 8 April 2019.
 - 29 Email from Irakli Chitanava, HALO Trust, 2 May 2017.
 - 30 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.
 - 31 Email from Michael Montafi, HALO Trust, 30 April 2021.
 - 32 Email from Oleg Gochashvili, DELTA, 28 March 2019.
 - 33 Email from Oleg Gochashvili, DELTA, 28 May 2021.
 - 34 Ibid.
 - 35 Emails from Oleg Gochashvili, DELTA, 28 April 2021; and Michael Montafi, HALO Trust, 30 April 2021.

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.

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 handles international relations.⁵ Several IRMAC staff are believed to be serving or former military personnel, including its Director, while others are civilians employed by the Ministry of Defence.

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.

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.

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

The National Iranian Oil Company (NIOC) also maintains a mine action database recording the results of its own clearance contracts.⁹

LAND RELEASE

OPERATORS AND OPERATIONAL TOOLS

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. Demining capacity in Kurdistan province is believed to stand at around 12 personnel, a reduction on earlier capacity.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

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

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.¹³

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.

International operators are not believed to have been active in Iran since 2008.

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.¹⁴

According to IRMAC, more than 2 million mines and over 1 million items of ERW have been destroyed since the start of its programme.¹⁵

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

No data were available on CMR survey or clearance in 2020, as was the case in the previous year.

As at August 2020, 18 submunitions had been discovered in the first seven months of the year, during ERW clearance of some 7km² in a commercial clearance project in Khuzestan province in the south-west of Iran.¹⁶ As part of the project, the Pasargad Energy Development Company (PEDC) had a demining department and subcontracts a demining operator and QA/QC for the work.¹⁷

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/3uRJDbQ>.

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.

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 Information provided by mine action expert on condition of anonymity.

14 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.

15 Ibid.

16 Information provided by Reza Amaninasab, Ambassadors for development without borders, August 2020.

17 Information provided by Reza Amaninasab, Ambassadors for development without borders, September 2020.

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.
- All parties to the conflict in Libya should ensure that forces loyal to them do not use cluster munitions.
- As soon as political conditions permit, 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, at the earliest opportunity possible and as soon the security situation permits, conduct a baseline survey to identify the extent of contamination from CMR and begin systematic clearance.
- Libya should mainstream gender and diversity in its national mine action programme.

UNDERSTANDING OF CMR CONTAMINATION

CMR contamination in Libya is largely the consequence of armed conflict in 2011 and renewed conflict since 2014, but the extent of contamination is unknown. 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 DPICM-like submunitions delivered by 122mm cargo 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 bombs.²

In July 2019, the Libyan Mine Action Centre (LibMAC) reported 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 and aligned to Khalifa Haftar used cluster munitions in an attack on Zuwarah International Airport, according to the UN Panel of Experts report of December 2019.⁷ According to reports by Human Rights Watch, forces aligned to Khalifa Haftar also used cluster munitions in an airstrike in a residential area in Tripoli on or around 2 December 2019. Human Rights Watch 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

No clearance of CMR occurred in 2020.

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).⁹ 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.¹⁰

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Mine action exists in a fragmented and violent political context. Following years of armed conflict, a new UN-backed “unity” government, the GNA, was formally installed in a naval base in Tripoli in early 2016. It has subsequently faced opposition from the rival LNA government 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.

LibMAC was mandated by the Minister of Defense to coordinate mine action in December 2011.¹¹ Operating under the UN-backed Government of National Accord, LibMAC’s headquarters are in Tripoli, in the west of the country, and it also has offices in Benghazi¹² and Misrata.¹³

ITF Enhancing Human Security (ITF) regularly executed salary payments for 22 LibMAC staff in 2020 and covers all costs related with LibMAC’s daily functioning. Funded by the United States Department of State, ITF provided US\$797,767 of capacity support to the LibMAC in 2020.¹⁴

According to the UN Humanitarian Response Plan (HRP) of 2020, Libyan national capacity to mitigate the threat of explosive hazards is insufficient to address the growing threat. With the existing managerial and coordination capacity in place, governmental and non-governmental actors have a solid base for growth, yet are lacking sufficient numbers of qualified personnel, equipment, and technical expertise to scale up to meet demand.¹⁵ The UN raised US\$7.5 million for the mine action sector in Libya in 2020.¹⁶

UNMAS has largely been operating from Tunis since November 2014, from where it provides institutional and operational capacity-building, training, including in explosive ordnance disposal (EOD), and coordinates with national authorities and implementing partners to carry out mine action activities to mitigate the threat posed by ERW and provide technical advice and advisory support on arms and

ammunition management. The UNMAS Libya Programme is an integral part of the UN Support Mission in Libya (UNSMIL).¹⁷ As of early 2021, UNMAS was in the process of returning to Libya.¹⁸

UNMAS prioritises the capacity enhancement of Libyan mine action actors, supports the LibMAC in accreditation processes for mine action organizations and facilitates coordination with international stakeholders and implementing partners. Since 2015, UNMAS has trained more than 70 National Safety Authority (NSA) operators and military engineers in advanced EOD; trained 30 officers from eastern Libya in non-technical survey; and trained several operators to address explosive ordnance threats in Sirte. UNMAS also increased capacity through the provision of EOD equipment to national actors and assisted LibMAC in developing the Libyan Mine Action Standards (LibMAS) that are now being implemented.¹⁹

In 2020, HALO Trust delivered non-technical survey training to eight members of LibMAC and three of the Free Fields Foundation (3F) staff in June. In addition, one member of LibMAC staff attended a three-day course of Information Management (IM) in Tunis in January 2020.²⁰ The Danish Refugee Council’s (DRC’s) Humanitarian Disarmament and Peacebuilding sector (formally known as Danish Demining Group (DDG)), planned to provide capacity development in gender and diversity mainstreaming in mine action to LibMAC in 2021.²¹

UNMAS chairs a Mine Action Working Group that coordinates mine action in Libya. The group has two main objectives, the first of which is the protection of individuals and communities from risk and impacts of explosive hazards. This is done by clearance, EOD tasks, battle area clearance (BAC), rubble removal, explosive ordnance risk education (EORE) and victim assistance. The second main objective is to enhance the national mine action operational capacity through building of technical skills and physical capacity of established local actors.²²

GENDER AND DIVERSITY

LibMAC does not have a gender and diversity policy for mine action in place. As at April 2021, 13% of the LibMAC employees were women and 50% of managerial/supervisory positions were filled by women. No women were employed in operational positions. LibMAC disaggregates mine action data by sex and age.²³

DCA’s Libya programme has an active policy of employing females into programme roles to increase their financial independence and teach them transferable skills that they may use beyond their current employment with DCA. Gender mainstreaming and mainstreaming of marginalised groups are written in the programme’s core policies. DCA has a gender mainstreaming built-in each all its projects, including its target groups, and ensures that female adults and children constitute at least 50% of beneficiaries. DCA also employs all-female teams to be able to engage with female-headed

households. In 2020, 25% of DCA employees in Libya were women, but as at April 2021, the rate was increased to 29% by recruiting all-female non-technical survey teams. Seven of the fifteen managerial/supervisory positions were filled by women.²⁴

DRC has a gender and diversity policy in place, but, as at April 2021, its implementation plan was still under development. DRC consults women and children during survey and community liaison activities. This is achieved by composing all-female survey teams to reach women in community settings where this cannot be done by mixed-gender teams, which is specifically the case in Sabha. In 2020, 13 of the total 77 employees of DRC Libya programme were women. Of these, 5% of survey and 6% of managerial/supervisory positions were filled by women.²⁵

The HALO Trust reported that its Libya programme seeks to comply with HALO's general gender and diversity policy. However, due to rigid gender norms that largely impede women's free movement and ability to work in a mixed-gender office setting, particularly reinforced in areas with strong Islamist influence such as Sirte, HALO has reported that the recruitment of women, including for non-operational roles, has proved difficult. In 2020, six of HALO's ninety-four Libyan employees and five of the fifteen senior management team members were women (two of five were internationals, while three of the remaining ten were national staff). No women were employed in operational roles.²⁶ The HALO Trust disaggregates relevant mine action data by gender and age.²⁷

INFORMATION MANAGEMENT AND REPORTING

LibMAC receives technical support for the Information Management System for Mine Action (IMSMA) from the Geneva Centre for Humanitarian Demining (GICHD) and UNMAS. With support from the GICHD, LibMAC planned to transition from IMSMA to IMSMA Core in mid 2020.²⁸ As at April 2021, the transition had not yet been completed.²⁹

IMSMA is accessible to clearance organisations and data collection forms are reported to be consistent and enable collection of necessary data.³⁰ Operators have internal quality control systems prior to submitting of data to LibMAC for further quality control. The HALO Trust reported that the LibMAC regularly updates the IMSMA database to a high standard.³¹

Since early 2019, The HALO Trust has been working closely with LibMAC to cover mechanical clearance in the Libyan IMSMA database. The planned transition to IMSMA Core will allow data entry for mechanical clearance.³²

PLANNING AND TASKING

There is no mine action strategy currently for Libya.³³

LibMAC does, however, have a national short-term operational plan.³⁴ LibMAC prioritises survey and clearance operations based on humanitarian, security and development indicators,³⁵ and is responsible for issuing task orders.

According to DCA, 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 internally displaced persons (IDPs). Therefore, much of the clearance is reactive EOD spot tasks in order to minimise the immediate threat to human life.³⁶

HALO Trust'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.³⁷

The Tripoli ERW Hazard Mapping and IM Project uses open-source data collation and geolocation techniques to map potential ERW contamination along the Tripoli frontlines by collecting information on active fighting incidents, weapons systems, and ammunition used, and ERW-related accidents and displacement. The online data collection portal, linking to a live database that is shared with LibMAC and other stakeholders, is used to track historical data starting from 4 April 2019 up to the present. Mapping ERW contamination along the frontlines enables LibMAC to coordinate and direct specialist clearance capacity as well as risk education teams to the most highly contaminated areas.³⁸

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.³⁹ According to international clearance operators, the national mine action standards are aligned to the International Mine Action Standards (IMAS), reproducing it word-for-word in many parts.⁴⁰ As at April 2021, the LibMAS have not been updated since their approval in 2017.

While the LibMAS are broad and not overly restrictive, some additional guidance on how implementing organisations should adapt to local circumstances and conditions may be beneficial. For example, what they should consider as direct versus indirect evidence in the context of clearance in urban areas. This could in turn help standardise the consideration of evidence by various stakeholders.⁴¹

OPERATORS AND OPERATIONAL TOOLS

Table 1: Operational survey capacities deployed in 2020⁴²

Operator	NTS teams	Total personnel	TS teams
3F	2	6	0
Libya Peace Organization	2	6	0
HALO Trust ⁴³	5	12	0
DCA ⁴⁴	4	44	0
DRC	2	6	0
Totals	15	74	0

NTS = Non-technical survey

TS = Technical survey

Table 2: Operational clearance capacities deployed in 2020⁴⁵

Operator	Manual clearance teams	Total deminers*	Dog teams (dogs and handlers)	Mechanical assets/machines
DCA	7	77	0	0
HALO Trust	0	0	0	3
Totals	7	77	0	3

* 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 NSA, also known as Civil Defence.⁴⁶ Military engineers reportedly lack mine detectors and are working with basic tools.⁴⁷ The NSA is mandated to conduct EOD in civilian areas.⁴⁸ These institutions liaise with LibMAC but are not tasked or accredited by them, nor do they provide clearance reports to the Centre.

The National non-governmental organisation (NGO) operator, 3F, continued to be operational. Another national operator, the Libyan Demining Group (LDG), was in the process of becoming established as at February 2019,⁴⁹ but, as at April 2021, had not been accredited by LibMAC.⁵⁰ Local organisations Peace Organization from Zintan and World Without War (3W), from Misrata, which had been trained by HI in 2016 and received accreditation for non-technical survey,⁵¹ subsequently had their operations suspended for not complying with standards and, in addition, neither organisation had secured funding.⁵² In 2020, LibMAC reported having accredited two additional local operators: The Safe Trust NGO (*Al-Thiqa al-Amna*) and the Communication NGO (*Al-Tawasol*).⁵³

DCA is operational in Libya 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. DCA also conducts risk education.⁵⁴ Now in its eleventh year of working in Libya, DCA currently has offices Benghazi, Misrata, Sirte, and Tripoli. Its office in Al-Bayda was closed since the end of its programme in Derna. In 2020, DCA deployed manual clearance teams in Benghazi, Derna, Sirte, and Tripoli. DCA increased both survey and clearance capacity in 2020 as it expanded to address the ERW contamination in the south of Tripoli and expected to increase its clearance teams from two to four in Tripoli in 2021 under additional funding.⁵⁵

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. DRC was operational in both Benghazi and Sabha in 2020.⁵⁶ In Sabha, DRC had two non-technical survey teams and two EOD teams, which it was managing remotely. Security issues in the south continue to disrupt mine action and prevent continuous operations. In Tripoli, DRC works through its national implementing partner, 3F. 3F operates under DRC's accreditation and standing operating procedures (SOPs), and has an operational contingent of 37, composed in two EOD teams and two non-technical survey teams.⁵⁷ In 2020, DRC conducted two non-technical surveys in Benghazi and one in Sabha. DRC also conducted one EOD task in Benghazi and another in Al-Shati.⁵⁸

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. In July 2020, HALO trained eight personnel in non-technical survey and deployed two non-technical survey teams. In November 2020, HALO trained and deployed three additional non-technical survey teams.⁵⁹ As at April 2021, HALO Trust was training and preparing to deploy two technical survey/clearance teams and three mechanical clearance teams. HALO intended to deploy 13 manual personnel and 16 mechanical personnel in 2021, subject to accreditation by LibMAC.⁶⁰ As of writing, HALO was not yet accredited to conduct clearance or EOD tasks.⁶¹

Humanitarian access to Libya for survey and clearance operations, remains challenging for all operators. HALO, for example, experienced delays in the granting of multiple-entry visas and limited movement between locations due to ongoing conflict and changing frontlines. 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.⁶²

The level of insecurity in Libya have not significantly affected operations of DCA in 2020. DCA lost approximately four weeks of operations time in Sirte following the change in front lines in January 2020.⁶³ For DRC, the security situation in Libya has posed little to no challenges to the implementation of survey activities, and it continued to enjoy good access in its area of operations.⁶⁴

A number of other Libyan civil society organisations are also reported to carry out mine action operations, but they are not accredited by LibMAC.

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

There were no known reports of CMR survey or clearance during 2020 or in 2019.

DCA did not engage in any survey or clearance of CMR in 2020 and reports that the only actor who might have is the National operator, 3F.⁶⁵ Data was not made available by the LibMAC on CMR clearance conducted in Libya in 2020.

SURVEY IN 2020

There were no known reports of CMR survey during 2020.

DCA did not engage in any survey of CMR in 2020 and reports that the only actor who might have is the National operator, 3F.⁶⁶

CLEARANCE IN 2020

There were no known reports of CMR clearance during 2020. Data were not made available by LibMAC on any CMR clearance in 2020.

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 internally displaced persons 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.⁶⁷ Security conditions continued to pose a challenge to mine action in Libya.

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- 4 Email from Catherine Smith, Head of Mission, HI, 12 March 2019.
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- 6 Ibid., and "Tripoli forces claim successes and accuse Haftar of using cluster bombs and internationally banned phosphorus bombs", Libya Herald, 20 June 2019.
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- 15 OCHA, Libya Humanitarian Response Plan, February 2020, p. 45, at: <http://bit.ly/337NiwH>.
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- 19 Ibid.
- 20 Email from Lucy Reeve, Programme Manager, HALO Trust, 23 April 2021.
- 21 Email from Catherine Alice Smith, Programme Manager, DRC, 20 April 2021.
- 22 OCHA, Libya Humanitarian Response Plan, February 2020, p. 45.
- 23 Email from Col. Adel Elatwi, LibMAC, 22 April 2021.
- 24 Email from Graeme Ogilvie, Country Director, DCA, 20 April 2021.
- 25 Email from Catherine Alice Smith, DRC, 20 April 2021.
- 26 Email from Lucy Reeve, HALO Trust, 23 April 2021.
- 27 Email from Nicholas Torbet, HALO Trust, 14 April 2020.
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- 29 Email from Col. Adel Elatwi, LibMAC, 22 April 2021.
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- 36 Email from Graeme Ogilvie, DCA, 20 April 2021.
- 37 Email from Lucy Reeve, HALO Trust, 23 April 2021.
- 38 Email from Nicholas Torbet, HALO Trust, 14 April 2020.
- 39 LibMAC website, accessed 23 March 2020, at bit.ly/2JF1hfE; Report of the Secretary-General on UNSMIL, UN doc. S/2018/140, 12 February 2018, p. 12; and UNMAS, "Programmes: Libya", accessed 23 March 2020.
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- 60 Ibid.
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- 63 Email from Graeme Ogilvie, DCA, 20 April 2021.
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- 66 Ibid.
- 67 PowerPoint presentation by Col. Turjoman, LibMAC, at the UN National Programme Director's Meeting, Geneva, 8 February 2017.

RECOMMENDATIONS FOR ACTION

- 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.
- Serbia should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.

UNDERSTANDING OF CMR CONTAMINATION

At the end of 2020, Serbia had seven areas confirmed to contain CMR covering more than 0.71km², while a further three areas covering over 1.38km² were suspected to contain CMR (see Table 1).¹ This was a decrease compared to the 10 areas confirmed to contain CMR covering almost 1km and three areas suspected to contain CMR covering almost 1.4km² as at end of 2019,² which is the result of clearance of CMR-contaminated area in 2020. SMAC does not possess data on explosive ordnance contamination of military areas in Serbia.³

In addition, and not included in Table 1 below, SMAC has added to the database three cluster munition-contaminated areas in the municipality of Niš, totalling over 0.16km², which were previously owned by the Ministry of Defence (nearby to Niš civilian airport), and which were transferred to civilian ownership, under the Airports of Serbia Niš. SMAC has developed clearance projects and planned to complete clearance of these three CMR projects in 2021 (please see section on Planning and Tasking).⁴

CMR resulted from North Atlantic Treaty Organization (NATO) air strikes in 1999. According to Serbia, cluster munitions struck 16 municipalities: Brus, Bujanovac, Čačak, Gadžin Han, Knić, Kraljevo, Kuršumlija, Niš City-municipality of Crveni Krst, Niš City-municipality of Medijana, Preševo, Raška, Sjenica, Sopot, Stara Pazova, Tutin, and Vladimirci.⁵

Table 1: Cluster munition-contaminated area by municipality (at end 2020)⁶

Municipality	Village	CHAs	Area (m ²)	SHAs	Area (m ²)
Bujanovac	Borovac	2	210,881	1	281,169
Sjenica	Čedovo	4	163,924	0	0
Sjenica	Vapa	1	338,416	0	0
Tutin	Istočni Mojstir	0	0	1	515,000
Užice	Bioska	0	0	1	585,268
Totals		7	713,221	3	1,381,437

CHAs = confirmed hazardous areas

SHAs = suspected hazardous areas

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

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 a Government Decree on Protection against Unexploded Ordnance, the Sector for Emergency Management, under the Ministry of Interior, is 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 There are seven other people employed at SMAC: two assistant directors and five other SMAC employees.¹³

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 €300,000 per annum is allocated from the national state budget for the work of SMAC,¹⁴ an increase on the €270,000 provided in 2020.¹⁵ In addition, the UXO disposal work of the Sector for Emergency Situations of the Ministry of Interior is also State funded.¹⁶ Furthermore, in 2019, Serbia contributed national funding towards the establishment of an explosive ordnance disposal (EOD) training centre,¹⁷ which is now operational.

Since 2015, Serbia has also been allocating national funds for survey and clearance, with roughly €100,000 allocated per year.¹⁸ In 2018, the Serbian Government allocated double the amount of national funds previously dedicated to demining operations to €200,000 (which were matched with United States and South Korean funding and tendered through ITF Enhancing Human Security (ITF)). Serbia continues to seek additional international funding.¹⁹ At the request of the national authorities, national funding was increased to €350,000 for 2019 demining operations.²⁰ The same amount had been allocated by the Serbian government for demining operations in 2020, but was subsequently reduced by 20%

to €260,000 due to the COVID-19 crisis and efforts by the Serbian government to tackle it.²¹ None of the national funding for survey and clearance was allocated to CMR operations in 2020, as SMAC will continue to prioritise its national funding to mine survey and clearance, rather than CMR, to contribute towards meeting its obligations under Article 5 of the Anti-Personnel Mine Ban Convention (APMBC).²² National funding for survey and clearance remained at €260,000 for 2021.²³ The funds will be matched with donor funds through the ITF.²⁴

In March 2020, SMAC and the Serbian Ministry of Defence, 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 of 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 operations.²⁵

In late 2019, the Serbian government approved funds for the establishment of a training centre within SMAC. Together with experts from the Ministry of Interior, SMAC will provide different training modules, including on ERW recognition, international mine action standards, medical aspects, and risk reduction.²⁶

SMAC organised an EOD Level 1 training course from 21 September to 10 October 2020, which was supported by the French Embassy in Belgrade and conducted by a French demining company, "EOD-EX", in accordance with IMAS. The course, said to be the first of its kind to take place in Serbia, was attended by a member of the Sector for Emergency Management of the Ministry of Interior, as well as representatives of demining companies from Serbia and the Republika Srpska in Bosnia and Herzegovina.²⁷ The training was aimed at strengthening human resources in the field of humanitarian demining in Serbia and also to standardise the level of national competencies in accordance with IMAS.²⁸ Prior to the opening of the new training centre, SMAC had been recognising certificates from organisations from Bosnia and Herzegovina and Croatia that had been accredited respectively by the Bosnia and Herzegovina Mine Action Centre (BHMIC) and the Croatian Mine Action Centre (CROMAC) to conduct training courses in mine action and humanitarian demining.²⁹

GENDER AND DIVERSITY

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.³⁰

Serbia reports there is equal access to employment for qualified women and men in survey and clearance operations.³¹

At SMAC, 50% of employees are women, with 25% of managerial/supervisory level positions held by women along with 25% of operations positions.³²

INFORMATION MANAGEMENT AND REPORTING

SMAC uses its own information management system. Following on from initial discussions several years ago, in early 2020, SMAC informally discussed the possibility of the installation of the Information Management System for Mine Action (IMSMA) with the Geneva International Centre for Humanitarian Demining (GICHD).³³ Subsequently, Serbia has been added to the GICHD's list of countries to be supported and an initial online meeting between the GICHD and SMAC took place in March 2021. The next step will be for GICHD to conduct an assessment mission to Serbia.³⁴

PLANNING AND TASKING

The Government of Serbia adopts SMAC's annual work plans.³⁵ SMAC's 2021 work plan included three CMR clearance projects: two in Bujanovac (village of Borovac) totalling 210,881m² (funded by the United States through ITF) and the other in Niš totalling 84,750m² (funded through the International Civil Defence Organization (ICDO), with a donation from Russia).³⁶

In addition, two CMR clearance projects in Niš in 2021 (one totalling 10,176m² and the other 69,540m²), are being funded by the Airports of Serbia.³⁷

SMAC also expected to resume the four CMR clearance operations that started in 2020 with funding from the United States via the ITF, but which had to be suspended due to

lack of available deminers due to the impact of COVID-19. These comprised three clearance projects in Sjenica (villages Čedovo and Vapa) totalling 502,304m² and one technical survey project in Tutin (village Istočni Mojstir) totalling 515,000m².³⁸

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.³⁹ SMAC also noted that donors themselves sometimes also influence the choice of the areas which will be demined first, depending on availability and amount of their funds.⁴⁰

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

According to SMAC, survey and clearance operations in Serbia are conducted in accordance with IMAS.⁴¹

National mine action standards (NMAS) were said to be in the final phase of development as at September 2015.⁴² In April 2017, SMAC reported that, along with the relevant national authorities, it was in the process of establishing a commission to develop national standards and SOPs to define methods and techniques for survey and clearance in Serbia.⁴³ However, this process has subsequently been hindered due to lack of capacity.⁴⁴

As at April 2021, Serbia planned to adopt a new decree on protection against ERW. The decree, developed by SMAC and the Ministry of Interior, includes the need for the development of national standards; introduces the concept of land release, which was not defined in the former decree; aims to improve the accreditation, monitoring, and evaluation process; and prohibit the previous practice of independent ammunition technicians being hired by infrastructure companies, which will instead be done through tasking and coordination from SMAC.⁴⁵ As at July 2021, the Decree was close to being finalised.⁴⁶

Under new directorship in late 2015, SMAC reassessed its land release methodology to prioritise full clearance over technical survey of hazardous areas.⁴⁷ 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.⁴⁸

As at March 2021, 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.⁴⁹

OPERATORS AND OPERATIONAL TOOLS

SMAC does not itself carry out 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.⁵⁰

The Ministry of Interior issues accreditation to mine action operators that is valid for one year. In 2020, 24 companies/organisations were accredited for demining,⁵¹ but only two organisations conducted clearance of CMR (see Table 2). No survey personnel were deployed in Serbia in 2020.⁵²

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.⁵³

Table 2: Operational CMR clearance capacities deployed in 2020⁵⁴

Operator	Manual teams	Total deminers*	Dogs and handlers	Machines**
NGO Stop Mines (Pale, BiH)	2	16	0	0
Saturnia Ltd (Belgrade, Serbia)	2	17	0	0
Totals	4	33	0	0

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

Table 2 represents an increase in clearance capacity compared to the previous year. SMAC expected to further increase capacity in 2021 to meet the increased number of planned CMR clearance/technical survey projects.⁵⁵

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

A total of over 0.28km² of CMR-contaminated area was released in 2020, all through clearance.⁵⁶

SURVEY IN 2020

No CMR-contaminated area was reduced through technical survey or cancelled through non-technical survey in 2020⁵⁷ or 2019.⁵⁸

CLEARANCE IN 2020

A total of 284,855m² of CMR-contaminated area was cleared in 2020, during which 7 submunitions and 67 items of other UXO were destroyed (see Table 3).⁵⁹ Clearance output in 2020 was more than double that of 2019, when 119,334m² of CMR-contaminated area was cleared.⁶⁰

All items destroyed were discovered in the village of Lisina, in the municipality of Raška. Completion of this CMR clearance project in 2020 saw completion of overall CMR clearance in the Kopaonik mountain area. Based on available data related to civilian areas, there are no more areas under civilian control suspected to be contaminated by cluster munitions in Raška municipality.⁶¹ SMAC does not possess data on explosive ordnance contamination of military areas in Serbia.⁶²

No items of explosive ordnance were discovered during clearance in the village of Vapa, in the municipality of Sjenica.⁶³

SMAC did not have available data on the number or type of individual items of ERW destroyed by the EOD department within the Sector for Emergency Management during spot tasks in 2020.⁶⁴

Table 3: CMR clearance by municipality in 2020⁶⁵

Municipality	Village	Operator	Area cleared (m ²)	Submunitions destroyed*	Other UXO destroyed
Sjenica	Vapa	Saturnia Ltd., Belgrade, Serbia	94,496	0	0
Raška	Lisina	NGO Stop Mines, Pale, BiH	190,359	7	67
Totals			284,855	7	67

* Figures include items destroyed during technical survey.

PROGRESS TOWARDS COMPLETION

Less than 1km² in total has been cleared in the last five years (see Table 4). However, clearance output in 2020 was double that of the previous year and there were several CMR clearance projects planned for 2021.

In its last APMBC Article 5 deadline extension request, dated 31 March 2018, Serbia had included a work plan for completion of all ERW clearance by 2023, at a predicted total cost of €20 million. CMR were not disaggregated from other ERW.⁶⁶ Progress in CMR clearance is said to be contingent on funding. Serbia has said that depending on available funds and the global health situation caused by COVID-19, CMR clearance in the country could be finished within two years.⁶⁷

Table 4: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2020	0.28
2019	0.12
2018	0.00
2017	0.18
2016	0.25
Total	0.83

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

SMAC envisages that it will most likely need both national and international capacity to deal with any residual contamination, discovered following completion.⁶⁸ Serbia is already dealing with residual ERW contamination and investing significant funds for ERW clearance.⁶⁹

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- 1 Email from Slađana Košutić, Senior Advisor for Planning, International Cooperation and European Integrations, SMAC, 26 March 2021.
- 2 Email from Slađana Košutić, SMAC, 23 April 2020.
- 3 Email from Slađana Košutić, SMAC, 11 May 2021.
- 4 Email from Slađana Košutić, SMAC, 26 March 2021.
- 5 SMAC, "Mine Situation", accessed 12 March 2020, at: <http://bit.ly/1Nom1V7>.
- 6 Ibid.
- 7 Second Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request (2018), P. 10.
- 8 Official Gazette of the Republic of Serbia, No. 70/13.
- 9 Emails from Darvin Lisica, Regional Programme Manager, Norwegian People's Aid (NPA), 6 May and 12 June 2016.
- 10 Law of Alterations and Supplementations of the Law of Ministries, Official Gazette, 84/04, August 2004; interview with Petar Mihajlović and Slađana Košutić, SMAC, Belgrade, 26 April 2010; and 2018 APMBC Article 5 deadline Extension Request, p. 17.
- 11 2018 APMBC Article 5 deadline Extension Request, p. 17.
- 12 Email from Slađana Košutić, SMAC, 23 April 2020.
- 13 Email from Slađana Košutić, SMAC, 26 March 2021.
- 14 Article 7 Report (covering 2020), Form D.
- 15 Article 7 Report (covering 2019), Section 4; and email from Slađana Košutić, SMAC, 26 March 2021.
- 16 SMAC, "Mine situation", accessed 8 May 2019, at: <http://bit.ly/1Nom1V7>.
- 17 Interview with Bojan Glamočlija, Director, SMAC, in Geneva, 14 February 2020.
- 18 Email from Slađana Košutić, SMAC, 6 April 2017; interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017; and 2018 APMBC Article 5 deadline Extension Request.
- 19 2018 APMBC Article 5 deadline Extension Request, p. 9; APMBC Article 7 Report (covering 2018), Form C; and email from Slađana Košutić, SMAC, 26 March 2019.
- 20 APMBC Article 7 Report (covering 2019), Section 4; and Statement on Clearance, Fourth APMBC Review Conference, Oslo, 27 November 2019.
- 21 Interview with Bojan Glamočlija, SMAC, in Geneva, 14 February 2020; Statements on Clearance, Fourth APMBC Review Conference, Oslo, 27 November 2019 and APMBC 18th Meeting of States Parties (virtual meeting), 16–20 November 2020; and Article 7 Report (covering 2020), Form D.
- 22 Email from Slađana Košutić, SMAC, 26 March 2021.
- 23 Ibid.
- 24 Article 7 Report (covering 2020), Form D; and email from Slađana Košutić, SMAC, 26 March 2021.
- 25 Article 7 Report (covering 2020), Form H; and email from Slađana Košutić, SMAC, 11 May 2021.
- 26 Emails from Slađana Košutić, SMAC, 23 April 2020 and 26 March 2021.
- 27 Article 7 Report (covering 2020), Form D; and emails from Slađana Košutić, SMAC, 26 March and 11 May 2021.
- 28 SMAC, "Completion of explosive ordnance disposal – Level 1 training (EOD - Level 1) arranged by Serbian Mine Action Centre", 14 October 2020, at: <https://bit.ly/32G7BKI>.
- 29 Email from Slađana Košutić, SMAC, 11 May 2021.
- 30 Emails from Slađana Košutić, SMAC, 23 April 2020 and 26 March 2021.
- 31 Email from Slađana Košutić, SMAC, 23 April 2020.
- 32 Email from Slađana Košutić, SMAC, 26 March 2021.
- 33 Email from Slađana Košutić, SMAC, 23 April 2020.
- 34 Article 7 Report (covering 2020), Form D; and email from Slađana Košutić, SMAC, 26 March 2021.
- 35 2018 APMBC Article 5 deadline Extension Request, p. 16; email from Slađana Košutić, SMAC, 26 March 2019; and interview with Bojan Glamočlija, SMAC, in Geneva, 14 February 2020.
- 36 Email from Slađana Košutić, SMAC, 26 March 2021.
- 37 Ibid.
- 38 Ibid.
- 39 Email from Slađana Košutić, SMAC, 26 March 2019.
- 40 Email from Slađana Košutić, SMAC, 12 April 2018.
- 41 SMAC, "Mine Situation, November 2019", accessed 18 February 2020, at: <http://bit.ly/1Nom1V7>; and APMBC Article 7 Report (covering 2019), Section 4.
- 42 Interview with Branislav Jovanović, SMAC, in Dubrovnik, 10 September 2015.
- 43 Email from Slađana Košutić, SMAC, 6 April 2017.
- 44 Interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017; and email from Slađana Košutić, SMAC, 23 April 2020.
- 45 Article 7 Report (covering 2020), Form D; and emails from Slađana Košutić, SMAC, 26 March and 26 July 2021.
- 46 Email from Slađana Košutić, SMAC, 26 July 2021.
- 47 Interview with Jovica Simonović, SMAC, in Geneva, 18 February 2016.
- 48 Ibid.
- 49 2018 APMBC Article 5 deadline Extension Request, p. 30; and email from Slađana Košutić, SMAC, 26 March 2021.
- 50 Second APMBC Article 5 deadline Extension Request (2018), p. 18.
- 51 Email from Slađana Košutić, SMAC, 26 March 2021.
- 52 Ibid.
- 53 Interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017; and Second APMBC Article 5 deadline Extension Request (2018), p. 18.
- 54 Email from Slađana Košutić, SMAC, 26 March 2021.
- 55 Ibid.
- 56 Ibid.
- 57 Ibid.
- 58 Email from Slađana Košutić, SMAC, 23 April 2020.
- 59 Email from Slađana Košutić, SMAC, 26 March 2021.
- 60 Email from Slađana Košutić, SMAC, 23 April 2020.
- 61 Ibid.
- 62 Email from Slađana Košutić, SMAC, 11 May 2021.
- 63 Email from Slađana Košutić, SMAC, 26 March 2021.
- 64 Ibid.
- 65 Email from Slađana Košutić, SMAC, 26 March 2021.
- 66 Second APMBC Article 5 Extension Request (2018), p. 33.
- 67 Email from Slađana Košutić, SMAC, 26 March 2021.
- 68 Email from Slađana Košutić, SMAC, 23 April 2020.
- 69 Email from Slađana Košutić, SMAC, 18 June 2020.

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.

UNDERSTANDING OF CMR CONTAMINATION

At the end of 2020, South Sudan had 128 hazardous areas covering a total size estimated at just under 5.8km² contaminated with CMR, of which 5.1km² was confirmed hazardous area (CHA) and 0.7km² 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 heavily contaminated. This is a substantial decrease from the 6.4km² across 141 hazardous areas confirmed or suspected to be contaminated with CMR at the end of 2019.²

Table 1: Cluster munition-contaminated area by state (at end 2020)³

State	CHAs	Area (m ²)	SHAs	Area (m ²)	Total CHAs/SHAs	Total area (m ²)
Central Equatoria	38	1,947,891	2	489,856	40	2,437,747
Eastern Equatoria	65	2,800,339	0	0	65	2,800,339
Jonglei	4	55,458	2	0	6	55,458
Lakes	1	58,040	0	0	1	58,040
Upper Nile	4	123,067	0	0	4	123,067
Warrap	1	19,745	0	0	1	19,745
Western Bahr El Ghazal	1	60,952	0	0	1	60,952
Western Equatoria	9	48,680	1	175,698	10	224,378
Totals	123	5,114,172	5	665,554	128	5,779,726

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. Nine areas previously suspected to be CMR-contaminated were re-surveyed and cancelled in 2020.⁴

South Sudan's national mine action programme has greatly improved the accuracy of estimates of explosive ordnance contamination. 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 18.8km² at the end of 2020.⁵ Despite continued land release, however, CMR contamination has increased over

that time 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.⁶

While it is understood that there are 128 hazardous areas across South Sudan, historically the size of these areas, or 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 strikes). It is likely therefore that the current projection of CMR contamination underestimates the scale of the problem.⁷ 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.⁸

In 2020, 13 hazardous areas covering a total of 216,297m² of previously unrecorded CMR contamination were added to South Sudan's mine action information management database.⁹ In addition, there was an expansion by 1,461,056m² of existing hazardous areas. These had been recorded in the database but the estimates of size were overly conservative and so were increased to better reflect the expected extent of contamination.¹⁰

Cluster munitions were used during the decade-long war between Sudan and the 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 sporadically in southern Sudan.

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).

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 act 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

While it is planned that the NMAA will eventually assume full responsibility for all mine action activities, according to UNMAS the NMAA continued to face serious financial and technical limitations preventing it from doing so effectively.¹⁴ It requires substantial resources and capacity building assistance if it is to manage the mine action programme.¹⁵ UNMAS continued with capacity development of the NMAA during 2020 as NMAA officers were supported in conducting joint quality assurance (QA) visits with UNMAS during which each individual received "on the job training" and was assessed. Two NMAA officers also received sustained training in operations management, which was due to end in 2021. A resource mobilisation strategy is under development and there are plans to deploy one operational team from the NMAA to conduct explosive ordnance disposal (EOD) to manage residual contamination.¹⁶

In 2020, UNMAS and Danish Demining Group (DDG) were the co-coordinators of the mine action sub-cluster with Mines Advisory Group (MAG) replacing DDG in March 2021.¹⁷ 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

In 2020, the Government of South Sudan funded the costs of NMAA staff salaries and its sub-offices across the country, in Malakal, Wau, and Yei. As at April 2021, use of the Yei office continued to be suspended due to the security situation.¹⁹ The NMAA did not, however, provide any funding for survey or clearance. The government's total support was reported as US\$75,000 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 2020, South Sudan received more than US\$40 million for mine action which exceeds the costs needed if current levels of support are maintained. It is worth noting, however, that much of the funding received by UNMAS, which on average has contributed around 75% of all sector funding, is used to support the UN Mission in South Sudan (UNMISS).²² The NMAA has requested international funding and technical support for clearance of cluster munitions and for training on residual contamination capacity from 2022 to 2024.²³

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.²⁴ UNMAS reported that the programme was also implementing the UN Gender Guidelines for Mine Action, monitored by a gender focal point.²⁵

South Sudan's National Technical Standards and Guidelines (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.²⁶ 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.²⁷ 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.²⁸ Ethnic identity is taken into account within survey and clearance teams to ensure safe access and acceptance by the respective local communities.²⁹

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.³⁰ As at April 2021, these had not yet happened due to COVID-19 and the related restrictions.³¹

UNMAS has said that in theory there are equal employment opportunities for qualified men and women in survey and clearance teams across the organisations operating in South Sudan. However, redressing the gender balance is a long-term challenge and is dependent on whether new

vacancies arise.³² 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.³³ In 2020, only 7% of staff in operational roles were women, and were only 5% of managerial or supervisory positions among international staff positions, with no female occupying a managerial position among the national staff. This was unchanged from 2019.³⁴

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 May 2021, two international staff members who hold managerial positions within MAG were female as were four national staff. Within survey and clearance operations there were three female community liaison personnel out of six in total and 20 deminers. In 2021, MAG held its second basic deminer course for women with 16 women graduating who will become part of MAG's demining teams. MAG has noticed that communities very often nominate men as community focal points and MAG has worked with community representatives to increase the number of female and youth community focal points. In 2020 and 2021, MAG trained 39 men, 15 boys, 44 women, and 5 girls as community focal points.³⁵

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 thought to be exaggerated or erroneously recorded. 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.³⁶

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.³⁷

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 second voluntary Article 7 report in April 2021.

PLANNING AND TASKING

South Sudan's most recent National Mine Action Strategy 2018–2022, developed with support from the Geneva International Centre for Humanitarian Demining (GICHD) and using funding from Japan, was officially launched in September 2018.³⁸

According to UNMAS, the strategy has three strategic goals with related targets:³⁹

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.⁴⁰ 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 2020–21 was primarily on road clearance, with a view to create safe access and facilitate freedom of movement, along with clearance of CMR and large anti-personnel mined areas for the benefit of returnees.⁴¹

In its revised 2020 APMBC 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 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.⁴²

According to its revised 2020 APMBC Article 5 deadline extension request, South Sudan intends to address all contamination from anti-personnel mines, anti-vehicle mines, CMR, and other ERW by its requested 2026 APMBC Article 5 deadline. To that end, aside from those tasks where specific humanitarian interventions are planned, the intention is to be pragmatic in the sequencing of tasks and to deploy clearance teams through a prioritisation process that aims to balance security, logistical requirements, and concentration of effort. South Sudan believes that this combination will lead to the most efficient clearance that allows for optimal monitoring of clearance efforts.⁴³

Table 2: Planned mechanical and manual clearance of CMR- and UXO-contaminated area (2021–25)⁴⁴

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

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.⁴⁵ These standards and guidelines also contain provisions specific to CMR survey and clearance.⁴⁶

In 2020, a review of all of the NTSGs was conducted with amendments made in consultation with the implementing partners. Of relevance to CMR clearance, a 360° quality control (QC) check drill after the destruction of each item of ordnance was introduced.⁴⁷

Both UNMAS and MAG have reported that a significant 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.⁴⁸ 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.⁴⁹

UNMAS noted that the NTSGs require all mine action teams to conduct regular internal quality assurance (QA), along with QC sampling of 10% of each area cleared.⁵⁰ In 2020, there were improvements made to the QA/QC process with reporting migrated onto the online Survey123 IMSMA platform and standardised scoring matrices developed for accreditation of team leaders and teams. Ten NMAA officers took part in joint QA visits with UNMAS during which each individual received "on the job training" and was assessed. Two NMAA officers also received advanced on-the-job training in operations management, which was due to end in 2021.⁵¹

OPERATORS AND OPERATIONAL TOOLS

UNMAS has reported that 34 teams from five organisations conducted CMR survey and clearance tasks in 2020, however, they were also conducting other tasks and were not exclusively deployed in clearance of CMR: three international demining non-governmental organisations (MAG, DDG, and DCA), and two commercial companies (G4S Ordnance Management (G4S) and The Development Initiative (TDI)). It estimated the number of operational personnel involved in CMR survey and clearance at 336 during the year (see Table 3). The clearance teams were not deployed exclusively on CMR tasks, they also conducted EOD, manual mine clearance and/or non-technical survey.⁵² In addition, in 2020 MAG also deployed seven non-technical survey teams totalling 19 personnel.⁵³

Table 3: Operational clearance capacities deployed in 2020⁵⁴

Operator	Manual clearance teams	Total clearance personnel	Mechanical assets
G4S QRT	6	48	0
G4S MTT	2	16	0
G4S MTT 2	8	120	0
G4S ICC	2	20	2
TDI MTT	8	64	0
MAG ICC	1	10	1
MAG MTT	5	40	2
DDG MTT	1	8	0
DCA MTT	1	10	0
Totals	34	336	5

MTT = Multi-Task teams QRT = Quick Response Teams ICC = Integrated Clearance Capacity

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

A total of a nearly 2.3km² of CMR-contaminated area was released through survey and clearance in 2020. Of this, 0.03km² was cancelled through non-technical survey, 0.03km² was reduced through technical survey, and 2.2km² was cleared.

SURVEY IN 2020

In 2020, a total of 30,971m² was cancelled through non-technical survey in Central Equatoria and Eastern Equatoria (see Table 4).⁵⁵ This is a decrease from the 359,388m² of suspected CMR contamination cancelled through non-technical survey in Eastern Equatoria and Western Equatoria by G4S in 2019.⁵⁶

In addition, 32,238m² was reduced through technical survey in Central Equatoria, Eastern Equatoria, and Warrap (see Table 5).⁵⁷ This is an increase from the 13,614m² reduced by technical survey the year before.⁵⁸

Table 4: Cancellation through non-technical survey in 2020⁵⁹

State	Operator	Area cancelled (m ²)
Central Equatoria	UNMAS	20,971
Eastern Equatoria	MAG	10,000
Total		30,971

Table 5: Reduction through technical survey in 2020⁶⁰

State	Operator	Area reduced (m ²)
Central Equatoria	G4S	1,763
Eastern Equatoria	G4S	8,078
Eastern Equatoria	MAG	8,221
Warrap	TDI	14,176
Total		32,238

CLEARANCE IN 2020

In 2020, a total of just over 2.2km² of CMR-contaminated area was cleared with 1,813 submunitions destroyed (see Table 6).⁶¹ This is a decrease of one third from the 3.3km² cleared in 2019.⁶²

In addition, 197 submunitions were destroyed during anti-personnel mine clearance, and 35 submunitions were destroyed during EOD spot tasks.⁶³

MAG reported that, in 2020, one cluster munition site covering an area of 11,494m² was cleared with no CMR found.⁶⁴ UNMAS implementing partners cleared three reported cluster munition strike sites totalling 37,894m² which proved to contain no CMR.⁶⁵

UNMAS reported that the reason for the reduction in overall land release from 2019 to 2020 was due to the late start of the demining season and COVID-19 restrictions. The Government of South Sudan imposed severe restrictions on travel, both domestic and international, following the outbreak of COVID-19. The demining programme was suspended from April 2020 for three months. This reduction in the demining period is particularly significant for South Sudan as during the four-month rainy season demining operations cannot take place. This meant that only five months of 2020 were operational.⁶⁶

Table 6: CMR clearance in 2020⁶⁷

State	Operator	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
Central Equatoria	G4S	22,610	4	4
Central Equatoria	MAG	297,877	344	8
Central Equatoria	TDI	5,883	0	1
Eastern Equatoria	G4S	132,018	92	150
Eastern Equatoria	MAG	1,392,885	1,191	37
Eastern Equatoria	TDI	172,979	55	11
Jonglei	G4S	63,064	78	3
Warrap	TDI	4,905	4	1
Western Bahr El Ghazal	DDG	131,528	45	0
Western Bahr El Ghazal	G4S	11,700	0	0
Totals		2,235,449	1,813	215

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 April 2021, 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 land release of CMR-contaminated areas, and a comprehensive database review, the situation has begun to look a lot more positive.

According to South Sudan's revised 2020 APMB Article 5 deadline extension request, it is expected that South Sudan will complete clearance of all CMR-contaminated areas by July 2026 in parallel with its 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 is 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

At the end of 2020, South Sudan had 6.93km² of CMR and other UXO contamination remaining and needed to release 1.09km² in 2021 to meet its end 2021 target of 5.84km² of remaining contamination.⁷⁵ It is not clear what proportion of this land release is CMR and what proportion is other UXO but since South Sudan released nearly 2.3km² of CMR-contaminated area alone in 2020, it should be able to meet its target for 2021. It is unclear what the effects of the COVID-19 pandemic will be in 2021 and whether South Sudan will need to implement new restrictions. A partial lockdown was introduced from February to April, but this did not affect clearance operations.

The security situation also remains a significant challenge in South Sudan. In 2020, there were outbreaks of fighting across the country, but the impact was most severe in Jonglei and across Greater Equatoria, which prevented clearance teams from deploying to known tasks.⁷⁶ The Commission on Human Rights in South Sudan reported in February 2021 that while there had been a reduction in hostilities at the national level there had been a massive escalation in violence locally which threatens to spiral out of control across several regions in the country.⁷⁷

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- 1 Email from Richard Boulter, Senior Programme Manager, United Nations Mine Action Service (UNMAS), 11 April 2021.
- 2 Voluntary Article 7 Report (covering 2019), Form F; and email from Richard Boulter, UNMAS, 6 September 2020.
- 3 Email from Richard Boulter, UNMAS, 11 April 2021.
- 4 Ibid.
- 5 Email from Ayaka Amano, UNMAS, 2 May 2019; UNMAS, South Sudan IMSMA Monthly Report, January 2004 to December 2020, at: <https://bit.ly/34nv9VK>.
- 6 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 7 Voluntary Article 7 Report (covering 2020), Form A.
- 8 Email from Brendan Ramshaw, Operations Manager, DCA, 22 April 2021.
- 9 Email from Richard Boulter, UNMAS, 11 April 2021. Of this, MAG reported that they discovered three cluster strikes with a total area of 28,658m².
- 10 Voluntary Article 7 Report (covering 2020), Form F.
- 11 "South Sudan De-Mining Authority", undated, at: <http://bit.ly/2Y5Eb4o>.
- 12 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 13 UNMAS, "Mine Action Portfolio 2019".
- 14 Interview with Richard Boulter, UNMAS at the NDM-UN23 in Geneva, 14 February 2020; and email, 30 May 2019; and emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.
- 15 Interview with Richard Boulter, UNMAS at the NDM-UN23 in Geneva, 14 February 2020; and email, 30 May 2019; and emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.
- 16 Email from Richard Boulter, UNMAS, 11 April 2021.
- 17 Email from Lisa Mueller-Dormann, MAG, 9 May 2021.
- 18 UNMAS, "Mine Action Portfolio 2019".
- 19 Email from Richard Boulter, UNMAS, 11 April 2021.
- 20 Voluntary Article 7 Report (covering 2020), Form I.
- 21 Revised 2020 Article 5 deadline extension request, p. 75.
- 22 UNMAS, "Mine Action Portfolio 2019", pp. 20–21; and email from Richard Boulter, UNMAS, 11 April 2021.
- 23 Voluntary Article 7 Report (covering 2020), Form I.
- 24 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.
- 25 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 26 Ibid.
- 27 Ibid.
- 28 Ibid.
- 29 Email from Richard Boulter, UNMAS, 8 July 2020.
- 30 UNMAS "Mine Action Portfolio 2019".
- 31 Email from Richard Boulter, UNMAS, 8 July 2020.
- 32 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 33 Email from Richard Boulter, UNMAS, 11 June 2021.
- 34 Email from Richard Boulter, UNMAS, 11 April 2021.
- 35 Email from Lisa Mueller-Dormann, MAG, 9 May 2021.
- 36 Email from Ayaka Amano, UNMAS, 2 May 2019; and 2020 Article 5 deadline extension request, p. 9.
- 37 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 38 Email from Ayaka Amano, UNMAS, 2 May 2019
- 39 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018; and Richard Boulter, UNMAS, 6 June 2018.
- 40 Email from GICHD, 29 June 2021.
- 41 Email from Richard Boulter, UNMAS, 11 April 2021.
- 42 Revised 2020 Article 5 deadline Extension Request, p. 74.
- 43 Revised 2020 Article 5 deadline extension request, p. 75.
- 44 Ibid.
- 45 Article 7 Report (covering 2019), Form 4.
- 46 Email from Robert Thompson, UNMAS, 21 April 2016; and responses to questionnaire, 30 March 2015; and email from Augustino Seja, NPA, 11 May 2015.
- 47 Email from Richard Boulter, UNMAS, 11 April 2021
- 48 Email from Katie Shaw, MAG, 26 April 2019.
- 49 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.
- 50 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 51 Email from Richard Boulter, UNMAS, 11 April 2021.
- 52 Ibid.
- 53 Email from Lisa Mueller-Dormann, MAG, 9 May 2021.
- 54 Email from Richard Boulter, UNMAS, 11 April 2021. The two G4S MTTs were contracted until June 2020 and then from July 2020 the eight G4S MTTs were deployed. Three of the mechanical assets (one from MAG and two from G4S) were only contracted until June 2020.
- 55 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 reported as reduced through TS.
- 56 Voluntary Article 7 Report (covering 2019), Form F.
- 57 Email from Richard Boulter, UNMAS, 11 April 2021.
- 58 Email from Richard Boulter, UNMAS, 6 September 2020.
- 59 Emails from Richard Boulter, UNMAS, 11 April 2021; and Lisa Mueller-Dormann, MAG, 9 May 2021.
- 60 Email from Richard Boulter, UNMAS, 11 April 2021. MAG did not report any TS in 2020.
- 61 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.
- 62 Email from Richard Boulter, UNMAS, 6 September 2020.
- 63 Email from Richard Boulter, UNMAS, 11 April 2021. DDG did not report any clearance in 2020.
- 64 Email from Lisa Mueller-Dormann, MAG, 9 May 2021.
- 65 Email from Richard Boulter, UNMAS, 11 April 2021.
- 66 Ibid.
- 67 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.
- 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 attention 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 7th Meeting of States Parties, Geneva, 5 September 2017.
- 70 Voluntary Article 7 Report (covering 2020), Form A.
- 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 Richard Boulter, UNMAS, 11 April 2021.
- 77 UNHCR, "Despite renewed political commitment, staggering levels of violence continued across South Sudan for the second successive year, UN experts note", 19 February 2021, at: <https://bit.ly/3yU0eyx>.

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.

UNDERSTANDING OF CMR CONTAMINATION

At the end of 2020, Sudan had five hazardous areas covering a total size estimated at just over 0.17km², of which there was one confirmed hazardous area (CHA) of 0.01km² and two suspected hazardous areas (SHAs) of 0.16km².¹ An overall estimate of CMR contamination is not available as two other SHAs, in South Kordofan and West Kordofan states, are in

areas not under government control.² Three areas totalling 171,090m², all located in Blue Nile state, became accessible following the peace agreement with the Sudan's People Liberation Movement-North (SPLM-N) Malik Agar group, and were added to Sudan's information management database in 2020.³

Table 1: Cluster munition-contaminated area by state (at end 2020)⁴

State	CHAs	Area (m ²)	SHAs	Area (m ²)	Total SHA/CHA	Total area (m ²)
Blue Nile	1	12,016	2	159,074	3	171,090
South Kordofan	0	0	1	N/K	1	N/K
West Kordofan	0	0	1	N/K	1	N/K
Totals	1	12,016	4	159,074	5	171,090

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 2011–13.⁵ 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.⁶ 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 during the year as no evidence of CMR was found.⁷

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.⁸

In April 2017, the African Union-UN Mission in Darfur (UNAMID) reported two AO-1-Sch 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.⁹ The Sudanese Armed Forces Engineers destroyed the items in February 2018 and no further CMR were reported or identified.¹⁰

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).

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.¹¹ The extent of mine and ERW contamination within the disputed area of Abyei and the Safe Demilitarized Border Zone (SDBZ) between Sudan and South Sudan is unknown due to security and political issues.¹²

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.¹³ As part of its mandate, UNMAS provides organisational and individual capacity development to NMAC.¹⁴ In 2020, UNMAS supported the Information Management System for Mine Action (IMSMA) migration process; delivered training courses in quality management, project management, tasking procedures, and gender and diversity; supported the development of mine action policies;

supported the review and finalisation of national mine action standards (NMAS) and the development of standing operating procedures (SOPs) based on the new NMAS; and supported the establishment of the mine action training centre and development of procedures.¹⁵ In 2020, the Geneva International Centre for Humanitarian Demining (GICHD), also supported the IMSMA migration process.¹⁶

In 2020, the Government of Sudan contributed a total of US\$2 million to the running costs of NMAC and for demining activities. It has consistently funded the national mine action programme at this level for the past five years.¹⁷ In addition, international donors contributed US\$5.2 million through UNMAS to undertake mine action activities. UNMAS reported that, in 2020, a total of \$15.8 million would be required to meet mine action needs in the country, including demining in South Kordofan and Blue Nile states and ERW response in Darfur.¹⁸

GENDER AND DIVERSITY

NMAC reported that it has a gender and diversity policy in place and that gender is mainstreamed in the national mine action strategic plan for 2019–23 and in the NMAS for explosive ordnance risk education (EORE), survey, clearance, and victim assistance. 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 NMAS and the new standard IMSMA forms.¹⁹

Mine action data are disaggregated by sex and age.²⁰ 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.²¹ New reporting tools were added to the system and new reporting formats were developed for the NGOs to include this information.²²

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.²³

NMAC says it always encourages women to apply for employment in the national programme, whether at the office level or in the field. In 2020, 30% of NMAC staff employed at the managerial or supervisory levels were women as were 20% of staff in operational positions.²⁴

UNMAS reported that, as at April 2021, around 50% of the non-technical survey teams were female. UNMAS Sudan has twelve staff members, of whom two programme officers are women. In addition, in field roles with national operators contracted by UNMAS there is a female operations officer, quality assurance manager, finance manager, EORE manager, and victim assistance manager. The first woman deminer was employed in late 2019, and it is hoped that the number of female deminers will increase in the future.²⁵ NMAC acknowledged that there are obstacles to hiring women due to "local customs and traditions".²⁶

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.²⁷

INFORMATION MANAGEMENT AND REPORTING

In 2018, NMAC began upgrading the IMSMA software to the newer NG version, with assistance from the GICHD. Significant efforts to correct errors in the database were also undertaken.²⁸ In 2019, IMSMA training was delivered to the suboffices and operators on the new reporting system and reporting forms.²⁹ In 2020, GICHD and UNMAS continued to support the information management department within NMAC and it was planned that the data would be migrated to IMSMA Core but as at June 2021 this had yet to happen.³⁰

PLANNING AND TASKING

In May 2021, NMAC reported that the new national mine action strategic plan for 2019–23 had been finalised but was still awaiting approval.³¹ The plan aims to fulfil Sudan's Anti-Personnel Mine Ban Convention (APMBC) obligations, and was developed in coordination with the GICHD to replace its previous national strategy for 2016–19.³² NMAC stated that detailed annual work plans had been developed for each year under the new strategic plan.³³

UNMAS reported that all task dossiers relating to survey and clearance are issued in accordance with agreed criteria and prioritisation. NMAC and UNMAS are working together on planning and tasking to meet the need for further development.³⁴ A systematic prioritisation system will be introduced as part of the new NMAS and linked with IMSMA with each SHA and CHA classified as high, medium, or low impact and prioritised accordingly.³⁵ This was due to be implemented in the course of 2021.³⁶

In Sudan's 2018 APMBC Article 5 deadline extension request there was no specific mention of remaining CMR or plans for survey and clearance of CMR-contaminated areas. The extension request did contain a detailed work plan with annual survey and clearance projections on a state-by-state basis with a total planned release for all types of ordnance of 224 hazardous areas with a size of 26.5km² by 1 April 2023.³⁷ In 2020, in accordance with the terms of its latest APMBC Article 5 deadline extension, Sudan submitted an updated work plan for 1 March 2020–31 March 2023, though again this makes no mention of CMR.³⁸ This was the same in Sudan's latest APMBC Article 7 report, covering 2020.³⁹

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 have now been endorsed.⁴⁰ 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-ODO. UNMAS is working with NMAC and national operators to develop their SOPs to ensure they are compliant with the new NMAS.⁴¹

In 2020, NMAC completed 32 accreditations, 3 re-assessments, and 11 quality assurance visits. NMAC also took part in training of quality management systems and monitoring that was delivered by UNMAS.⁴²

OPERATORS AND OPERATIONAL TOOLS

National operators that conducted demining operations in Sudan in 2020 were JASMAR for Human Security (JASMAR), National Units for Mine Action and Development (NUMAD), and Global Aid Hand.⁴³ In 2020, Sudan contracted two teams from SafeLane Global (SLG) whose planned arrival in March was delayed by the COVID-19 outbreak. Both teams arrived in November deploying in December 2020.⁴⁴

According to NMAC, there was a significant increase in operational capacity from 2019 to 2020 following the addition of non-technical survey capacity in November 2019 by JASMAR and Global Aid Hand.⁴⁵ A further increase in capacity was planned for 2021 as new areas with suspected contamination from anti-personnel mines, anti-vehicle mines, and ERW have become accessible in Blue Nile and South Kordofan following peace talks with the SPLM-N. There is also a need to clear roads for the delivery of humanitarian assistance to these areas.⁴⁶

In 2020, NMAC worked with UNMAS to develop a mechanical capacity for Sudan for road/route clearance. It is planned that this capacity would become operational from October 2021.⁴⁷

Table 2: Operational clearance capacities deployed in 2020⁴⁸

Operator	Manual clearance teams (MCTs)/ Multi-task teams (MTTs)	Total deminers*	Dogs and handlers	Machines
NUMAD	4 MCTs	32	9 dogs & 9 handlers	0
	9 MTTs	36		
JASMAR	2 MTTs	8	0	0
SLG	2 MTTs	10	0	0
Totals	17	86	9 dogs & 9 handlers	0

* Excluding team leaders, medics, and drivers.

Table 3: Operational survey capacities deployed in 2020⁴⁹

Operator	NTS teams	Total NTS personnel*	TS teams	Total TS personnel*
JASMAR	3	12	Clearance capacity is also technical survey capacity	
NUMAD	0	0		
Global Aid Hand	7	28		
Totals	10	40		

NTS = Non-technical survey

TS = Technical survey

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

No CMR-contaminated area was released through survey or clearance in 2019 or 2020.

Two submunitions were destroyed during explosive ordnance disposal (EOD) spot tasks by SLG in 2020.⁵⁰

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.⁵¹ In May 2021, NMAC stated that there had been no developments in 2020 with regard to Sudan's accession to the CCM.⁵²

One of the main impediments to mine action operations is the security situation and the lack of access to most of the known impacted communities in Blue Nile and South Kordofan states.⁵³ During 2020, following the signature of a preliminary peace deal between Sudan's transitional government and the

head of one of the two factions of the SPLM-N rebel group, NMAC in cooperation with UNMAS began to deploy teams to clear roads and other routes to facilitate the delivery of humanitarian assistance to the Blue Nile state.⁵⁴ Sudan also reported in 2020 that it was in talks with Chad to implement a joint initiative to clear the border areas between the two countries.⁵⁵

In addition, Sudan reported that obstacles to completion include inadequate funding for mine action, rising inflation in Sudan, lack of sufficient demining equipment, the ongoing COVID-19 pandemic, and the impact of climate change on extended rainy seasons. NMAC reported that the national operators were able to continue to deploy during 2020 in accordance with COVID-19 guidelines. The teams from international operator SLG were delayed but were able to deploy in December.⁵⁶

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

Sudan has a plan to deal with residual risk and liability post-completion.⁵⁷ As at May 2021, NMAC has trained a few teams to deal with any residual contamination in the eastern states. However, it is planned that in the long term Sudan will establish a sustainable national capacity within the military or police.⁵⁸

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- 1 Email from Hatim Khamis Rahama, Technical Advisor, 10 June 2021.
- 2 Email from Hatim Khamis Rahama, NMAC, 1 May 2019; and interview in Geneva, 24 May 2019.
- 3 Emails from Hatim Khamis Rahama, NMAC, 19 May 2021; and Aimal Safi, Senior Operations and QM Advisor, UNMAS, 12 April 2021.
- 4 Email from Hatim Khamis Rahama, NMAC, 10 June 2021.
- 5 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.
- 6 Email from Hatim Khamis Rahama, NMAC, 3 March 2018.
- 7 Emails from Hatim Khamis Rahama, NMAC, 1 May 2019 and 14 June 2018.
- 8 See Cluster Munition Monitor, "Country Profile: Sudan: Cluster Munition Ban Policy", updated 23 August 2014.
- 9 Email from Dandan Xu, Associate Programme Management Officer, UNMAS, 12 July 2017.
- 10 Email from Colin Williams, Deputy Programme Manager, Ordnance Disposal Office (ODO), UNAMID, 1 June 2018.
- 11 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.
- 12 UNMAS, "2019 Portfolio of Mine Action Projects, Sudan".
- 13 UNMAS, "Sudan (excluding Darfur)", Updated March 2019, at: <http://bit.ly/2Y3IDUg>.
- 14 Email from Aimal Safi, UNMAS, 31 May 2020.
- 15 Emails from Aimal Safi, UNMAS, 12 April 2021; and Hatim Khamis Rahama, NMAC, 19 May 2021.
- 16 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.
- 17 Ibid.
- 18 UNMAS, "Sudan (excluding Darfur)", Updated October 2020, at: <http://bit.ly/3c7Lb9y>.
- 19 Emails from Hatim Khamis Rahama, NMAC, 19 May 2021.
- 20 Email from Hatim Khamis Rahama, NMAC, 9 April 2020.
- 21 Email from Aimal Safi, UNMAS, 31 May 2020.
- 22 Email from Aimal Safi, UNMAS, 22 July 2020.
- 23 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.
- 24 Ibid.
- 25 Email from Aimal Safi, UNMAS, 12 April 2021.
- 26 Emails from Hatim Khamis Rahama, NMAC, 1 May 2019 and 10 September 2020.
- 27 Email from GICHD, 29 June 2021.
- 28 Emails from Ahmed Elser Ahmed Ali, NMAC, 9 May and 8 June 2016; and Third APMBC Article 5 deadline Extension Request, March 2018, pp. 37–38.
- 29 Email from Hatim Khamis Rahama, NMAC, 10 September 2020.
- 30 Emails from Hatim Khamis Rahama, NMAC, 19 May 2021; and Aimal Safi, UNMAS, 30 June 2021.
- 31 Ibid.
- 32 Emails from Hatim Khamis Rahama, NMAC, 1 May 2019 and 13 May 2018.
- 33 Email from Hatim Khamis Rahama, NMAC, 1 May 2019.
- 34 Email from Aimal Safi, UNMAS, 31 May 2020.
- 35 Sudan Multiyear Operational Plan 2020 to 2023, p. 14.
- 36 Email from Aimal Safi, UNMAS, 12 April 2021.
- 37 2018 Article 5 deadline Extension Request Detailed Narrative, 17 August 2018, Table 14, p. 18.
- 38 Ibid., Table 14, p. 21.
- 39 APMBC Article 7 Report (for 2020).
- 40 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.
- 41 Email from Aimal Safi, UNMAS, 12 April 2021.
- 42 Email from Hatim Khamis Rahama, NMAC, 19 May 2021; and APMBC Article 7 Report (for 2020), Form 2.2.
- 43 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.
- 44 Ibid.
- 45 Email from Hatim Khamis Rahama, NMAC, 9 April 2020.
- 46 Emails from Aimal Safi, UNMAS, 12 April 2021; and Hatim Khamis Rahama, NMAC, 19 May 2021.
- 47 Emails from Aimal Safi, UNMAS, 12 April and 30 June 2021; and Hatim Khamis Rahama, NMAC, 19 May 2021.
- 48 Emails from Hatim Khamis Rahama, NMAC, 19 May 2021; and Aimal Safi, UNMAS, 30 June 2021.
- 49 Ibid.
- 50 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.
- 51 Email from Ali Abd Allatif Ibrahim, NMAC, 18 May 2017.
- 52 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.
- 53 Sudan Multiyear Operational Plan 2020 to 2023, p. 14.
- 54 Statement of Sudan on Article 5, 18MSP, 16–20 November 2020.
- 55 Statement of Sudan on Cooperation and Assistance, 18MSP, 16–20 November 2020.
- 56 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.
- 57 Email from Hatim Khamis Rahama, NMAC, 9 April 2020.
- 58 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

KEY DEVELOPMENTS

Syria experienced at least four attacks with cluster munitions by Syrian and Russian forces in 2020 targeting the non-government controlled areas in north-west Syria. Mine action in Syria remains fragmented due to the ongoing instability, the multitude of armed actors, and continuing shifts in control over territory. The United Nations Mine Action Service (UNMAS) has taken on a de facto role as a coordinator of mine action for the whole of Syria. 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).

RECOMMENDATIONS FOR ACTION

- Syria and Russia should immediately halt all use of cluster munitions.
- Syria should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Syria should apply 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.
- Syria should undertake a baseline survey of CMR contamination in areas over which it has effective control.
- Syria should adopt national mine action standards (NMAAS) that are in line with the International Mine Action Standards (IMAS).
- 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 strategy.
- 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 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 the IMAS.

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-old 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 use of cluster munitions since 2012.¹ The Syrian Network for 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.²

The UN estimated in 2020 that explosive ordnance (EO) contamination was affecting one third of populated communities with areas that experienced intense hostilities, including Aleppo, Daraa, Deir Ezzor, Idlib, Raqqa, and Rural Damascus, being particularly affected. In the same year, the UN recorded an average of 76 explosions per day, equating to

an explosion every 20 minutes.³ The extent of contamination by any particular category of device is not known.

The HALO Trust conducted an EO community contamination impact assessment in north-west Syria (Idlib and Aleppo governorates) between 2018 and 2020. The assessment confirmed EO contamination in over 400 communities (41% of those assessed).⁴ Submunitions were the most frequent type of EO encountered, alone accounting for 36% of total recorded contamination,⁵ with remaining contamination caused by landmines and improvised explosive devices (IEDs) (4% combined) and a mixture of other unexploded ordnance (UXO).⁶ Submunitions, which constituted the biggest driver of EO incidents, and alone caused 42% of the recorded casualties.⁷ Another rapid assessment survey conducted by HALO in 2020 identified 91 suspected cluster munition strike zones (50 in Idlib and 41 in Aleppo).⁸

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, Quneitira, and Sweida governorates. According to the assessment, 530 (92%) of the assessed communities reported the presence of explosive remnants of war (ERW). Of the assessed communities, 57% reported presence of anti-personnel mines, 46% of CMR, and 25% of IEDs.⁹

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 2021, MAG had released 60% of the areas leaving 94,270m² requiring further survey and clearance (see Table 1).¹⁰

Table 1: Cluster munition-contaminated area in north-east Syria surveyed by MAG (as at May 2021)¹¹

Governorate	CHAs	Area (m ²)	Total area (m ²)
Al-Hassakeh	1	93,270	93,270
Raqqa	1	1,000	1,000
Totals	2	94,270	94,270

Syrian Civil Defence (SCD), better known as the White Helmets, has reported clearing large numbers of unexploded submunitions over the past four years in Idlib, Aleppo, and Hama governorates and to a lesser extent in Daraa and Quneitra, over the past three years.¹² SCD and other operators report encountering mainly Russian-made

cluster munitions, including SHOAB-0.5, AO-2.5RT, 9N235, A01-SCH, M77-HEAT, SPBE-HEAT, and PTAB-1M and 2.5M submunitions.¹³

Working from the Syrian capital, Damascus, UNMAS started an EO assessment in Rural Damascus (South) 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. As at May 2021, a little over 7km² of SHA had been surveyed, of which over 4.9km² (approximately 70%) was confirmed as hazardous. Over 750 items of EO were located and marked.¹⁴

NEW CONTAMINATION

According to Syrian Network for Human Rights (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.¹⁵ 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 area and al-Humran crossing in Rural Aleppo. The attack caused civilian casualties, including the death of a civil defence worker, and inflicted significant 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.¹⁶

The continued use of cluster munitions in 2020 and 2021 adds to the existing CMR problem in addition to dense contamination by other ERW, including conventional mines and those of an improvised nature (see Mine Action Review's *Clearing the Mines* report on Syria for further information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

There is no national mine action authority in Syria. In government-controlled areas, an inter-ministerial National Mine Action Coordination Committee is said to have been formed by a presidential decree in 2019 and is chaired by the Minister of Foreign Affairs, Dr Faisal Mikdad. The committee meets on an ad-hoc basis.¹⁷

Given the lack of critical national mine action structures, UNMAS liaises with the National Mine Action Coordination Committee chaired by the Syrian Ministry of Foreign Affairs (MoFA) and accredits clearance operators on a de-facto basis. UNMAS does not provide capacity building support to the national authorities, but in 2020, as part of its role as a coordinator of mine action, UNMAS drafted NMAS and associated guidelines and submitted them to the Syrian government for its review and approval.¹⁸

Mine action in Syria is coordinated by three response mechanisms: i) the Damascus-based Mine Action Sub-Cluster (MASC) coordinated by UNMAS; ii) the north-west MASC co-chaired by UNMAS and The HALO Trust; and iii) the north-east Mine Action Working Group (MAWG), which sits under the protection working group in the NGO forum-led response and is coordinated by iMMAP. Coordinators of the three structures organise monthly meetings with the respective mine action actors.¹⁹

In north-east Syria, a mine action centre (MAC) was created in January 2021²⁰ by the Humanitarian Affairs Office (HAO) of the Syrian Democratic Forces (SDF). The MAC largely supports and facilitates mine action activities but does not maintain an updated database or task operators.²¹ Mine action stakeholders hold monthly working group meetings and are supported by iMMAP.²² DanChurchAid (DCA) reported having a constructive relationship with and support from the MAC. This has seen it receive unhindered access and permission to operate and import demining equipment. As at May 2021, DCA was in the process of drafting a Memorandum of Understanding (MoU) with the north-east MAC.²³ MAG confirmed a positive relationship with that MAC, but underlined challenges due to the complex and bureaucratic procedures established by the Iraqi side for staff screening and border-crossing permissions. This results in long waiting times and undermines the mine action efficiency in the north-east. Contingent on future funding, MAG is considering providing support to the existing mine action coordination structure in the north-east in partnership with iMMAP in 2021. MAG will also work with the north-east MAC to elaborate a specific plan for capacity building of the centre.²⁴

Headed by iMMAP under the umbrella of the protection cluster,²⁵ the north-east MAWG is attended by some 27 active members. Its activities include survey, risk education, clearance, and victim assistance.²⁶

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. HALO also coordinates with local bodies in the north-west of Syria when necessary. HALO provides explosive ordnance risk education (EORE) and training of trainer (ToT) sessions to the local protection committees and volunteer groups organised under the local councils in the north-west.²⁷

In 2020, US\$53 million were requested by the humanitarian sector to respond to mine action needs across Syria. By the end of 2020, only 17% of these needs had been funded. UNMAS Syria Response Programme was seeking US\$30 million for 2021 to support coordination and to scale up mine action interventions, including survey and clearance across Syria, but as at March 2021, the programme was facing an imminent shortfall of US\$9 million for the pilot clearance project alone.²⁸

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.²⁹

GENDER AND DIVERSITY

DCA mainstreams gender and diversity in its programme and recruitment policy. As at April 2021, women made up 38% of DCA's Syria programme staff and 28% of the mine action project staff. Moreover, 42% of the supervisory positions were filled by women. DCA was also planning to deploy an all-female clearance team in Al-Hassakeh governorate. DCA ensures that survey and community liaison teams are inclusive and gender balanced by deploying mixed risk education (RE) and non-technical survey teams and by hiring both female and male community liaison officers. DCA disaggregates mine action data by sex and age in its questionnaires, monthly reports, and database.³⁰

HALO Trust's 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. In 2020, HALO designed EORE materials tailored for women, children, and teenagers audiences and included a character with disability. HALO reports that its field staff represent the communities in which they work in terms of ethnic and social background, and that they are all gender balanced. All of HALO's staff are trained on gender-sensitive content and approaches to EORE messaging. As at December 2020, women comprised 30% of the total number of HALO Trust employees, including its partner organisations in Syria. Women also made up 22% of managerial/supervisory positions and 35% of operational positions.³¹

MAG has a 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. In 2020, women made up 30% of MAG's total number of employees, 50% of its community liaison officers, and 29% of the organisation's operational positions.³²

The SCD reports having a gender and diversity policy in place. As at May 2021, SCD had 10 women in supervisory and management positions, but women were not represented in clearance and survey teams. SCD hoped to achieve a 50/50 split when selecting volunteers for two additional survey teams it was planning to train in 2021. Despite not having female volunteers within its clearance and survey teams, SCD ensures that women and girls are consulted during community liaison activities by seconding female volunteers from other areas of the organisation during EORE and survey activities. Mine action data are disaggregated by sex and age.³³

As of end 2020, women made up almost 40% of UNMAS personnel in the Syria programme. Of the total women employed, 25% held supervisory/managerial roles and 32% occupied operations and security positions. In adherence to UN gender guidelines for mine action, gender is mainstreamed in planning and implementation. UNMAS disaggregates data by sex, age, and ethnic background. Throughout the project cycle, UNMAS takes into consideration how EO contamination impacts beneficiaries differently according to age, sex, physical abilities, and personal background, and recognises the importance of ensuring that messages target women specifically. The programme continues to look for methods to improve targeting and to encourage gender parity in the composition of field teams. According to UNMAS, the recruitment of women, especially for roles involved in community liaison and direct contact with the population, is critical.³⁴

INFORMATION MANAGEMENT AND REPORTING

SCD uses Survey123 for data collection and Information Management System of Mine Action (IMSMA) Core for data keeping and management,³⁵ while DCA uses Survey123.³⁶

HALO uses IMSMA data collection forms and regularly reports to the north-west MASC and the United Nations Higher Commissioner for Refugees, UNHCR-led Gaziantep coordination response. HALO uses mobile-data collection tools and preserves data in Excel and Microsoft PowerBI databases.³⁷ MAG uses the online server, SharePoint, to preserve its mine action data.³⁸

iMAP 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. iMAP 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. The working group in north-east Syria has recently harmonised data collection forms used by all actors to make it compatible with IMSMA.³⁹

As at June 2021, UNMAS was in the process of setting up IMSMA Core as the national mine action information management system in Damascus. 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.⁴⁰ It is believed, however, that clearance conducted by the Syrian and Russian forces largely goes unreported.

Despite concerted efforts to establish a centralised database representing the whole of Syria, SCD reported that its clearance and explosive ordnance disposal (EOD) data were not accepted in the 4W reporting mechanism of the north-west MASC.⁴¹ This is reportedly because, as at June 2021, SCD's application to re-join the protection coordination cluster had yet to be granted, and membership of the protection coordination cluster is a pre-condition for active membership in the MASC.⁴² It is of course important that all relevant data on EO contamination, survey efforts, and clearance/EOD operations are captured in a central information management database.

PLANNING AND TASKING

Syria does not have a national mine action strategic plan. Mine action is fragmented and has a long way to develop into a coherent national response. Different actors have set different priorities for survey and clearance as dictated by the circumstances and the authorities under which they operate.

In the north-east, DCA reports that the MAC prioritises urban clearance (houses, schools, and public facilities).⁴³ The mine action working group, with the support of iMAP, also participates in determining areas of operations. MAG reported that, due to the lack of the necessary structures in 2020, 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 form 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.⁴⁴

In the north-west, HALO's uses data collected from its EO community contamination assessment survey to identify high-priority communities for EOD, focusing on removing contamination that prevents access to basic services or livelihood resources. HALO engages with communities where it conducts EOD to obtain their informed consent and considers requests from the local authorities for future interventions.⁴⁵ SCD does not have a specific prioritisation system as the vast majority of its tasks are call-outs or immediate disposal of items encountered during survey.⁴⁶

UNMAS reports that it collates EO data from different partners and analyses it to enable needs-based prioritisation and inform the wider humanitarian response with data, maps, and identification of hazardous areas.⁴⁷

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.⁴⁸

Due to the lack of NMAS, most of the operators work to their own SOPs. For example, DCA works in accordance to 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 newly established MAC in the north-east of Syria.⁴⁹ In the north-west, HALO's operations are governed by HALO's SOPs, which are compliant with IMAS.⁵⁰

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. Russia deployed several hundred military deminers from its Armed Forces Demining Centre from 2017 onwards and provided training courses for Syrian army engineers at Hmeimim airbase (Latakia governorate in the north-west) and at training centres established in 2017 in Aleppo and Homs. By the start of January 2018, Russian armed forces reported they had trained 900 Syrian engineers.⁵¹ Russia started to withdraw troops, including deminers, from Syria in 2018 but its Ministry of Defence (MoD) continued to report mine clearance and EOD in Syria in 2020.⁵²

Russia appealed to other countries in 2018 to provide support. Armenia responded by sending an 83-man team to Syria in February 2019, planning to focus its work on the northern governorate of Aleppo.⁵³ Armenia rotated a new team to replace the first after four months.⁵⁴ The ACHDE reported having cleared 35,000m² and destroyed 29 landmines and items of UXO during the clearance operation in Aleppo city between February and June 2019.⁵⁵

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.⁵⁶

The HALO Trust, which has been present in Syria since 2016, is operational in north and north-west Syria in opposition-controlled areas of Idlib and western Aleppo, as well as the Turkish-administered areas of northern Aleppo. HALO's programme in 2020 covered EORE, victim and survivor assistance, survey and EOD. Since November 2020, HALO has deployed an EOD team in the Turkish-administered areas of northern Aleppo in partnership with a Turkish implementing partner organisation. HALO delivers activities through direct implementation, as well as in partnership with local NGOs. In 2020, HALO partnered with Turkish registered Syrian NGOs, Shafak and HiHFAD, for EORE and survivor assistance activities, and with a Turkish NGO, iMFAD, for non-technical survey and EOD.

HALO's capacity in 2020 comprised six survey teams, one EOD team, and seven EORE and victim assistance teams. As at June 2021, HALO was planning to continue EOD activities in northern Aleppo, expand its EOD capacity westwards to the opposition-controlled areas of Idlib and to start non-technical survey and mine clearance in 2021. However, HALO is facing a serious shortfall of funding for its operations. According to HALO, the COVID-19 pandemic had minimally disrupted the operations and project outputs overall. Security, however, remains the key challenge for international staff entering north-west Syria (a problem for all international NGOs and not only HALO).⁵⁷

MAG has been operational in the north-east of Syria since 2016, conducting clearance, EORE 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. MAG partnered with two national NGOs only for community liaison activities in 2020, and had no plans of partnership for clearance activities.⁵⁸

As at May 2021, MAG was deploying 10 community liaison teams, three mine action teams, and two multi-task teams in its Shaddadi base in Al-Hassakeh. Funds permitting, MAG is planning to set up a training centre and a second line mechanical workshop. MAG reported that it intends to re-open its operational base in Raqqa in October 2021 with a planned capacity of 10 community liaison teams, two mine action teams and two EOD teams. In addition, MAG is looking into expanding its presence in the north-east, with a view to re-establishing its operations at the same level as that prior to its suspension of activities. Through a combination of partner and direct led implementation, MAG will address mine and cluster munition contamination to enable the safe return of displaced communities, restore access to agricultural land, and enable the rehabilitation of critical infrastructure and property.⁵⁹

According to MAG, the challenges to the clearance in Syria are: the volatile security situation; the lack of trauma medical care within an hour's reach to the operation site, which is a pre-condition for clearance; the impact of the COVID-19 pandemic and the potential increase of cases that could lead to additional lockdowns; the potential disputes in housing, land, and property for clearance activities when ownership documents are unavailable for returnees or other community members; and the lack of a functioning national mine action authority, which impedes coordination and clearance prioritisation.⁶⁰

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.⁶¹ As at July 2021, RMCO was still operational and was being trained on EOD by the United States (US) forces.⁶²

The SCD was operational in Aleppo, Hama, and Idlib governorates (in the north and north-west of the country) and continued to conduct single-item disposal of UXO along with survey in north-west Syria. SCD reported that the items it encountered are predominately cluster munition remnants, but SCD teams also disposed of abandoned anti-personnel mines it encountered. SCD's operational capacity in 2020 was six clearance teams and four survey teams and it was planning to recruit two additional survey teams in May 2021.⁶³

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, which stated that discussions were underway on plans for survey, marking, and clearance.⁶⁴ As at June 2021, only the ACHDE was accredited in government-controlled areas.

UNMAS reported the lack of qualified in-country operators as one of the major challenges to advancing 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.⁶⁵ To facilitate access for clearance operators, following consultations with the Syrian government in December 2020, 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.⁶⁶ Subject to in-country registration by the government, UNMAS hopes that government acceptance of the listed pre-qualified operators will lead to expanding access for qualified international clearance operators within Syria. UNMAS reports that it might further increase its capacity if the pilot clearance project starts as planned and clearance operations scale up in 2021. UNMAS has been encouraging safer programming for humanitarian workers, training security focal points in risk awareness, and integrating risk education into a range of humanitarian programmes.⁶⁷

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 HRP 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. The prioritisation criteria covered key issues such as EO contamination, potential land use for housing, land and property issues, access to key infrastructure, returnees/internally displaced persons (IDPs), and support to the UN humanitarian activities.⁶⁸

As at June 2021, an area for a pilot clearance project was identified, initially focusing on agricultural areas in western Ghouta (Rural Damascus), and UNMAS was in the process of preparing a clearance contract. Further humanitarian clearance is subject to Syrian government approvals for international humanitarian mine action operators to register and work in Syria, and the availability of necessary funding.⁶⁹ In its statement to the 24th NDM in May 2021, Syria said that it had facilitated the opening of UNMAS offices in Aleppo.⁷⁰

LAND RELEASE 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 areas was unavailable.

The ACHDE reported to UNMAS that it had cleared 319,820m² of land between February 2019 and December 2020. When EO items are found by the Armenian teams, they are marked and reported to the Aleppo Governor's office and the Russian Center for Reconciliation. These authorities then liaise with the Syrian army engineers to remove the marked items or destroy them in situ.⁷¹

In the north of Syria in 2020, HALO Trust destroyed 22 items of ERW in Aleppo governorate, though none of the destroyed items was a submunition. As at June 2021, HALO Trust EOD team had disposed of 51 items of UXO.⁷²

SCD destroyed a total of 313 submunitions in north-west Syria during EOD call outs, survey, and BAC. In addition, SCD disposed of 193 items of UXO, marked and avoided 52 others.⁷³

Table 2: SCD CMR clearance 2020⁷⁴

Governorate	Submunitions destroyed
Aleppo	44
Hama	4
Idlib	265
Total	313

In its statement to the 18 Meeting of States Parties (18MSP) of the Anti-Personnel Mine Ban Convention (APMBC), 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.⁷⁵

- 1 The Landmine and Cluster Munition Monitor website, Syria Cluster Munition Ban Policy, last updated 24 November 2020, at: <https://bit.ly/3yHLY0i>.
- 2 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>.
- 3 UN Office for the Coordination of Humanitarian Affairs (OCHA), Syria Humanitarian Needs Overview (HNO), March 2021, at: <https://bit.ly/3yu8Tar>, p. 10.
- 4 The HALO Trust, 'Syria, A Hidden Emergency', at: <https://bit.ly/3fD4w4x>, p. 3.
- 5 Ibid., p. 7.
- 6 Ibid.
- 7 Ibid., p. 11.
- 8 Email from Mairi Cunningham, Programme Manager, HALO Trust, 7 June 2021.
- 9 ICRC and SARC, Mine Risk Needs Assessment and Education, PowerPoint presentation to the 24th NDM, 25 May 2021, slides 7-8.
- 10 Email from MAG, 24 May 2021.
- 11 Ibid.
- 12 Emails from Michael Edwards, Explosive Hazard Operations Manager, Mayday Rescue, 11 May 2021; Mayday Rescue, "Syria Civil Defence, Explosive Hazard Mitigation Project Overview, Nov 2015–Mar 2018", 1 March 2018.
- 13 Emails from Michael Edwards, Mayday Rescue, 11 May 2021.
- 14 Email from UNMAS, 30 June 2021.
- 15 SNHR report, The Syrian Regime Repeatedly Uses Cluster Munitions Against Residential Neighborhoods in and Around Idlib Governorate, Constituting War Crimes, 27 February 2020, p. 8, at: <https://bit.ly/2T11WbH>; and SNHR report, The Most Notable Human Rights Violations in Syria in the First half of 2020, p. 28, at: <https://bit.ly/3vvWssY>.
- 16 SNHR report, The Most Notable Human Rights Violations in Syria in March 2021, 5 April 2021, at: <https://bit.ly/2SCnu3m>, p. 3.
- 17 This information was provided on condition of anonymity.
- 18 This information was provided on condition of anonymity.
- 19 iMMAP, Coordination Support to Humanitarian Mine Action, 2020, at: <https://bit.ly/3yGh9nQ>; emails from Mairi Cunningham, HALO Trust, 7 and 17 June 2021; and email from UNMAS, 30 June 2021.
- 20 Email from MAG, 24 May 2021.
- 21 This information was provided on condition of anonymity.
- 22 Email from MAG, 24 May 2021.
- 23 Email from Lene Rasmussen, Mine Action Programme Advisor, DCA, 13 April 2021.
- 24 Email from MAG, 24 May 2021.
- 25 Email from UNMAS, 30 June 2021.
- 26 iMMAP, Coordination Support to Humanitarian Mine Action, 2020, at: <https://bit.ly/3yGh9nQ>.
- 27 Emails from Mairi Cunningham, HALO Trust, 7 and 17 June 2021.
- 28 UNMAS website, last updated in March 2021, at: <https://bit.ly/3uCiB0N>; and email from UNMAS, 30 June 2021.
- 29 Statement of Syria to the 24th NDM Meeting, 25–27 May 2021, p. 3.
- 30 Email from Lene Rasmussen, DCA, 13 April 2021.
- 31 Email from Mairi Cunningham, HALO Trust, 7 June 2021.
- 32 Email from MAG, 24 May 2021.
- 33 Email from Michael Edwards, Explosive Hazards Operations Manager, Mayday, 7 May 2021.
- 34 Email from UNMAS 15 July 2021.
- 35 Email from Michael Edwards, White Helmets, 7 May 2021.
- 36 Email from Lene Rasmussen, DCA, 13 April 2021.
- 37 Email from Mairi Cunningham, HALO Trust, 7 June 2021.
- 38 Email from MAG, 24 May 2021.
- 39 Email from MAG, 24 May 2021; see also, iMMAP, Coordination Support to Humanitarian Mine Action, 2020.
- 40 Email from UNMAS, 30 June 2021.
- 41 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.
- 42 Emails from Michael Edwards, White Helmets, 12–22 June 2021; and online interview with UNMAS, 21 June 2021.
- 43 Email from Lene Rasmussen, DCA, 13 April 2021.
- 44 Email from MAG, 24 May 2021.
- 45 Email from Mairi Cunningham, The HALO Trust, 7 June 2021.
- 46 Email from Michael Edwards, Mayday, 7 May 2021.
- 47 Email from UNMAS, 30 June 2021.
- 48 This information is provided on the condition of anonymity.
- 49 Email from Lene Rasmussen, DCA, 13 April 2021.
- 50 Email from Mairi Cunningham, HALO Trust, 7 June 2021.
- 51 "Russian military boosts qualified Syrian sappers to demine war-ravaged country", Tass, 9 January 2018.
- 52 See, e.g., "The Leramun district of the Syrian city of Aleppo will be cleared of explosive devices by the end of April", Report, Russian Centre for Reconciliation of Opposing Sides, 27 April 2020. The report did not state who conducted the clearance. The centre said engineers had cleared over 3,000 hectares (30km²), 3,112 buildings and 273 kilometres of roads, destroying 34,000 explosive items, including 5,400 IEDs, but did not say in what period of time.
- 53 "Russia calls for international support for demining efforts in Syria", Xinhua, 7 July 2018; and "Armenia sends deminers to Syria as part of Russia-backed mission", Radio Free Europe, 10 February 2019, at: <http://bit.ly/2K1glxo>.
- 54 "Armenia sends another group of sappers, medics, to Syria", Radio Free Europe, 5 June 2019, at: <http://bit.ly/2ym8SaY>.
- 55 "Armenia Touts Demining Record In Syria", RadioFreeEurope, 1 July 2019, at: <https://bit.ly/3fPLacq>.
- 56 Email from Lene Rasmussen, DCA, 13 April 2021.
- 57 Email from Mairi Cunningham, The HALO Trust, 7 June 2021.
- 58 Email from MAG, 24 May 2021.
- 59 Ibid.
- 60 Ibid.
- 61 S. Kajjo, "Landmine removal crucial in post-IS Syria", Voice of America, 3 April 2019; and interview with operators, Erbil, Iraq, May 2019.
- 62 This information is provided under the condition of anonymity.
- 63 Email from Michael Edwards, Mayday, 7 May 2021.
- 64 Statement by Agnes Marcaillou, Director, UNMAS, to the UN Security Council, 24 October 2019.
- 65 Email from UNMAS, 30 July 2021.
- 66 The ten operators originate from Afghanistan, Croatia, Denmark, Norway, Russian Federation, Switzerland, Ukraine, and the United Arab Emirates.
- 67 Email from UNMAS, 30 July 2021.
- 68 Statement of Syria to the 24th NDM Meeting, 25–27 May 2021, p. 2.
- 69 Email from UNMAS, 30 June 2021.
- 70 Statement of Syria to the 24th NDM Meeting, 25–27 May 2021, p. 2.
- 71 Email from UNMAS, 15 July 2021.
- 72 Email from Mairi Cunningham, The HALO Trust, 7 June 2021.
- 73 Email from Michael Edwards, Mayday, 12 May 2021.
- 74 Ibid.
- 75 Statement of Syria, 18MSP, Geneva, 16–20 November 2020.

KEY DEVELOPMENTS

Tajikistan lowered its estimate of cluster munitions contamination by almost half in 2020. Teams from national operator Union of Sappers Tajikistan (UST) conducted Cluster Munition Remnant Survey (CMRS)/technical survey for the first time in a joint operation with Norwegian People's Aid (NPA).

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 cluster munition remnants (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 CMR and ensure timely clearance and release of the contaminated areas.

UNDERSTANDING OF CMR CONTAMINATION

Tajikistan identified limited contamination totalling 0.8km² at the end of 2020 (see Table 1), little more than half the estimate of CMR contamination a year earlier, and believes its baseline is now about 80% complete.¹

The reduction is mainly a result of reclassification of confirmed hazardous areas (CHAs). TNMAC said end-2019 estimates of CMR contamination estimates mistakenly included 11 CHAs covering 965,040m² that were battle areas contaminated by other explosive remnants of war (ERW).² In 2020, TNMAC added a new CHA in Vahdat province adding 200,000m² to the CMR database. TNMAC also identified another area of 300,000m² as CMR contamination in 2020 but the task area was released without discovery of any submunitions. Most of what remains appears to be concentrated in the mountainous Darvoz district in central Tajikistan.³

Tajikistan traces its CMR contamination back to the civil war of 1992–97 but has not clarified who was responsible for using cluster munitions.⁴ Most of the submunitions cleared are from the Russian RBK 500 series, model AO 2.5RT/RTM.⁵

Table 1: Cluster munition-contaminated area (at end 2020)⁶

Province	CHAs	Area (m ²)
Vahdat	1	200,000
Darvoz	2	588,191
Totals	3	788,191

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Commission for the Implementation of International Humanitarian Law (CIIHL), chaired by the first deputy of the Prime Minister, and containing key 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.⁷

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).⁸ It was set up by government decree in January 2014 replacing the Tajikistan Mine Action Centre and taking over the process of managing transition to a fully nationally-owned programme.⁹ Tajikistan's Parliament adopted a Law on Humanitarian Mine Action in 2016 which covers all

aspects of mine action, and in 2017 it approved a national mine action strategy for 2017–20.¹⁰ TNMAC has also submitted a humanitarian mine action strategy for 2021–2030 and an action plan for its implementation which had government approval but had yet to be endorsed by parliament.¹¹

The government provided modest funding for mine action, reportedly including \$480,000 in "technical and non-technical assistance" as well as financing TNMAC and paying salaries of personnel of a range of state organisations supporting mine action.¹² The Ministry of Defence plays a major role in the mine actor sector through the Humanitarian Demining Company (HDC), the biggest national operator funded by the United States.¹³ HDC is not engaged in CMR clearance.

The Organization for Security and Co-operation in Europe Programme Office in Dushanbe (OSCE POiD) has supported the Ministry of Defence to update its multiyear plan, entitled "Ministry of Defence of the Republic of Tajikistan Co-operation Plan for Humanitarian Demining 2018-2023."¹⁴ In 2020, it

provided funding of approximately €250,000 to the mine action sector to finance three demining teams and TNMAC support staff and expected to maintain that level of support in 2021. The OSCE is also supporting the recruitment and appointment of an adviser for residual risk management.¹⁵

GENDER AND DIVERSITY

TNMAC adopted a gender programme in October 2018 that was prepared by the Geneva Mine Action Programme (GMAP, now a programme of the Geneva International Centre for Humanitarian Demining, GICHD) and is committed to improving the situation of women in the mine action sector.¹⁶

A UNDP evaluation at the end of 2019 concluded TNMAC had made progress mainstreaming gender and diversity in mine action but the strategy had not yet been systematically implemented. Areas for further action included ensuring that training of trainers for risk education was gender balanced, introducing women QA/QC officers, and developing a code of conduct and complaints mechanisms.¹⁷ Those issues remained outstanding in 2020.

TNMAC 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.¹⁸ TNMAC employed a total of 11 women in 2020 and expected the number to remain the same in 2021. They included one woman in a supervisory role as a project coordinator, but all served in administrative or support roles, none were employed in survey or field operations.¹⁹ Relevant mine action data are disaggregated by sex and age.²⁰

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.²¹ The OSCE, which funds three demining teams, also seeks to promote gender awareness by collecting comprehensive relevant information.²² Meantime, the Ministry of Defence's HDC multi-task teams reportedly consult with all groups, including women and children, during survey and community liaison.²³

NPA has a gender and diversity policy integrated into its Tajikistan operations. It employed a total of 18 female staff in 2020, who included three of NPA's seven management and support staff (43%) and 15 female staff making up 17% of its operations personnel, including 11 deminers. It expected the number of female employees to remain the same in 2021. NPA's two non-technical survey teams operating in 2020 were not gender balanced. NPA's staff are diverse, employing staff from every region.²⁴

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. 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.²⁵

INFORMATION MANAGEMENT AND REPORTING

TNMAC completed an upgrade of its national mine action database from Information Management System for Mine Action (IMSMA) version 6.0 to IMSMA Core in May 2019 making it easier to input, edit, and retrieve data.²⁶ 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.²⁷ 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 2021.²⁸

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 2023.²⁹ NPA is tasked by TNMAC after discussions that take account of humanitarian impact, national planning priorities and seasonal access constraints.³⁰

Tajikistan's Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request submitted in March 2019, which sought a new deadline of 31 December 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.³¹ A General Land Release Operational Plan for 2021-25 details areas targeted for clearance each year and the required funding.³² TNMAC has also submitted a humanitarian mine action strategy for 2021-2030 and an action plan for its implementation. These had government approval but were still to be endorsed by parliament.³³

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.³⁴

TNMAC agreed to an NPA proposal to introduce the CMRS/technical survey methodology to Tajikistan and conducted a pilot project in the central region of the country in July 2019.³⁵ It has approved NPA's CMRS standing operating procedures (SOPs) for use by all operators.³⁶

OPERATORS AND OPERATIONAL TOOLS

Tajikistan significantly expanded its national mine action capacity 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 number of demining teams to seven, employing a total of 81 staff.³⁷

UST, a national not-for-profit organisation accredited for risk education, survey, and victim assistance, added two non-technical and technical survey teams, raising the total number of teams to four with a total of 32 personnel. UST started to conduct CMRS in 2020, working with NPA on a task in Darvoz district's Sagidasht municipality.³⁸ TNMAC planned to expand its activities to include manual mine clearance and explosive ordnance disposal (EOD) and expected UST

would take on clearance of any residual CMR contamination identified after it completes release of known hazards.³⁹

NPA remains the only international operator undertaking clearance in Tajikistan, operating in 2020 with two survey teams with a total of eight staff and five manual clearance teams with forty-one deminers. One of NPA's teams was deployed for CMRS in central Darvoz district for three summer months in 2020. NPA carried out the task in Darvoz as a joint initiative with UST with a view to building the organisation's capacity to conduct CMRS. NPA, in cooperation with HDC, reactivated a mini MineWolf mechanical asset. NPA also cooperates with the Border Guard Forces, working in 2020 with 13 seconded guards. It expected to continue that cooperation at the same level in 2021.⁴⁰

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

Tajikistan released a total of 0.3km² through a combination of survey and clearance in 2020, less than half the area released in 2019.

Cluster munitions survey and clearance operations in 2020 were confined to a single CMRS task in Darvoz covering 300,000m² that was conducted jointly by NPA and UST. The operations did not find any submunitions and nearly three-quarters of the area was reduced by technical survey (see Table 2).⁴¹

Clearance was undertaken only on 83,839m², resulting in destruction of two items of unexploded ordnance (UXO) but no submunitions.

Table 2: Reduction through technical survey in 2020

Province	Operator	Area reduced (m ²)
Darvoz	UST	93,525
Darvoz	NPA	122,636
Total		216,161

TNMAC said in 2020 it hoped to complete CMR clearance by 2023.⁴² It has also made clear that progress towards achieving that target depended on availability of funding and weather conditions that did not prevent operations in the short summer season when clearance is possible.⁴³

Table 4: Five-year summary of CMR clearance

Year	Area released (km ²)
2020	0.08
2019	0.52
2018	0.41
2017	0.25
2016	0
Total	1.26

Table 3: CMR clearance in 2020

Operator	Province	Areas released	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
NPA	Darvoz	1	45,749	0	2
UST	Darvoz		38,090	0	0
Totals		1	83,839	0	2

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- 1 Email from Muhabbat Ibrohimzoda, Director, TNMAC, 22 April 2021.
- 2 Emails from Muhabbat Ibrohimzoda, TNMAC, 22 April and 4 May 2021. The areas eliminated as CMR hazards were in Darvoz (174,000m²), Rasht (531,000m²), Sh. Shohin (60,000m²), and Sangvor (200,000m²).
- 3 Emails from Muhabbat Ibrohimzoda, TNMAC, 22 April and 4 May 2021.
- 4 Statement of Tajikistan, Anti-Personnel Mine Ban Convention (APMBC) 14th Meeting of States Parties, Geneva, 1 December 2015.
- 5 Email from Melissa Andersson, Country Director, NPA, 29 April 2020.
- 6 Email from Muhabbat Ibrohimzoda, TNMAC, 22 April 2021.
- 7 2019 APMBC Article 5 deadline Extension Request, p. 20.
- 8 Ibid., pp. 20–21.
- 9 Ibid., p. 1; and TMAC, "About TMAC", 2012, accessed 10 March 2014 at: <http://bit.ly/2LvPub1>.
- 10 Email from Aubrey Sutherland-Pillai, NPA, 18 October 2016; 2019 APMBC Article 5 deadline Extension Request, pp. 20–21.
- 11 Email from Muhabbat Ibrohimzoda, TNMAC, 22 April 2021.
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- 13 2019 APMBC Article 5 deadline Extension Request, p. 23.
- 14 Email from Luka Buhin, OSCE Tajikistan, 9 October 2017.
- 15 Email from Johan Dahl, Head of Arms Control and Mine Action, OSCE Programme Office, Dushanbe, 9 April 2021.
- 16 Email from Muhabbat Ibrohimzoda, TNMAC, 14 June 2019.
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- 18 Email from Muhabbat Ibrohimzoda, TNMAC, 25 July 2019.
- 19 Email from Muhabbat Ibrohimzoda, TNMAC, 22 April 2021.
- 20 Email from Muhabbat Ibrohimzoda, TNMAC, 25 July 2019.
- 21 2019 APMBC Article 5 deadline Extension Request, Additional Information received 3 August 2019.
- 22 Email from Johan Dahl, Acting Head, Political-Military Department, OSCE Programme Office, Dushanbe, 13 May 2020.
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- 24 Email from Melissa Andersson, Country Director, NPA, 21 April 2020.
- 25 Emails from Melissa Andersson, NPA, 21 April and 4 July 2021.
- 26 Email from Muhabbat Ibrohimzoda, TNMAC, 28 May 2020.
- 27 Email from Muhabbat Ibrohimzoda, TNMAC, 22 April 2021.
- 28 Email from Melissa Andersson, NPA, 21 April 2020.
- 29 Email from Muhabbat Ibrohimzoda, TNMAC, 28 May 2020.
- 30 Emails from Melissa Andersson, NPA, 21 April 2020 and 21 April 2021.
- 31 2019 APMBC Article 5 deadline Extension Request, p. 35.
- 32 Email from Muhabbat Ibrohimzoda, TNMAC, 22 April 2021.
- 33 Ibid.
- 34 Email from Muhabbat Ibrohimzoda, TNMAC, 22 May 2017; and Second APMBC Article 5 deadline Extension Request (draft), 31 March 2019, p. 21.
- 35 Email from Melissa Andersson, NPA, 29 April 2020.
- 36 Email from Melissa Andersson, NPA, 27 August 2020.
- 37 Email from Muhabbat Ibrohimzoda, TNMAC, 22 April 2021.
- 38 Emails from Melissa Andersson, NPA, 29 April and 27 August 2020.
- 39 Emails from Muhabbat Ibrohimzoda, TNMAC, 22 April and 4 May 2021.
- 40 Email from Melissa Andersson, NPA, 21 April 2021.
- 41 Emails from Muhabbat Ibrohimzoda, TNMAC, 22 April 2021; and Melissa Andersson, NPA 21 April 2021.
- 42 Email from Muhabbat Ibrohimzoda, TNMAC, 28 May 2020.
- 43 Email from Muhabbat Ibrohimzoda, TNMAC, 4 May 2021.

RECOMMENDATIONS FOR ACTION

- Ukraine should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Ukraine 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.
- Ukraine should undertake a baseline survey of CMR contamination in areas to which it has effective access.
- Ukraine should expedite implementation of its new national mine action legislation and create 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 systematically collect data on contamination from mines, CMR, and other explosive remnants of war (ERW), as well as progress in survey and clearance, and establish a centralised database for planning purposes.
- Ukraine should report on contamination, survey, and clearance activities in a manner consistent with the International Mine Action Standards (IMAS).
- Ukraine should consult with mine action stakeholders and elaborate standardised national criteria for the prioritisation of CMR clearance.

UNDERSTANDING OF CMR CONTAMINATION

The extent of contamination from CMR in Ukraine is not known. Ukraine has said that many unexploded submunitions contaminate the Donetsk and Luhansk regions,¹ with the most intensive use of cluster munitions said to have occurred in and around the city of Debaltsevo in Donetsk oblast.² Since 2017 and again in 2020, Ukraine estimated, implausibly, that total contamination by mines and ERW (including CMR) could extend over 7,000km².³ The Ukrainian Ministry of Defence (MoD) has accepted that this is a “rough” estimate.⁴

It is further suggested that up to one fifth of the explosive contamination is from mines while the rest is from different ERW, including CMR.⁵ But Ukraine cannot reliably estimate the specific extent of CMR contamination until a baseline survey has been completed.⁶ The heaviest mine and ERW contamination is believed to be inside the 15km buffer zone between the warring parties, also called the Grey Zone.⁷ Non-technical and technical survey are being conducted in the Government-Controlled Area (GCA) in eastern Ukraine but ongoing conflict means that evidence-based survey is not possible in the Grey Zone.⁸

In 2020, a total of 3.15km² of previously unrecorded CMR contamination was discovered and added to the database. The HALO Trust discovered 1.16km² while the Danish Refugee Council’s (DRC’s) Humanitarian Disarmament and Peacebuilding sector (formally known as Danish Demining Group (DDG) and hereafter referred to as DRC), reported 1.99km².⁹ The newly discovered contamination is a result of previously unknown contamination.¹⁰

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.¹¹ In 2015, Human Rights Watch documented attacks using cluster munition rockets in at least seven locations: Kramatorsk, Artemivsk, and Hordivka in the GCA; and Komsomolske, Luhansk, Stakanov, and Starobesheve in Non-Government Controlled Area (NGCA).¹²

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 current conflict (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 War¹³ and Soviet military training and stockpiles. In February 2016, Ukraine said that 32 former military firing ranges and the many other areas contaminated with explosive items from past wars covered 1,500km².¹⁴

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

All mine action in the Donetsk and Luhansk regions, including CMR survey and clearance, is currently overseen and coordinated by the MoD, which operates the Kamyanets-Podilsky Demining Centre.¹⁵ Operators submit annual plans for MoD's approval.¹⁶ Other national bodies involved in the sector include the Ministry of Interior (Mol), under which sits the State Emergency Services of Ukraine (SESU); the Security Services; 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.¹⁷ The MoD has organisational control of operations, while SESU is generally responsible for conducting clearance.

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 2019.¹⁸ Prior to its adoption, Ukraine did not have any comprehensive legal act regulating the complex set of issues regarding mine action. The Law foresaw the establishment of special governmental institutions to lead the national mine action response in the country. However, the government did not 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 remained uncoordinated as a consequence. In addition to the lack of implementation, the Law also had gaps and weaknesses in its regulation of victim assistance and the safety and efficiency of mine action operators.¹⁹

In June 2020, the "Law on the Amendments to the Law on Mine Action in Ukraine" passed its first reading. Following this, the United Nations Development Programme (UNDP), the Organization for Security and Co-operation in Europe (OSCE) Project Coordinator in Ukraine (PCU), The HALO Trust, and DRC came together to prepare an explanatory note suggesting further amendments. These included comments on the status of mine victims and their rights; the training and insurance of deminers; handover procedure and liability of actors after handover; and the importation of dual-use goods (to allow international operators the possibility to use explosives in order to destroy items found during demining). Currently only MoD and SESU can perform that task.²⁰

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.²¹

The approved Law establishes a framework for humanitarian demining, divides responsibilities among State institutions, and foresees the creation of a National Mine Action Authority (NMAA). However, it has a peculiarity in that it envisages the creation of two National Mine Action Centres (NMACs). There will be one NMAC under the MoD and one under SESU which sits under the Mol. The latter centre will be named the "Special Humanitarian Demining Centre". The two NMACs

will share the remits of information management, quality assurance (QA), monitoring, planning, and certification of the operators and their responsibility will be divided territorially.²² The SESU NMAC will be 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.²³ The decision to create two NMACs as opposed to one comes as a compromise after competition between the MoD and Mol on who takes the lead on mine action.²⁴ But it does not augur well for either efficient or effective mine action.

The NMACs will be coordinated by the NMAA, an interagency body made up of the Cabinet of Ministers (CoM), which will be chaired by the MoD while "special conditions" exist in Ukraine and then during peacetime by the Mol. The National Mine Action Standards (NMAS) and the national mine action strategy will be adopted by the NMAA.²⁵

As at May 2021, the Humanitarian Demining Centre has been created in Merefa (in eastern Ukraine); the MoD NMAC was in an advanced stage in Chernihiv (in northern Ukraine) but not yet fully established. The NMAA has not yet been created. It was planned that these structures would be fully established within the six-month period set by the Law, that is by June 2021.²⁶ As at July 2021, however, the NMAA was not yet fully established,²⁷ though the MoD was assuming an NMAA role on a de-facto basis.²⁸

Operators participate in monthly mine action sub-cluster meetings, which are attended by representatives of the MoD, SESU, and Ministry of Foreign Affairs (MoFA), and which is chaired by UNDP. There are also regular roundtable meetings organised by OSCE PCU on specific mine action topics and other sectorally relevant discussions.²⁹

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). But operators continue to face difficulties importing armoured equipment and dual-use items.³⁰

In 2020, DRC supported SESU in the revision of standing operating procedures (SOPs) and the improvement of the quality and compatibility of the SESU Data Management System in 2020.³¹ DRC also trained 74 SESU staff members, provided 12 metal detectors, uniforms, personal protective equipment (PPE), and other supplies for field deployment.³²

The Swiss Foundation for Mine Action (FSD) purchased two pick-ups, detectors, PPE units, medical kits, laptops, tablets, and printers, which it will provide to the MoD QA teams. In addition, FSD is planning to organise training for MoD and NMAC staff in 2021 and beyond.³³

In 2020, the Geneva International Centre for Humanitarian Demining (GICHD) supported the OSCE PCU, MoD and SESU in information management; provided a training course on operational efficiency; and contributed to the efforts to update the NMAS and the National Mine Action Law.³⁴ In the same year, the OSCE donated Protective Equipment to SESU and MoD, and printed explosive ordnance risk education (EORE) materials for the Ministry of Reintegration of the Temporarily Occupied Territories.³⁵

In 2020, The HALO Trust conducted five capacity building training courses to 50 SESU staff in order to improve knowledge, skills, and capacity for mine action activities. As at March 2021, the HALO Trust had provided a refresher demining training to 22 SESU personnel.³⁶ The trained SESU personnel have been deployed to survey and clear minefields with mentorship from HALO.³⁷ HALO also delivered the following equipment to SESU in 2020: 4 vehicles, 22 detectors, 22 PPE sets, medical kits, and radios.³⁸

The UNDP, within the auspices of the UN Recovery and Peace Building Programme (UN RPP), launched a Mine Action Project "Capacity Development Support for Integrated Mine Action in Eastern Ukraine" in mid 2020. The project, which aims to support the Government of Ukraine in establishing a comprehensive, coordinated, and gender-sensitive mine action response is funded by Canada.³⁹

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 Article 5 deadline extension request submitted in 2020 or in Ukraine Article 7 report covering 2020.⁴⁰

DRC has a gender and diversity policy and implementation plan. It ensures that all affected groups, including women and children, are consulted during survey and community liaison activities. As at April 2021, women represent 75% of the two non-technical survey teams, 19% of clearance teams, and 50% of EORE teams. In addition, 50% of managerial/supervisory positions were filled by women, including the Head of Programme position. In an additional step to improve participation of women and children in survey and clearance activities in 2021, the DRC Ukraine programme was selected

for participation in a GICHD assessment that will strengthen capacity and practice on gender, equality, and inclusion.⁴¹

FSD does not have a gender and diversity plan in place but encourages females to apply in its job announcements. Selection and promotion are then based on qualifications. In 2020, 70% of managerial/supervisory positions in FSD were filled by women, including the Deputy Country Director and the Operations Coordinator. One in five survey and clearance team members was a women.⁴²

The HALO Trust uses mixed gender non-technical survey and community liaison teams. HALO Trust began recruiting women for clearance roles in 2017, employing the first female deminers in Ukraine.⁴³ As at April 2021, 19% of operational survey and clearance staff were women,⁴⁴ along with 50% women in non-managerial/supervisory positions.⁴⁵

INFORMATION MANAGEMENT AND REPORTING

There are two functioning International Management Systems for Mine Action (IMSMA) databases in Ukraine, one managed by SESU and the other by the MoD, both of which collect and analyse contamination and land release data from national operators and NGOs.⁴⁶ The databases are, though, claimed to be complementary, as they are separated based on region, thematic area, and operational purpose.⁴⁷ In 2019–20, the GICHD supported IMSMA Core installation and data migration. Both the MoD and SESU have IMSMA Core, though the resources available to maintain the system were limited, a problem which might be addressed by the new structure in 2021. The GICHD is currently working with its in-country partners to improve the quality of the data.⁴⁸

An online map of explosive contamination has been published by the MoD with technical support from The HALO Trust, using data from DRC, FSD, The HALO Trust, and a commercial company, Demining Solutions.⁴⁹ Operators submit survey and clearance data to the MoD on a monthly basis and each submitted a report at the end of 2020 on all survey and clearance data for the year.⁵⁰

The DRC continues to build the competences of SESU with regard to information management and reporting. The second phase of a support programme that started in 2018 and

which will continue until August 2024, began in September 2020. During this phase, DRC will help SESU expand its SOPs to cover information management, non-technical survey, QA, and Quality Control (QC). In coordination with the GICHD, the second phase will aim to improve the quality and compatibility of the SESU data management system to support the integration of IMSMA Core. DRC also plans to train 60 SESU personnel on data collection and management and to build the capacity of the information management personnel across all of the 25 regional SESU sub-offices. The data management trainings will contribute to the efforts of the mine action community to unify terminology across the SESU and MoD so that the two databases are compatible and can serve the national mine action programme effectively.⁵¹

FSD planned an ArcGIS training as part of its capacity building package for MoD QA personnel in 2021.⁵²

Despite all the capacity development support that Ukraine has received on information management, the quality of official reporting remains poor. The lack of an operationalised mine action law left Ukraine in a legal vacuum which made it very difficult to obtain information on operational capacities and outputs.⁵³ It is hoped that this will change once the structures stipulated by the law are fully functional.

PLANNING AND TASKING

Ukraine does not have a national mine action strategy and, as at April 2021, there were no plans to develop one.⁵⁴ The GICHD was invited to a roundtable meeting in March 2020, where it presented the strategic planning process. The national authorities subsequently decided to wait for the implementation of the new Mine Action Law before developing a national strategy.⁵⁵ The OSCE plans to support the NMAA, as soon as it is established, in developing a mine action strategy and expects this to be ready in 2022.⁵⁶

There are currently no standardised criteria at national level for task prioritisation.⁵⁷ Until an NMAC is fully functional, all tasking of operators is managed by the MoD in line with its annual action plan.⁵⁸ Local government have been helping the MoD to prioritise tasks based on humanitarian criteria.⁵⁹ The MoD approves annual survey and clearance work plans submitted by operators. Operators prioritise clearance according to humanitarian impact and in discussion with the local community.⁶⁰

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.⁶¹ 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.⁶² 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.⁶³ According to DRC, the Ukrainian government has set a deadline to finalise the NMAS by August 2021.⁶⁴

In April 2019, the CoM approved Resolution 372 on "Regulations on marking mine and ERW hazards", which are said to follow the provisions in the IMAS.⁶⁵ The lack of a functional NMAC also means that operators' SOPs are not currently accredited. Operators are therefore working in line with IMAS and donor contractual obligations rather than the NMAS.⁶⁶

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 engineer-sapper units of the Armed Forces of Ukraine; the National Guard of Ukraine; the Ministry of Internal Affairs, which conducts clearance through SESU and also has an engineering department that conducts EOD; the Security Service; the State Special Transport Service, 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.⁶⁷

Three international demining organisations—DRC, FSD, and The HALO Trust—are operating in Ukraine.⁶⁸ FSD suspended demining operations in 2019 due to lack of funding but later secured additional funds and restarted its programme in 2020.⁶⁹ In addition, in 2019, the Ukrainian organisations Demining Team of Ukraine and Demining Solutions were active in demining in the east of the country.⁷⁰ 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.⁷¹

Table 1: Operational clearance capacities deployed in 2020⁷²

Operator	Manual teams	Total deminers*	Dogs and handlers	Machines**	Comments
HALO	25	300	0	3	Increased from 2019 by two manual demining teams (24 staff). Mechanical assets are a JCB excavator, Volvo front-loader, and case front-loader.
DRC	5	30	0	0	Increased from 2019 by three manual demining teams (each with six staff). ⁷³
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	34	357	0	3	

* Excluding team leaders, medics, and drivers.

** Excluding vegetation cutters and sifters.

In 2020, DRC deployed two non-technical survey personnel in one team and five technical survey teams, which also conduct clearance.⁷⁴ DRC increased its survey and clearance capacity in line with increased funding and expected to significantly augment its capacity further to nine clearance teams and two non-technical survey teams in the course of 2021.⁷⁵

FSD has resumed its operation in 2020 after a suspension in 2019 due to the lack of funding. In 2020, it deployed four non-technical survey personnel across two teams and seven technical-survey personnel in one team. FSD does not have plans to increase its operational capacity in 2021, but this

might change if additional funding becomes available.⁷⁶ FSD expected to receive a mechanical ground preparation machine (DOK-ING MV-4) in the early summer of 2021, which will result in the formation of a dedicated mechanical team.⁷⁷

The HALO Trust deployed 12 non-technical survey personnel across three teams and 18 technical survey personnel across three teams.⁷⁸ HALO Trust increased its clearance capacity in 2020 compared to the previous year thanks to increased funding. HALO intended to maintain the same capacity of manual clearance and technical survey in 2021, but might also increase its non-technical survey capacity if funding allows.⁷⁹

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

None of the international operators released any cluster munition-contaminated area through survey in 2020 or in 2019.⁸⁰ However, a total of 3.15km² of previously unrecorded CMR contamination was discovered and added to the database in 2020.

The HALO Trust cleared 16,527m² of CMR-contaminated area in the village of Svatove in Svativskiy district, destroying one submunition and fifty-two items of UXO. The clearance task was at the site of an ammunition storage facility explosion in 2015 and not a result of bombing.⁸¹ This is a decrease from 2019 where HALO cleared 68,000m² of CMR-contaminated area destroying in the process two submunitions.⁸² In addition, in 2020, one submunition was reported to HALO Trust in a spot task and subsequently removed by the Ukrainian authorities.⁸³ HALO also discovered 1.16km² of previously unrecorded CMR-contaminated area during non-technical survey.⁸⁴

In addition, SESU personnel conducted 14,166 tasks in 2020, during which 49.39km² of land was surveyed and cleared and 73,375 items of ERW were reportedly destroyed across Ukraine. Of these tasks, 4,147 were conducted in Donetsk and Lugansk districts alone, where 22.82km² of land was surveyed and cleared and 25,213 items of ERW destroyed.⁸⁵ As at June 2021, SESU had the capacity to conduct technical survey, battle area clearance (BAC), manual mine clearance,

and spot tasks and was in the process of improving its non-technical survey SOPs. The ERW numbers reported by SESU almost certainly include ERWs destroyed in EOD call-outs, some of which date back to the Second and even the First World War.⁸⁶ It is not known how many of the destroyed ERW were CMR.

Within the scope of its capacity-building project, DRC reported that six SESU demining teams cancelled 653,226m² through non-technical survey, and cleared 109,298m² of explosive ordnance (EO) contaminated land, destroying in the process 467 items of UXO. The teams were trained, equipped, and supervised by DRC. Clearance and survey operations were conducted in accord with IMAS.⁸⁷ The clearance figures (not survey) reported by DRC are included in these reported by SESU. It is not known how many of the destroyed ERWs were CMR.

DRC and FSD did not conduct any CMR clearance in 2020 or 2019.⁸⁸ DRC did, however, discover 1.99km² of previously unrecorded cluster munition-contaminated area in 2020.⁸⁹

In 2020, the DRC cleared 58,298m² of area that was suspected to contain UXO, destroying two items of UXO in the process.⁹⁰ FSD also cleared 5,949m² in a BAC task in Stara Mykolivka village, destroying 98 items of UXO in the process.⁹¹

Table 2: CMR clearance in 2020⁹²

District	Village	Operator	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
Svativskiy	Svatove	HALO Trust	16,527	1	52
Totals			16,527	1	52

PROGRESS TOWARDS COMPLETION

No target date has been set for the completion of CMR clearance in Ukraine. Although it is understood that, in addition to clearance conducted by operators, some clearance of CMR contamination has been undertaken by the MoD and the SESU. The extent is unclear as that information has not been made available by the national authorities.⁹³

Access to CMR contamination is a problem in certain areas either because of security concerns or because of their proximity to active military sites.⁹⁴ In addition, Ukraine has not had full control over parts of its territory with suspected CMR contamination since conflict erupted in 2014.

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.

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KEY DEVELOPMENTS

With the adoption of a new national mine action decree in 2019, followed by a more detailed Guiding Circular in February 2020, the Vietnam National Mine Action Centre (VNNMAC) has now been officially empowered to start coordinating humanitarian mine action in Vietnam. This provided a legal basis for VNNMAC to make significant progress in 2020 in ongoing efforts to review and update the national mine action standards to bring them more in line with the International Mine Action Standards (IMAS), establish a fully functioning national information management database, and build a national quality management (QM) capacity.

RECOMMENDATIONS FOR ACTION

- Vietnam should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Despite not yet being a State Party to the CCM, Vietnam has obligations under international human rights law to clear cluster munition remnants (CMR) in areas under its jurisdiction or control as soon as possible.
- In collaboration with implementing partners, VNNMAC should define a strategy for enhancing understanding of the extent of CMR contamination, with a view to establishing a nationwide baseline of CMR contamination. As part of these efforts, VNNMAC should seek to expand non-technical and technical survey.
- VNNMAC should specify criteria for the prioritisation of CMR survey and clearance tasks.
- VNNMAC 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.
- VNNMAC should continue progress to develop a fully functional national information management database and make Information Management System for Mine Action (IMSMA) data available to all clearance operators and relevant stakeholders.
- VNNMAC should publish comprehensive annual reports on the results of survey and clearance by all operators.
- VNNMAC should more actively engage in regional sector discussions aimed at accelerating the progress of CMR survey, particularly on survey efficiencies and effectiveness.

UNDERSTANDING OF CMR CONTAMINATION

Vietnam is massively contaminated by CMR but no accurate estimate exists, even to the nearest hundred square kilometres. An explosive remnants of war (ERW) impact survey, started in 2004 and completed in 2014, was only published in 2018. It said that 61,308km² 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 VNNMAC, 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 VNNMAC 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

In **Quang Tri province**, reputedly Vietnam's most contaminated province, Norwegian People's Aid (NPA) is carrying out a province-wide survey.⁴ Estimates of CMR-contaminated area are increasing sharply as survey progresses. As at end of April 2021, NPA had completed non-technical survey of 613 of the 690 accessible villages (89%) in Quang Tri province. A further 109 were not accessible to NPA. Technical survey by NPA had confirmed 457km² of confirmed hazardous area (CHA) as contaminated by CMR, approximately 9% of the total area of Quang Tri province.⁵ In response to requests from NPA, the Quang Tri Provincial Mine Action Center (QTMAC) and the Quang Tri Department of Foreign Affairs facilitated discussions with the Provincial Military Command, including border military units, to discuss the expansion of mine action activities into more villages and to clarify the final list of restricted areas in Quang Tri province. As a result of these discussions, in

July 2020, NPA and other mine action non-governmental organisations (NGOs) received an updated list of new operational areas from the Quang Tri provincial Mine Action Steering Committee. Under the new list, CMRS can be conducted in 86% of the total villages in Quang Tri province (a total of 690 villages).⁶ With the current capacity (eight technical survey teams), NPA anticipated it could take between four and five years to complete technical survey in remaining villages, though this estimate may change in response to direct evidence identified during survey.⁷

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 was signed and approved in May 2020, and aims to transfer experience from adoption of the Cluster Munition Remnant Survey (CMRS) approach in Quang Tri province and tailor it to Quang Binh province. Planned CMRS of the whole province, will help better understand the nature and extent of contamination and help inform planning processes.⁸ 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 GPS-recorded explosive ordnance disposal (EOD) spot tasks involving submunitions to plot what are termed Initial CHAs (iCHAs). From April 2019, MAG deployed one technical survey team in Quang Binh province to complement EPP mapping data and to define CHAs for clearance and survey the areas in between adjacent iCHAs, to merge them into one larger CHA.⁹

MAG expects to combine existing EPP methodology within the CMRS methodology to speed-up survey and support early prioritisation for clearance to be deployed to where the impact will be the highest.¹⁰

In **Thua Thien Hue province**, in collaboration with VNMAC and the provincial authorities, NPA has been implementing CMRS in four districts. As at December 2020, over 17km² of CHA had been identified in the western district of A Luoi.¹¹ Based on a desk exercise, NPA estimates that total cluster munition contamination in A Luoi is likely to be around 45km².¹²

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.¹³ 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,¹⁴ as well as BLU-63 (in Quang Binh province).¹⁵ In Quang Nam province, almost all the CMR cleared by Danish Demining Group (DDG) were M83 submunitions.¹⁶ The Military Engineering Command encountered substantial amounts of cluster munitions abandoned by the US military, notably at or around old US air bases, including eight underground bunkers found in 2009, one reportedly covering 4,000m² and containing some 25 tons of munitions.¹⁷

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.¹⁸ 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.¹⁹

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,²⁰ although management and operations continued to depend largely on the Armed Forces.

In a positive development, Vietnam's mine action programme is undergoing 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 2020.²¹ Under Decree 18, while the Ministry of National Defence (MoD) will continue to elaborate and preside over the national mine action programme, as the lead authority, in coordination with other relevant ministries and sectors;²² and VNMAC will, under the direction of the Prime Minister and management of the MoD, "monitor, coordinate and implement mine action tasks".²³ Guiding Circular 195, which details a number of articles and methods regarding implementation of the Decree, also officially appoints VNMAC as the national coordinator of mine action activities in Vietnam.²⁴

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 (QCVNs and TCVNs), which began in 2020.²⁵ VNMAC now have authority over mine action data, which they are beginning to exercise by requiring provinces to collect and report data to the VNMAC Information Management Unit (IMU) on a quarterly basis.²⁶ 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.²⁷

VNMAC is entirely nationally funded, and implementation of the National Mine Action Programme (Programme 504) is funded by both state and international funding.²⁸ 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 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.²⁹

VNMAC's involvement in coordination meetings, such as the Landmine Working Group (LWG), increased in 2020. The LWG, which was co-chaired by NPA and the International Centre (IC) in 2020, is a platform for humanitarian mine action stakeholders in Vietnam to meet regularly to share and discuss updates that impact the sector.³⁰ During 2020, VNMAC used the LWG for collective discussions, including on the updating of the QCVNs and TCVNs. Quarterly LWG meetings continued throughout 2020, but were not possible in Q1 due to the COVID-19 pandemic.³¹

International NGOs (INGOs) reported that cooperation and collaboration with VNMAC continued to strengthen in 2020, including in its close engagement with the LWG and in discussions seeking input from the international community on the legal frameworks (QCVNs, TCVNs, and SOPs). Coordination also strengthened as a result of the Decree and Circular. This was despite constraints posed by COVID-19, which resulted in limitations on meetings and travel, and which saw VNMAC frequently forced to close their office to non-VNMAC personnel. Despite this, VNMAC have shown an increased understanding in their role and how they need to fulfil, including a greater willingness to discuss ideas and challenges with international operators.³² However, VNMAC still operates within the limits of the MoD which is very regulated, so there is still room for improved transparency and efficiency.³³

VNMAC now produces a twice-yearly mine action calendar covering the work and activities of all international mine action organisations, and in 2019 VNMAC initiated a biannual operations report covering the activities and results of all international NGOs in Vietnam.³⁴ The 2020 biannual operations report also included results for projects funded by the Republic of Korea through the United Nations Development Programme (UNDP).³⁵

MAG, NPA, PTVN, UNDP, and Golden West Humanitarian Foundation (Golden West) all provide capacity development support in Vietnam.

Despite challenges posed by COVID-19, MAG and NPA facilitated and hosted a number of familiarisation visits by VNMAC to their offices and operations, and shared experiences learned, including on the Quang Tri model and the consortium model in Quang Binh.³⁶

NPA is implementing three capacity-development projects with VNMAC. The first project provides financial and administrative support to a US Department of State's Bureau of Political-Military Affairs PM-WRA Senior Technical Advisor who works with VNMAC senior management on issues related to their strategic, organisational, and individual development as well as on donor liaison and resource mobilisation. The second involves the provision of financial and technical support to a PM-WRA Information

Management Technical Advisor who assists VNMAC in its establishment of a national information management system, including mentoring of its Information Management Unit, which runs the national database. Lastly, NPA provides a Capacity Development Advisor who supports QTMAC management in coordination between all mine action actors in accordance with the QTMAC policy, as well as supporting operational planning/prioritisation and policy and procedural development. During 2020, NPA supported QTMAC in the ongoing development of a QM SOP (to be approved and deployed in 2021) as well as provincial guidelines on prioritisation of CHAs for clearance and a new manual on the integration of mine action with provincial socio-economic development plans.³⁷

The NPA-VNMAC technical survey project in **Thua Thien Hue province** is an evolving process to formulate a SOP on technical survey for Vietnam. The first phase of the NPA-VNMAC operational support successfully concluded in 2020 after ten months, and saw the successful revision and strengthening of VNMAC's SOP for technical survey (and non-technical survey). As part of this project, NPA supported the training, management, supervision and monitoring of four VNMAC technical survey teams (five members excluding medic and driver) in A Luoi, and successfully completing this project in November 2020. The next phase in 2021, subject to funding, will focus on improvements to the VNMAC Battle Area Clearance (BAC) SOP, including technical support for revising the SOP as well as in-field monitoring of operations.³⁸

During 2019, MAG also worked with the provincial authorities and the military in **Quang Binh province** to coordinate operations, and supported the development of a provincial Mine Action Strategy. Operations under a joint consortium between MAG, NPA, and PTVN commenced in June 2020. The consortium 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, which is being conducted with the Quang Binh province Database and Coordination Unit (DBCUC).³⁹ As part of this project, NPA began providing support to the DBCUC in 2020, which included recruitment and training of eight provincial DBCUC staff, who are now responsible for mine action data and coordination of mine action operations in Quang Binh province.⁴⁰ As at May 2021, the DBCUC was almost fully functional to receive (and provide) mine action data from operators in Quang Binh, and to task and coordinate mine action operations in the province.⁴¹

MAG also helped to train some of VNMAC's staff and provided comments on the content of VNMAC's training curriculum and shared all MAG training material with VNMAC.⁴² In 2021, MAG and VNMAC were planning to further formalise cooperation through a memorandum of understanding (MoU). The planned three-year MoU would support experience sharing in training of personnel in survey and clearance, the development and implementation of the QM system, and piloting of a digital risk education project.⁴³

In addition, as part of the UK Foreign, Commonwealth and Development Office's (FCDO, formerly the Department for International Development (DFID)) global mine action programme (GMAP) II project in 2019, led by MAG, NPA has the responsibility to train four members of the VNMAC's Consultancy, Survey and Quality Management Centre

to become the first national QM team. The training was completed at the end of March 2020 and the VNMAC QM team personnel were certified as quality assurance (QA) officers, following a Geneva Centre for Humanitarian Demining (GICHD) capacity assessment in Q2 2020.⁴⁴ MAG believes that coordination and collaboration with VNMAC has been strengthened as a result of this project.⁴⁵

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, including for information management, QM, and prioritisation. In 2020, the key capacity development focus was on the development of a provincial QM capacity, including the recruitment and training of the two QM teams and the development of a QM SOP.⁴⁶

PTVN undertakes joint efforts to support and help enhance the management and coordination of QTMAC and VNMAC. In partnership with Golden West, PTVN hosts field mentoring visits of VNMAC and visits and trips of QTMAC and VNMAC to enable them to study operations, information management, and QM.⁴⁷

VNMAC, the Korea International Cooperation Agency (KOICA), and UNDP are collaborating 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 in two central provinces (**Binh Dinh** and **Quang Binh**) for three years (2018–20). A no-cost extension to the project has been granted until 31 December 2021 and VNMAC and UNDP were working on elaborating a new five-year phase for the project. A Joint Project Management Unit (JPMU), with representatives from each of the three organisations, is responsible for project management, supported by a UNDP chief technical

adviser who joined in March 2018, and meets regularly. A Joint Project Coordination Committee (JPCC), comprising representatives from the MoD, VNMAC, UNDP, and KOICA, provides overall strategic guidance and oversight and meets twice a year.⁴⁸

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-PACOM Combatant Command, 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 (PMC) 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 PMC to construct training, detection testing, and demilitarization facilities in central Quang Tri Province that are safe and environmentally responsible.⁴⁹

Vietnam was serving as chair of ASEAN and of the ASEAN Regional Mine Action Center (ARMAC) in 2020,⁵⁰ and was a non-permanent member of the UN Security Council (UNSC) for 2020–2021. In 2020, the GICHD organised and conducted together with ARMAC a training course on QM, with the aim of increasing efficiency and effectiveness of mine action operations through better QM. The training was attended by five representatives from VNMAC and the QTMAC.⁵¹

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.⁵²

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.⁵³

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.⁵⁴

At VNMAC, 22% of employees are female, with women in more than 20% of management/supervisory/executive positions.⁵⁵ VNMAC 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.⁵⁶

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 March 2021, MAG employed 729 employees in Vietnam, of whom 27% were women. Women represent 26% of MAG’s total operational capacity in Vietnam and 34% of managerial/supervisory level positions. MAG’s community liaison teams are gender balanced and trained to involve all groups, including women and children.⁵⁷

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.⁵⁸ NPA employs a total of 366 staff in Vietnam, of whom 30% are female, including 26% of operational staff and 18% of management-level positions. When establishing the new operational structure, three women were promoted into the position of Provincial Programme Manager. While recruiting new staff for the increased operational capacity, NPA Vietnam continued a high rate of recruitment of women, with 27 of 94 (29%) new staff being female. 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.⁵⁹ NPA's non-technical survey teams are gender balanced to engage with affected populations regardless of gender or age. NPA has found this inclusive process effective for later technical survey within the CMRS process.⁶⁰

While annual gender and diversity mainstreaming training could not be conducted in 2020 due to restrictions around meeting and travelling as a result of COVID-19, NPA developed an in-person training package to deliver to all staff in 2021.

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. It has 180 staff in Vietnam, 35 (19%) of whom are women, including 8 women out of 23 (35%) in managerial/supervisory-level positions and 26 women out of 154 (17%) in operational positions. In its field clearance, EORE, and victim assistance operations PTVN prioritises women and children as beneficiaries.⁶¹

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 drafted, which was due to be adopted by QTMAC in 2021, and gender and diversity training was further developed for delivery in 2021. NPA expect the results of these trainings will be shared with VNMAC, to further promote the role of women in mine action at a national level.⁶²

MAG's, NPA's, and PTVN's operations data are disaggregated by sex and age.⁶³

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. Operators receive a bi-annual report from VNMAC, containing summary data.⁶⁴ 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, and Project Management Unit (PMU)/IMU in Binh Dinh province as part of KV-MAP).⁶⁵ VNMAC is in the process of determining how information management will be collected nationally and shared.⁶⁶

As at April 2021, VNMAC reported that it was making efforts to improve the collection of data and information management capacity nationwide. But continued international assistance (funded by the US) is still required in order for VNMAC to further develop its capacity.⁶⁷

The information management project, overseen by the PM-WRA Information Management Advisor to VNMAC, is now in the second year of the implementation phase of the national database process. 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).⁶⁸

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.⁶⁹ The goal for 2021 was to complete all requirements from Guiding Circular 195, including standardised reporting

for all forms and consolidation of all historical data into one national IMSMA database. However, this relies on the COVID-19 situation permitting the travel between provinces necessary to coordinate the implementation.⁷⁰

NPA is working with VNMAC at the national level to establish IMUs 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.⁷¹

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). Access to the Quang Tri IMSMA database is free and accessible to all mine action stakeholders (online website) while ensuring data protection.⁷² The database provides a basis for planning and tasking, as well as victim data. Data hosted at QTMAC's DBU are believed to be accurate, up to date, and reliable, have been the catalyst for greater coordination across all stakeholders within the province.⁷³

Development of information management is an aim of the KV-MAP project, the goal of which is to improve available information for the UXO/mine action sector to support informed policy making and task prioritisation.⁷⁴ Database Centers for Mine Action in **Quang Binh** and **Binh Dinh** provinces manage the data from the KV-MAP project which is then fed into the VNMAC database. The aim is for the KV-MAP DBU to report to the provincial DBU in Quang Binh, to be established at the provincial Department of Foreign Affairs.⁷⁵

In October 2019, MAG initiated a partnership with NPA and PTVN, 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.⁷⁶ NPA is responsible for the capacity development to the Quang Binh DBCU, which is also supported by VNMAC.⁷⁷ In 2020, eight staff (five civilians, one individual seconded from the Provincial Department of Foreign Affairs, and two seconded from the Provincial Military Command) were recruited, trained, and accredited to IMSMA Level 1 and also trained in GIS and ArcGIS online. This was the first occasion of VNMAC issuing certification for a training on IMSMA Administration.

In addition, the DBCU has been fully equipped with required equipment and software; a provincial IMSMA database, with field reporting templates based on VNMAC's forms, has been established, field operators and DBCU staff have been trained; and more than 9,000 historical reports from MAG have been collected and are currently undergoing quality checks and migration.⁷⁸ The reporting system and tasking from the Quang Binh DBCU was planned to become effective from Q2 2021.⁷⁹

NPA was hoping to support the creation of the **Thua Thien Hue** Department of Foreign Affairs database unit in 2021.⁸⁰

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 2025.⁸¹

A five-year plan (2021–25) has been developed to implement the final period of the current National Mine Action plan. The plan 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.⁸² As at April 2021, international operators expected that VNMAC would share the new five-year plan with sector stakeholders through the LWG forum for review and comments.⁸³ Annual work plans will then be developed, based on the five-year plan.⁸⁴

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.

As at April 2021, there was no national prioritisation system for CMR clearance, although VNMAC said that priority is given to heavily contaminated areas.⁸⁵

In **Quang Tri province**, there is a prioritisation process in place and an effective system for task allocation.⁸⁶ 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.⁸⁷ In March 2020, the QTMAC issued a letter to inform operators on the application of the prioritisation guidelines.⁸⁸ 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.⁸⁹ Information from experience in developing and implementing the prioritisation plan in Quang Tri province has been shared with VNMAC.⁹⁰

In **Quang Binh province**, there is not yet any survey or clearance tasking by national or provincial authorities.⁹¹ From the adoption of the prioritisation process in Quang Tri, MAG has been applying the same procedures and process in Quang Binh in agreement with provincial authorities. This to ensure consistent approach across provinces and to foster standardisation.⁹² In Quang Binh, MAG produces its own task dossiers to the same standard as those in Quang Tri. These were expected to evolve in 2021 now that the Quang Binh DBCU has been established.⁹³

In **Thua Thien Hue province**, tasking for NGO operators is decided by provincial authorities in accordance to the provincial socio-economic development plan.⁹⁴

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.⁹⁵

In a positive development, VNMAC made significant progress in 2020 to review and update the QCVNs to help bring them into line with IMAS.⁹⁶ The former QCVNs and existing TCVNs were drafted more with the MoD in mind, used terminology inconsistently, and chapters contradicted themselves.⁹⁷ INGOs welcomed the inclusiveness of the revision process,⁹⁸ which involved the establishment of four working groups, co-chaired by VNMAC, and extensive consultation with operators and international organisations, including GICHD.⁹⁹ As at May 2021, the revision process for the QCVNs had been completed and was awaiting final approval from the Prime

Minister's office. Revision of the TCVNs was also underway in the first half of 2021, in anticipation of the expected official approval and release of the QCVNs, which are required to be adopted first.

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. The latter was undergoing final revision by the mine action sector as of writing and was expected to be adopted and fully implemented by QTMAC by the middle of 2021.¹⁰⁰

As at April 2021, VNMAC reported that the relevant authorities were in the process of developing legal documents (Circulars) related to the revised QCVNs, TCVNs, and SOPs.¹⁰¹

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.

According to VNMAC, the Thua Thien Hue Provincial Military Command conducted survey of explosive ordnance in 2020, and the Engineering Command of the Army conducted both survey and clearance. At the peak of the KV-MAP project, VNMAC reported that 85 survey and clearance teams (totalling 2,125 soldiers) were deployed. 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 2021.¹⁰²

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 PMC and PeaceTrees Vietnam. In Quang Tri, Golden West has trained 37 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 VNMAC EOD personnel being formally trained by USARPAC's humanitarian mine action program.¹⁰³

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.¹⁰⁴

International operators active in 2020 included: MAG, working in Quang Binh and Quang Tri provinces; NPA, working in Quang Tri, Quang Binh (operational from September 2020), and Thua Thien Hue provinces; and PTVN, who have been working in Quang Tri province since 1995.¹⁰⁵ DDG ceased its survey and clearance operations in Vietnam (Quang Nam province) in January 2020, due to lack of funding.¹⁰⁶

In 2020, MAG deployed 40 clearance teams, totalling 400 deminers (excluding team leaders, deputy team leaders, and medics), and seven mechanical assets; this was a slight increase in clearance capacity compared to the previous year. MAG also deployed seven non-technical survey teams in 2020, totalling 14 community liaison officers, as well as one technical survey team of 10 deminers (excluding team leader, deputy team leader, and medic).¹⁰⁷ 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 conducting emergency EOD spot tasks (one in each province), totalling 10 deminers (excluding two team leaders).¹⁰⁸ 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.¹⁰⁹ As at March 2021, the use of drones in operations planning and prioritisation was still under trial.¹¹⁰

In 2020, NPA continued operations in Quang Tri and Thua Thien Hue provinces. It also commenced non-technical survey operations in Quang Binh province in September, following lengthy delays due to COVID-19 and extended discussions with provincial authorities regarding operational areas and appointment of military liaison officers.¹¹¹ In 2020, NPA had 10 non-technical survey teams (totalling 11 personnel); 12 technical survey teams (totalling 48 personnel); 14 clearance teams (totalling 140 personnel), and one mechanical asset.¹¹²

Additionally, NPA recruited and trained a further four technical survey teams (total of 20 personnel) during November and December 2020, for deployment in January 2021.¹¹³ NPA's operations in Quang Tri province were restructured in May 2020, in order to better support the goals identified in the provincial mine action strategy and allow for a better balance between CMRS and follow-on clearance. Non-technical survey and technical survey capacity was decreased while clearance capacity was increased. In addition, NPA maintained two EOD teams. To support this operational restructure, NPA recruited 25 new BAC team members.¹¹⁴ NPA also increased non-technical survey, BAC, and EOD capacity in Thua Thien Hue province, deployed in June 2020. NPA started CMRS operations in Quang Binh province in 2020, with non-technical survey commencing in September and technical survey teams recruited and training in November and December, for deployment from January 2021.¹¹⁵ 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.¹¹⁶

PTVN operates in Quang Tri province and from June 2020, extended its programme into Quang Binh province. PTVN undertakes EOD, clearance, and integrated risk education, but does not conduct CMRS.¹¹⁷ In 2020, PTVN deployed 6 BAC teams (totalling 54 technicians/deminers) and 2 EOD teams (totalling 10 technicians).¹¹⁸ All of PTVN's technicians are certified for IMAS EOD Level 1, and under a capacity development partnership with Golden West, by the end of 2019 PTVN had 11 technicians certified in IMAS EOD Level 3 (plus 3 under mentoring) and 31 technicians certified in IMAS EOD Level 2. PTVN's capacity includes 2 pairs of surveyors, who mostly focus on site assessments and re-visiting CHAs for the purpose of planning and evaluation.¹¹⁹

As mentioned, PTVN started up in Quang Binh province from June 2020, together with MAG and NPA, with 4 PTVN multi-task teams totalling 32 technicians. PTVN's technicians will mostly be responsible for EOD spot tasks resulting from the Quang Binh hotline and from NPA's survey, along with joint efforts with MAG to conduct clearance of CHAs generated.¹²⁰ After a lengthy approval process, PTVN's field operations began in Quang Binh province in early 2021.¹²¹

KV-MAP (between VNMAC, KOICA, and UNDP), which was initiated in February 2018, calls for ERW survey and clearance in the two provinces in 2018–20 to be carried out by provincial military teams targeting survey of 200km² and clearance of about 80km².¹²² In 2018, operations in Quang

Binh and Binh Dinh focused on survey, with 21 survey teams deployed.¹²³ Clearance and technical survey began in 2019. Technical survey operations were completed in April 2020 and the project then focused more on clearance. Total capacity in 2020 comprised of 74 teams: 21 survey teams and 53 clearance teams deployed for ERW clearance (including CMR).¹²⁴

VNMAC reported that there was a demining accident on 12 November 2020, in Thanh Thuy commune, Vi Xuyen district, Ha Giang province, during the search and gathering of human remains from the war. The explosion of an unidentified item of explosive ordnance resulted in the death of one soldier and an injury to another, requiring amputation.¹²⁵

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

In 2020, a total of approximately 48km² of cluster munition-contaminated area was cleared in Vietnam: 38km² cleared by INGOs¹²⁶ and an estimated 10km² of CMR contamination cleared as part of the KV-MAP project, which cleared 61.5km² 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.¹²⁷

A total of at least 15,279 submunitions were reported to have been destroyed during survey, clearance, and EOD spot tasks in 2020: 11,836 submunitions destroyed by INGOs and 3,443 submunitions destroyed by provincial military teams coordinated by VNMAC under the KV-MAP ERW project.

VNMAC said that the amount of ERW-contaminated area (i.e. not only CMR) released in 2020 was an increase on the previous year. This was due to the implementation of multiple projects, including for local socio-economic development; based on official development assistance (ODA), such as KV-MAP; and through operations by INGOs in the central provinces.¹²⁸

SURVEY IN 2020

According to VNMAC, a total of 120.63km² of land was surveyed in 2020 and confirmed to be contaminated with remnants of bombs, mines, and explosive ordnance, mostly UXO. The amount of area confirmed to be contaminated with CMR was not disaggregated.¹²⁹

In Quang Tri, ranked as one of Vietnam's most heavily contaminated provinces, NPA continued to work in a partnership with MAG, under which NPA conducted CMRS and MAG cleared the resulting CHAs. NPA aimed to complete survey of Quang Tri by April 2021.¹³⁰ As at May 2021, the planned completion date had been pushed back. This was due to restructuring to put more focus on clearance and also because the Quang Tri province went through an administrative restructuring in 2020 which resulted in INGOs having access to more areas than previously, resulting in more survey that needs to be completed. Based on its current capacity, NPA expected it would complete non-technical survey around the end of 2022 and technical survey around the end of 2024, in the 690 villages currently accessible. This is an estimate only and the timeframe will change depending on the amount of direct evidence identified during survey.¹³¹

Table 1: Technical survey of cluster munition-contaminated area in 2020¹³²

Operator	Province	Area surveyed (m ²)	Area confirmed (m ²)	CMR destroyed	Other UXO destroyed
MAG	Quang Binh	12,257,500	19,265,669	459	12
NPA	Quang Tri	37,637,500	65,763,098	2,476	1,910
Totals		49,895,000	85,028,767	2,935	1,922

NPA confirmed more than 65.6km² as containing CMR in 2020, a decrease on the 150.3km² confirmed as CHA the previous year.¹³³

MAG confirmed almost 19.27km² as containing CMR in 2020, an increase on the 6.52km² surveyed the previous year.¹³⁴

CLEARANCE IN 2020

VNMAC reported clearing 61.5km² of land contaminated by all explosive ordnance (not only CMR-contaminated area) in 2020, with the destruction of 3,443 submunitions, 86,971 other items of ERW, 77 anti-personnel mines, and 2 anti-vehicle mines. This is believed to result almost entirely from clearance by the provincial military teams coordinated by VNMAC as part of the KV-MAP ERW project. It is not known what proportion of the total area cleared was cluster munition-contaminated area, as the amount of area cleared of CMR was not disaggregated from area cleared of other ERW and mines.¹³⁵ Mine Action Review

has therefore estimated CMR clearance under the KV-MAP ERW project in 2020 conservatively at 10km².¹³⁶

The data reported by VNMAC are believed to exclude Provincial Military Command operations conducted outside of the KV-MAP project. However, these military operations relate mainly to emergency EOD spot tasks, rather than to area clearance.

In addition, INGOs reported clearing a total of more than 38.5km² of cluster munition-contaminated area in 2020, with destruction of 8,402 submunitions (see Table 2) and a further 499 submunitions during EOD spot tasks. INGO clearance output in 2020 was consistent with the CMR contaminated area cleared in 2019.

Table 2: CMR clearance in 2020¹³⁷

Operator	Province	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
MAG	Quang Binh	7,410,186	2,508	538
MAG	Quang Tri	23,519,427	4,272	3,648
NPA	Quang Tri	3,870,408	1,212	1,038
PTVN	Quang Tri	3,466,647	198	854
Provincial Military Command coordinated by VNMAC as part of KV-MAP	Binh Dinh and Quang Binh	Est. 10,000,000	3,443	86,971
Provincial Military Command (excluding KV-MAP)	N/K	N/K	N/K	N/K
NPA	Thua Thien Hue	230,350	212	167
Totals		48,497,018	11,845	93,216

N/K = not known

A further 499 submunitions were found and destroyed during EOD spot tasks in 2020: 301 by MAG, 157 by NPA, and 41 by PTVN.¹³⁸

MAG's clearance of more than 30.9km² in 2020, was a decrease on the more than 33km² cleared the previous year, and was due to the adverse impacts of the COVID-19 pandemic and the heavy storms in central Vietnam in 2020.¹³⁹ In Quang Tri, MAG conducts clearance in partnership with NPA, which defines CHAs through technical survey. In Quang Binh, MAG clears CHAs defined through EPP Mapping.

NPA's clearance of more than 4.1km² in 2020, was nearly double the amount cleared the previous year, due to an increase in clearance capacity from two BAC teams in 2019 to eight in 2020.¹⁴⁰

PTVN's clearance output in 2020 was very similar to the previous year.¹⁴¹

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 2025¹⁴² 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.¹⁴³

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 impacted 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 sanitation, and the work of ensuring personnel, equipment, and logistics for performing tasks.¹⁴⁴

MAG reported that the COVID-19 pandemic disrupted its operations in 2020. Survey and clearance teams were put on stand-down and office staff worked from home from 1 to 15 April 2020 to ensure their safety and to follow the Government's Directive to apply stricter social-distancing measures. The second wave of COVID-19 in late July 2020 and third wave in October also affected MAG's work through the restrictions on gatherings.¹⁴⁵

NPA reported that COVID-19 did not have a major impact on operations in 2020, with a total of 37 working days on stand down in Thua Thien Hue province; 26 in Quang Tri province; and 0 working days in Quang Binh province. But the outbreak in August did result in a delay to the first planned deployment of NPA's new non-technical survey teams, as experienced team leaders were unable to travel from Quang Tri province to support this initial deployment.¹⁴⁶ Additionally, in Thua Thien Hue province NPA was unable to respond to calls to the district hotline in A Luoi while on stand down. However, the hotline was still staffed through this period, and all reported items were recorded and referred to the provincial military for follow-up. When operations resumed, NPA followed up on all reported items and ensured these were destroyed. Furthermore, some capacity development activities had to be postponed due to government restrictions on meetings and travel as a result of the pandemic. However, as these restrictions were not in place for long, all activities were able to be rescheduled to a later date, so this did not have any significant impact on the capacity of our partners. While it is of course not ideal that operational outputs were impacted, by following national and provincial guidance and WHO-recommended preventative measures, NPA helped to ensure that no staff in Vietnam contracted the COVID-19 virus in 2020.¹⁴⁷

PTVN also felt the impact of the COVID-19 pandemic in 2020, with social distancing requirements causing field operations to slow and with operations being suspended completely during lockdowns.¹⁴⁸

From September to October 2020, a series of unusually close and intense storms and other weather systems hit central Vietnam. This included tropical storm Molave, the worst to hit Vietnam in more than 20 years. Floodwaters exceeded historic levels in Quang Tri, Quang Binh, and Thua Thien Hue provinces, and many areas were also severely impacted by landslides.¹⁴⁹ MAG reported that subsequent flooding and mudslides resulted in an operational stand-down for the majority of October and that rains throughout November–December 2020 led to further loss of operational hours.¹⁵⁰

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

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.¹⁵³

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 will expand to conduct training course on residual risk management, site safety, and long-term risk management (LTRM) tools and protocols.¹⁵⁴

As part of the project on residual risk, GICHD has worked with VNMAC, UNDP, and NPA on several areas, with activities having started in December 2020 and expected to last throughout 2021 and 2022. Activities under the project include:

- Review of the QCVNs, TCVNs, and SOPs with a focus on risk management, site safety, and QM.
- Support in drafting Vietnam's explosive ordnance risk education (EORE) standard and strategy.
- Assessment of VNMAC's current legal, normative, procedural, and structural capacities with respect to dealing with the residual threat, and provision of recommendations for future desired capacity.
- Site safety training for 50 VNMAC staff and related offices.
- A Risk Management Regional Forum to share, develop, and steer good practice in risk management for the sector in the region, which is expected to take place on the ARMAC platform.
- A Regional Workshop on Liability, All Reasonable Effort, and Risk Management which will also include outreach and familiarisation of the existing and upcoming IMAS technical notes on mine action (TNMAs) and will also promote exchange of good practices and share common challenges across countries.

NPA operational teams were unable to work for 15 days due to unsafe road and working conditions caused by the storms. However, NPA was able to provide emergency assistance to local communities, with funding from the Norwegian Ministry of Foreign Affairs, and in response to provincial requests for support.¹⁵¹ PTVN also provided emergency assistance to local communities through private funding in the immediate aftermath of the floods. PTVN further reported that the impact of the flooding and landslides continued to be felt by the organisation, with severely damaged roads making access to clearance sites in the two mountainous districts of Huong Hoa and Dakrong in Quang Tri Province extremely challenging for demining teams.¹⁵²

- An online Risk Management Training E-Publication portal. This resource will be available for online guided learning, face-to-face events, and workshops, and self-access to the material. The e-learning publication will cover ISO 31000:2018 on Risk Management, IMAS 07.14 on Risk Management in Mine Action, Risk Management related to ammunition management (IATGs), and associated educational materials/studies.
- A pilot LTRM project to supplement the existing LTRM protocols and tools, with the goal of helping equip VNMAC to address EO residual contamination through the development of a national plan and policy instruments for the implementation of a nationally owned, sustained and sustainable residual risk management of explosive ordnance.¹⁵⁵

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.¹⁵⁶

The Foundation 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.¹⁵⁷

Golden West is also training PTVN EOD teams, funded by PTVN, to help develop their training capability, ensuring long-term success. PTVN instructors regularly work with Golden West and VNMAC, enhancing training skills and building a lasting capability.¹⁵⁸

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- 124 Emails from Nils Christensen, UNDP, 2 October 2020 and 21 June 2021.
- 125 Email from Tim Horner on behalf of Mr. Phuc, VNMAL, 6 April 2021.
- 126 Emails from Kimberley McCosker, NPA, 8 April 2021; Helene Kuperman, MAG, 31 March 2021; and Pham Hoàng Hà, PTVN, 11 May 2021.
- 127 Email from Tim Horner on behalf of Mr. Phuc, VNMAL, 6 April 2021
- 128 Ibid.
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- 130 Email from Jan Erik Støa, NPA, 6 April 2020.
- 131 Email from Kimberley McCosker, NPA, 13 May 2021.
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- 133 Email from Kimberley McCosker, NPA, 8 April 2021.
- 134 Emails from Helene Kuperman, MAG, 23 June 2020, 31 March 2021 and 9 June 2021.
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- 136 Estimate by Mine Action Review based on the number of submunitions reported destroyed by VNMAL and comparison with cleared area per submunition found by INGOs in 2020.
- 137 Emails from Tim Horner on behalf of Mr. Phuc, VNMAL, 6 April 2021; Kimberley McCosker, NPA, 8 April 2021; Helene Kuperman, MAG, 31 March 2021; and Pham Hoàng Hà, PTVN, 11 May 2021.
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- 143 Email from Kimberley McCosker, NPA, 8 April 2021.
- 144 Email from Tim Horner on behalf of Mr. Phuc, VNMAL, 6 April 2021.
- 145 Email from Helene Kuperman, MAG, 31 March 2021.
- 146 Email from Kimberley McCosker, NPA, 8 April 2021.
- 147 Ibid.
- 148 Email from Pham Hoàng Hà, PTVN, 11 May 2021.
- 149 Email from Kimberley McCosker, NPA, 8 April 2021.
- 150 Email from Helene Kuperman, MAG, 31 March 2021.
- 151 Email from Kimberley McCosker, NPA, 8 April 2021.
- 152 Emails from Pham Hoàng Hà, PTVN, 11 May and 7 June 2021.
- 153 Emails from Mark Lasley, Golden West Humanitarian Foundation, 16 June 2021; and Rob White, Adviser, Strategic Management and Residual Contamination, GICHD, 25 April 2018.
- 154 Email from GICHD, 16 June 2021.
- 155 Ibid.
- 156 Email from Mark Lasley, Golden West Humanitarian Foundation, 16 June 2021.
- 157 Ibid.
- 158 Ibid.

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.
- Yemen should develop a mine action strategy providing a framework and clear targets for tackling explosive remnants of war (ERW).
- Yemen's government should support implementation of a baseline survey in accordance with its commitment to the Anti-Personnel Mine Ban Convention (APMBC).
- Yemen should amend bureaucratic procedures and arbitrary barriers that are obstructing imports of demining equipment and implementation of the mine action plans of the Yemen Executive Mine Action Centre (YEMAC).
- 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.
- Yemen should clarify and consolidate the roles and authority of YEMAC and YMACC.

UNDERSTANDING OF CMR CONTAMINATION

YEMAC has reported the presence of CMR in six governorates but the extent is not known. Contamination is believed to be particularly heavy in Saada and al-Jawf governorates but submunitions are present as well in Amran, Hodeida, Mawit, and Sana'a governorates, including in Sana'a City.¹ YEMAC said US-made M118 cluster munitions had posed a particular threat in 2021, inflicting 10 casualties among its deminers in the first seven months of the year.²

Yemen had CMR contamination before 2015 and Human Rights Watch has said it recorded Saudi air strikes using cluster munitions dating back to 2009.³ The escalation of armed conflict since 26 March 2015 has significantly increased both its extent and the threat to the civilian population, mainly as

a result of airstrikes by the Saudi Arabia-led coalition.⁴ In December 2016, the organisation reported that 18 coalition attacks using cluster munitions since 2015 had killed at least 18 civilians and injured 74 more.⁵

Human rights groups have documented the use of United States (US) BLU-63 (Sana'a City), BLU-97 combined effect submunitions (Saada governorate), CBU-58 and CBU-105 sensor-fused munitions (Amran and Sana'a governorates), Brazilian Astros II munitions (Saada governorate and city), and British BL755 submunitions (Hajjah governorate). They have also reported use of ZP-39 artillery-delivered submunitions of indeterminate origin.⁶

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, and the internationally recognised government (IRG), operationally based in Aden and the south. The Sana'a-based inter-ministerial National Mine Action Committee (NMAC), which previously formulated national mine action policy, is no longer recognised by the IRG, which reported it had disbanded in 2019. In the south, YEMAC has fulfilled the double role of regulator responsible for policy and planning while also serving as the sole national operator.⁷

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 2019.⁸ In practice,

however, YEMAC has split into two, centred round Sana'a and Aden. The Sana'a office employed around 500 staff, working in northern governorates controlled by the Houthi forces.⁹ The United Nations reported YEMAC was not particularly active in the north in 2020 and most of the assets were concentrated in the south.¹⁰

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 opened offices in Taiz to support operations around Hodeida and in Marib for operations in al-Jawf governorate.¹¹ YEMAC said it had set up "skeleton" offices using its own resources pending receipt of financial support for them from the UN Development Programme (UNDP).¹² Overall, UNDP reported that YEMAC conducted clearance in 19 of Yemen's 21 governorates.¹³

In April 2020, YEMAC opened YMACC in Aden to strengthen programme management in areas controlled by the IRG. The centre is intended to facilitate cooperation with international organisations and has responsibility for accrediting and tasking them. It will also have departments for planning, information management, and quality assurance/quality control.¹⁴ The centre convened its first coordination meeting on 9 April 2020 and by early 2021 employed 44 people¹⁵ and had set up technical working groups focused on non-technical survey and explosive ordnance risk education.¹⁶

Mine action stakeholders say the creation of YMACC has improved coordination with operators but its legal status is unclear, it lacks clear powers to coordinate mine action, and decision-making boundaries between YEMAC and YMACC are opaque. Other institutions significantly involved in decision-making or administrative procedures significantly affecting mine action include particularly 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 carried out by three international and ten national staff working from a number of different offices. 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. At the end of 2020, its Sana'a office comprised two international staff, including a chief technical adviser, and three national staff; in Aden it had four international and two national staff. UNDP also had national field staff in Hodeida, Mokha, and Mukalla.¹⁷

GENDER AND DIVERSITY

Yemen's APMBC Article 5 deadline extension request submitted in 2019 made no reference to gender and in that year YEMAC rejected a suggestion that women might be included in training for demining teams. YEMAC has since stated it needs and plans to develop the employment of women in mine action and in 2020 started training female staff for explosive ordnance disposal, non-technical survey, and risk education.¹⁸ UNDP has encouraged YEMAC to mainstream gender principles and to deploy an all-women survey team in areas controlled by the internationally recognised government.¹⁹

YEMAC reported that it employed 34 women at the end of 2020, many of them in operational roles. They included the first female bomb disposal expert who was trained in 2020. At the end of the year, YEMAC had two female explosive ordnance disposal (EOD) operators deployed in the Hadramaut, 10 women assigned to non-technical survey, 5 female emergency risk education staff, 10 more women employed as risk education facilitators in Abyan, Aden, Al Dhale, and Lahej, as well as on the West Coast, and two women employed in administration in Taiz. YMACC reportedly employed six women, including one administration and finance staff member, a translator, a secretary, and three women in services.²⁰

Among international operators, Danish Refugee Council Humanitarian Disarmament and Peacebuilding Sector (DRC; previously Danish Demining Group, DDG) employed seven women in 2020 in risk education/non-technical survey, three of whom were based in Aden supporting activities in Lahj governorate, with three more in Mokha supporting work in Taiz, and one in Al Khokha supporting activities in Hodeida governorate.²¹ The HALO Trust employed six women among its thirty-four national staff, including two in operations with community outreach and risk education teams and four in support roles.²²

Recruitment of women for jobs in mine action in Yemen's conservative society faces significant cultural obstacles, in part due to their position as responsible for family care, which discourages women from applying for jobs. Operators report cases where husbands have forbidden women applicants from attending interviews. Risk education is conducted separately for 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.²³ DRC has found that men often took the lead in field activities overlooking the participation of women colleagues and even women in management positions face bullying and disrespect from male subordinates.²⁴

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 was operational from September 2020.²⁵ The system was being installed in YMACC in early 2021.²⁶ YEMAC's northern office works with an older IMSMA system.²⁷

The extent of the data available was unclear. YEMAC had previously acknowledged that contamination data was out of date,²⁸ and the UN has observed that Yemen's conflict had "changed the extent and complexity of contamination dramatically".²⁹ YEMAC has been unable to conduct extensive survey as private demining companies in Yemen are not systematically reporting operating results to YEMAC.

YEMAC and UNDP had already started preparing data collection forms for risk education, non-technical survey, and EOD spot tasks and circulated initial versions among operators in late 2020 and early 2021. The forms were still under development as of writing.³⁰

PLANNING AND TASKING

Yemen does not have a current strategic plan or annual work plans for tackling mines, CMR, or other explosive remnants of war (ERW). Mine action in 2020 continued to be conducted on an emergency basis.³¹ In addition to emergency clearance, YEMAC identified its priorities for 2021 as conducting baseline survey in line with Yemen's APMBC 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).³²

YMACC priorities in 2021 included planning survey and clearance in conjunction with operator; 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.³³

International operators received the first task orders from YMACC in July 2020, marking a significant step toward improved planning and coordination.³⁴ However, differences between YEMAC and YMACC on some tasks implemented in 2020 pointed to coordination challenges. In addition, Project Masam, the biggest international operator funded by Saudi Arabia, is tasked separately through an opaque process

YEMAC described as "joint management" that provided no task details or results accessible to the rest of the mine action sector.³⁵

Yemen's bureaucratic procedures are also proving a significant obstacle to progress. Operators are required to conclude a separate sub-agreement with MOPIC for every donor-funded project. Despite the priority YEMAC has given to survey, MOPIC resisted proposals for non-technical survey submitted in 2020 arguing that non-technical survey was unnecessary and the focus should be on clearance.

Operators were limited in the tasks they could undertake on 2020 because of capacity constraints resulting in part from cumbersome and opaque procedures for importing equipment, including detectors and personal protective equipment (PPE). After initial approval by MOPIC, applications to import equipment are forwarded to a range of government departments including, but not limited to, the ministries of Defence, Foreign Affairs, and Interior and the National Security Agency before returning to YEMAC for technical approval and then to MOPIC for final approval. Implementing partners say the process can take six months, sometimes more, and end without approval. Mine action sector sources say Saudi interference appears on occasion to have been a factor stalling approval for equipment imports.³⁶

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

YEMAC identified issuing new National Mine Action Standards (NMAS) as a priority in 2021.³⁷ Yemen's existing NMAS were based on the International Mine Action Standards (IMAS) when they were drawn up in 2007, predating most of Yemen's CMR contamination. In 2019, YEMAC acknowledged that the standards were obsolete and said standing operating procedures (SOPs) based on the standards were not consistently applied by its clearance personnel.³⁸

YEMAC was in contact with the GICHD in 2020 on developing national standards, focusing on standards for survey and clearance.³⁹ YMACC, as one of its first acts, started reviewing a draft of interim national standards.⁴⁰ By early 2021, YEMAC was reported to have completed drawing up new NMAS but by May it had not released them to implementing partners. YEMAC was reported to be translating them into English and preparing to send them to the Prime Minister's office for approval.

OPERATORS AND OPERATIONAL TOOLS

YEMAC is believed to have conducted most of the CMR clearance to date as the only operator working in Houthi-controlled areas of Yemen where CMR contamination is concentrated. At the start of 2020, YEMAC's northern operation reportedly employed around 500 personnel operating in Sana'a, the northernmost governorate of Saada, bordering Saudi Arabia, and northern districts of Almrans governorate.⁴¹ However, the UN reported YEMAC North suffered from shortages of equipment, including detectors, aggravated by tight controls on all supplies to Houthi-controlled areas, and was not widely active in 2020. Most assets were concentrated in the south where, at the end of 2020, YEMAC reported a staff of 491, including 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.⁴² In 2020, YEMAC's southern operation took delivery from UNDP of 300 metal detectors and 36 pick-up trucks.⁴³

SafeLane/Dynasafe remained the only international organisation conducting clearance in 2020, receiving annual funding of around US\$30 million in 2020 from Saudi Arabia's government through the King Salman Relief and Rehabilitation Fund.⁴⁴ In 2019, it reported employing 19 internationals along with some 304 national staff, mainly seconded from YEMAC.⁴⁵ It expected the number of personnel to rise to around 400 in the course of 2019 and reported operating 32 multi-task teams working on the west coast and in Lahej, Marib, and Shabwah governorates.⁴⁶ SafeLane's operating results are not recorded in YEMAC's database and it did not respond to Mine Action Review's request for information.

The past year saw international humanitarian demining organisations develop a bigger footprint in Yemen. DRC, which concluded a new Memorandum of Understanding with YEMAC in 2020, expanded its Aden-based programme to employ 28 staff in 2020, including four internationals, two of whom were technical field managers in Mokha. Its

24 national staff included 20 risk education/non-technical survey personnel in Aden and Mokha together with three medics and an Aden-based information officer recruited with funding from the GICHD to support YMACC's development of IMSMA Core capacity. In 2021, DRC expected to deploy three multi-task teams comprising personnel seconded from YEMAC to conduct risk education, non-technical and technical survey, EOD spot tasks, and small area clearance tasks, subject to being able to import the necessary equipment.⁴⁷

The HALO Trust opened an office in Aden at the start of February 2020 and at the end of 2020 had 5 international and 34 national staff, including 16 personnel seconded from YEMAC making up 4 multi-task teams and a community outreach and risk education team consisting of 4 directly recruited staff. HALO Trust expected to add at least 20 more national staff in 2021, 16 of them in operational roles and

four in support jobs, with a view to expanding activities in non-technical survey and mechanical clearance. HALO Trust received approval in 2020 to import ballistic glass and specially hardened steel for armouring mechanical assets but had not received clearance to import detectors and PPE.⁴⁸

After long delays caused by security developments and the COVID-19 pandemic, Norwegian People's Aid (NPA) support for YEMAC's mine detection dog (MDD) programme started to move forward in 2020. By mid-2020, NPA had 12 long-leash dogs under training at its centre in Bosnia and Herzegovina pending transfer to Yemen once YEMAC handlers underwent training.⁴⁹ NPA had provided technical advice on setting up kennels and an MDD training area at YEMAC's training centre. NPA trainers arrived in Aden in November 2020 and were preparing to start training but in early 2021 were awaiting completion of registration procedures.⁵⁰

DEMINER SAFETY

Yemen's mine action programme has experienced heavy casualties among deminers in the past three years. In 2020, one deminer was killed and four injured, but no casualties were linked to cluster munitions.⁵¹

LAND RELEASE AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

Yemen did not report release of any cluster munition-contaminated areas in 2020, reflecting current operational realities in which YEMAC conducts emergency clearance focused less on large-scale area clearance than addressing immediate threats to civilians by all forms of ERW.

YEMAC reported clearing a total of 3.13km² of mixed explosive ordnance contamination (not solely CMR) in 2020, a result largely unchanged from the previous year's 3.12km², but destroying only 403 submunitions in 2020 compared with 7,071 submunitions that the UN reported were destroyed in the previous year.⁵² Mine Action Review has not recorded any clearance of cluster munition-contaminated area for 2020.

Table 1: YEMAC operating results for 2020⁵³

Area cleared (m ²)	Submunitions destroyed	AP mines destroyed	IEDs destroyed	AV mines destroyed	Other UXO destroyed
3,132,896	403	923	512	5,317	54,108

Yemen's response to the COVID-19 pandemic did not stop YEMAC teams from continuing to conduct emergency response operations but halted conduct of risk education for a period of six months.⁵⁴ However, COVID-19 measures and associated travel restrictions held back implementing partners' plans to scale up survey and clearance operations in 2020. Closure of Aden airport from mid-March until July disrupted international staff deployments and prevented access for medevac flights causing HALO Trust to suspend operations two days after they had started.⁵⁵

- 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 Information provided by YEMAC to Gareth Collett, Chief Technical Adviser – Counter IED, UNDP, zoom interview, 20 July 2021.
- 3 Human Rights Watch, "Yemen: Cluster munitions harm civilians", 31 May 2015, at: <http://bit.ly/32sdP0x>.
- 4 UNDP, Grant Progress Report for 1 October–31 December 2015, 25 January 2016.
- 5 Human Rights Watch, "Brazil-made cluster munitions wound children", 23 December 2016, at: <http://bit.ly/32ub4vE>.
- 6 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.
- 7 Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report (covering 2018), Form A.
- 8 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, pp. 7, 14.
- 9 Interview with Ameen Saleh Alaqili, Director, YEMAC, in Geneva, 13 February 2020.
- 10 UNDP Annual Report 2020, February 2021, p. 15.
- 11 2019 APMBC Article 5 deadline Extension Request, pp. 5 and 22; and email from Stephen Robinson, UNDP, 21 July 2020.
- 12 APMBC Article 7 Report (covering 2019), Form D.
- 13 UNDP Annual Report 2020, February 2021, p. 9.
- 14 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 12.
- 15 Emails from Ameen Saleh Alaqili, YEMAC, 5 May 2021; and Stephen Robinson, Senior Technical Adviser, UNDP, 27 May 2020.
- 16 UNDP Annual Report 2020, p. 14.
- 17 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.
- 18 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021; UNDP Annual Report 2020, p. 15.
- 19 UNDP Annual Report 2020, p. 15; UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 21.
- 20 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021; UNDP Annual Report 2020, p. 8.
- 21 Email from Esteban Bernal, DRC, 23 March 2021.
- 22 Email from Matthew Smith, Programme Manager, HALO Trust, 17 May 2021.
- 23 Email from Esteban Bernal, DRC, 23 March 2021.
- 24 Emails from Esteban Bernal, Programme Manager, Humanitarian Disarmament & Peace Building, DRC, Yemen, 23 March 2021; and from Marie-Josée Hamet, Regional Programme Advisor – Middle East, DDG, 16 April 2020.
- 25 UNDP Annual Report 2020, p. 13; and email from Esteban Bernal, DRC, 23 March 2021.
- 26 Interview with Stephen Robinson, UNDP, Geneva, 23 March 2021.
- 27 Email from GICHD, 30 April 2020.
- 28 2018 Article 5 deadline Extension Request, March 2019, p. 19; APMBC Article 7 Report (covering 2019), Form D.
- 29 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 21.
- 30 Ibid., p. 12.
- 31 Ibid., 20 January 2020, p. 21.
- 32 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021.
- 33 Ibid.
- 34 Emails from DRC, 25 March 2021; and from Matthew Smith, Programme Manager, HALO Trust, 17 May 2021.
- 35 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021.
- 36 Emails from mine action stakeholders, March–May, 2021.
- 37 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021.
- 38 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 17; and 2019 APMBC Article 5 deadline Extension Request, p. 16.
- 39 Email from GICHD, 30 April 2021.
- 40 Email from Stephen Robinson, UNDP, 27 May 2020.
- 41 Interview with Ameen Saleh Alaqili, YEMAC, in Geneva, 13 February 2020; UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 28.
- 42 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021.
- 43 UNDP Annual Report 2020, p. 12.
- 44 "Saudi project clears 1,567 more mines in Yemen", Arab News/Saudi Press Agency, 11 January 2021.
- 45 Email from Chris Clark, SafeLane Global, 17 April 2019.
- 46 Information from SafeLane Global website, accessed at <http://bit.ly/2Xcc8mp>.
- 47 Email from Esteban Bernal, DRC, 23 March 2021.
- 48 Email from Matthew Smith, HALO Trust, 17 May 2021.
- 49 Email from Kenan Muftic, Head of Global Training Centre for MDDs/EDDs, NPA, 18 May 2020.
- 50 UNDP Annual Report 2020, p. 10.
- 51 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021.
- 52 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 14; UNDP Mine Action Dashboard, February 2021.
- 53 UNDP Mine Action Dashboard, February 2021.
- 54 UNDP Annual Report 2020, p. 15.
- 55 Emails from Esteban Bernal, DRC, 23 March 2021; and from Matthew Smith, HALO Trust, 17 May 2021.

OTHER AREAS

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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 Secretary-General of the United Nations (UN) stating that it intends 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 latest mine action strategy.
- KMAC should promote the implementation of its mine action strategy and mine action programme across the Kosovo government.
- KMAC and international mine action operators should increase their collaboration to seek additional funding and greater financial stability for mine action.

UNDERSTANDING OF CMR CONTAMINATION

At the end of 2020, contamination from CMR in Kosovo was estimated to cover a total of almost 11.44km² across 45 areas, according to KMAC.¹ This is a significant decrease from the estimated 14.36m² as at the end of 2019.²

Kosovo has a reasonably accurate assessment of CMR contamination remaining on its territory as a result of two decades of mine action, including surveys in 2013 and 2015. In 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 operator Norwegian People's Aid (NPA) was in the process of conducting technical survey of all tasks to convert suspected hazardous areas (SHAs) to confirmed hazardous areas (CHAs), all based on evidence points. In 2020, NPA worked on 11 technical survey tasks in four municipalities (Mitrovica, Podujevo, Zubin Potok, and Zvecan) and two districts (Mitrovica and Pristina). The technical survey identified 4.23km² of CHA.³ NPA will continue technical surveys on the remaining 17 tasks in the northern municipalities in order to establish a more accurate contamination baseline.⁴

During non-technical survey in Bare, Mitrovica, NPA gathered information about a previously unidentified SHA of 139,439m² in Bajgora school. Local informants confirmed that the school was one of the main targets of the Federal Republic of Yugoslavia (FRY) air force strikes. NPA assessed that the area consists of at least two zones of strikes. As at May 2021, non-technical survey of these two zones were still pending.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 existing 2013 survey data. This would inform future targeting of survey and clearance of remaining contamination, in order to achieve completion by the target date of 2024. To conduct the review, HALO Trust

was planning to deploy two non-technical survey teams throughout 2021 and re-survey 57 planned future tasks. The total number of new surveys is as yet unknown, but HALO will be investigating 72 explosive ordnance disposal (EOD) call-outs reported by KMAC. The HALO Trust also believes that access to 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.⁶

The baseline of CMR contamination at the end of 2019 cannot be reconciled with the baseline, survey, and clearance data reported by the KMAC at the end of 2020. The discrepancy could be attributed to differences in non-technical survey reported figures.⁷

Contamination is primarily a result of conflict between the FRY and the Kosovo Liberation Army (KLA) in the late 1990s; and between the FRY and the North Atlantic Treaty Organization (NATO) in 1999.⁸ 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.⁹ FRY forces also used cluster munitions during the 1998–99 conflict in Kosovo.¹⁰ The failure rate of submunitions was typically between 10% and 15%, resulting in tens of thousands of unexploded submunitions lying on and under the ground. 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.¹¹

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 2.76km².¹² In 2015, NPA, in coordination with KMAC

and local municipality authorities, conducted non-technical survey of the four northern municipalities.¹³ The NPA survey confirmed 8.9km² of CMR contamination in three of the four municipalities surveyed (Leosavic, Zubin Potok, and Zvecan). No CMR contamination was found in the fourth (Mitrovica North).¹⁴ On the basis of available evidence, NPA believed that 83 cluster bombs were dropped in this region, dispersing a total of 17,041 submunitions.¹⁵

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). However, EOD teams continue to encounter items of unexploded ordnance (UXO) dating back to World War II.¹⁶ Kosovo Protection Force (KFOR) and Kosovo Security Force (KSF) EOD teams regularly dispose of ERW in response to information provided by the public and demining organisations.¹⁷

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 international demining non-governmental organisations (NGOs) and coordinates their operations along with the national demining teams of the KSF. It also coordinates survey, quality assurance (QA), risk education, public information, and victim assistance activities.¹⁸ 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.¹⁹

Kosovo's mine action programme is fully nationally owned, with a strong, longstanding commitment from the national government, and benefits from a dedicated team of permanent national staff.²⁰ In 2020, 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 having a constructive and proactive working relationship with KMAC. HALO Trust staff meet with the director of KMAC for monthly coordination meetings,²² and, in addition, KMAC's QA officers visit HALO

Trust on a quarterly basis to discuss operations planning, along with conducting unannounced weekly field visits to tasks and regular field visits for clearance and non-technical survey teams.²³ NPA held monthly coordination meetings with KMAC in 2020 at a senior management level to coordinate mine action.²⁴

In 2020, the Kosovo government provided €990,000 in financial support to KMAC and to the KSF for mine and CMR clearance.²⁵ Kosovo's current Mine Action Strategy 2019–2024 sets out an objective of intensifying fundraising in order to assure greater financial stability.²⁶ While a specific resource mobilisation strategy does not exist, operators reported that coordinated approaches with KMAC were made to potential donors such as the United States (US) and the European Union (EU).²⁷ In 2020, KMAC supported NPA's resource mobilisation efforts, including the development of proposals to the US State Department Office of Weapon Removal and Abatement (WRA) and the EU.²⁸ HALO Trust was also able to leverage further funding from the US Government with support from KMAC.²⁹

GENDER AND DIVERSITY

Kosovo's mine action strategy for 2019–24 reflects the commitment of the mine action programme to ensure that gender is taken into consideration in the planning, implementation, and monitoring of all mine action projects, with a view to promoting equality and quality.³⁰ 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 also to be collected and systematically disaggregated according to sex and age.³¹

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. A total of 5% of KSF staff employed in operational mine action roles were women, but none is in a managerial or supervisory position.³²

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 poor socio-economic conditions.³³

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 Geneva International Centre for Humanitarian Demining, 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.³⁴

In HALO Trust's Kosovo programme, 17% of employees are women, including in 14% of operational roles in survey and clearance teams, although there were no women in operational management positions in 2020.³⁵ HALO also ensures that community liaison teams are gender balanced and include senior personnel fluent in relevant languages, to ensure that community liaison activities are inclusive of ethnic minorities.³⁶

Although HALO Trust is committed to increasing the number of women in the organisation generally and specifically in management roles, without recruitment or expansion opportunities this has proved difficult. In May 2019, however, HALO trained and promoted four women to operate Handheld Stand-off Mine Detection System (HSTAMIDS) detectors – a first for the programme. In September 2020, HALO conducted a training to promote Assistant Team Leaders, the training led to the appointment of two female assistance Team Leaders for the first time in 2020. HALO Trust plans to conduct a similar training in 2021 and sees this as an opportunity to recruit additional female staff in operational management.³⁷ Relevant mine action data are disaggregated by gender and

age, and data collected post-clearance is also disaggregated to ensure the understanding and analysis of impact of mine action activities takes gender into consideration.³⁸

HALO is committed to increasing the number of women in the organisation and in management roles. While this proved difficult in 2020 as there were no job openings, HALO was committed to extending recruitment opportunities in 2021 thanks to newly secured funding. HALO was seeking to employ women in both senior support roles and in operational management.³⁹

NPA reported that a target of 25% female staff was in place, and in 2019, 21% of its staff were women, including one of four team leaders, two of six medics, and one of four staff in the management team.⁴⁰ The proportion of women subsequently increased to 24% in 2020 with two women promoted to positions of leadership within the clearance teams.⁴¹ Women were especially encouraged to apply for staff positions, and given priority over male applicants with equivalent skills and experience.

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.⁴² In 2020, 12% of NPA employees in managerial or supervisory positions were women as were 21% of operational positions.⁴³ 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 north Kosovo, while also building bridges and friendships between the individual staff members and through their community liaison activities.⁴⁴

According to KMAC, Kosovo's baseline of CMR contamination has been established through inclusive consultation with women, girls, boys, and men, including, where relevant, from minority groups.⁴⁵

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.⁴⁶ 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.⁴⁷ The land release data reported to Mine Action Review by clearance operators and the KMAC were largely aligned. This is an improvement compared to previous years' reports, which typically contained numerous discrepancies.

According to its most recent mine action strategy, KMAC intended, as a means to show its commitment to the CCM, to submit voluntary Article 7 transparency reports on an annual basis.⁴⁸ In disappointing news, KMAC subsequently advised Mine Action Review that Kosovo would only start submitting Article 7 reports when it becomes a member of the UN.⁴⁹

PLANNING AND TASKING

The GICHD supported the development of Kosovo's new Mine Action Strategy for 2019–24. The strategy, formally approved in January 2019 and launched by the Ministry of Kosovo Security Services on 4 April 2019, has three "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 2024.⁵⁰

Updates on clearance progress of high and medium priority areas were not made available, but NPA reported that it had changed its approach in 2020 to focus on technical survey of all tasks and therefore it did not clear any high-impact CMR tasks in 2020.⁵¹

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.⁵²

As per the strategy, KMAC will develop annual operational work plans to implement the strategy's goals.⁵³ KMAC will also request an external mid-term review of the strategy in 2022 to evaluate progress and make any adaptations according to contextual changes if required.⁵⁴

In 2019, KMAC confirmed that it had developed annual operational work plans to target anti-personnel mined areas, according to impact-based criteria, including risk reduction, development priorities, and poverty reduction, along with the findings of a nationwide baseline socio-economic impact assessment carried out in 2018 by KMAC, with the support of The HALO Trust.⁵⁵ KMAC's national operational work plan for 2021 aims to ensure battle area clearance (BAC) is conducted on 10 tasks clearing a total of 650,000m².⁵⁶ The mine action strategy for 2019–24 is in alignment with the objectives of Kosovo's National Development Strategy 2016–2021.⁵⁷

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.⁵⁸

While NPA confirmed that its operations in northern Kosovo continued to focus on high-impacted areas, it noted that it was also important for NPA to ensure both ethnic Serbian- and Albanian-populated areas are prioritised equally, with sensitivity towards political, cultural, and ethnic affiliations.⁵⁹ KMAC reported that it planned to conduct technical survey with NPA in 2020 of 21 tasks in the northern municipalities, in addition to clearance of eight CMR-contaminated areas. As at the end of 2020, eleven technical survey tasks were completed.⁶⁰ Technical surveys were continuing into 2021.

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

National mine action standards for land release are in place in Kosovo, which according to KMAC reflect the International Mine Action Standards (IMAS).⁶¹

Kosovo's national mine action standards set the standard clearance depth for BAC at 50cm.⁶² There has been a discussion over whether this standard clearance depth could be reduced to 30cm in certain forested and stony areas, which would enable detectors to be set to a medium- rather than high-sensitivity setting and potentially result in fewer false indicators needing to be investigated.⁶³ In 2019, however, 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.⁶⁴ It did, though, state that on certain tasks where the ground was entirely stony, a reduction in search depth could be considered.⁶⁵

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.⁶⁶ When removing full containers from the analysis, HALO found that 96% of items were found 30cm deep or less with the average depth of items found through clearance at 12.4cm.⁶⁷ 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.⁶⁸ HALO, which agrees with this approach, has collected data on planned post-clearance land use, including the depth needed for crop cultivation.⁶⁹

A 2014 evaluation of Kosovo's mine action programme, conducted on behalf of the International Trust Fund (ITF) Enhancing Human Security, concluded that an increase in capacity and improvements to land release methodology and equipment deployed would be necessary if Kosovo were indeed to complete clearance by 2024. Since the 2014 evaluation, significant improvements have been introduced to the mine action programme, including the introduction of HSTAMIDS detectors by The HALO Trust, which have

advanced operational productivity.⁷⁰ Both The HALO Trust and NPA were also using large-loop detectors on certain CMR tasks, which further increased productivity.⁷¹

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.⁷²

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.⁷³ 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.⁷⁴

In 2020, HALO Trust introduced new BAC Standard Operation Procedures (SOPs), 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 to practice in BAC 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 HALO anticipates will increase productivity, especially on tasks where heavy vegetation is present.⁷⁵

HALO reported notable productivity gains since the implementation of the new SOPs. The team cleared 66% more area in November than in previous months when operating under the former SOPs. During the roll-out, some minor issues were identified and the SOPs accordingly amended in preparation for programme-wide rollout in 2021. The final SOPs were used as part of the February 2021 refresher training course are now applied on all BAC clearing tasks.⁷⁶

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 areas where its deployment is possible.⁷⁷

OPERATORS AND OPERATIONAL TOOLS

In 2020, Kosovo's national mine action programme's capacity consisted of two international operators, The HALO Trust and NPA, and a national operator, the KSF. HALO Trust continued to conduct BAC and CMR clearance in 2020, along with the KSF, which also provided a round-the-clock EOD emergency response.⁷⁸ 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 NPA's areas of operations.⁷⁹ The demining season is from the end of March to the end of November, due to weather conditions.⁸⁰ NPA's focus in 2020 was on technical survey in the north of the province.⁸¹

HALO Trust's operational personnel are cross-trained for mine clearance and BAC and can move readily between activities. On average, in 2020, HALO Trust deployed five clearance teams totalling 40 deminers to CMR clearance tasks – an overall decrease of two teams compared to the previous year when HALO deployed three nine-person teams. The increase is a result of the continuation of funding from a US State department grants which started at the end of 2019. In April 2021, HALO deployed additional two non-technical survey teams and was planning to train four clearance/BAC teams in preparation for their deployment by September 2021.⁸²

NPA's area of operations in Kosovo cover the five northern municipalities of Leposavic, Mitrovica, Podujevo, Zubin Potok, and Zvečan.⁸³ In 2020, NPA deployed eight teams: one two-person team dedicated to non-technical survey and seven teams each seven-strong dedicated to both technical survey and clearance.⁸⁴ This represented a doubling of the number of teams and the overall operational capacity in 2020 compared to the previous year. NPA planned to establish two additional clearance teams in 2021 thanks to funding by WRA.⁸⁵ 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.⁸⁶

KSF operated one manual clearance team in 2020, totalling 12 deminers.⁸⁷ KFOR supports the KSF and Kosovo Police with EOD response tasks and organising mine and ERW demolitions in Mitrovica and the north of Kosovo.⁸⁸

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

A total of 4.71km² of CMR-contaminated area was released in 2020, of which 0.34km² was released through clearance and 4.37km² through technical survey. No land was cancelled through non-technical survey.

A new SHA of 139,439m² of at least two zones of strikes was identified by NPA and reported to KMAC in 2020.⁸⁹

SURVEY IN 2020

A total of 4.37km² of CMR-contaminated area was released in 2020 through technical survey. Of this, HALO reduced 7,139m² while the remainder was reduced by NPA. No land was cancelled through non-technical survey in 2020.

The total area of CMR-contaminated land released through survey in 2020 is almost five times the size of 2019, when 911,795m² of land was reduced through technical survey. The increase is attributed to NPA's intensification of technical-survey efforts in the northern municipalities as well as the increased funding that allowed the establishment of three additional survey teams in 2020.⁹⁰

As noted above, NPA identified an SHA of 139,439m² and reported to KMAC in 2020.⁹¹

CLEARANCE IN 2020

The HALO Trust and KSF cleared a total area of 0.34km² of CMR contamination in 2020, destroying 18 submunitions in the process. NPA destroyed 16 submunitions during its technical survey activities (See Table 1). KMAC reported that a further six submunitions were destroyed by KSF in EOD response tasks.⁹²

Five items of UXO were also destroyed during clearance and technical survey by KSF in 2020.⁹³

According to HALO Trust, one area cleared in 2020, at Devë in Gjakova district, was found not to contain CMR.⁹⁴

The clearance outputs of 2020 saw a significant decrease compared to 2019, where a total of 1.26km² of CMR-contaminated land was cleared and 155 submunitions were destroyed. The area cleared by HALO Trust shrunk by 49% as a result of COVID-19 crisis and the impact it had on deployment of teams. Additionally, HALO faced challenges in the tasks it carried out in 2020 including difficult terrain and poor access during the winter months.⁹⁵ NPA did not clear any area in 2020 as it prioritised technical survey operations.⁹⁶

As Kosovo has robust national procedures for the management of explosives, the KSF, with support from KFOR in northern Kosovo, carries out the demolition of CMR and items of UXO found by both The HALO Trust and NPA.⁹⁷

Table 1: CMR clearance in 2020⁹⁸

District	Operator	Area cleared (m ²)	Submunitions destroyed*	Other UXO destroyed*
Ferizaj	HALO	83,515	0	0
Gjakova	HALO	108,133	0	0
Peja	HALO	101,942	5	0
Mitrovica	NPA	0	11	3
Zubin Potok	NPA	0	0	0
Zvecan	NPA	0	5	0
Podujevo	NPA	0	0	0
Ferizaj	KSF	46,455	13	2
Totals		340,045	34	5

* Figures include items destroyed during technical survey but not EOD.

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.

As stated in Kosovo's Mine Action Strategy 2019–24, which aims to complete mine and cluster munition clearance by the end of 2024, this target will only be achievable if sustained funding is secured.⁹⁹ Specific concerns are mentioned in the strategy about the need to upgrade old equipment, including vehicles to proceed without unnecessary stand-downs or costly repairs.¹⁰⁰

The HALO Trust highlighted the need for a review of the current data on CMR-contaminated areas, including an evaluation of survey polygons, and application of efficient land release methodologies, in order to ensure coordinated and cost-effective targeting of clearance.¹⁰¹

As at April 2021, HALO Trust, KMAC and NPA all believed that the target date of 2024 can be met but cautioned that the question of residual contamination needs to be addressed.¹⁰² However, only 4.19km² of CMR contamination has been cleared in the last five years (see Table 2). HALO Trust reports that meeting the target date will depend on the extent of remaining contamination; it expected to have a better idea of this by the end of 2021 once its non-technical surveys are concluded. Only then will HALO be able to predict the expected completion date with a sufficient degree of certainty.¹⁰³

The coordinated mobilisation efforts in 2020 yielded additional funds and translated into increased capacities of international operators in 2020–21. This capacity needs to be further increased and sustained over the strategy period in order to meet the 2024 target date.¹⁰⁴

In April 2021, HALO deployed additional two non-technical survey teams and was planning to train four clearance/BAC teams in preparation for their deployment by September 2021.¹⁰⁵ Similarly, NPA planned to increase technical survey/clearance capacity from seven teams to nine during 2021, thanks to new funding from the WRA.¹⁰⁶

While increasing and sustaining funding remained the primary obstacle, challenges were also posed by poor weather and

difficult terrain, according to NPA. It also noted that additional CMR-contaminated areas were still being recorded in its areas of operations as a result of ongoing survey.¹⁰⁷

In addition, the COVID-19 pandemic has substantially affected Kosovo's mine action programme. From mid-March to mid-May 2020, the entire mine action sector was closed at the direction of KMAC, as the government implemented strict lockdown measures across the country, resulting in lost productivity. Operators were able to partially phase back operations in early May and fully by June 2020. HALO had to avoid the use of remote camps due to the COVID-19 pandemic which also affected its original 2020 work plan.¹⁰⁸

Despite operators working at full capacity during the second half of 2020, the pandemic continued to weigh on the operation. Some of the challenges reported by HALO Trust included running on a winter schedule, which meant that teams worked an hour less each day; the increased breaks for handwashing (to prevent the spread of COVID-19), which led to a reduction of working time; the need to isolate teams for up to two weeks when suspected cases occurred; and fleet issues due to social distancing requirements.¹⁰⁹ NPA had to stand down its operation for one week at the end of July due to suspected COVID-19 cases and to partially stand down some teams due to cases of infection.¹¹⁰

Table 2: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2020	0.34
2019	1.26
2018	1.24
2017	0.88
2016	0.47
Total	4.19

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 clearance was largely complete.

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

According to Kosovo's Mine Action Strategy 2019–24, a separate national strategy on the management of residual contamination will be developed by KMAC by 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.¹¹¹ The HALO Trust highlighted the importance of establishing a common definition for residual risk – an existing priority for KMAC in its national strategy.¹¹²

- 1 Email from Ahmet Sallova, Head, KMAC, 28 April 2021.
- 2 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 3 Email from Charles Frisby, Acting Country Director, NPA, 27 April 2021.
- 4 Email from Ahmet Sallova, KMAC, 28 April 2021.
- 5 Email from Charles Frisby, NPA, 19 May 2021.
- 6 Email from Megan Dwyer, Programme Manager, HALO Trust, 23 April 2021.
- 7 Email from Ahmet Sallova, KMAC, 17 June 2021.
- 8 See United Nations Mission in Kosovo (UNMIK), "UNMIK OKPCC EOD Management Section Annual Report 2005", Pristina, 18 January 2006, p. 2; and International Committee of the Red Cross (ICRC), *Explosive Remnants of War, Cluster Bombs and Landmines in Kosovo*, Geneva, rev. June 2001, p. 6.
- 9 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>.
- 10 Human Rights Watch (HRW) and Landmine Action, *Banning Cluster Munitions Government Policy and Practice*, Mines Action Canada, Ottawa, 2009, p. 238; and ICRC, *Explosive Remnants of War, Cluster Bombs and Landmines in Kosovo*, rev. June 2001, p. 6.
- 11 A. Moore, The HALO Trust, "Action on cluster munitions in Kosovo", Side event, First CCM Review Conference, Dubrovnik, 10 September 2015.
- 12 Ibid.
- 13 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.
- 14 Ibid.
- 15 NPA, *Cluster Munition Remnants in Northern Kosovo: non-technical survey of contamination and impact*, September 2015.
- 16 UNMIK, "OKPCC EOD Management Section Annual Report 2008", Pristina, 12 January 2009, p. 4.
- 17 Email from Ahmet Sallova, KMAC, 1 August 2012.
- 18 Ibid.
- 19 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.
- 20 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, pp. 5–6.
- 21 Email from Ahmet Sallova, KMAC, 28 April 2021.
- 22 Emails from Olivia Meader, HALO Trust, 22 May 2020; and Ahmet Sallova, KMAC, 16 April 2020.
- 23 Email from Olivia Meader, HALO Trust, 22 May 2020.
- 24 Email from Charles Frisby, NPA, 27 April 2021.
- 25 Email from Ahmet Sallova, KMAC, 28 April 2021.
- 26 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 14.
- 27 Email from Terje Eldøen, NPA, 25 April 2019.
- 28 Email from Ahmet Sallova, KMAC, 28 April 2021.
- 29 Email from Megan Dwyer, HALO Trust, 23 April 2021.
- 30 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 8.
- 31 Ibid.
- 32 Email from Ahmet Sallova, KMAC, 28 April 2021.
- 33 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, pp. 8–9.
- 34 Email from Olivia Meader, HALO Trust, 22 May 2020.
- 35 Email from Megan Dwyer, HALO Trust, 23 April 2021.
- 36 Emails from Olivia Meader, HALO Trust, 1 May 2019 and 22 May 2020.
- 37 Email from Megan Dwyer, HALO Trust, 23 April 2021.
- 38 Email from Olivia Meader, HALO Trust, 1 May 2019; and "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 8.
- 39 Email from Megan Dwyer, HALO Trust, 23 April 2021.
- 40 Email from Terje Eldøen, NPA, 25 April 2019.
- 41 Email from Megan Dwyer, HALO Trust, 23 April 2021.
- 42 Email from Terje Eldøen, NPA, 25 April 2019.
- 43 Email from Charles Frisby, NPA, 27 April 2021.
- 44 Emails from Terje Eldøen, NPA, 25 April 2019 and 1 September 2020.
- 45 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 46 Email from Ahmet Sallova, KMAC, 30 April 2019.
- 47 Emails from Olivia Meader, HALO Trust, 1 May 2019; and Terje Eldøen, NPA, 25 April 2019.
- 48 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 13.
- 49 Email from Ahmet Sallova, KMAC, 28 April 2021.
- 50 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 12.
- 51 Email from Charles Frisby, NPA, 27 April 2021.
- 52 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, pp. 9–10.
- 53 Ibid.
- 54 Ibid., p. 16.
- 55 Emails from Ahmet Sallova, KMAC, 30 April 2019; and Tom Welling, HALO Trust, 7 May 2018.
- 56 Email from Ahmet Sallova, KMAC, 28 April 2021.
- 57 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 1.
- 58 Email from Olivia Meader, HALO Trust, 22 May 2020.
- 59 Email from Terje Eldøen, NPA, 25 April 2019.
- 60 Emails from Charles Frisby, NPA, 27 April and 18 May 2021; and Ahmet Sallova, KMAC, 28 April 2021. The number of technical surveys was reported as four by KMAC but subsequently revised upwards to eleven by NPA.
- 61 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 62 Email from Ahmet Sallova, KMAC, 4 May 2018.
- 63 Ibid.
- 64 Interview with Ahmet Sallova, KMAC, Pristina, 5 April 2019.
- 65 Ibid.
- 66 Email from Olivia Meader, HALO Trust, 21 June 2019.
- 67 Email from Olivia Meader, HALO Trust, 3 September 2020.
- 68 Emails from Terje Eldøen, NPA, 25 April 2019; and Olivia Meader, HALO Trust, 1 May 2019.
- 69 Email from Olivia Meader, HALO Trust, 3 September 2020.
- 70 Emails from Olivia Meader, HALO Trust, 1 May 2019; and Terje Eldøen, NPA, 25 April 2019.
- 71 Ibid.
- 72 Interview with Terje Eldøen, NPA, Pristina, 5 April 2019; and email, 25 April 2019.
- 73 Emails from Ash Boddy, HALO Trust, 5 May 2017; and Olivia Meader, HALO Trust, 1 May 2019.
- 74 Email from Olivia Meader, HALO Trust, 21 June 2019.
- 75 Email from Megan Dwyer, HALO Trust, 23 April 2021.
- 76 Ibid.
- 77 Ibid.
- 78 Email from Ahmet Sallova, KMAC, 16 April 2020; and "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 3.
- 79 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 4; and interview with Ahmet Sallova, KMAC, Pristina, 5 April 2019.
- 80 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 3.
- 81 Email from Charles Frisby, NPA, 27 April 2021.
- 82 Email from Megan Dwyer, HALO Trust, 23 April 2021.
- 83 Email from Terje Eldøen, NPA, 26 August 2020.
- 84 Email from Charles Frisby, NPA, 27 April 2021.

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- 85 Ibid.
- 86 Email from Terje Eldøen, NPA, 25 April 2019; and "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 4.
- 87 Email from Ahmet Sallova, KMAC, 16 April 2020.
- 88 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 4; and interview with Ahmet Sallova, KMAC, Pristina, 5 April 2019.
- 89 Email from Charles Frisby, NPA, 27 April 2021.
- 90 Ibid.
- 91 Ibid.
- 92 Email from Megan Dwyer, HALO Trust, 23 April 2021.
- 93 Email from Ahmet Sallova, KMAC, 28 April 2021.
- 94 Email from Megan Dwyer, HALO Trust, 23 April 2021.
- 95 Ibid.
- 96 Email from Charles Frisby, NPA, 27 April 2021.
- 97 Interview with Ahmet Sallova, KMAC, Pristina, 5 April 2019.
- 98 Ibid.
- 99 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 6.
- 100 Ibid.
- 101 Email from Olivia Meader, HALO Trust, 22 May 2020.
- 102 Emails from Charles Frisby, NPA, 27 April 2021; Ahmet Sallova, KMAC, 28 April 2021; and Megan Dwyer, HALO Trust, 18 May 2021.
- 103 Email from Megan Dwyer, HALO Trust, 23 April 2021
- 104 Emails from Olivia Meader, HALO Trust, 1 May 2019; and Terje Eldøen, NPA, 25 April 2019.
- 105 Email from Megan Dwyer, HALO Trust, 23 April 2021.
- 106 Emails from Charles Frisby, NPA, 27 April 2021; and Ahmet Sallova, KMAC, 28 April 2021.
- 107 Email from Terje Eldøen, NPA, 25 April 2019.
- 108 Email from Olivia Meader, HALO Trust, 3 September 2020.
- 109 Email from Megan Dwyer, HALO Trust, 23 April 2021.
- 110 Email from Charles Frisby, NPA, 27 April 2021.
- 111 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 15.
- 112 Email from Olivia Meader, HALO Trust, 22 May 2020.

RECOMMENDATIONS FOR ACTION

- Nagorno-Karabakh authorities should make a formal commitment to respect and implement the Convention on Cluster Munitions (CCM).
- 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.

UNDERSTANDING OF CMR CONTAMINATION

Nagorno-Karabakh already had extensive contamination by cluster munitions before the six-week conflict between Armenia and Azerbaijan that broke out in September 2020 (see Table 1). The HALO Trust had raised its estimate of the affected area to 71.3km² compared with 70.5km² at the end of 2019 with increases in Askeran and Martuni.¹

Extensive use of cluster munitions in the 2020 conflict has added considerable CMR contamination in territory controlled by Nagorno-Karabakh, the precise extent of which had still to be determined. International human rights organisations reported Azerbaijani forces fired rockets armed with cluster munitions hitting targets in the capital Stepanakert.² Rapid assessment by 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.³

Fierce fighting for six weeks was brought to an end on 8 November 2020 by a Russian-brokered ceasefire agreement. Azerbaijan gained control of a substantial part of Nagorno-Karabakh (approximately one-third of the territory previously controlled by Armenia) where a new Line of Contact (LOC) is patrolled by Russian peacekeeping forces, with the de facto Nagorno-Karabakh local authorities retaining control over part of the centre and north of the region. Area now under Azerbaijan’s control includes what had been Nagorno-Karabakh’s second town of Shushi.

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. The most prevalent submunitions are Israeli-produced M095/M085 dual-purpose submunitions and Soviet-era 9N235s, but HALO Trust also identified Russian-made ShOAB and PTAB submunitions.⁴

Table 1: Cluster munition-contaminated area (at September 2020, prior to the outbreak of the conflict)⁵

District	CHAs	Area (m ²)
Askeran	58	20,507,558
Hadrut	29	10,667,696
Lachin	17	8,500,000
Martakert	45	11,701,498
Martuni	58	15,461,585
Shushi	8	4,000,000
Stepanakert	1	500,000
Totals	216	71,338,337

CHA = Confirmed hazardous area

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).

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 explosive remnants of war (ERW). The working group meets weekly with participation from the Rescue Service and humanitarian mine clearance organisations.⁶

The HALO Trust established the Nagorno-Karabakh Mine Action Centre (NKMAC) in 2000 but the project did not attract local support and stalled.⁷ Discussions on the issue 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.⁸ A mine action coordination committee responsible for liaising between the local authorities and The HALO Trust ended in 2018.⁹

The Nagorno-Karabakh authorities do not provide HALO Trust with funding to clear affected areas.¹⁰

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.¹¹ HALO's staff of 137 in 2020 included 19 women, with four holding supervisory positions and eleven working in field operations.¹² As 13% of HALO's staff they represented a smaller proportion than in previous years because of an increase in staff numbers. HALO's most senior national staff member is a woman 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.¹³

All groups affected by CMR and anti-personnel mines, including women and children, are said to be consulted during survey and community liaison activities. Relevant mine action data are disaggregated by sex and age.¹⁴

INFORMATION MANAGEMENT AND REPORTING

Nagorno-Karabakh does not have a mine action information management system; The HALO Trust operates its own database.¹⁵ 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. The emergency services share information on explosive ordnance disposal (EOD) call-outs and advance notice of demolitions.¹⁶ The Nagorno-Karabakh Army Liaison Officer shares information with The HALO Trust on a regular basis on items found, incidents, confirmed hazardous areas, and clearance. HALO is not authorised to share this data with others.¹⁷

PLANNING AND TASKING

Prior to the outbreak of the conflict in September 2020, HALO Trust focused activities 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 had embarked on a countrywide survey of mine contamination. 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 aimed to complete the survey, covering all villages, by the end of September 2021.¹⁸

HALO Trust selects tasks according to its own prioritisation matrix but works closely with local authorities. HALO, together with the Rescue Service and the Humanitarian Demining Centre (HAK) attend weekly meetings of the working group set up in early 2021 to coordinate clearance.¹⁹

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Nagorno-Karabakh has no local mine action standards. The HALO Trust follows its internal standard operating procedures but it updated its BAC standing operating procedures (SOPs) in 2020 to address the threat from urban contamination.²⁰

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 fell from 159 at the start of the year to 137 by September after financing support from USAID ended in April 2020. In the process, HALO reduced the number of manual clearance teams from twelve to seven, and the number of deminers from 74 to 54. In February 2021, HALO recruited new staff increasing the total staff to 155 and in the process increasing the number of survey teams from five to seven and the number of clearance teams from eight to ten. It also converted two non-technical survey teams to conduct only EOD and operated two mechanical teams with eight staff. HALO reported an urgent need for more staff but further expansion was not expected without additional donor support.²¹

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 clearance training.²² One Nagorno-Karabakh army unit conducts limited demining.²³ 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.²⁴

A new local mine clearance organisation, HAK, was established in 2020, initially with one clearance team. In 2020, it was mainly focused on getting established and learning about contamination and conducted was not reportedly very active operationally. HALO Trust said it provided HAK with information and equipment, including detectors and personal protective equipment (PPE).²⁵

DEMINER SAFETY

The HALO Trust did not experience any demining or EOD accidents resulting in casualties in 2020. However, all men under 58 were conscripted into the army during the 2020 war and three serving and four former HALO Trust staff were killed in the fighting.²⁶

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

HALO Trust operations in Nagorno-Karabakh in 2020 focused on survey and clearance of landmines and ERW and only started to address cluster munitions contamination in November after the war. HALO destroyed 73 submunitions in EOD operations in 2020.²⁷

Productivity dropped sharply in the past five years because of donor hesitancy. Despite the sharply increased humanitarian threat posed by cluster munitions and other ERW since the 2020 war, prospects for scaling up clearance are limited by funding constraints.²⁸

Table 2: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2020	0
2019	0.05
2018	0
2017	1.06
2016	3.28
Total	4.39

- 1 Email from Miles Hawthorn, Programme Manager, HALO Trust, 18 April 2021.
- 2 Human Rights Watch, "Azerbaijan: Cluster munitions used in Nagorno-Karabakh", 23 October 2020; Amnesty International, "Armenia/Azerbaijan: civilians must be protected from use of banned cluster munitions", 5 October 2020.
- 3 Email from Miles Hawthorn, HALO Trust, 18 April 2021.
- 4 Email from Miles Hawthorn, HALO Trust, 18 April 2021; and International Crisis Group (ICG), "The Nagorno-Karabakh Conflict: A Visual Explainer", Last updated 7 May 2021, at: <https://bit.ly/3ui0ou2>.
- 5 Ibid.
- 6 Email from Miles Hawthorn, HALO Trust, 20 May 2021.
- 7 Emails from Andrew Moore, HALO Trust, 28 June 2013; and Asqanaz Hambardzumyan, Field Officer, HALO Trust, 26 April 2019.
- 8 Emails from Rob Syfret, HALO Trust, 13 May and 4 September 2020 and from Miles Hawthorn, HALO Trust, 18 April 2021.
- 9 Emails from Andrew Moore, HALO Trust, 26 May 2016; and Asqanaz Hambardzumyan, HALO Trust, 26 April 2019.
- 10 Email from Asqanaz Hambardzumyan, HALO Trust, 10 April 2019.
- 11 Ibid.
- 12 Email from Miles Hawthorn, HALO Trust, 18 April 2021.

- 13 Emails from Rob Syfret, HALO Trust, 7 May 2020; and Miles Hawthorn, HALO Trust, 29 July 2021.
- 14 Email from Asqanaz Hambardzumyan, HALO Trust, 10 April 2019.
- 15 Email from Rob Syfret, HALO Trust, 7 May 2020.
- 16 Email from Rob Syfret, HALO Trust, 13 May 2020.
- 17 Email from Asqanaz Hambardzumyan, HALO Trust, 10 April 2019.
- 18 Email from Miles Hawthorn, HALO Trust, 18 April 2021.
- 19 Email from Miles Hawthorn, HALO Trust, 20 May 2021.
- 20 Emails from Rob Syfret, HALO Trust, 7 May 2020; and Miles Hawthorn, HALO Trust, 18 April 2021.
- 21 Emails from Rob Syfret, HALO Trust, 7 May 2020; and Miles Hawthorn, HALO Trust, 18 April and 20 May 2021.
- 22 Email from Asqanaz Hambardzumyan, HALO Trust, 26 April 2019.
- 23 Ibid.
- 24 Email from Miles Hawthorn, HALO Trust, 18 April 2021.
- 25 Ibid.
- 26 Ibid.
- 27 Email from Miles Hawthorn, HALO Trust, 20 May 2021.
- 28 Email from Miles Hawthorn, HALO Trust, 18 April 2021.

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.
- 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.
- A resource mobilisation plan should be developed with the aim of attracting international donor support.
- 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 explosive remnants of war (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.

UNDERSTANDING OF CMR CONTAMINATION

According to the United Nations Mine Action Service (UNMAS), at the end of 2020, Western Sahara east of the Berm¹ had a total of 45 confirmed hazardous areas (CHAs) containing CMR, covering a total of 2.1km².² This is an increase from the 40 areas totalling 1.64km² reported by UNMAS as remaining at end of 2019.³ According to UNMAS, this increase was due to change in survey method as teams began to use a vehicle assisted box survey method which allowed them to cover larger areas and record new hazards.⁴ However, UNMAS also reported that only 0.09km² of new contamination was identified and added to the database in 2020.⁵ Both the north and south of Western Sahara east of the Berm are still affected, as summarised in Table 1.⁶

Table 1: Cluster munition-contaminated area east of the Berm (at end 2020)⁷

Region	CHAs	Area (km ²)
North	25	0.81
South	20	1.29
Totals	45	2.10

The Royal Moroccan Armed Forces used both artillery-fired and air-dropped cluster munitions against Polisario Front military forces during their conflict in Western Sahara from 1975 to 1991. According to the SADR, the Royal Moroccan Armed Forces employed BLU-63, M42, and Mk118 submunitions at multiple locations in Bir Lahlou, Dougaj,

Mehaires, Mijek, and North Wadis.⁸ 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.⁹ According to UNMAS, this has severely impacted its clearance operations and there is believed to be new contamination from 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.¹⁰

While CMR clearance had been projected to be completed by the end of 2012,¹¹ 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.¹² In 2020, 0.09km² of previously unrecorded contamination were identified and added to the database.¹³

Of the 45 CHAs, 6 cluster munition strike areas with a total size of 0.5km² are located inside the buffer strip and are inaccessible for clearance.¹⁴ The size of these six areas may increase if restrictions on access to the buffer strip are lifted, allowing survey and clearance to be conducted.¹⁵ Clearance of mines and ERW in the buffer strip, restricted areas, and the Berm itself is not foreseen in MINURSO mission agreements, which, according to the UN, considerably limits the ability of MINURSO military observers to patrol.¹⁶

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 30 October 2020, MINURSO's mandate was extended for an additional 12 months until 30 October 2021 under UN Security Council Resolution 2548 (2020). 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 SMACO, which is responsible for coordinating mine action activities in Western Sahara east of the Berm, excluding the buffer strip.¹⁷

In 2020, UNMAS Western Sahara provided SMACO with €50,000 funding to cover some of its operating expenses. SMACO also receives ongoing capacity development support from UNMAS Western Sahara.¹⁸

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.¹⁹ UNMAS has a gender strategy as part of its overall country strategy.²⁰ 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.²¹ 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.²²

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 2020, 43% of staff in UNMAS Western Sahara were women with 14% in supervisory roles although there are only seven staff in total (both national and international). In SafeLane Global (UNMAS's contractor), 17% of operational roles were held by women. 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 camps. All national deminers, both male and female, are Sahrawi, an ethnic minority group.²³

INFORMATION MANAGEMENT AND REPORTING

According to UNMAS, the Information Management System for Mine Action (IMSMA) database for Western Sahara, east of the Berm, improved as a result of an ongoing data audit initiated at the end of 2015.²⁴ 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 2019.²⁵ This did not occur and was further delayed due to COVID-19 lockdown. As at March 2021, this is still ongoing.²⁶

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. UNMAS reported that, as at March 2021, a strategy for CMR clearance was in development.²⁷ 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 2023.²⁸

As at March 2021, none of these objectives had been achieved and UNMAS reported delays in progress due to the suspension of operations as a result of COVID-19. The yearly work plan was suspended in 2020 due to COVID-19, although there had also been no mine action work plan in 2019.²⁹

UNMAS Western Sahara mine action activities continue to be in support of MINURSO's mandate.³⁰ 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.³¹

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.³² UNMAS reported in March 2021 that the standards are reviewed annually and that no updates were made in 2020.³³

An external quality management system was in place from 2018 and implemented by UNMAS and SMACO to the east of the Berm.³⁴

OPERATORS AND OPERATIONAL TOOLS

Table 2: Operational clearance capacities deployed in 2020³⁵

Operator	Manual teams	Total deminers*	Dog teams	Mechanical assets	Comments
SafeLane Global (for UNMAS Western Sahara)	2	24	0	0	No change from 2019
Totals	2	24	0	0	

* Excluding team leaders, medics, and drivers.

SafeLane Global (formerly Dynasafe MineTech Limited, DML) was the implementing operator for UNMAS Western Sahara, conducting survey and clearance in 2020. There was no change in operational capacity in 2020 from the previous year and no change was planned for 2021.³⁶

Danish Demining Group (DDG, now known as Danish Refugee Council's Humanitarian Disarmament and Peacebuilding sector) did have funding in 2020 for non-technical survey in Western Sahara east of the Berm, but due to the restrictions introduced as part of the COVID-19 outbreak and then the renewal of conflict from November 2020, DDG was not able to deploy any teams after they received training in March 2021. As at April 2021, with the border with Algeria still predominantly closed, DDG has had to reorientate activities and no longer has funding to conduct survey in Western Sahara.³⁷

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

A total of 0.78km² 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.

SURVEY IN 2020

In 2020, a total of 20,752m² of CMR-contaminated area was cancelled through non-technical survey using the vehicle assisted box survey method in the northern region, east of berm. No technical survey was carried out in 2020.³⁸

In 2018 and 2019, no non-technical or technical survey took place.³⁹

CLEARANCE IN 2020

In 2020, a total of almost 0.76m² was released through clearance in the North region of Western Sahara, east of Berm with 292 submunitions found and destroyed.⁴⁰ This is a decrease from the almost 1.59km² cleared in 2019, when 923 submunitions were destroyed.⁴¹

Table 3: CMR clearance in 2020⁴²

Operator	Region	Area cleared (m ²)	Submunitions destroyed
SafeLane Global (for UNMAS Western Sahara)	North	756,431	292
Totals		756,431	292

No CMR were reported destroyed in spot tasks in 2020.⁴³ UNMAS stated that the reasons for the decrease in CMR clearance output in 2020 was due to the partial suspension of operations caused by COVID-19 as well as the three-decade-long ceasefire between Morocco and Polisario ending in November 2020.⁴⁴

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 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: “By submitting its voluntary report, 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”.⁴⁵ 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 2019.⁴⁶ 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 2018.⁴⁷ 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 2023.⁴⁸ UNMAS Western Sahara needs to maintain its level of funding of \$3.265 million per year and to secure an additional \$2 million per year to clear all known mine and ERW contamination in the territory of Western Sahara, east of the Berm, and outside the buffer strip, restricted areas, and the Berm itself by this date.⁴⁹

Clearance output has decreased massively in Western Sahara from 4.8km² in 2018 to just 0.76km² in 2020, with the partial suspension of operations due to the outbreak of COVID-19 and the resurgence of conflict both hampering output during the year. Additional resources and capacity, along with support to SMACO, need to be secured urgently along with a reassessment of the 2023 completion date and updated accompanying strategic objectives.

- 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 Leon Louw, Programme Manager, UNMAS, 30 March 2021.
- 3 Email from Edwin Faigmane, Programme Officer, UNMAS, 13 August 2020.
- 4 Email from Leon Louw, UNMAS, 19 April 2021.
- 5 Email from Leon Louw, UNMAS, 30 March 2021.
- 6 Ibid.
- 7 Ibid.
- 8 SADR Voluntary CCM Article 7 Report, dated 20 June 2014, Form F.
- 9 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/3mPfYgl>.
- 10 Email from Leon Louw, UNMAS, 30 March 2021.
- 11 Email from Karl Greenwood, Chief of Operations, Action on Armed Violence/Mechem Western Sahara Programme, 18 June 2012.
- 12 Emails from Robert Thompson, UNMAS, 29 April 2019; Dandan Xu, UNMAS, 28 June 2019; and Graeme Abernethy, UNMAS, 1 March 2018.
- 13 Email from Leon Louw, UNMAS, 30 March 2021.
- 14 Ibid; The buffer strip is an area 5km wide, east of the Berm.
- 15 Emails from Virginie Auger, UNMAS, 15 March 2017; Sarah Holland, UNMAS, 23 May 2016; and Graeme Abernethy, UNMAS, 27 May 2016. The six areas were identified in a 2008 survey.
- 16 “Report of the Secretary-General on the situation concerning Western Sahara”, UN doc. S/2017/307, 10 April 2017, p. 8.
- 17 Response to questionnaire by Sarah Holland, UNMAS, 24 February 2014, and email, 25 February 2014; and email from Edwin Faigmane, UNMAS, 6 August 2020.
- 18 Email from Leon Louw, UNMAS, 30 March 2021.
- 19 Emails from Graeme Abernethy, UNMAS, 1 March and 5 May 2018.
- 20 Email from Leon Louw, UNMAS, 30 March 2021.
- 21 Email from Edwin Faigmane, UNMAS, 18 June 2020.
- 22 Emails from El Hadji Mamadou Kebe, NPA, 4 May 2019 and 14 March 2018.
- 23 Email from Leon Louw, UNMAS, 30 March 2021.
- 24 Emails from Graeme Abernethy, UNMAS, 1 March and 5 May 2018.
- 25 Email from Robert Thompson, UNMAS, 31 May 2019.
- 26 Email from Leon Louw, UNMAS, 30 March 2021.
- 27 Ibid.
- 28 SMACO “Strategic Plan 2019–2023”, at: <http://bit.ly/38jaGm2>; and email from Robert Thompson, UNMAS, 31 July 2019.
- 29 Email from Leon Louw, UNMAS, 30 March 2021.
- 30 Email from Edwin Faigmane, UNMAS, 18 June 2020.
- 31 Emails from Graeme Abernethy, UNMAS, 1 March and 5 May 2018; and Edwin Faigmane, UNMAS, 6 August 2020.
- 32 Emails from Robert Thompson, UNMAS, 29 April 2019; and Dandan Xu, UNMAS, 28 June 2019.
- 33 Email from Leon Louw, UNMAS, 30 March 2021.
- 34 Emails from Robert Thompson, UNMAS, 29 April 2019; and Edwin Faigmane, UNMAS, 28 July 2020.
- 35 Email from Leon Louw, UNMAS, 30 March 2021.
- 36 Ibid.
- 37 Email from Catherine Smith, Regional Coordinator, DDG, 18 April 2021.
- 38 Email from Leon Louw, UNMAS, 30 March 2021.
- 39 Emails from Robert Thompson, UNMAS, 29 April 2019; and from Edwin Faigmane, UNMAS, 13 August 2020.
- 40 Email from Leon Louw, UNMAS, 30 March 2021.
- 41 Email from Edwin Faigmane, UNMAS, 13 August 2020.
- 42 Email from Leon Louw, UNMAS, 30 March 2021.
- 43 Ibid.
- 44 Ibid.
- 45 SADR Voluntary CCM Article 7 Report, Form F, 20 June 2014.
- 46 Emails from Virginie Auger, UNMAS, 29 March 2017; and Graeme Abernethy, UNMAS, 31 March 2018.
- 47 Email from Graeme Abernethy, UNMAS, 1 March 2018.
- 48 SMACO “Strategic Plan 2019–2023”, at: <http://bit.ly/38jaGm2>.
- 49 Email from Edwin Faigmane, UNMAS, 6 August 2020.

The background consists of several overlapping, angular shapes in various shades of purple, ranging from dark to light. The shapes create a dynamic, layered effect. The text is positioned in the upper left quadrant of the page.

ANNEX 1:
ARTICLE 4 OF THE
CONVENTION ON
CLUSTER MUNITIONS

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.

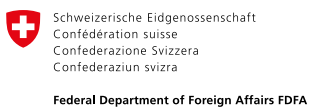
8. Such an extension may be renewed by a period of up to five years upon the submission of a new request, in accordance with paragraphs 5, 6 and 7 of this Article. In requesting a further extension a State Party shall submit relevant additional information on what has been undertaken during the previous extension granted pursuant to this Article.

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

AIM	Abandoned Improvised Mines (Afghanistan)	MAG	Mines Advisory Group
AP mine	Anti-personnel mine	MDD	Mine detection dog (team)
APMBC	1997 Anti-Personnel Mine Ban Convention	MoU	Memorandum of Understanding
AV mine	Anti-vehicle mine	MRE	Mine risk education
AXO	Abandoned explosive ordnance	MTT	Multi-task team
BAC	Battle area clearance	NATO	North Atlantic Treaty Organization
BiH	Bosnia and Herzegovina	NGO	Non-governmental organisation
CCM	2008 Convention on Cluster Munitions	NMAS	National Mines Action Standards
CCW	Convention on Certain Conventional Weapons	NPA	Norwegian People's Aid
CHA	Confirmed hazardous area	NSAG	Non-state armed group
CMR	Cluster munition remnants	NTS	Non-technical survey
CMRS	Cluster Munition Remnants Survey	OAP	Oslo Action Plan
DCA	DanChurch Aid	OAS	Organization of American States
DDG	Danish Demining Group	OSCE	Organization for Security and Co-operation in Europe
EDD	Explosive detection dog (team)	PPE	Personal protective equipment
EO	Explosive ordnance	QA	Quality assurance
EOD	Explosive ordnance disposal	QC	Quality control
EORE	Explosive ordnance risk education	QM	Quality management
ERW	Explosive remnants of war	SHA	Suspected hazardous area
EU	European Union	SOP	Standing (or standard) operating procedure
FSD	Swiss Foundation for Mine Action	TS	Technical survey
GICHD	Geneva International Centre for Humanitarian Demining	TWG	Technical working group
GIS	Geographic information system	UN	United Nations
HI	Humanity and Inclusion	UNDP	United Nations Development Programme
ICRC	International Committee of the Red Cross	UNICEF	United Nations Children's Fund
IED	Improvised explosive device	UNMAS	United Nations Mine Action Service
IMAS	International Mine Action Standards	UXO	Unexploded ordnance
IMSMA	Information Management System for Mine Action	VA	Victim assistance
IP	Implementing partner	VTF	Voluntary Trust Fund (United Nations)
ITF	International Trust Fund (ITF) Enhancing Human Security		
LIS	Landmine Impact Survey		



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