MINE ACTION REVIEW

# CLEARING CLUSTER MUNITION REMNANTS 2024

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

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





## Other information

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- *Global contamination from cluster munition remnants*

# CLEARING CLUSTER MUNITION REMNANTS

## CONTENTS

# KEY FINDINGS

- **Global clearance of cluster munition-contaminated area totalled 185.03km² in 2023**, an increase of more than 8% on the 170.68km² cleared in 2022 and a new annual record. **A total of 96,553 unexploded submunitions were destroyed worldwide** during clearance, survey, and explosive ordnance disposal (EOD) operations in 2023 (a drop on the 102,427 destroyed the previous year).

- One State Party, **Bosnia and Herzegovina, completed clearance of all known cluster munition-contaminated area in 2023**, in time to meet its twice extended Convention on Cluster Munitions (CCM) Article 4 deadline of 1 September 2023. It is the fourteenth State to do so since 2010 – the year the treaty entered into force.[1]

- Globally, at least **24 States were affected by cluster munition remnants (CMR) as at 1 August 2024, along with two "other areas":**[2]

  **South Sudan**, a contaminated State, became a State Party in February 2024. State not party **Ethiopia** has an unknown number of cluster munition-contaminated areas and has been added to the list of contaminated States. **Angola**—a signatory to the Convention—is no longer considered as CMR-affected by Mine Action Review as it has only a small residual threat from unexploded submunitions but no known or suspected cluster munition-contaminated area. **Nagorno-Karabakh**, which was previously reported by Mine Action Review as an "other area", is now included in the Azerbaijan country report.

- As a result of progress achieved under the CCM, of its 112 States Parties, only 10 had cluster munition-contaminated areas: Afghanistan, Chad, Chile, Germany, Iraq, the Lao People's Democratic Republic (Lao PDR), Lebanon, Mauritania, South Sudan, and Somalia.

  Signatory State the Democratic Republic of Congo is believed to have cluster munition-contaminated areas remaining on its territory. A further 13 States not party—Armenia, Azerbaijan, Cambodia, Ethiopia, Iran, Libya, Serbia, Sudan, Syria, Tajikistan, Ukraine, Vietnam, and Yemen—are affected by CMR, along with two other areas (Kosovo and Western Sahara).

- Of the 10 affected States Parties to the CCM, only Lao PDR is **massively contaminated** (where cluster munition-contaminated areas cover more than 1,000km² of land), while **heavy contamination** exists in Iraq (defined as extending over more than 100km²). In the eight other affected States Parties, the extent of contamination is medium or light.

- Clearance in the 10 affected States Parties in 2023 covered a total of 78.49km² of cluster munition-contaminated area, an increase of 6% on the previous year. Every State Party except for Chad, Mauritania, and Somalia conducted clearance of cluster munition-contaminated area in 2023. These three States Parties are all struggling to secure international funding to address CMR contamination.

- As at 1 August 2024, among States Parties only **Chile** (just) and **South Sudan** (clearly) were on track to meet their Article 4 deadlines of June 2026 and February 2034, respectively. It was unclear whether **Afghanistan** could meet its extended deadline of March 2026, largely due to the significant reduction in international funding to mine action since the change of regime.

1 **States Parties**: Bosnia and Herzegovina, Croatia, Colombia, Republic of Congo, Grenada, Guinea-Bissau, Montenegro, Mozambique, Norway, United Kingdom, and Zambia (which completed CMR clearance in June 2010 prior to entry into force of the CCM on 1 August 2010). **Signatory State**: Angola. **States not Party**: Georgia and Thailand.

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

# OVERVIEW

## SUMMARY OF PROGRESS

A new annual record was set in 2023 for global clearance of cluster munition-contaminated area – **185.03 square kilometres**. The increase in clearance output of approximately 8% compared to 2022 is largely the result of increases in clearance in south-east Asia, with Lao People's Democratic Republic (Lao PDR)—a State Party to the Convention on Cluster Munitions (CCM)—and States not party Cambodia and Vietnam all increasing their clearance output in 2023. A total of **96,553 unexploded submunitions were destroyed worldwide** during clearance, survey, and spot tasks in 2023, a drop on the 102,427 destroyed the previous year.

Bosnia and Herzegovina reported completing clearance of all known cluster munition-contaminated area in time to meet its twice extended CCM Article 4 deadline of 1 September 2023, the fourteenth State to do so since 2010 – the year the treaty entered into force. This year, Mine Action Review has also removed signatory State Angola from the list of States with cluster munition-contaminated area on their territory.

In other welcome news, Chile finally began clearing the cluster munition remnants (CMR) on its military training ranges in 2023, 13 years after becoming a State Party. There was, however, no CMR clearance in States Parties Chad, Mauritania, or Somalia – all of which are struggling for funding to address CMR contamination. In September 2023, two States Parties, Iraq and Mauritania, were granted extensions to their respective Article 4 deadlines at the Eleventh Meeting of States Parties to the CCM. In 2024, a further three States were seeking extensions to their Article 4 deadlines from the Twelfth Meeting of States Parties: Chad, Germany, and Lao PDR.

It is deeply regrettable that in July 2024 Lithuania announced it was withdrawing from the CCM. This is the first time any State Party has decided to leave the Convention.

## GLOBAL CMR CONTAMINATION

Globally, at least 24 States were affected by CMR as at 1 August 2024, along with two "other areas" not recognised as States by the Secretary-General of the United Nations (UN) in his capacity as treaty depository for the CCM. State Party, **Bosnia and Herzegovina**, fulfilled its Article 4 obligations in 2023. **South Sudan**, a contaminated State, acceded to the CCM in September 2023 and become a State Party in February 2024, resulting in the total number of affected States Parties remaining at 10. State not party **Ethiopia** has an unknown number of cluster munition-contaminated areas and has been added to the list of contaminated States. Whether, in addition to this, State not party **Myanmar** has cluster munition-contaminated area on its territory following use of cluster munitions by government armed forces was not certain at the time of writing.

**Angola**—a signatory to the Convention—is no longer considered as CMR-affected by Mine Action Review as it has only a small residual threat from unexploded submunitions but no known or suspected cluster munition-contaminated area. Furthermore, **Nagorno-Karabakh**, which was previously reported by Mine Action Review as an "other area", is now included in the Azerbaijan country report, after Azerbaijan regained control of the remainder of the territory following a 24-hour military offensive on 19 September 2023.[1] The global CMR contamination situation is summarised in Table 1.

**Table 1: CMR-affected States and other areas (at 1 August 2024)**

| CCM States Parties | CCM Signatories | CCM Non-signatories | Other areas |
|---|---|---|---|
| Afghanistan | Democratic Republic of Congo | Armenia | Kosovo |
| Chad | | Azerbaijan | Western Sahara |
| Chile | | Cambodia | |
| Germany | | Ethiopia* | |
| Iraq | | Iran | |
| Lao PDR | | Libya | |
| Lebanon | | Serbia | |
| Mauritania | | Sudan | |
| Somalia | | Syria | |

1 "Azerbaijan halts Karabakh offensive after ceasefire deal with Armenian separatists", BBC, 21 September 2023, at: https://bbc.in/3rCVK0e.

**Table 1 Continued**

| CCM States Parties | CCM Signatories | CCM Non-signatories | Other areas |
|---|---|---|---|
| South Sudan | | Tajikistan | |
| | | Ukraine | |
| | | Vietnam | |
| | | Yemen | |
| **10 States Parties** | **1 Signatory** | **13 Non-Signatories** | **2 Other areas** |

* As the report was going to print, evidence was surfacing of the existence of cluster munition-contaminated areas resulting from use both in the 1998-2000 conflict with Eritrea and in the course of the recent non-international armed conflict in Tigray. The extent of contamination is as yet uncertain. Mine Action Review will report fully on this in next year's edition.

State Party **Lao PDR** has by far the greatest extent of contamination, assessed to be massive. A national baseline survey continues to be conducted, at the same time as ramping up clearance efforts to address confirmed hazardous areas (CHAs). Non-signatories Cambodia, Ukraine, and Vietnam also have huge, but unquantified area contaminated with unexploded submunitions, followed by State Party Iraq. Several decades of clearance may be needed in each of these four States. Moreover, use of cluster munitions was continuing in **Ukraine**, by both the Russian and Ukrainian armed forces. Mine Action Review's assessment of the extent of contamination in affected States—which may coincide with the view of their governments (but often does not)—is summarised in Table 2.

**Table 2: Extent of CMR-contaminated areas in affected States (at 1 August 2024)***

| Massive (>1,000km$^2$) | Heavy (100–1,000km$^2$) | Medium (5–99km$^2$) | Light (<5km$^2$) |
|---|---|---|---|
| **Lao PDR** | Cambodia | **Afghanistan** | Armenia |
| | **Iraq** | Azerbaijan | **Chad** |
| | Ukraine | **Chile** | DR Congo |
| | Vietnam | **Mauritania** | **Germany** |
| | | **South Sudan** | Iran |
| | | Syria | **Lebanon** |
| | | Yemen | Libya |
| | | | Serbia |
| | | | **Somalia** |
| | | | Sudan |
| | | | Tajikistan |

* CCM States Parties are in bold. In addition, other areas Kosovo and Western Sahara are believed to have medium and light CMR-contamination respectively.

Given the extent of CMR contamination, eight States Parties to the CCM—Afghanistan, Chad, Chile, Germany, Lebanon, Mauritania, Somalia, and South Sudan—could all be cleared of CMR by the time of the Fourth Review Conference of the Convention in 2031. However, to achieve this will require sufficient and sustained funding, as well as strong national ownership and application of efficient and effective land release methodology. With the necessary political will and commitment of resources, signatory State the Democratic Republic of Congo (DR Congo) and non-signatories Armenia, Azerbaijan, Iran, Libya, Serbia, and Tajikistan could join this list. Whether Sudan, Syria, and Yemen will also be free of CMR by then depends in large part on achieving a sustained cessation of hostilities in each of these three non-signatory States. But at the time of writing, the promotion of peaceful and inclusive societies under SDG 16 of the UN Sustainable Development Goals and in other peace agendas, in these and other war-torn nations affected by CMR seemed a long way off.

## CMR CLEARANCE IN 2023

**At least 185.03km$^2$ of cluster munition-contaminated area was cleared in 2023** as Table 3 summarises. This is a new annual record, up 8% on the previous record of almost 170.7km$^2$ achieved in 2022. In the course of 2023, a total of **96,553 unexploded submunitions were destroyed worldwide** during clearance, survey, and spot tasks, a drop on the 102,427 destroyed the previous year.[2]

The four most heavily contaminated States in the world—**Cambodia**, **Iraq**, **Lao PDR**, and **Vietnam**—saw by far the greatest amount of clearance during the year,

2 The global total of CMR clearance in 2023 is likely to be higher, given that several affected States 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.

together accounting for 88 per cent of all recorded clearance worldwide. **Azerbaijan** followed with clearance conservatively estimated at 8km$^2$ of cluster munition-contaminated area (its mine action programme is unable to disaggregate CMR clearance from clearance of other explosive ordnance, but it destroyed 1,818 submunitions during the year).

Lao PDR registered a significant increase in reported clearance in 2023, up from 50.7km$^2$ in 2022 to almost 56.7km$^2$, while clearance output in States Parties Afghanistan and Iraq fell quite noticeably. States not party Cambodia and Vietnam increased clearance output for the second year running. Lao PDR again destroyed more submunitions than any other mine action programme in 2023 (58,382), but this was a significant reduction on the 65,293 destroyed the previous year.

Of the affected States Parties in 2023, all but **Chad**, **Mauritania**, and **Somalia** conducted clearance of cluster munition-contaminated area. Chad and Mauritania have both stressed that lack of funding is impeding their ability to implement Article 4 and have appealed to the international community for financial assistance. Mauritania did cancel a small amount of cluster munition-contaminated area through non-technical survey (NTS) in 2023 and has also initiated limited clearance in early 2024. Somalia also suffers from a lack of funding for addressing CMR, but at the same time from Mine Action Review's perspective it appears that Somalia has not prioritised implementation of its CCM Article 4 obligations, instead focusing on implementing its clearance obligations under the Anti-Personnel Mine Ban Convention (APMBC). **Chile** finally undertook clearance for the first time during the year, 13 years after becoming a State Party to the CCM. The aggregate clearance in States Parties for 2023 (including South Sudan, which acceded to the CCM during the year) was 78.49km$^2$—a near 6% increase on the 2022 figure of 74.2km$^2$—and amounting to 42% of the global total for the year.

Clearance output in 2023 of States not party (including CCM signatories) along with other areas not internationally recognised totalled 106.5km$^2$ and included the destruction of 22,812 submunitions. Very little information was available for Sudan owing to the armed conflict that broke out in April 2023 and which was still ongoing at the time of writing. There were no reports of release of CMR in Sudan in 2023.

**Table 3: Global CMR clearance in 2023**

| States Parties | Area cleared (km$^2$) | Submunitions destroyed* | Comparison of area cleared in 2023 to 2022 clearance (+/- km$^2$) |
|---|---|---|---|
| Afghanistan | 1.03 | 1,139 | -2.33 |
| Bosnia and Herzegovina | 0.26 | 545 | -0.38 |
| Chad | 0 | 0 | No change |
| Chile | 1.44 | 229 | +1.44 |
| Germany | 0.87 | 483 | -0.47 |
| Iraq | 13.26 | 8,080 | -3.36 |
| Lao PDR | 56.67 | 58,382 | +5.95 |
| Lebanon | 0.66 | 1,956 | -0.49 |
| Mauritania | 0 | 0 | -0.39 |
| Somalia | 0 | 0 | No change |
| South Sudan | 4.30 | 2,927 | No change |
| **Subtotals** | **78.49** | **73,741** | **-0.03** |
| **Signatories** | **Area cleared (km$^2$)** | **Submunitions destroyed*** | **Comparison of area cleared in 2023 to 2022 clearance (+/- km$^2$)** |
| Angola | 0 | 9 | 0 |
| DR Congo | 0.02 | 21 | +0.02 |
| **Subtotals** | **0.02** | **30** | **+0.02** |
| **Non-signatories** | **Area cleared (km$^2$)** | **Submunitions destroyed*** | **Comparison of area cleared in 2023 to 2022 clearance (+/- km$^2$)** |
| Armenia | 0.21 | 26 | +0.10 |
| Azerbaijan | est. 8.00 | 1,818 | +3.00 |
| Cambodia | 38.24 | 7,800 | +7.88 |
| Iran | 0 | 0 | 0.00 |
| Libya | 0 | 0 | -0.02 |
| Serbia | 0 | 16 | -0.28 |
| Sudan | 0 | 0 | -0.19 |
| Syria | 1.96 | 705 | +1.96 |
| Tajikistan | 0.57 | 511 | -0.04 |

**Table 3 Continued**

| Non-signatories | Area cleared (km²) | Submunitions destroyed* | Comparison of area cleared in 2023 to 2022 clearance (+/- km²) |
|---|---|---|---|
| Ukraine[3] | 0.09 | 2 | -0.24 |
| Vietnam | 55.26 | 11,675 | +4.06 |
| Yemen | 0 | 0 | 0.00 |
| **Subtotals** | **104.33** | **22,553** | **+16.23** |
| **Other areas** | **Area cleared (km²)** | **Submunitions destroyed*** | **Comparison of area cleared in 2023 to 2022 clearance (+/- km²)** |
| Kosovo | 1.92 | 196 | 0.60 |
| Nagorno-Karabakh[4] | N/A | N/A | -2.85 |
| Western Sahara | 0.27 | 33 | 0.27 |
| **Subtotals** | **2.19** | **229** | **-1.98** |
| **Totals** | **185.03** | **96,553** | **+14.24** |

* Includes destruction during mine clearance and spot tasks

## STATES THAT HAVE COMPLETED CMR CLEARANCE

A total of 14 States—all but three of which are States Parties to the CCM—have completed release of cluster munition-contaminated area in territory under their jurisdiction or control since 2010, the year of the Convention's entry into force.[5] **Bosnia and Herzegovina** did so in 2023 and Mine Action Review has also removed **Angola** from the list of CMR-affected States in 2024 as it is clear that the problem is only one of a residual threat of a small number of unexploded submunitions and there are no known or suspected cluster munition-contaminated areas. Mine Action Review encourages Angola itself to consider declaring completion of clearance of CMR.

Five of the States that have completed clearance are from Africa, six are from Europe and the Caucasus, two are from the Americas, and one is from Asia. All except Angola (which signed the CCM in December 2008, but has still to ratify), Georgia, and Thailand are party to the CCM.

**Table 4: States that have completed CMR clearance since 2010 (at 1 August 2024)**

| State | Year of Completion |
|---|---|
| Angola | 2024 |
| Bosnia and Herzegovina | 2023 |
| Georgia | 2022 |
| Croatia | 2020 |
| Montenegro | 2020 |
| United Kingdom[6] | 2020 |
| Colombia | 2017 |
| Mozambique | 2016 |
| Norway | 2013 |
| Grenada | 2012 |
| Rep. of Congo | 2012 |
| Guinea-Bissau | 2012 |
| Thailand | 2011 |
| Zambia[7] | 2010 |
| **Total** | **14 States** |

## PROGRESS IN ARTICLE 4 IMPLEMENTATION IN AFFECTED STATES PARTIES

Article 4 of the CCM requires affected States Parties to complete CMR clearance as soon as possible, but not later than ten years from the date they become party to the Convention. In 2023, after two extensions to its original ten-year deadline, Bosnia and Herzegovina completed clearance just before its deadline expired on 1 September 2023. With South Sudan legally becoming party to the Convention on 1 February 2024, the number of affected States Parties remains at 10. Table 5 sets out the details of progress towards fulfilment of the survey and clearance obligations under the Convention.

3 Actual CMR clearance in Ukraine is likely much higher, but disaggregated data not reported by the national mine action authorities.

4 On 19 September 2023, Azerbaijan launched a 24-hour military offensive which resulted in it regaining control of the rest of Nagorno-Karabakh.

5 Zambia completed CMR clearance two months ahead of the Convention's entry into force on 1 August 2010.

6 The United Kingdom did not consider itself to have an unfulfilled obligation under Article 4 of the CCM and therefore did not formally declare completion.

7 Zambia completed clearance in June 2010 two months prior to the entry into force of the CCM.

**Table 5: Progress in Implementing CCM Article 4 Obligations (at 1 August 2024)**

| State Party | Article 4 deadline | Status of progress towards deadline | Observations |
|---|---|---|---|
| Afghanistan | 1 March 2026 | Unclear whether on track. | The Directorate of Mine Action Coordination has committed to complying with the CCM's clearance obligations, but the government faces significant financial challenges. |
| Chad | 1 October 2024 | Not on track. Two-year interim extension requested to 1 October 2026. | Chad's second interim deadline extension request is intended to allow survey to take place in the northern province of Tibesti and any requisite clearance to be planned. The requisite survey is dependent on donor funding that has not yet been secured. |
| Chile | 1 June 2026 | Just on track. | Chile finally began clearance in 2023, but faces a race against time to clear the remaining 29km$^2$ of contamination on three military training ranges. |
| Germany | 1 August 2025 | Not on track. Five-year extension requested to 1 August 2030. | Germany is seeking a second extension to its Article 4 deadline and, given the slow pace of clearance due to the density of other explosive ordnance contamination alongside CMR at the former Soviet military training area, together with strict regulations concerning the burning of heath required prior to clearance, it is not certain that it will be able to complete by 2030. In 2023, clearance output decreased by a third compared to the previous year, primarily due to fewer personnel being deployed for clearance. |
| Iraq | 1 November 2028 | Not on track. | Iraq will need multiple extensions in order to fulfil its Article 4 clearance obligations. The government reportedly allocated US$17 million over three years from the national budget for mine action operations in the south but the new national funding announced has not been disbursed. |
| Lao PDR | 1 August 2025 | Not on track. Five-year extension requested to 1 August 2030. | Lao PDR will need multiple extensions in order to meet its Article 4 clearance obligations. In recent years, clearance capacity has been upscaled significantly, primarily thanks to increased US funding, but concurrent survey continues to add significant amounts of CHA and is expected to continue to do. Lao PDR is still many years away from establishing a robust baseline of contamination so great is the extent of the explosive hazard. |
| Lebanon | 1 May 2026 | Not on track. | Despite being one of the best performing mine action programmes, Lebanon continues to see a drop in clearance capacity, a reduction in international funding, and the absence of national funding to clear CMR. CMR clearance in the south of Lebanon ceased after the 7 October 2023 attacks on Israel by Hamas. Without additional funding Lebanon is unlikely to complete CMR clearance before 2030. |
| Mauritania | 1 August 2026 | Not on track. | Mauritania will need to secure additional international funding to conduct planned CMR clearance and fulfil its Article 4 obligations. The programme continued to encounter previously unrecorded contamination in 2023, postponing the likely completion date. |
| Somalia | 1 March 2026 | Not on track. | Somalia has made little to no progress to determine a baseline of CMR contamination and address cluster munition-contaminated areas, since becoming a State Party to the convention in 2016. It had pledged in 2022 to develop a plan for a national survey for CMR during 2023, but this did not materialise. Somalia's compliance with the clearance obligations under the CCM is now in considerable doubt. |
| South Sudan | 1 February 2034 | On track. | South Sudan is making good progress towards meeting its original 10-year Article 4 clearance deadline. Despite reviews of contamination data in the Information Management System for Mine Action (IMSMA), resulting in an almost doubling of reported CMR contamination in 2023, South Sudan could complete its clearance of CMR-contaminated area by 2028. |

As of 1 August 2024, among States Parties only **Chile** (just) and **South Sudan** (clearly) were on track to meet their Article 4 deadlines of June 2026 and February 2034, respectively. It was unclear whether Afghanistan could meet its extended deadline of March 2026, largely due to the significant reduction in international funding to mine action since the change of regime. In September 2023, Iraq and Mauritania were granted an extension to their respective Article 4 deadlines at the Eleventh Meeting of States Parties. In 2024, Chad, Germany, and Lao PDR sought extensions from the Twelfth Meeting of States Parties in September 2024. In 2025, extension requests are expected to be sought by Lebanon, Mauritania, and Somalia (together with Afghanistan if it believes it will fail to meet its 1 March 2026 deadline). Given the extent of contamination of their territory, Iraq and Lao PDR will need multiple extensions before they complete CMR clearance.

All affected States and territories are obligated under international human rights law to clear unexploded submunitions as soon as possible on the basis of their duty to protect life. Several States not party have set specific targets to complete clearance. Signatory State Angola could already declare that it has fulfilled the requirements of Article 4 even before becoming a State Party, as findings suggest that any remaining contamination is only residual. In addition, in its most recent Article 5 deadline extension request of 2022 under the APMBC, Serbia included a work plan with the aim of completing CMR clearance by 2025, contingent on securing funding. Kosovo is aiming to complete CMR clearance by 2030.

In contrast, Sudan's earlier target to complete clearance of all explosive ordnance by 2027, which was already a challenging target, has been blown off course by the outbreak in 2023 of a major non-international armed conflict. The conflict was continuing to rage at the time of writing. With contaminated areas still being found, Tajikistan likewise does not have a realistic target date for the completion of CMR clearance. No target date has been set for the completion of CMR clearance in Ukraine, nor is it realistic to expect one for the foreseeable future given the ongoing hostilities. Indeed, huge quantities of cluster munitions continue to be used by both Russia and Ukraine.

## PROGRAMME PERFORMANCE IN AFFECTED STATES PARTIES

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

Substantive changes were made to Mine Action Review's criteria for assessing programme performance in 2023, adding a new criterion of 'Environmental policies and action' to reflect the need for national mine action authorities and clearance operators to mainstream environmental and climate change considerations throughout their mine action programmes. Mine action programmes must strive to "do no harm" through systematically integrating environmental assessments into the planning process and, where possible, mitigating the negative environmental impact of their activities on the environment. Furthermore, there is also considerable potential for them to support efforts to stem, but also adapt, to climate change and to proactively protect the environment. The new "Environmental policies and action" criterion was given a 10% weighting. There was a corresponding reduction in the weighting given for "Land release system" – from 20% to 10%. Hence, for their survey and clearance work in 2023, each of the ten affected States Parties was thus scored on the basis of eight criteria:

- Understanding of contamination,
- National ownership and programme management,
- Gender and diversity,
- Environmental policies and action,
- Information management and reporting,
- Planning and tasking,
- Land release system, and
- Land release outputs and Article 4 compliance.

## 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) | ■ Has a national baseline of CMR contamination been established and is it up to date and accurate?<br>■ If no national baseline, or only a partial or inaccurate baseline, exists, is survey and/or re-survey being conducted or is it planned?<br>■ Are CMR-contaminated areas disaggregated from areas with other types of explosive ordnance (e.g. other explosive remnants of war (ERW) or mines)?<br>■ 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?<br>■ Is there a high ratio of CHAs to SHAs? |
| **NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT** (10% of overall score) | ■ Is there a national entity, such as a national mine action authority, overseeing mine action?<br>■ Is there a national mine action centre coordinating operations?<br>■ Are the roles and responsibilities in mine action clear and coherent within the national programme?<br>■ Is the mine action centre adequately staffed and skilled?<br>■ Are clearance operators involved in key decision-making processes?<br>■ Does national legislation, or other suitable administrative measures, effectively underpin the mine action programme?<br>■ Have the authorities created an enabling environment for mine action?<br>■ Has the government facilitated the receipt and efficient use of international assistance?<br>■ Is there political will for timely and efficient implementation of Article 4 of the CCM?<br>■ 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?<br>■ Does the affected State have a resource mobilisation strategy in place for Article 4 implementation? |
| **GENDER AND DIVERSITY** (10% of overall score) | ■ Does the national mine action programme have a gender policy and implementation plan? Do the main mine action operators have one?<br>■ Is gender mainstreamed in the national mine action strategy and national mine action standards?<br>■ Are women and children in communities affected by CMR-contaminated areas consulted during survey and community liaison activities?<br>■ Are survey and community liaison teams inclusive and gender balanced, to facilitate access and participation by all groups, including women and children?<br>■ 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?<br>■ Are ethnic or minority groups in communities affected by CMR-contaminated areas consulted during survey and community liaison activities?<br>■ Do survey, clearance, and community liaison teams include representatives from different ethnic or minority groups, to facilitate access and participation by all groups?<br>■ 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?<br>■ Is relevant mine action data disaggregated by gender and age?<br>■ Is there equal access to employment for qualified women and men in survey and clearance teams, including for managerial level/supervisory positions? |
| **ENVIRONMENTAL POLICIES AND ACTION*** (10% of overall score) | ■ Does the national mine action programme have an environmental management policy?<br>■ Does the affected State have a national mine action standard (NMAS) on environmental management and climate change in mine action? If yes, is it in line with International Mine Action Standard (IMAS) 07.13?<br>■ Are environmental assessments conducted to support informed decision-making on the planning and delivery of survey and clearance tasks?<br>■ Where required, are measures implemented to prevent or minimise environmental harm, including to reduce greenhouse gas emissions, during demining operations, at demining camps, at mine action centres, and during travel?<br>■ When planning and prioritising survey and clearance tasks, is the affected State taking into account climate-related or extreme weather risks (such as increased risk of flooding that may cause operations to be stood down or potentially displace submunitions or even displace people into contaminated areas)? |

**Criteria Continued**

| Criterion | Key Factors Affecting Scoring |
|---|---|
| **INFORMATION MANAGEMENT AND REPORTING** (10% of overall score) | ■ Is there a national information management system in place (e.g. IMSMA), and is the data accurate and reliable?<br>■ Are data collection forms consistent and do they enable collection of the necessary data?<br>■ Is data in the information management system disaggregated by type of contamination and method of land release?<br>■ Is the data in the information management system accessible to all operators?<br>■ Are ongoing efforts being made to ensure or improve the quality of data in the mine action database?<br>■ Does the affected State Party to the CCM submit accurate and timely annual Article 7 reports on Article 4 progress?<br>■ Are Article 4 extension requests of a high-quality and submitted in a timely manner?<br>■ 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?<br>■ 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? |
| **PLANNING AND TASKING** (10% of overall score) | ■ Is there a national mine action strategy in place and does it include realistic goals for land release?<br>■ Is there a realistic annual work plan in place for land release?<br>■ Are there agreed and specified criteria for prioritisation of tasks?<br>■ Are key stakeholders meaningfully consulted in planning and prioritisation?<br>■ Is clearance of CMR tasked in accordance with agreed prioritisation?<br>■ Are task dossiers issued in a timely and effective manner?<br>■ Where relevant, is there a plan for dealing with residual risk and liability? Is it realistic and sustainable? |
| **LAND RELEASE SYSTEM**** (10% of overall score) | ■ Does the affected State have national mine action standards in place for land release?<br>■ Do the standards enable or impede efficient evidence-based survey and clearance?<br>■ Are national standards reflected in SOPs?<br>■ Are standards and SOPs periodically reviewed against IMAS and international best practice, in consultation with clearance operators?<br>■ 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?<br>■ Are areas being cleared that prove to have no CMR contamination?<br>■ 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?<br>■ Is there an appropriate range of demining assets (manual, mechanical, and animal detection systems) integrated into land release operations?<br>■ Is there an effective quality management system in place for survey and clearance operations?<br>■ Where an accident has occurred within a mine action programme, was there an effective investigation? Were lessons learned shared between operators? |
| **LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE** (20% of overall score) | ■ 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.?<br>■ 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?<br>■ Is the target date for completion realistic based on existing capacity?<br>■ Is the target date sufficiently ambitious?<br>■ What were the outputs of survey and clearance of CMR-contaminated area in 2022, and were they greater or lesser than the previous year and why?<br>■ Are survey and clearance outputs in line with plans and Article 4 obligations?<br>■ Is the affected State on track to meet the target completion date and/or Article 4 deadline? |

* New criterion introduced in 2024 to assess performance.
** The weighting of this criterion was previously 20% of overall performance score, but is now given a 10% weighting.

In the scoring, given their relative importance, double weighting is accorded to only two criteria starting this year: Understanding of contamination, and Land release outputs and Article 4 compliance. An average is then calculated that determines the overall score.

The results of the scoring for 2023 are summarised in Table 6. The country-specific assessments of the eight criteria, which should be viewed alongside the recommendations for action in the country reports, are intended as an implementation tool to assist States Parties to identify and overcome challenges and fulfil their Article 4 obligations as efficiently as possible. The text box below outlines the eight 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.

With respect to performance in 2023, no State Party was ranked as Very Good. Germany and Lebanon were the top scoring State Parties which, along with Lao PDR, maintained a ranking of Good. In addition, South Sudan was also ranked as Good in Mine Action Review's first assessment of its performance since South Sudan acceded to the CCM in 2023. Afghanistan, Bosnia and Herzegovina, Chile, Iraq, and Mauritania were ranked as average. Chad remained Poor, while Somalia remained Very Poor, a reflection of the unacceptably low performance of the national programme in implementing its Article 4 obligations of survey and clearance.

**Table 6: Mine Action Programme Performance in Affected States Parties**

| State Party | Ranking in 2023 | Score in 2023 | Score in 2022 | Change in score |
|---|---|---|---|---|
| Afghanistan | Average | 5.6 | 5.6 | No change |
| Bosnia and Herzegovina | Average | 5.3 | 5.3 | No change |
| Chad | Poor | 4.3 | 4.3 | No change |
| Chile | Average | 6.4 | 5.9 | +0.5 |
| Germany | Good | 7.3 | 7.4 | -0.1 |
| Iraq | Average | 5.9 | 6.5 | -0.6 |
| Lao PDR | Good | 7.1 | 7.1 | No change |
| Lebanon | Good | 7.3 | 7.6 | -0.3 |
| Mauritania | Average | 5.7 | 5.3 | +0.4 |
| Somalia | Very Poor | 3.8 | 3.9 | -0.1 |
| South Sudan | Good | 7 | 0.0 | N/A* |

* South Sudan was not ranked for its programme performance in 2022 as it had not yet adhered to the CCM.

Overall, two States Parties increased their scoring for their CMR survey and clearance programmes in 2023 compared to the previous year (Chile and Mauritania) while the scores for Afghanistan, Bosnia and Herzegovina, Chad, and Lao PDR were unchanged. Performance in four States Parties—Germany, Iraq, Lebanon, and Somalia—declined in 2023, with the greatest drop seen in Iraq.

## GENDER AND DIVERSITY

When considered in the round, overall progress in mainstreaming gender and diversity in CMR survey and clearance programmes in 2023 was disappointing. In several States, the participation of women stagnated or even regressed, even among a number of organisations that boast of their commitment to gender and diversity. Even more work is needed by national mine action authorities and clearance operators to meaningfully start mainstreaming other diversity considerations such as race, ethnicity, language, religion, disability, sexual orientation, socio-economic status, and age into mine action programmes. The mainstreaming of gender and diversity is in line with Action 4 of the CCM Lausanne Action Plan for all States Parties to: "Ensure that the different needs, vulnerabilities and perspectives of women, girls, boys and men from diverse populations and all ages are considered and inform the implementation of the Convention in order to deliver an inclusive approach, as well as strive to remove all barriers to full, equal and meaningful gender-balanced participation in implementation activities at the national level and in the Convention's machinery, including its meetings."

Too many States Parties pay lip service to the notions in their strategic plans while failing to drive actual change in headquarters and in the field. Where progress in women's participation was achieved, it was primarily the result of positive action by non-governmental organisations (NGOs), particularly The HALO Trust and MAG. In Lao PDR, half of HALO's staff were women and half of its managerial and supervisory staff were women, as were just over half (51%) of its 1,267 operational positions. HALO was the only organisation to achieve gender equity in any programme in 2023, although in Cambodia, 51% of NPA's staff were women as were 48% of its operational positions. But only two of its seven managerial and supervisory staff were women.

In **Afghanistan**, draconian Taliban policies towards the employment of women eclipsed Directorate of Mine Action Coordination (DMAC)'s pre-2021 commitment to

mainstreaming gender in mine action and the flexibility DMAC has demonstrated to enable the continued employment of women in mine action. However, despite the change of regime, it has remained possible for women to work in mine action in Afghanistan and in 2023 some implementing partners (IPs) reported employing more women than before the change of government, including in field operations as well as in office roles. But the severe loss of deminer jobs in national implementing partners as a result of cuts in donor funding also limits opportunities for employment of more women in mine action.

In **Bosnia and Herzegovina**, the national mine action centre (BHMAC) stated that, under its leadership, relevant actors will reflect gender considerations in all phases of their mine action activities. Yet, within BHMAC's own programme, women make up just under a quarter of the total number of staff, and only eleven percent of operations staff in the field. Only 14 (12%) of NPA's 120 staff were women and only 8 (8%) of 97 operational positions were filled by women, which is unacceptably low. However, NPA has managed to increase the proportion of women in managerial or supervisory positions in Bosnia and Herzegovina, which now lies at 50%.

In **Chad**, national mine action plans make no reference to gender and inclusion. Chad also failed to adequately address gender in its 2024 Article 4 deadline extension request, except with brief reference to risk education and disaggregated victim data. Chad has highlighted that socio-cultural norms are very strong in Tibesti province, where survey is required to identify any remaining cluster munition-contaminated areas. Therefore, the HCND will strive to recruit local women to support the surveyors in the field during interviews. Eight women are employed at the national mine action authority, though mainly in office support functions, risk education, and victim assistance. One women is, however, a team leader at EOD [explosive ordnance disposal] Level 3.

**Chile** has taken steps to mainstream gender across the armed forces with women working at all levels of the mine action programme. In March 2022, the Ministry of National Defence appointed gender focal points who will guide the development of the demining programme, and it also created a "Gender Working Group". But in operational terms, not a single woman was part of the EOD unit that conducted clearance during 2023.

There is also said to be equal access to employment for qualified women and men for EOD in **Germany**, including for the clearance of CMR. That said, in practice women make up only a small proportion of the sector. At the end of 2023, 14% of all mine action personnel at Wittstock were female, a similar proportion to 2022.

**Iraq**'s 2023–28 mine action strategy acknowledged the importance of gender and diversity to the sector. The coordinating institutions in federal Iraq and the Kurdistan region have conducted workshops and training to promote inclusion in what has been a male-dominated sector but political sensitivities on gender led to the term being banned in official announcements in 2023. In the north, the Iraqi Kurdistan Mine Action Authority (IKMAA) pledged to improve its gender and diversity balance in line with Iraq's six-year national strategy, but in 2023 employed only 123 women in its total staff of 991 (12%), and only 9 women were among the 623 operations staff. IKMAA says it has plans to deploy all-female demining and EOD teams in all provinces but implementation is dependent on finding donor support.

In **Lao PDR**, the "Safe Path Forward III" strategy for 2021–30 emphasises the importance of gender mainstreaming in the national CMR programme. In 2023, the National Regulatory Authority (NRA) elaborated a Gender and Inclusion Code of Conduct, which was due to be approved by the Ministry of Foreign Affairs in 2024, together with a gender-sensitive human resources policy for the NRA. Of the humanitarian clearance operators in the country, The HALO Trust's proportion of female staff was achieved by setting quotas during recruitment drives. HALO continued to prioritise the hiring of women into operational roles during recruitment in 2023, particularly at the technician/deminer level. The programme also ensured representation from across the province and, in particular, individuals from minority ethnic groups. The HALO Trust employed eight staff with disabilities, two of whom are the survivors of ordnance explosions.

In **Lebanon**, gender and diversity considerations are included in the National Mine Action Strategy 2020–25 and the national mine action centre, LMAC, has a gender work plan in place. A Gender, Diversity and Inclusion Steering Committee has been created and in 2023, LMAC conducted a full review of national standards to integrate gender and diversity considerations. There is, however, considerable work to be done to implement these commitments and obligations. One operator had a single woman among its 99 staff while LMAC itself had only 18 women among its 152 staff (only 12% of the total).

**Mauritania**'s 2023–26 mine action plan recognises that it has yet to develop a specific gender and diversity policy. The national mine action centre reported having set up a gender unit that aims at enhancing women participation in the programme. In its 2023 Article 4 deadline extension request, Mauritania stated that ensuring inclusivity, gender sensitivity, and diversity are important considerations and it said that it would strive for diverse and gender-balanced teams, but that attaining complete gender balance within seconded staff from the Army Corps of Engineers might be challenging.

**Somalia** does not have a strategic mine action plan in force with the previous strategy having expired in 2020. The national mine action authority, SEMA, has advocated action on gender and diversity within survey and community liaison teams, but there has been little success in gender mainstreaming in Somalia's patriarchal society. Clan affiliation is also an important consideration in Somalia.

In **South Sudan**, a Gender Equality Policy was due to be finalised in 2024. Existing National Technical Standards and Guidelines do cover gender issues and ethnic identity is said to be taken into account to a limited extent within survey and clearance teams. Commercial firms and international NGOs have sought to improve gender balance in their staff but redressing the gender imbalance remains a long-term challenge. Data provided to Mine Action Review in May 2024 indicated that the overall proportion of female staff remained low. MAG had the highest percentage of women in its programme among the seven international operators. MAG's Global Gender Advisor conducted a week-long needs assessment in October 2023 to improve its understanding of the barriers that female staff face in progressing to managerial and supervisory roles and an action plan to improve the situation was being launched in 2024. The Gender Advisor is working with its country team to ensure gender and diversity considerations are included in programme design and implementation. MAG continues to ring-fence spaces on all trainings for female staff and encourages women to apply for new positions.

# ENVIRONMENTAL POLICIES AND ACTION IN AFFECTED STATES PARTIES

Mine Action Review has introduced a new criterion on "Environmental policies and action" to the framework we use to annually assess the performance of national mine action programmes in CCM States Parties. In contrast to the limited progress in gender and diversity, 2023 saw significant advances in protecting the environment in certain States Parties. In some instances, the achievements were regulatory in nature while in others, it was practical progress in the field. Every mine action programme should systematically assess, and where possible prevent or mitigate, possible adverse environmental impacts of their activities. There is also significant potential for mine action to support efforts to stem, but also adapt, to climate change and to proactively protect the environment.

International Mine Action Standard (IMAS) 07.13 on environmental management in mine action, first published in 2017, has been reviewed and revised by the IMAS review board. The revised edition now entitled 'environmental management and climate change in mine action' was adopted in July 2024,[8] and provides valuable guidance for the sector. In addition, a Technical Note on Mine Action (TNMA) is being elaborated support implementation of IMAS 7.13.

Examples of some of the latest developments are included below, but for additional information please see the Environmental Policies and Action section of the country reports for each State Party. Germany, Lebanon, and South Sudan achieved the highest scores for their performance in 2023, with respect to Mine Action Review's assessment of the new criterion on "Environmental policies and action".

**Germany** has strict environmental procedures in place as the sole CMR-contaminated site at Wittstock is located within a special area of conservation and is thus afforded protections under German and European law. Specific mitigation measures are in place to preserve priority natural habitats and limit the controlled burning that can take place. **Lebanon** also has a national standard on Safety and Occupational Health – Protection of the Environment. LMAC reports that environmental assessments are conducted during the planning and delivery of survey and clearance tasks and that climate-related and extreme weather risks are considered when planning and prioritising survey and clearance tasks.

In **South Sudan**, UNMAS has incorporated environmental considerations into mine action operations, providing guidance in the national technical guidelines (NTSGs) that operators use to develop their own standard operating procedures (SOPs). Environmental assessments are conducted for planning purposes in line with a national environment policy. UNMAS and international clearance NGOs are working to improve their environmental interventions. In 2023, MAG introduced solar-powered security lights in its demining camps. It continues to conduct site remediation when leaving its camps while a number of camps have been merged to ensure optimal use of diesel generators. **Afghanistan** has a national standard on environmental management in mine action, one of the few States to do so. Its CCM Article 7 report affirms that all destruction of CMR is carried out in accordance with safety and environmental standards in order to minimise damage to private and public property and the environment more broadly.

**Lao PDR**'s Safe Path Forward III strategy (2021–30) duly recalls that climate change is a challenge to addressing UXO and reiterates that mine action activities have to be compliant with national standards and environmental protection law. Although Lao PDR's national mine action standard on environmental management is out of date, there were plans to review it in 2024. In the meantime, clearance operators are undertaking a range of measures to assess and mitigate the environmental impact of survey and clearance operations, and to reduce waste and greenhouse gas emissions. NPA Head Office has developed a Green Field Tool to assess and manage environmental impacts from mine action activities and better understand increasing climate risks for mine action programmes. The tool was trialled by NPA Vietnam in 2023 and is now being rolled out in NPA Lao PDR. In September 2023, NPA joined with youth volunteer NGO, Zero Waste Laos (ZWL), to organise the planting of more than 6,000 seedlings of fruit trees at the Nursery of Champasak University.

While **Chile** does not have a specific environmental policy for mine action, the authorities consider national law on the environment sufficient for the purpose of CMR clearance at the three remaining military ranges containing cluster munition-contaminated area. While more specificity is needed in its CMR survey and clearance, **Mauritania** has announced that it has an environmental policy reflected in national standards along with implementing SOPs. A number of practical measures aim to minimise potential harm to the environment from land release. These include the filling-in of holes after a munition is blown up, a ban on burning as a means to destroy munitions, and the importance of collecting rubbish at the end of field activities. The national mine action centre has stressed the importance of flora and fauna and the need for clearance to protect animals, including one of the largest monk seal communities in Nouadhibou.

**Iraq** does not have a national mine action standard on environmental management, but international demining organisations are exploring how their capacity can help address severe pressure on water supply and irrigation systems to facilitate productive use of cleared land. The HALO Trust is looking into possibilities of partnerships with local organisations to follow up clearance with assistance to rehabilitate soil and irrigation systems to address acute problems of water quality and supply.

Less impressive is the situation in Bosnia and Herzegovina, Chad, and Somalia. **Bosnia and Herzegovina** does not have either an environmental management policy or a national mine action standard on environmental management, although certain mitigation measures are in place. A 2022 study identified a link between mine contamination and recovery efforts post flooding, but BHMAC does not yet consider climate related or extreme weather events when tasking. NPA, though, implemented its own set of environmental policies, procedures, and mitigation measures in its programme. **Chad** does not yet have a policy on environmental management in mine action and does not make reference to the environment in its 2024 Article 4 extension request. Similarly, **Somalia** does

8 IMAS 07.13, Edition 2: "Environmental management and climate change in mine action", available at: https://www.mineactionstandards.org/standards/07-13/.

not have an environmental policy or an expected timeline for when one may be developed. It has been reported that a section on environmental management is contained within Somalia's revised NMAS, which were still pending approval. International operators have environmental policies and are taking measures to protect the environment during operations.

## LAUSANNE ACTION PLAN

The five-year Lausanne Action Plan was issued at the Second Review Conference of the CCM at its second session in September 2021 due to the pandemic. The Lausanne Action Plan supports States Parties in their efforts to complete survey and clearance as soon and as safely as possible. The Action Plan has actions with measurable indicators. A baseline of the current status of implementation has been established, against which progress is being measured year-on-year through to the Third Review Conference, which is due to be held in 2026.

### MONITORING THE LAUSANNE ACTION PLAN

In addition to the official CCM monitoring of the Lausanne Action Plan, Mine Action Review is providing civil society monitoring and analysis of its implementation with respect to survey and clearance. This is based on our broader research, which includes not only official treaty reporting (Article 7 reports and official government statements and updates under the Convention), but also liaison with national authorities, clearance operators, UNMAS, the UN Development Programme (UNDP), the Organization for Security and Co-operation in Europe (OSCE), and the Geneva International Centre for Humanitarian Demining (GICHD). The results of Mine Action Review's 2024 monitoring of survey- and clearance-related indicators can be found on the Mine Action Review website. This separate publication also includes a guide describing the Lausanne Action Plan actions and indicators relevant for survey and clearance, along with supporting commentary on the meaning and importance of each action, with regards to efficient and effective Article 4 implementation.

As the results of the 2024 assessment of relevant indicators illustrate, States Parties have not yet fully implemented the actions applicable to them. But the hope is that through the efforts of national authorities, with the support of implementing partners, they can identify where there are gaps and make progress in addressing them, which will then be reflected in progress in the indicators each year between now and the Third Review Conference in 2026. Mine Action Review welcomes feedback from States Parties and other stakeholders on the results of the 2024 assessment.[9] Please send an email with any feedback or additional information for Mine Action Review's consideration to MineActionReview@npaid.org.

## OUTLOOK

The increase in clearance in 2023 compared to the previous year is extremely welcome. But this should not be used to mask underlying problems in Article 4 implementation in a number of States Parties to the CCM. Chad, Mauritania, and Somalia need to improve programme performance if they are to meet their Article 4 deadlines in the coming years, but this is largely contingent on the international donors funding CMR survey and clearance operations. The best performing programmes in 2023—Germany, Lao PDR, and Lebanon—each face significant, though widely differing challenges.

Based on current progress, disappointingly only one State Party—Chile—is on track to fulfil its Article 4 clearance obligations by the Third Review conference in 2026, and even it is only just on track with no margin for unforeseen delays to clearance. The Fourth Review Conference in 2031 will be another important milestone in the life of the Convention. With the requisite effort and funding, Afghanistan, Chad, Germany, Lebanon, Mauritania, Somalia, and South Sudan could also be free of cluster munition remnants by then, an achievement to be celebrated.

But there are also dark clouds on the horizon. Regrettably, at the time of writing, the Republic of Lithuania had announced its intention to withdraw of a State Party to the CCM. Withdrawal would be a retrograde action, both for Lithuania and for the Convention as a whole.[10] History and extensive empirical research reveal that cluster munition remnants disproportionately harm civilians, with children being particularly vulnerable.[11] Unexploded submunitions are highly sensitive to movement, pressure, or tampering, and their significant explosive load makes them extremely hazardous to local communities. These characteristics also present a greater and deadlier challenge to deminers during survey and clearance operations compared to other types of explosive remnants of war. The 2008 Convention on Cluster Munitions banned these weapons "to put an end for all time to the suffering and casualties caused by cluster munitions." This rationale remains as compelling today as it was 15 years ago when the Convention was adopted. States Parties must uphold and implement the treaty both in times of peace and in periods of increased tension and conflict.

9 See the Guide to the Lausanne Action Plan and Results of 2024 Monitoring, available on the Mine Action Review website.

10 Under Article 20 of the CCM, Lithuania must give notice to all other States Parties, to the Depositary and to the UN Security Council, including a full explanation of the reasons motivating withdrawal. Such withdrawal only takes effect six months after notification to the Depositary and as long as Lithuania is not engaged in an armed conflict at that time.

11 See casualty data in annual publications by the Cluster Munition Monitor. Civilians represented 95% of all cluster munition casualties in 2022 and children accounted for 71% of casualties where the age group was recorded, according to the Monitor's report in 2023.

# STATES PARTIES

# AFGHANISTAN

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

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

## KEY DATA

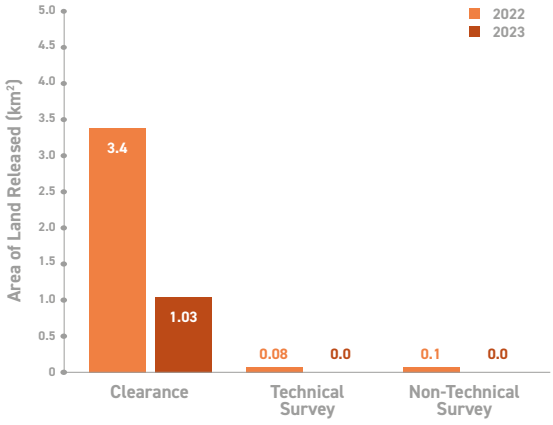
**CLUSTER MUNITION CONTAMINATION:** MEDIUM

NATIONAL ESTIMATE
**9.28KM²**

SUBMUNITION CLEARANCE IN 2023
**1.03KM²**

SUBMUNITIONS DESTROYED IN 2023
**1,139**
(INCLUDING 1,134 THROUGH SPOT TASKS)

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

The Directorate of Mine Action Coordination (DMAC) and the United Nations Assistance Mission in Afghanistan (UNAMA) reached agreement in October 2023 on a framework for technical support through a Mine Action Technical Cell (MATC). This ended a disruptive, nearly two-year hiatus in institutional arrangements for management and coordination of the Mine Action Programme of Afghanistan (MAPA). Under the agreement, the MATC supported planning, tasking, and quality management and data entry into the Information Management System for Mine Action (IMSMA) database.

The UN Mine Action Service (UNMAS) reversed a decision to halt funding for operations through the UN Voluntary Trust Fund for Mine Action (VTF). DMAC reaffirmed its commitment to fulfilling its Article 4 obligations under the Convention on Cluster Munitions (CCM) in a written statement to the Meeting of States Parties in September 2023. A Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request sent in April 2024 restated Afghanistan's ambition to complete clearance of cluster munitions remnants (CMR) in 2026.

## RECOMMENDATIONS FOR ACTION

- **The authorities of the Islamic Emirate of Afghanistan (IEA) should increase national funding to the mine action sector.**
- **The IEA and DMAC should enhance the engagement of women and minorities in mine action.**
- **DMAC should update its programme of work for fulfilling its CCM Article 4 obligations and completing clearance of remaining CMR contamination.**

# ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

| Criterion | Score (2023) | Score (2022) | Performance Commentary |
|---|---|---|---|
| **UNDERSTANDING OF CMR CONTAMINATION** (20% of overall score) | 8 | 8 | Afghanistan has a small amount of known CMR contamination and did not identify any other hazardous areas in 2023, although operators believe some will be found in the course of new survey. Operators also continue to encounter scattered, mostly Russian "legacy" submunitions in the course of other tasks. |
| **NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT** (10% of overall score) | 5 | 4 | The MAPA is nationally managed but heavily dependent on international funding. International sanctions and competing donor priorities have led to a sharp fall in funding since the August 2021 Taliban takeover, leaving DMAC with only a skeleton management team. Agreement with the UN on the role and operations of an MATC provided a stable platform for managing and coordinating the national programme. Despite the shortage of resources, DMAC, the MATC, and implementing partners met regularly to discuss operational issues. |
| **GENDER AND DIVERSITY** (10% of overall score) | 4 | 3 | Draconian Taliban policies towards the employment of women eclipsed DMAC's pre-2021 commitment to mainstreaming gender in mine action in the 2016–20 strategic plan and the flexibility DMAC has demonstrated enabling continued employment of women in mine action. Implementing partners continued to employ some female staff working from home and to deploy mixed gender teams for risk education and survey in areas where local authorities agreed. The APMBC Article 5 deadline extension request sent by the Taliban in April 2024 includes a section on gender and diversity that makes commitments to gender mainstreaming. |
| **ENVIRONMENTAL POLICIES AND ACTION*** (10% of overall score) | 6 | Not Scored | Afghanistan has a national standard on environmental management in mine action. Afghanistan's CCM Article 7 report affirms that all destruction of CMR is "carried out in accordance with the safety and environmental standards, to minimize damages to the private and public properties and to the environment". |
| **INFORMATION MANAGEMENT AND REPORTING** (10% of overall score) | 5 | 4 | Information management suffered severe disruption after the 2021 change of government that resulted in a major backlog of operational reports awaiting uploading into the national IMSMA database. DMAC resumed database management in February 2023 and submitted a CCM Article 7 report in May 2023 but remained acutely short of staff to operate the database. Agreement between DMAC and the UN on the role of an MATC in October 2023 included support to the database and the resulting increase in data processing staff saw a rapid reduction in the backlog of reports to be incorporated. |
| **PLANNING AND TASKING** (10% of overall score) | 4 | 3 | Mine action sector planning was disrupted by the change of regime, international sanctions, and post regime-change discord between DMAC and UNMAS. Afghanistan never had a strategic plan for cluster munition clearance but a CCM Article 4 deadline extension request submitted in August 2021 before the Taliban took over set timelines for clearance of all remaining CMR hazardous areas by 2026. The additional time requested appeared more than sufficient for the tackling the contamination but implementation remains dependent on international donor support, which dropped after the Taliban takeover. |
| **LAND RELEASE SYSTEM**** (10% of overall score) | 6 | 6 | The MAPA has national mine action standards in Dari and English that were previously subject to regular review. International experts believe the AMAS need comprehensive updating. Since 2021, resource constraints left DMAC without sufficient quality management (QM) capacity for field visits. Since October 2023, the MATC has conducted QM but with few staff to monitor the MAPA's more than 300 operational teams. |
| **LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE** (20% of overall score) | 5 | 7 | CMR clearance was conducted by one operator in 2023 and the release of CMR hazardous areas plummeted to about one third of the previous year's due to the lack of donor funding. Afghanistan reaffirmed its commitment to fulfilling its Article 4 obligations at the Meeting of States Parties in September 2023. But it proved unable to complete clearance of Nangarhar province in 2023 as planned in its Article 4 extension request due to the downturn in donor support. The lack of funding also threatens its prospects for achieving the deadline of completing CMR clearance by March 2026. |
| **Average Score** | **5.6** | **5.6** | **Overall Programme Performance: AVERAGE** |

* New criterion introduced in 2024 to assess performance.

** The weighting of this criterion was previously 20% of overall performance score, but is now given a 10% weighting.

# 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 (DRC)
- The HALO Trust
- FSD

### OTHER ACTORS

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

# UNDERSTANDING OF CMR CONTAMINATION

Afghanistan has limited CMR contamination compared with its much greater challenge from landmines and other explosive remnants of war (ERW). Until 2021, continuing conflict limiting access to areas affected by CMR resulted in persistent discoveries of previously unrecorded hazardous areas and fluctuating estimates of the extent of contamination. Since then, aided by improved security and access, official estimates have stabilised and shown a gradual decline.

Afghanistan's latest official estimate (as at the end of 2023) reported 15 hazardous areas affecting 9.28km$^2$ (see Table 1).[1] Three quarters of all CMR-contaminated area is in two south-eastern provinces of Nangarhar and Paktya. This compared with an estimate of "nearly 10km$^2$" in its CCM Article 7 report at the end of May 2023[2] and 16 CMR hazardous areas covering 9.9km$^2$ reported by DMAC to the CCM Intersessional meeting in May 2022.[3] Operators acknowledge a possibility that additional hazardous areas may be found in the course of resurvey, notably in Nangarhar and Paktya,[4] but no CMR contamination was added to the database in 2023.[5]

**Table 1: Cluster munition-contaminated area (at end 2023)[6]**

| Province | CHAs | Area (m$^2$) |
|---|---|---|
| Bamyan | 1 | 258,887 |
| Nangarhar | 3 | 2,029,611 |
| Samangan | 2 | 11,715 |
| Paktya | 9 | 6,983,484 |
| **Totals** | **15** | **9,283,697** |

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

CMR make up only a small part of Afghanistan's extensive explosive ordnance contamination. This includes nearly 350km$^2$ of mined area[7] and 166km$^2$ contaminated by a wide range of ERW other than CMR, not including 38 former NATO firing ranges. DMAC assessed these ranges as covering 632km$^2$ but said it is confident the size will be substantially reduced by survey.[8]

# NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The MAPA's management structure has remained unchanged since the Taliban takeover of government in August 2021. The mine action sector falls under the authority of a High Commission for Disaster Management led by a first deputy prime minister and supported by an interministerial board.[9] The IEA retained Afghanistan's National Disaster

1 Email from Aimal Safi, Senior Technical Advisor, DMAC, 8 May 2024.
2 CCM Article 7 Report (covering 2022), Form F, #10.
3 Statement of Afghanistan, CCM Intersessional meetings, Geneva, 16 May 2022.
4 Email from Bismillah Haqmal, Operations and Planning Manager, DAFA, 13 May 2024.
5 Email from Aimal Safi, DMAC, 8 May 2024.
6 Email from Aimal Safi, DMAC, 8 May 2024.
7 APMBC Article 5 deadline Extension Request, April 2024, p. 6. The request records anti-personnel (AP) mined area of 176.3km$^2$ and anti-vehicle (AV) mined area of 172.4km$^2$.
8 Article 5 deadline Extension Request, April 2024, p. 6. DMAC is confident that resurvey of 38 former firing ranges will significantly reduce the present estimated area of ERW contamination.
9 Article 5 deadline Extension Request, submitted April 2024, p. 16.

Management Authority in the role of a national mine action authority, setting overall policy, while DMAC continues to be responsible for strategic planning, managing and coordinating survey and clearance operations, information management, and quality management (QM). The IEA-appointed director of DMAC has commented that the only change resulting from the change of government was in the personnel running it.[10]

DMAC's ability to function has been severely constrained by international sanctions imposed on the IEA and a sharp downturn in the donor funding on which mine action was largely dependent. DMAC had completed the transition from being a project of UNMAS to national management in June 2018. By 2021, the Government of Afghanistan paid salaries of only 15 of DMAC's 155 staff, the rest being paid by UNMAS and the US Department of State's Bureau of Political and Military Affairs (PM/WRA) through ITF Enhancing Human Security.[11] After August 2021, international sanctions imposed on the IEA ended the cooperation agreement between UNMAS and DMAC as well as US funding through the International Trust Fund, and its technical staff on internationally funded salaries mostly transferred to UNMAS. DMAC's active staff as at May 2024 consisted of the director and 14 other staff, including the heads of planning and operations and an information management officer.[12]

Since the 2021 change of government, DMAC and UNMAS negotiated a series of agreements creating mechanisms for cooperation to maintain coordination and technical support for the MAPA.[13] A UN Security Council resolution in March 2022, renewed in 2024, mandated UNAMA to "advise and coordinate explosive ordnance threat mitigation measures in support of humanitarian and development initiatives, support the coordination of the humanitarian mine action sector."[14]

A Liaison Office set up in June 2022 ceased operating in November 2022 due to lack of funds but resumed operation in January 2023 until DMAC suspended it in April of the same year. In October 2023, DMAC and UNAMA agreed on the creation of a Mine Action Technical Cell. In 2024 it employed a total staff of 51 providing technical support to DMAC in planning and prioritisation (one staff), operations coordination (six staff), data entry (5 staff), QM (14 staff), as well as one staff each working on risk education; gender, diversity, and inclusion; and victim assistance. DMAC had seven regional offices before the change of government but since then has lacked funding and staff to maintain them. The MATC instead has operated four regional offices in Herat, Jalalabad, Kandahar, and Kunduz. Donor funding for the MATC has remained precarious and short-term, on occasion necessitating the issuance of staff termination notices that were later withdrawn on receipt of new funding. As of April 2024, MATC funding was due to expire at the end of June although it had received positive indications of additional support.[15]

## GENDER AND DIVERSITY

The Taliban's crackdown on women's employment and education left severely limited space for women's continuing engagement in key humanitarian services such as health and this has included mine action. DMAC stated in 2022 that it remained possible for women to work in the MAPA[16] and in 2023 some implementing partners (IPs) reported employing more women than before the change of government, including in field operations as well as in office roles. A major obstacle to employment of women by national IPs has been a sharp downturn in donor funding forcing many to lay off many of their deminers.

Before the Taliban takeover of August 2021, DMAC's 2016–20 strategic plan included gender mainstreaming as one of four main goals. It stated that "achievable targets, reflecting prevailing circumstances and conditions, will be adopted to support and encourage progress wherever possible."[17] Afghanistan's APMBC Article 5 deadline extension request sent in April 2024–but which had yet to be accepted and circulated by the APMBC Implementation Support Unit (ISU) and the Committee on Article 5 Implementation at the time of writing–says DMAC, in consultation with IPs, has developed a gender and diversity mainstreaming policy for the MAPA "and it is subject to review and further development."[18] It states additionally that a National Mine Action Strategic Plan for 2021–2026 which has yet to be released sets out a vision and objectives that are "G & D sensitive" and that "a standalone goal has also been set on inclusion and empowerment of women and other marginalized groups in mine action."[19]

The extension request acknowledges the very low level of employment of women and people with disabilities in mine action, put at 4% and 1% respectively, but identifies a number of actions it says are being taken to strengthen gender and diversity in mine action. These include monthly meetings of a technical working group led by DMAC and involving UNMAS and IPs and training to improve the capacity of female staff. Mine action data continue to be disaggregated by gender and age.[20]

10 Interview with Qari Nooruddin Rustamkhail, Director, DMAC, in Kabul, 4 June 2022.

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

12 Email from Aimal Safi, DMAC, 12 May 2024.

13 For more details of mine action coordination and the role of the UN after August 2021 see Mine Action Review, *Clearing the Mines* 2023, pp. 27–30.

14 UN Security Council Resolution 2626, 17 March 2022, operative para. 5(j). Operative para. 3 of Council Resolution 2727 of 17 March 2024 extended until 17 March 2025 UNAMA's mandate "as defined in" Resolution 2626.

15 Interview with Nick Pond, Chief of Mine Action Section, UNAMA, in Geneva, 28 April 2024; and email, 26 May 2024; and email from Aimal Safi, DMAC, 5 June 2024.

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

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

18 APMBC Article 5 deadline Extension Request, April 2024, p. 57. The extension request had yet to be accepted and circulated by the APMBC ISU and the Committee on Article 5 Implementation at the time of writing.

19 Ibid.

20 Ibid.

In practice, scope for deploying female staff vary according to the disposition of provincial and district authorities. Among national operators, Afghan Technical Consultants (ATC) reported hiring five female staff in 2023 for positions ranging from a risk education instructor to office clerks and cleaners;[21] Demining Agency for Afghanistan (DAFA) deployed 12 women in mixed gender/mahram teams in 2023 and three in 2024;[22] and Organisation for Mine Clearance and Afghan Rehabilitation (OMAR) has a female gender focal point who works from home because of restrictions and a mixed-gender risk education team.[23]

All Danish Refugee Council (DRC)'s 21 risk education teams are mixed-gender (maharam[24]) and women are also employed in non-technical survey (NTS) teams and office roles. It employed a total of 30 women in its staff of 245, all but one of them in operational positions.[25] The HALO Trust reported that in May 2023 it was able to deploy 15 mixed-gender teams in Ghor, Kabul, Kunduz, and Nangarhar provinces. It received permission to deploy two more teams in Takhar province in June 2023 and expected to deploy all mixed-gender risk education teams from July 2023.[26] In July 2024, HALO reported that it was able to deploy 22 mixed-gender teams in 17 provinces in 2024, most recently securing permission to operate in Uruzgan, Logar, and Helmand.[27] HALO also said it employs members of all ethnic groups and its database tracks the organisation's ethnic diversity.[28]

## ENVIRONMENTAL POLICIES AND ACTION

Afghanistan has a national standard on environmental management in mine action, "AMAS 07.06 Environmental Management''. Its CCM Article 7 report affirms that all destruction of CMR is "carried out in accordance with the safety and environmental standards, to minimize damages to the private and public properties and to the environment."[29]

In addition, individual operators, such as the DRC, HALO, and FSD have global policies and standing operating procedures (SOPs) aligned with the local context. Use by some operators of intrusive technologies such as flails has caused friction with local communities in past years and the machines no longer appear to be in use.

MCPA has an SOP on environmental protection and trains staff in implementing it as well as avoiding use of mechanical assets that are harmful to the environment. DRC's Health, Safety and Environmental Management SOP considers issues ranging from air, water and soil pollution, reduction in the volume of waste and safe disposal, reducing energy consumption and $CO_2$ emissions, land use and long-term risks. It states that "necessary measures should be implemented without damaging property, or infrastructure, in a manner that minimizes the environmental impact and is safe for local communities' men, women and children and for demining staff."[30] HALO's global SOP is aligned with International Mine Action Standards (IMAS) and in 2023 it trialled an environmental assessment tool using a questionnaire to establish an area's environmental characteristics. It also hired an environmental specialist to assess the impact of operations and advise on measures to mitigate harm.[31] HALO is currently forming partnerships with organisations specialising in post-clearance activities to implement agricultural regeneration projects.[32]

## INFORMATION MANAGEMENT AND REPORTING

The MAPA is supported by an IMSMA New Generation database and prior to the change of government in August 2021 had planned to upgrade to IMSMA Core. Information management experienced severe disruption following the change of government in August 2021 and ensuing disagreements over the role of the UN. IPs continued to report to DMAC but shortages of staff resulted in extended interruptions when IP operation reports were not uploaded, delaying the database upgrade.[33] UNMAS, with support from the Geneva International Centre for Humanitarian Demining (GICHD), had proposed to migrate data from IMSMA NG to Core in 2022 but DMAC at that time did not agree. The upgrade to Core and closure of IMSMA NG appeared first in a 10-point list of priorities presented to a MAPA stakeholder meeting in January 2024.[34] The MATC reported in May 2024 that it was in discussion with DMAC on plans and a timeline for completing the upgrade.[35]

DMAC reaffirmed its full control of information management in February 2023 but still required additional capacity to support the database. The October 2023 agreement between DMAC and UNAMA on a framework for technical support

21 Email from Farid Elmi, Operations Manager, ATC, 3 April 2024.

22 Email from Bismillah Haqmal, DAFA, 13 May 2024.

23 Email from Abid Fazel, Deputy Director, Programmes, OMAR, 31 March 2024.

24 Maharam teams combine a female staff member and male relative.

25 Email from Hannah Rose Holloway, Head of Humanitarian Disarmament and Peacebuilding, DRC, 23 April 2024.

26 Email from Farid Homayoun, HALO, 22 June 2023.

27 Email from Kim Feldewerth, HALO, 22 July 2024.

28 Email from Farid Homayoun, HALO, 22 June 2023.

29 CCM Article 7 Report (covering 2023), Form B. At the time of writing however, this had been removed from the UN Article 7 database, having been published on the database earlier in the year. The reason for the deletion has not been made public.

30 Email from Hannah Rose Holloway, DRC, 23 April 2024.

31 Email from Farid Homayoun, HALO, 21 June 2023.

32 Email from Kim Feldewerth, HALO, 22 July 2024.

33 See Mine Action Review *Clearing the Mines* 2023, pp. 27–30.

34 PowerPoint presentation, MAPA Stakeholders' Meeting, Kabul, 29 January 2024.

35 Emails from Nick Pond, UNAMA, 25 August 2023 and 26 May 2024.

through the Mine Action Technical Cell paved the way for stabilising data processing which is undertaken by six staff working under MATC contracts. By late April 2024, the database had a backlog of 10,400 pending reports to upload, of which 400 were survey and clearance reports and the remaining 10,000 related to victim assistance.[36]

DMAC submitted a CCM Article 7 report covering 2023 in May 2024. At the time of writing however, this had been removed from the UN Article 7 database, having been published on the database earlier in the year. The reason for the deletion has not been made public.

## PLANNING AND TASKING

Afghanistan does not have a CMR-specific strategic plan but the Article 4 deadline extension request submitted in August 2021, days before the collapse of the government, targeted completion by the requested new deadline of March 2026.[37] The IEA has repeatedly committed to fulfilling Afghanistan's obligations under the CCM[38] but prospects for completion depend on whether or not it receives donor support.

DMAC reports that it chairs a dedicated planning committee including representatives of UNMAS and IPs which meets once a year to review the MAPA's work plan. An aspirational work plan set out by DMAC in its the Article 5 deadline extension request it sent in April 2024 indicates that clearance of the remaining 15 CMR hazardous areas covering 9.2km$^2$ should be completed in the Afghan year 1404 (2025–26) under a budget of $40 million for the sector.[39]

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Afghanistan has comprehensive national mine action standards that are IMAS-compatible and before August 2021 were subject to regular review. CMR survey and clearance are addressed in AMAS 06.02 (Battle Area Clearance).[40]

A GICHD capacity assessment in 2019 noted that DMAC is "proactive in introducing new AMAS as and when needed" but commented that it had not updated them regularly and that most of the AMAS were developed between 2011 and 2013. It called attention to the persistently high percentage of land released through full clearance and said some chapters needed to be reviewed and updated to promote greater efficiency.[41] Updating the AMAS was included in a list of priorities presented in a MAPA stakeholders' meeting in January 2024.[42]

### OPERATORS AND OPERATIONAL TOOLS

The MAPA had approximately 360 teams comprising 3,600 personnel working in 2023 across the spectrum of mine action, including all forms of clearance, weapons and ammunition destruction, risk education, and victim assistance. Without increased donor support, that number was expected to fall in 2024.[43] Afghanistan's Article 4 deadline extension request indicated that 10 demining NGOs and 23 commercial companies are capable of conducting CMR clearance.[44] In practice, operations are constrained by the lack of funding and only one IP has conducted CMR clearance in each of the last two years: DAFA in 2022 and OMAR in 2023.

DAFA previously conducted most CMR clearance and in 2022 had seven BAC teams with 117 personnel working on clearance of CMR and other unexploded ordnance (UXO) out of a total staff of 400, but it completed the last of four projects in January 2023 and did not receive any other contracts in the year.[45] By the end of 2023, DAFA reported employing a total staff of 175, including 114 in operations, mostly in survey-explosive ordnance disposal (EOD) teams. DAFA said it submitted a proposal for CMR clearance to the US PM/WRA in August 2023 with a view to starting work in November but it did not receive the funding to proceed.[46]

OMAR reported employing a total of 287 personnel in 2023, including 275 staff working in 15 demining teams supported by one mechanical team with three staff but as a result of completing contracts in two provinces it has since released 185 deminers. OMAR reported it would complete all outstanding projects by the end of July 2024 and without additional contacts would be forced to lay off more staff.[47]

36 Interview with Nick Pond, UNAMA, and Mohammed Wakhil, Deputy Programme Manager, MATC, in Geneva, 28 April 2024.

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

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

39 APMBC Article 5 deadline Extension Request, April 2024, pp. 24 and 76–77.

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

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

42 PowerPoint presentation, MAPA Stakeholders' Meeting, Kabul, 29 January 2024.

43 Email from Nick Pond, MATC, 26 May 2024.

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

45 Email from Bismillah Haqmal, DAFA, 10 April 2023.

46 Email from Bismillah Haqmal, DAFA, 13 May 2024.

47 Email from Abid Fazel, OMAR, 31 March 2024.

Norwegian People's Aid (NPA) had a team of 18 people consisting of six international staff (a country director, a finance manager, and four senior technical advisers) and seven national technical advisers, providing third-party monitoring of all US grants to IPs in Afghanistan.[48]

# LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

## LAND RELEASE OUTPUTS IN 2023

Afghanistan released a total of 1,029,908m$^2$ of CMR-contaminated area in 2023 (see Table 2),[49] less than one third of the CMR-contaminated area released the previous year. The 2022 results included small amounts of area (0.18km$^2$) released through survey and 3.5km$^2$ through clearance in Nangarhar and Paktya provinces,[50] some of it funded by donor commitments from the previous year. In 2023, with little new funding received, DMAC said land was released exclusively through subsurface clearance conducted in Pachiragam district of Nangarhar province.[51]

The number of submunitions destroyed in clearance operations fell from 163 items in 2022[52] to 5 in 2023, along with 186 other items of UXO.[53] DMAC also reported 1,134 CMR items destroyed in EOD operations and by weapons and ammunition destruction (WAD) teams which visit steel mills processing scrap metal to check for the presence of explosive ordnance.[54]

**Table 2: CMR clearance in 2023**

| Operator | Province / Region / District | Area cleared (m$^2$) | Submunitions destroyed | Other UXO destroyed |
|---|---|---|---|---|
| OMAR | Nangarhar/Pachiragam | 1,029,908 | 5 | 2,027 |
| **Totals** | | **1,029,908** | **5** | **2,027** |

## ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR AFGHANISTAN: 1 MARCH 2012

↓

**ORIGINAL ARTICLE 4 DEADLINE: 1 MARCH 2022**

**FIRST EXTENSION REQUEST DEADLINE (4 YEARS): 1 MARCH 2026**

Under Article 4 of the CCM, Afghanistan is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 March 2026. In statements to the CCM intersessional meetings in May 2022 and the Meeting of States Parties in September 2023, the IEA reaffirmed Afghanistan's commitment to fulfilling its CCM obligations.[55]

The MAPA has more than sufficient capacity and knowledge of the problem to complete clearance of known CMR contamination within the target deadline. Improved security enabling country-wide access to former areas of conflict removes an impediment that previously slowed progress. But Afghanistan's remaining cluster munitions contamination exemplifies the wider challenge to progress in mine action as a result of the deterioration in donor funding.

Afghanistan's Article 4 deadline extension request prepared just before, and adopted just after, the change of government provided a timeline for completing clearance based on an understanding that the US PM/WRA had committed to fund clearance of remaining hazardous areas.[56] Due to changing donor priorities, that funding did not become available and PM/WRA has indicated it will not fund Afghanistan's mine action in 2025. The work plan set out in the Article 5 deadline extension request sent by Afghanistan in April 2024 still targets completion of CMR clearance in 2026 but the MAPA has already fallen behind the timeline for CMR clearance which called for completing operations in Nangahar province by the end of 2023.[57]

48 Emails from Mats Hektor, Senior Technical Adviser, NPA, 12 and 19 June 2023.
49 Email from Aimal Safi, DMAC, 12 May 2024.
50 Email from Bismillah Haqmal, DAFA, 10 April 2023.
51 Email from Aimal Safi, DMAC, 12 May 2024.
52 CCM Article 7 Report (for 2022), Form F(2).
53 Email from Aimal Safi, DMAC, 12 May 2024.
54 Emails from Aimal Safi, DMAC, 28 and 29 May 2024.
55 Statements of Afghanistan, CCM Intersessional meetings, Geneva, 16–17 May 2022; and to the Meeting of States Parties, Geneva, 12 September 2023.
56 Analysis of Afghanistan's Deadline Extension Request Under Article 4 of the Convention on Cluster Munitions, September 2021, p. 3.
57 Article 4 deadline Extension Request, August 2021, Annex.

**Table 3: Five-year summary of CMR clearance**

| Year | Area cleared (km$^2$) |
|---|---|
| 2023 | 1.0 |
| 2022 | 3.4 |
| 2021 | 3.6 |
| 2020 | 0 |
| 2019 | 2.7 |
| **Total** | **10.7** |

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

No plans are believed to be in place to address unexploded submunitions that will likely be found after the fulfilment of Afghanistan's Article 4 obligations.

# BOSNIA AND HERZEGOVINA

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

**ARTICLE 4 DEADLINE: 1 SEPTEMBER 2023**
CLEARANCE DECLARED COMPLETED

## KEY DATA

### CLUSTER MUNITION CONTAMINATION:

NATIONAL ESTIMATE

**0KM²**

SUBMUNITION CLEARANCE IN 2023

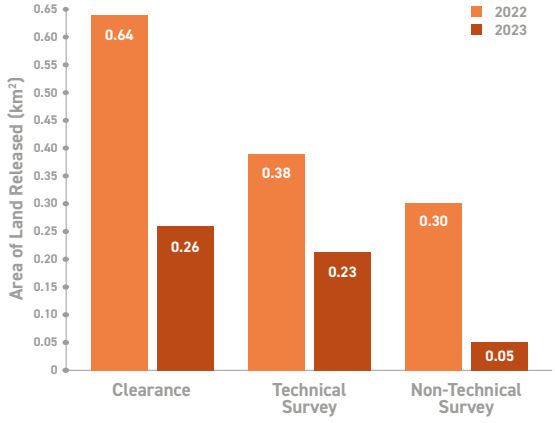
**0.26KM²**

SUBMUNITIONS DESTROYED IN 2023

**545**

(INCLUDING 111 DESTROYED DURING SPOT TASKS)

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

Bosnia and Herzegovina (BiH) ended its formal cluster munition remnants (CMR) clearance operations on 31 August 2023, just meeting its 1 September 2023 Convention on Cluster Munitions (CCM) Article 4 deadline. BiH made an official declaration of completion of its obligations under Article 4 at the CCM Eleventh Meeting of States Parties in September 2023.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

| Criterion | Score (2023) | Score (2022) | Performance Commentary |
|---|---|---|---|
| **UNDERSTANDING OF CMR CONTAMINATION** (20% of overall score) | 7 | 7 | BiH made an official declaration of completion on 31 August 2023 that it has no known CMR, although a residual threat may remain. However, reported contamination figures for 2022 and 2023 cannot be fully explained by the amount of land released and previously unknown contamination added to the database, leading to questions about the accuracy of the data. |
| **NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT** (10% of overall score) | 5 | 5 | National ownership of mine action in BiH falls under the responsibility of the Demining Commission and BHMAC. The process to adopt the amended demining law (2017) was restarted in 2022 but, as at May 2024, had not yet concluded. In December 2023, a meeting was held with representatives from all key donors who reaffirmed their commitment to mine action in BiH. |
| **GENDER AND DIVERSITY** (10% of overall score) | 4 | 4 | BHMAC has stated that, under its leadership, relevant actors will reflect gender considerations in all phases of their mine action activities. Yet, within BHMAC'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. |

| Criterion | Score (2023) | Score (2022) | Performance Commentary |
|---|---|---|---|
| **ENVIRONMENTAL POLICIES AND ACTION*** (10% of overall score) | 4 | Not Scored | BiH does not have either an environmental management policy or a national mine action standard (NMAS) on environmental management. Some mitigation measures are in place such as restrictions on the use of threshing machines in agricultural areas. A 2022 study identified a link between mine contamination and recovery efforts post flooding, but BHMAC does not consider climate related or extreme weather events when tasking. Norwegian People's Aid (NPA) has implemented its own set of environmental policies, procedures, and mitigation measures. |
| **INFORMATION MANAGEMENT AND REPORTING** (10% of overall score) | 4 | 4 | BHMAC is in the process of migrating from its own information management system to the new web-based IMSMA (Information Management System for Mine Action) Core. A new project to migrate the remaining data began in February 2023 and is due to be completed by August 2024 although operators report that the migration is progressing slower than anticipated. BHMAC has not reported accurately and consistently on the extent of CMR contamination and on land release output. |
| **PLANNING AND TASKING** (10% of overall score) | 4 | 4 | According to the work plan submitted with BiH's Article 4 deadline extension request, CMR clearance was due to be completed by the end of 2022. An updated work plan was submitted at the Tenth Meeting of States Parties to the Convention on Cluster Munitions with the same deadline, which was not met. As it approached its 1 September 2023 Article 4 deadline, BHMAC worked in close collaboration with donors and implementing agencies, including EUFOR, BiH Armed Forces, NPA, and FACP, to implement Article 4 and complete release of remaining CMR tasks. |
| **LAND RELEASE SYSTEM**** (10% of overall score) | 6 | 6 | BHMAC has in place national standards and standing operating procedures (SOPs) for CMR survey and clearance. The NMAS were revised and, as at May 2024, awaiting publication. Capacity was sufficient, with the BiH Armed Forces, entity Civil Protections, NPA, and other operators all accredited. |
| **LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE** (20% of overall score) | 6 | 5 | BiH released 0.54km$^2$ of CMR contaminated area in 2023 of which 0.26km$^2$ was cleared. BiH reported this clearance as sufficient to achieve completion, though these figures differed from those reported by the operators. |
| **Average Score** | **5.3** | **5.3** | **Overall Programme Performance: AVERAGE** |

* New criterion introduced in 2024 to assess performance.

** The weighting of this criterion was previously 20% of overall performance score, but is now given a 10% weighting.

## 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

On 31 August 2023, BiH made an official declaration of completion that it had addressed all known cluster munition-contaminated area and was now free of all known CMR.[1] There are, however, inconsistencies in the figures provided by BiH.

1 BiH, Article 4 Declaration of Completion, CCM 11MSP, 12 September 2023.

The Bosnia and Herzegovina Mine Action Centre (BHMAC) reported to Mine Action Review that the amount of cluster munition-contaminated area from January to August 2023 was 548,504m$^2$ (see Table 1). A total of 543,928m$^2$ was reported as released in 2023 leaving a difference of 4,576m$^2$. The total cluster munition-contaminated area reported as at the end of 2022 was 454,629m$^2$ across 10 hazardous areas,[2] with a total of 71,296m$^2$ of previously unknown CMR contamination was added to the database in 2023: 49,855m$^2$ in Republika Srpska and 21,941m$^2$ in Tuzla. This gives a total of 525,955m$^2$.[3] The amount of contamination in each canton is also markedly different from the end of 2022 and cannot be explained by the amount of previously unknown contamination that was added to the database. BHMAC reported to Mine Action Review that the cluster munition-contaminated areas overlapped with designated risk zones. The size of these areas can change based on evidence collected during site assessments, sometimes expanding or contracting as new information becomes available.[4]

**Table 1: Cluster munition-contaminated area by canton (January–August 2023)[5]**

| Canton | Total areas | Total area (m$^2$) |
|---|---|---|
| Zenica-Doboj | 1 | 39,124 |
| Canton 10 | 1 | 58,099 |
| Herzegovina-Neretva | 1 | 23,052 |
| Tuzla | 4 | 164,807 |
| Republika Srpska | 3 | 263,422 |
| **Totals** | **10** | **548,504** |

CMR contamination dated back to the conflicts of 1992–95 related to the break-up of the Socialist Federal Republic of Yugoslavia.[6] 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 12km$^2$, scattered across 140 areas. This estimate was subsequently revised upwards to 14.6km$^2$ following the start of land release operations in 2012.[7] Of this, a total of 9.3km$^2$ was cleared, 1.71km$^2$ was released through non-technical survey (NTS) and technical survey (TS), and 3.6km$^2$ was identified as being contaminated with weapons that do not fall under the scope of the CCM.[8]

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

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

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Demining Commission, under the BiH Ministry of Civil Affairs, supervises the State-wide BHMAC and represents BiH in its relations with the international community on mine-related issues.[9] The Demining Commission is composed of representatives from three ministries (Civil Affairs, Defence, and Security) elected to represent BiH's three main ethnic groups (Bosniaks, Croats, and Serbs). Whereas the Minister for Civil Affairs remains ultimately responsible for mine action, the Demining Commission is the body responsible for setting mine action policy for considering the periodic re-accreditation of field operators, following the recommendation from BHMAC. It also proposes the appointment of BHMAC senior staff, for approval by the Council of Ministers.[10]

BHMAC is responsible for regulating mine action and implementing BiH's survey and clearance plans.[11] BHMAC operates from its headquarters in Sarajevo, two main operations offices in Sarajevo and Banja Luka, and eight regional offices (in Banja Luka, Bihac, Brčko, Mostar, Pale, Sarajevo, Travnik, and Tuzla).[12]

Since 2008, efforts have been made to adopt new mine action legislation in BiH with a view to creating a stable platform for mine action funding by the government and local authorities. The process was restarted again in 2022 after being suspended the previous year but, as at May 2024, is not yet concluded.[13] The Geneva International Centre for Humanitarian Demining (GICHD) believes the amended demining law should be revised further and re-submitted for

2 Email from Ljiljana Ilić, Interpreter, BHMAC, 23 March 2023.
3 Email from Mirjana Marić, BHMAC, 12 April 2024.
4 Email from Mirjana Marić, BHMAC, 7 August 2024.
5 Email from Mirjana Marić, BHMAC, 28 June 2024; and Article 7 report (covering 2023), Form F. In its Article 7 report covering 2023 BiH reported that contamination in 2023 totalled 548,504m$^2$ although the figures provided in the table actually total 525,452m$^2$.
6 BHMAC website, "Mine Action Report in BiH for 2015 approved by the BH Ministry Council", 16 May 2016.
7 Statements of BiH, First CCM Review Conference, Dubrovnik, 9 September 2015; High-level Segment, First CCM Review Conference, 7 September 2015; CCM Ninth Meeting of States Parties, Geneva, 2–4 September 2019; CCM Intersessional meetings, Geneva, 16 May 2022; and 2022 CCM Article 4 deadline Extension Request, p. 5.
8 BiH, Article 4 Declaration of Completion, CCM 11MSP, 12 September 2023.
9 BHMAC Organisational chart, accessed 6 May 2022 at: http://bit.ly/2Ycj4xl.
10 UNDP, Draft Mine Action Governance and Management Assessment for BiH, 13 May 2015, p. 22.
11 Bosnia and Herzegovina Official Gazette, Sarajevo, 17 March 2002.
12 BiH, National Mine Action Strategy 2018–2025, p. 8.
13 Email from Mirjana Marić, BHMAC, 12 April 2024.

adoption, with the topics of "all reasonable effort" and liability discussed in parallel to the revision.[14] Clearer legislation on liabilities related to mine action activities would be beneficial to all mine action stakeholders in BiH.

It had been hoped that the "Country Coalition" established between BiH and Germany would provide a forum for regular dialogue among all mine action stakeholders, help demonstrate national ownership, strengthen coordination of Anti-Personnel Mine Ban Convention (APMBC) Article 5 and CCM Article 4 implementation, and identify and overcome challenges, and monitor progress against the 2018–25 strategy. The first Country Coalition meeting, convened jointly by BiH and Germany, took place in October 2020 and was attended by representatives from a wide range of mine action stakeholders, including NGO clearance operators and donors.[15] Regrettably, as at May 2024, no further Country Coalition meetings had been convened.[16]

A Board of Donors for Mine Action meeting was held in December 2023 in Sarajevo, with representatives from all key donors present. The donors reaffirmed their commitment to the demining process in Bosnia and Herzegovina and announced the continuation of ongoing support for mine action.[17] National funding supports BHMAC and supported CMR survey and clearance. Operations of the BiH Armed Forces are supported by the Council of Ministers from the BiH national budget, while the Government of the Federation of BiH finances the operations of the Federal Administration of Civil Protection (FACP).[18] The Civil Protection Administration of Republika Srpska (CPA RS) is financed by the Government of Republika Srpska.[19] BiH stated that addressing the remaining CMR contamination between September 2022 and September 2023 would cost BAM700,000 (approximately €400,000), which had already been secured from national and international sources.[20]

## 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".[21] The mine action strategy considered and supported the 2003 Law on Gender Equality in BiH, which includes equal treatment of the genders and equality of opportunity, and prohibits direct and indirect discrimination on the ground of gender. The Law on Gender Equality determines that equal representation of men and women exists when the percentage of either gender in bodies at all levels in BiH (State, entity, cantonal, and municipality level) is at least 40%. BiH's national mine action strategy also considered the 2017 Gender Equality Action Plan.[22]

**Table 2: Gender composition of operators in 2023[23]**

| Operator | Total staff | Women staff | Total managerial or supervisory staff | Women in managerial or supervisory positions | Total operational staff | Women in operational positions |
|---|---|---|---|---|---|---|
| BHMAC | 153 | 36 (24%) | 18 | 4 (22%) | 177 | 20 (11%) |
| FACP | 191 | 41 (21%) | 12 | 5 (42%) | 142 | 14 (10%) |
| NPA | 120 | 14 (12%) | 8 | 4 (50%) | 97 | 8 (8%) |
| **Totals** | **464** | **91 (20%)** | **28** | **13 (46%)** | **416** | **42 (10%)** |

As at the end of 2023, however, as Table 2 illustrates, only 24% of BHMAC's employees were female, with women employed in 22% of managerial or supervisory positions and 11% of operational positions.[24] This is largely the same proportion as in 2021 and 2022. BHMAC reported having a gender and diversity policy in place and stated that BHMAC upholds the Law on Gender Equality and routinely includes it in the development of strategies and standards.[25]

14 Email from the GICHD, 14 May 2021.

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

16 Email from Mirjana Marić, BHMAC, 12 April 2024.

17 Ibid.

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

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

20 2022 CCM Article 4 deadline Extension Request, pp. 5 and 12.

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

22 Ibid.

23 Emails from Mirjana Marić, BHMAC, 12 April 2024; Valerie Warmington, Country Director, NPA, 22 April 2024; and Muamer Husilović, FACP, 24 April 2024.

24 Email from Mirjana Marić, BHMAC, 12 April 2024.

25 Emails from Ljiljana Ilić, BHMAC, 24 April 2019 and 23 March 2023.

BHMAC has reported that it consults all groups affected by CMR, including women and children, during survey and community liaison and that BHMAC's survey and community liaison teams are inclusive with a view to facilitating this. Relevant mine action data are disaggregated by gender and age.[26]

As at July 2022, the Demining Battalion of the Armed Forces of BiH had a workforce of 455 personnel, including 28 women (6% of the total). This included only 1 of the 55 managerial/supervisory positions (2%) and 27 (7%) of the 391 operations positions.[27] FACP reported that 21% of its employees are female, with women filling 41% of managerial/supervisory positions and 10% of operational positions.[28] This is largely the same as 2022.[29]

NPA reported that the overall gender split of its staff in 2023 was 12% female with 8% of operational roles held by women and 50% of the managerial roles.[30] Since 2022, the proportion of women holding managerial roles has increased from 22%.[31] NPA is committed to mainstreaming gender and diversity within its BiH mine action programme. In 2023, a female candidate who scored the same as a male candidate was given preference during recruitment.[32]

## ENVIRONMENTAL POLICIES AND ACTION

BiH does not have either an environmental management policy or a national mine action standard (NMAS) on environmental management. BHMAC said, however, that, in general, existing humanitarian demining procedures (e.g. methods for vegetation removal, removal of metals and waste, and use of machinery) contribute to the management and protection of the environment. BHMAC also said that, in certain cases, procedures are modified in order to protect the environment and that when approving demining execution plans, it consults the local community as and where necessary. BHMAC reported that environmental assessments were conducted to support the planning and delivery of CMR survey and clearance tasks but has not provided details.[33]

The use of threshing machines has been banned on agricultural areas because the machines disturb soil deeper than 20cm and compacts the soil, leaving it impermeable to water and preventing sowing for up to three years. BHMAC also does not use machines on mountain pastures in order to help protect against removal of layers of grasses that have taken many years to grow and which do not renew fully after machines have been used. In forested areas, as part of its procedures to ensure the use of metal detectors at the required height, BHMAC consults landowners regarding which vegetation can be removed, and what density and type of trees should be left untouched.[34]

The 2022 study by UNDP and the GICHD on the sustainable development outcomes of mine action in BiH highlights mine action's environmental benefits, including land restoration for sustainable agriculture and forestry, improved forest management, and flood prevention, which in turn support biodiversity and better natural resource management.[35]

NPA is implementing an Environmental Assessment and Management System (EAM) for its country programmes, starting with assessing offices and administration. In addition, NPA's BiH country programme has an Environment and Climate Country Policy in place.[36] NPA BiH is advocating for increased inclusion of environmental impacts in the forthcoming updates to the national mine action strategy. NPA will be introducing an environmental assessment and screening tool called the Green Field Tool in BiH in late 2024. NPA reported that the following mitigation measures are in place for its survey and clearance activities: areas where machines are used for ground preparation are considered in relation to proximity to water bodies and sensitive ecosystems; effort is made to retain trees and ground cover as much as possible; consumables such as mine tape are reused to the extent possible; the use of plastic has been reduced; the last vehicle purchased was a hybrid; and efforts are underway to introduce recycling, reduce paper archives, and rely more on electronic communications and documentation.

To NPA's knowledge BHMAC does not consider climate related or extreme weather-related risks when tasking. However, NPA may prioritise clearance of low-lying areas during the dry summer months so as not to be later delayed due to flooding and it strives to retain as much vegetative cover as possible. Further operational action as regards climate/extreme weather-related risks was not currently possible.[37]

The FACP takes the environment into consideration when drafting operational plans for the destruction of mines and UXO on site.[38]

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

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

28 Email from Muamer Husilović, FACP, 24 April 2024.

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

30 Email from Valerie Warmington, NPA, 22 April 2024.

31 Email from Valerie Warmington, NPA, 29 June 2023.

32 Email from Valerie Warmington, NPA, 22 April 2024.

33 Email from Mirjana Marić, BHMAC, 12 April 2024.

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

35 Email from Boris Ohanyan, Programme Officer, GICHD, 2 July 2024; and "The Sustainable Development Outcomes of Mine Action in Bosnia and Herzegovina", GICHD and UNDP, June 2022 at: https://bit.ly/3VYrmZA.

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

37 Email from Valerie Warmington, NPA, 22 April 2024.

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

## INFORMATION MANAGEMENT AND REPORTING

BHMAC currently uses its own paradox-based information management system, the Bosnia and Herzegovina Mine Action Information System (BHMAIS),[39] but implementation of the Information Management System for Mine Action (IMSMA) Core has been ongoing since 2019. The first phase of IMSMA Core implementation was completed in May 2020.[40] A new project to migrate the remaining data and workflows from BHMAIS to IMSMA Core, funded by the German Federal Foreign Office (GFFO) and in partnership with the GICHD and NPA, started in February 2023 and was due to be completed by August 2024.[41] A monitoring team comprising NPA and EUFOR oversees the progress. The GICHD has deployed an information management staff member to conduct regular missions, visiting for two weeks each month to support the implementation process.[42] NPA reported that while migration of the Country Assessment data collected by NPA from 2018 to 2020 is complete many issues have been encountered in migrating BHMAC completion and other operational data to IMSMA Core. Extra technical support has been brought on board but the migration is progressing although much slower than anticipated.[43]

In its CCM Article 7 report covering 2023, BHMAC provided information on the location and size of the remaining CMR-contaminated area for January to August but as explained above in the section on Understanding of CMR contamination, there are numerous inconsistencies in the data.

## PLANNING AND TASKING

BiH's national mine action strategy for 2018–25 addresses all mine and CMR contamination. The strategy contained a strategic goal on survey and clearance that included a commitment to complete CMR clearance obligations by 1 March 2021, in line with BiH's initial CCM Article 4 deadline.[44] However, the strategy did not contain an action plan or concrete milestones towards completion of CMR clearance.[45]

BHMAC worked in collaboration with donors and implementing agencies, including EUFOR, BiH Armed Forces, NPA, and FACP, to implement Article 4. Allocation of the remaining CMR tasks was split between the BiH Armed Forces, FACP, and NPA, with BHMAC reporting that it held monthly meetings with NPA and government institutions to report on progress and plan CMR operations.[46] BHMAC says that cluster munition-contaminated areas were prioritised for clearance based on agreement with local communities and municipalities.[47]

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

In 2016, the Demining Commission formally adopted three revised chapters of the NMAS on land release, NTS, and TS, drafted in cooperation with EU technical assistance through the Land Release pilot project, the United Nations Development Programme (UNDP), and the GICHD.[48] The Demining Commission adopted new standards for CMR at the beginning of 2017.[49] As at May 2024, the NMAS had been finalised and were awaiting publication.[50]

BHMAC reported that survey or resurvey of hazardous areas suspected to contain CMR was conducted systematically in all land release operations.[51]

### OPERATORS AND OPERATIONAL TOOLS

TS and clearance of CMR-contaminated area in 2023 were conducted by NPA, the BiH Armed Forces, and the FACP.[52]

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

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

41 Emails from Valerie Warmington, NPA, 6 April 2023; Stanislav Damjanovic, GICHD, 25 May 2023; Henrik Rydberg, GICHD, 29 June 2023; and Mirjana Marić, BHMAC, 12 April 2024.

42 Email from Boris Ohanyan, GICHD, 2 July 2024.

43 Email from Valerie Warmington, NPA, 22 April 2024.

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

45 Ibid., pp. 21–26.

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

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

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

49 Interview with Saša Obradovic, Director, BHMAC, Sarajevo, 10 May 2017.

50 Email from Mirjana Marić, BHMAC, 12 April 2024.

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

52 Email from Mirjana Marić, BHMAC, 12 April 2024.

**Table 3: Operational TS and clearance capacities deployed in 2023[53]**

| Operator | TS and clearance teams | Total TS and clearance personnel |
|---|---|---|
| NPA | 2 | 12 |
| BiH Armed Forces | 2 | 12 |
| FACP | 1 | 6 |
| **Totals** | **5** | **30** |

Quality control (QC) and quality assurance (QA) are conducted by BHMAC.[54]

# LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

## LAND RELEASE OUTPUTS IN 2023

Based on data reported by BHMAC to Mine Action Review, a total of 0.54km$^2$ of CMR-contaminated area was released in 2023: 0.05km$^2$ cancelled through NTS, 0.23km$^2$ reduced through TS, and 0.26km$^2$ cleared. A total of 545 submunitions were destroyed: 434 during area clearance and 111 during explosive ordnance disposal (EOD) spot tasks.

## SURVEY IN 2023

In 2023, a total of 0.28km$^2$ was released through survey, of which 0.05km$^2$ was cancelled through NTS (see Table 4) and 0.23km$^2$ was reduced through TS (see Table 5).[55] This compares to 0.30km$^2$ cancelled through NTS and 0.38km$^2$ reduced through TS in 2022.[56]

**Table 4: Cancellation through NTS in 2023[57]**

| Canton | No. of areas cancelled | Area cancelled (m$^2$) |
|---|---|---|
| Zenica-Doboj | 1 | 3,706 |
| Tuzla | 2 | 48,563 |
| **Totals** | **3** | **52,269** |

**Table 5: Reduction through TS in 2023[58]**

| Canton | Operator | No. of areas reduced | Area reduced (m$^2$) |
|---|---|---|---|
| Herzegovina-Neretva | NPA | 1 | 14,500 |
| Zenica-Doboj | NPA | 1 | 17,863 |
| Tuzla | BiH Armed Forces/NPA | 3 | 55,453 |
| Republika Srpska | NPA | 3 | 141,374 |
| **Totals** | | **8** | **229,190** |

## CLEARANCE IN 2023

In 2023, a total of 0.26km$^2$ of CMR-contaminated area was cleared, with the destruction of 434 submunitions (see Table 6).[59] This compares to 0.64km$^2$ of CMR-contaminated area cleared in 2023 with the destruction of 1,599 submunitions.[60]

53 Emails from Mirjana Marić, BHMAC, 12 April 2024; Valerie Warmington, NPA, 22 April 2024; and Muamer Husilović, FACP, 24 April 2024. FACP reported two TS and clearance teams totalling twelve personnel.

54 2020 APMBC Article 5 deadline Extension Request, p. 8.

55 Email from Mirjana Marić, BHMAC, 12 April 2024.

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

57 Email from Mirjana Marić, BHMAC, 12 April 2024. NPA reported total reduction through TS of 133,907m$^2$ including 14,469m$^2$ in Herzegovina-Neretva, 17,840m$^2$ in Zenica-Doboj, 50,228m$^2$ in Tuzla, and 51,370m$^2$ in Republika Srpska. FACP reported 58,099m$^2$ of clearance in Canton 10.

58 Email from Mirjana Marić, BHMAC, 12 April 2024. NPA reported total reduction through TS of 133,907m$^2$ including 14,469m$^2$ in Herzegovina-Neretva, 17,840m$^2$ in Zenica-Doboj, 50,228m$^2$ in Tuzla, and 51,370m$^2$ in Republika Srpska. FACP reported 58,099m$^2$ of clearance in Canton 10.

59 Email from Mirjana Marić, BHMAC, 12 April 2024.

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

**Table 6: CMR clearance in 2023[61]**

| Canton | Operator | Areas cleared | Area cleared (m²) | Submunitions destroyed |
|---|---|---|---|---|
| Herzegovina-Neretva | NPA | 1 | 8,552 | 3 |
| Zenica-Doboj | NPA | 1 | 21,261 | 64 |
| Tuzla Canton | NPA/BiH Armed Forces | 4 | 92,246 | 273 |
| Canton 10 | FACP | 1 | 18,360 | 45 |
| Republic of Srpska | NPA | 3 | 122,050 | 49 |
| **Totals** | | **10** | **262,469** | **434** |

In addition, FACP reported destroying 111 submunitions during spot tasks in 2023, which was not reported by BHMAC.[62]

## ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR BiH: 1 MARCH 2011

↓

ORIGINAL ARTICLE 4 DEADLINE: 1 MARCH 2021

↓

FIRST EXTENDED DEADLINE (18 MONTHS): 1 SEPTEMBER 2022

↓

**SECOND EXTENDED DEADLINE (ONE YEAR): 1 SEPTEMBER 2023**

**REPORTED COMPLETION OF ARTICLE 4: 31 AUGUST 2023**

Under Article 4 of the CCM, BiH was required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 September 2023, having been granted a one-year extension. BiH ostensibly completed clearance on 31 August 2023, officially declaring it had met its obligations under Article 4 the following month at the Eleventh Meeting of States Parties to the CCM.

BiH reported that it had destroyed 7,932 submunitions and cleared 9.3km² of CMR contaminated area since it became a State Party to the CCM.[63]

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

| Year | Area cleared (km²) |
|---|---|
| 2023 | 0.26 |
| 2022 | 0.64 |
| 2021 | 0.62 |
| 2020 | 0.35 |
| 2019 | 0.45 |
| **Total** | **2.32** |

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

The National Mine Action Strategy for 2018–2025 required the development of a strategy for the management of residual contamination by 2022. A revision of the National Mine Action Strategy was expected to be completed in the course of 2024 and a strategy on the management of residual contamination was due to be included.[64] In its declaration of completion, BiH reported that if previously unknown CMR contaminated areas are identified after completion BiH will, as soon as possible, take action to:

- accurately identify the extent of the contaminated areas and destroy all submunitions found using the most effective and efficient methods;
- exclude civilians from those areas until they are no longer contaminated;
- report contaminated areas in accordance with BiH's obligations under Article 7 of the CCM; and
- submit an additional declaration of completion to States Parties when all CMR in those newly discovered areas has been found and destroyed.[65]

BiH recognises that as an estimated 860km² of mined area remains in the country it is possible that CMR may be found during survey and clearance of these areas. If there is a discovery of CMR this will be reported to the FACP or the Civil Protection Administration of Republika Srpska who will assess the situation and if necessary clear the area. Any CMR will be destroyed in accordance with the NMAS.[66]

61 Email from Mirjana Marić, BHMAC, 12 April 2024. NPA reported total clearance of 179,332m²: 8,541m² in Herzegovina-Neretva, 21,230m² in Zenica-Doboj, 69,322m² in Tuzla, and 80,239m² in Republika Srpska with a total of 150 submunitions destroyed. FACP reported 15,944m² cleared in Canton 10 with 38 submunitions destroyed.

62 Email from Muamer Husilović, FACP, 24 April 2024.

63 BiH, Article 4 Declaration of Completion, CCM 11MSP, 12 September 2023.

64 Email from Mirjana Marić, BHMAC, 12 April 2024.

65 BiH, Article 4 Declaration of Completion, CCM 11MSP, 12 September 2023.

66 Ibid.

# CHAD

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

**ARTICLE 4 DEADLINE: 1 OCTOBER 2024**
TWO-YEAR INTERIM DEADLINE EXTENSION REQUESTED TO 1 OCTOBER 2026

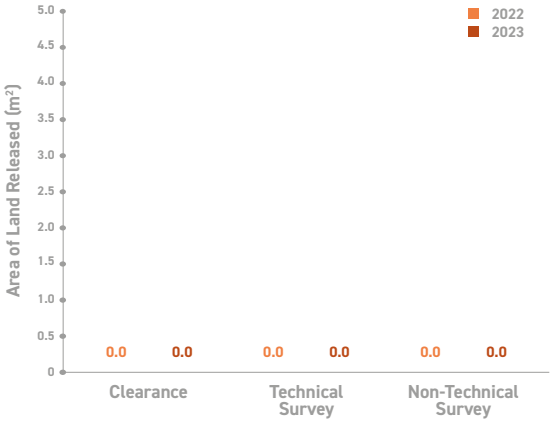
## KEY DATA

**CLUSTER MUNITION CONTAMINATION:**
BELIEVED TO BE LIGHT, BUT NO NATIONAL BASELINE ESTIMATE

SUBMUNITION CLEARANCE IN 2023
**0 M²**

SUBMUNITIONS DESTROYED IN 2023
**0**

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

In 2023, Chad did not carry out the requisite non-technical survey (NTS) in Tibesti, the last province suspected to be contaminated by cluster munition remnants (CMR) owing to a lack of funding and the volatile security situation. Chad is requesting a second interim deadline extension to its Article 4 clearance obligation under the Convention on Cluster Munitions (CCM). The new deadline of 1 October 2026 is intended to allow the survey to take place and any requisite clearance to be planned.

In 2022 and 2023, the government supported clearance of explosive remnants of war (ERW) in Kanem, Borkou, and Ennedi East and West provinces after clashes between armed groups and the armed forces in 2021. Following the conclusion of a four-year European Union (EU) project in April 2022, survey and clearance by international operators did not take place for almost two years. At the end of 2023, Mines Advisory Group (MAG) and the National High Commission for Demining (Haut Commissariat National au Déminage, HCND) started a one-year project supported by France to conduct battle area clearance (BAC), spot-task explosive ordnance disposal (EOD), and explosive ordnance risk education (EORE) in four provinces, but these operations target types of ERW other than CMR. Chad did not report any survey or clearance of CMR contaminated-areas in 2023 nor in the previous year.

## RECOMMENDATIONS FOR ACTION

- **Chad should reinforce its resource mobilisation efforts to raise the necessary international funds and receive operational support to enable it to fulfil its CCM Article 4 obligations.**
- **Chad should urgently conduct the requisite NTS in Tibesti province to confirm or deny the presence of CMR and accurately determine the location and extent of any contamination.**
- **Chad should explain the circumstances that prevent access to Tibesti and fulfilment of its Article 4 obligations.**

# ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

| Criterion | Score (2023) | Score (2022) | Performance Commentary |
|---|---|---|---|
| **UNDERSTANDING OF CMR CONTAMINATION** (20% of overall score) | 5 | 5 | Chad asserted in 2021 it had completed clearance of all cluster munition-contaminated areas under its jurisdiction. It later accepted it still needed to survey parts of Tibesti province and acknowledged "a high probability" of finding CMR there, but the lack of funding and a volatile security environment have prevented the survey from being carried out until now. Chad indicated in its 2024 Article 4 deadline extension request that the NTS for CMR and other explosive remnants of war will be carried out in the five departments of Tibesti (Bardaï, Wour, Zouar, Aouzou and Emi Koussi), but the surface area to be surveyed was not specified. |
| **NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT** (10% of overall score) | 5 | 3 | The National Commission for Demining (HCND) struggles with limited resources. Government financial support has long been limited to paying staff salaries and some administrative costs. In both 2022 and 2023, however, the government did fund some clearance operations of ERW contaminated-areas and mined areas. In its 2024 Article 4 deadline extension request, Chad said it is willing to contribute financially and in-kind to the NTS in Tibesti but still needs international assistance to eliminate cluster munition contamination. |
| **GENDER AND DIVERSITY** (10% of overall score) | 4 | 4 | Chad's national plans make no reference to gender and inclusion. Chad also fails to adequately address gender in its 2024 extension request, except with brief reference to mine risk education and disaggregated victim data. It also highlighted that socio-cultural norms are very strong in Tibesti province. Therefore, the HCND will strive to recruit local women to support the surveyors in the field during interviews. Eight women are employed at the HCND, though mainly in office support functions, risk education, and victim assistance. One women is an EOD level 3 team leader. |
| **ENVIRONMENTAL POLICIES AND ACTION*** (10% of overall score) | 2 | Not Scored | Chad said it does not have, for now, a policy or standard on environmental management in mine action and does not make reference to the environment in its 2024 Article 4 extension request. |
| **INFORMATION MANAGEMENT AND REPORTING** (10% of overall score) | 5 | 4 | The HCND's national mine action database benefitted from an extensive data clean-up by FSD in 2020–21 but the national authority has very limited information management capacity. Chad has submitted a CCM Article 7 report in most years, including in 2024 (covering 2023). Chad also provided additional CMR-specific information in its Article 4 deadline extension request, as well as bilaterally to Mine Action Review in response to queries. Nonetheless, Chad's reporting under the CCM has often been late and lacks accuracy. |
| **PLANNING AND TASKING** (10% of overall score) | 4 | 4 | Until its first extension request in 2022, Chad had never presented a strategic plan or identified priorities for survey or clearance of CMR. In its 2024 deadline extension request, Chad planned for an initial period of four months to mobilise resources and conduct the NTS in Tibesti. Once Chad has accurately determined the location and extent of the contamination, it will develop a comprehensive CMR work plan accordingly. Chad indicated that it could request another extension deadline depending on the results of the NTS. The 2024 Article 4 deadline extension request makes no reference to prioritisation of CMR tasks. |
| **LAND RELEASE SYSTEM**** (10% of overall score) | 5 | 5 | FSD completed revision of 17 national standards in 2021. Chad did not review its national standards in 2023. Its 2024 Article 4 extension request listed 22 national standards that are said to be compatible with International Mine Action Standards (IMAS), including a national standard on NTS. The standards are, however, not specific to CMR. |
| **LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE** (20% of overall score) | 4 | 4 | In 2021, Chad was preparing to declare fulfilment of its Article 4 obligations but then changed position and in 2022 submitted a request for a 13-month extension. Having failed to secure international funding and because of security constraints, in 2024 Chad requested a further two-year extension to October 2026, to mobilise resources and undertake the NTS in the last remaining hazardous departments of Tibesti province. Chad did not report any survey or clearance operations of CMR-contaminated areas in 2023 or the previous year. |
| **Average Score** | **4.3** | **4.3** | **Overall Programme Performance: POOR** |

* New criterion introduced in 2024 to assess performance.

** The weighting of this criterion was previously 20% of overall performance score, but is now given a 10% weighting.

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

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

### NATIONAL OPERATORS

- HCND

### INTERNATIONAL OPERATORS

- Mines Advisory Group (MAG) (only for BAC and spot-tasks)

### OTHER ACTORS

- None

# UNDERSTANDING OF CMR CONTAMINATION

Chad has never produced a baseline estimate of CMR contamination but had initially claimed it was heavy. Explosive ordnance contamination dates back to the conflict with Libya in 1987–88 that affected the former Borkou-Ennedi-Tibesti (BET) region—now split into four provinces—and which covered around one third of the country's surface area.[1] Chad informed the CCM signing conference in 2008 that it had "vast swathes of territory" contaminated by mines and unexploded ordnance, including cluster munitions,[2] but it provided no details and the extent to which it is affected remains uncertain.

Chad carried out a national "impact study" in 1999, which was considered a useful initial assessment but failed to determine the exact location and extent of the contamination and did not cover Tibesti.[3] Chad also conducted a technical survey (TS) in 2006 and 2007 in the southern parts of Tibesti,[4] which have since been affected by armed conflict and require new survey.[5] Between 2010 and 2012, Chad completed a national survey, but which did not cover the northern parts of Tibesti (only Bardaï, Yebbibou, and Zoumri were covered) and the province of Moyen-Chari. The combined results of the impact study and the national survey enabled Chad to conclude that it had a contamination from mines and ERW covering 77.62km² in 120 hazardous areas outside parts of Tibesti province. No disaggregated estimate of CMR contamination was produced.[6]

During the four-year EU-funded PRODECO project, TS and CMR clearance were carried out in the provinces of Ennedi West (Delbo site where 742,657m² were cleared and 11 submunitions destroyed) and Borkou (Kaourchi site where three cluster munition containers were destroyed).[7] In 2021, Chad said it had completed clearance of CMR hazards and would announce compliance with its Article 4 obligations[8] but in 2022 it amended that position to allow for survey of Tibesti province where, it acknowledged, it did not "have a precise reading" of CMR contamination.[9]

No international operators were able to access Tibesti throughout the PRODECO project (2017–22).[10] In 2023, the HCND initiated clearance using national funding at Hadjar-Magdoud minefield in the Kori-Bogodi area of Tibesti, but the team experienced a security incident in August and the clearance was not completed.[11] Access to Tibesti is constrained by political and security developments. The incursion by an armed group in April 2021 that resulted in the death of President Idriss Déby and violence surrounding gold mining have further affected security in the province.

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Chad is contaminated by ERW other than cluster munition remnants. Clashes between armed groups and the national army left ERW that the national clearance capacity destroyed in 2022 and 2023 using national funding.[12] The country is also contaminated by anti-personnel and anti-vehicle mines.

In February 2024, Chad stated that it is also confronted with an increasing threat from improvised explosive devices (IEDs) used by non-State armed groups particularly in the Lake Chad Basin.[13] In March 2024, an explosive device killed seven Chadian soldiers during a patrol in the west of the country, near Lake Chad.[14] Another similar incident involving an explosive device reportedly took place in May 2024 injuring three soldiers.[15] (See Mine Action Review's *Clearing the Mines* report on Chad for further information on the mine problem).

1 2024 CCM Article 4 deadline Extension Request, p. 4.
2 Statement of Chad, CCM Signing Conference, Oslo, 3 December 2008.
3 2022 Article 4 deadline Extension Request, p. 3; and 2024 Article 4 deadline Extension Request, p. 5.
4 Ibid.
5 Email from Soultani Moussa, Director of Operations and Logistics, HCND, 7 June 2024; and 2024 Article 4 deadline Extension Request, p. 8.
6 2024 Article 4 deadline Extension Request, p. 5; and Presentation by Chad on Article 4, CCM Eleventh Meeting of States Parties, Geneva, 11 to 14 September 2023, p. 5.
7 2024 Article 4 deadline Extension Request, p. 5; and CCM Article 7 Report (covering 2020).
8 CCM Article 7 Report (covering 2020), Form F; and Statement of Chad, Anti-Personnel Mine Ban Convention (APMBC) 19th Meeting of States Parties, 15–19 November 2021.
9 2022 Article 4 deadline Extension Request, p. 6.
10 Online interviews with Caroline Bruvier, Chad Project Manager and Francois Fall, HMA Advisor for West Africa, MAG, 16 April 2024; and Seydou Gaye, HMA Specialist, HI, 22 April 2024.
11 Email from Soultani Moussa, HCND, 7 June 2024.
12 Presentation by Chad on Article 4, CCM Eleventh Meeting of States Parties, Geneva, 11–14 September 2023, p. 10.
13 Presentation by Chad, Regional Conference on Improvised AP Mines, Ghana, 13–15 February 2024, p. 7.
14 Africanews and Associated Press, "Tchad : au moins 7 soldats tués par un engin explosif", *Africanews*, 26 March 2024, at: https://bit.ly/4aQ8Vvz.
15 Email from Soultani Moussa, HCND, 7 June 2024.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Chad's mine action programme is coordinated by the National High Commission for Demining (HCND), which was set up by government decree in 1998 with a mandate to implement a humanitarian programme tackling mines and explosive ordnance.[16] The HCND, which is under the Ministry of Economy, Planning and International Cooperation, is responsible for preparing the national demining strategy, annual work plans (and corresponding budgets), and implementing the mine action programme.[17]

A 2019 decree provided for re-organisation of the HCND, resulting in four main departments, covering: operations and logistics; planning, monitoring and victim assistance; administrative and financial affairs; and training and human resources.[18] In addition to a head office in N'djamena, the HCND has six provincial offices: in Bardai (Tibesti province), Faya (Borkou province), Fada (Ennedi West province), Abéché (Ouaddaï province), Bol (Lake province), and Amdjarass (Ennedi East), and two provincial sub-centres: in Zouar (Tibesti province) and Amtiman (Salamat province).[19]

Mine action in Chad is hampered by a lack of funding. Government financial support has long been limited to the payment of staff salaries and some administrative costs, which in the past are said to have amounted to around $1.5 million per year.[20] In 2017, the HCND was restructured, reducing its staff from 744 to 329. Non-payment of salaries for the reduced workforce led to a long-term strike by some deminers from 2018, and prevented some planned survey and clearance activities in Tibesti from taking place.[21] According to the HCND, the payment of salary arrears is no longer the main obstacle to accessing Tibesti, but the lack of funding for CMR survey and clearance.[22] The volatile security environment is also an important constraint.

In 2022 and 2023, the government supported clearance of ERW after the clashes between armed groups and the armed forces in 2021.[23] In 2023, the Chadian government's financial contribution is said to have amounted to US$1.8 million, covering the running of the HCND, staff salaries, and operations. The HCND deployed three multi-task teams with 51 personnel in total. [24] Chad said it will partially contribute financially and in-kind to the NTS in Tibesti, but that it requires international assistance to eliminate all CMR contamination.[25]

At the 27th UN National Directors Meeting in Geneva on 29 April to 1 May 2024, Chad said it had made renewed contact with a number of donors, including Japan, Norway, and the United States.[26] France made a statement at the Anti-Personnel Mine Ban Convention (APMBC) Intersessional Meetings in June 2024 in support of Chad's resource mobilisation efforts and deplored that it is currently the only donor. France also highlighted the importance of setting up coalitions of States to help forgotten countries in their mine action programmes.[27]

## GENDER AND DIVERSITY

Chad's national plans make no reference to gender and inclusion. Chad also fails to adequately address gender in its 2024 Article 4 deadline extension request, except with brief reference to mine risk education and disaggregated victim data. In its extension request, Chad highlights that socio-cultural norms are very strong in Tibesti province. Therefore, the HCND will strive to recruit local women to support the surveyors in the field during interviews.[28] Eight women are employed in a number of roles at the HCND, though mainly in office support functions, risk education, and victim assistance. One women is an EOD Level 3 team leader.[29]

## ENVIRONMENTAL POLICIES AND ACTION

Chad said it does not have, for now, a policy or standard on environmental management in mine action.[30] It also did not make reference to the environment in its 2024 Article 4 extension request. MAG does not have a policy or SOPs on environmental management for Chad.[31]

16 2024 Article 4 deadline Extension Request, p. 6.
17 2019 APMBC Article 5 deadline Extension Request, p. 11.
18 Ibid., p. 10.
19 2024 Article 4 deadline Extension Request, p. 6.
20 Emails from Soultani Moussa, HCND, 14 May 2019 and 27 April 2020.
21 Email from Romain Coupez, Country Director, MAG, 4 March 2019; APMBC Article 7 Report (covering 2020), p. 9.
22 Interview with Gen. Brahim Djibrine, HCND Coordinator, and Soultani Moussa, HCND, in Geneva, 30 April 2024.
23 Ibid.
24 Email from Soultani Moussa, HCND, 7 June 2024.
25 2024 Article 4 deadline Extension Request, p. 11.
26 Ibid.
27 Statement of France, APMBC Intersessional Meetings, Geneva, 18 June 2024.
28 2024 Article 4 deadline Extension Request, p. 9.
29 Email from Soultani Moussa, HCND, 7 June 2024.
30 Ibid.
31 Email from Francois Fall, MAG, 5 June 2024.

## INFORMATION MANAGEMENT AND REPORTING

The HCND has an Information Management System for Mine Action (IMSMA) database, which, under the PRODECO project, operated with the support of FSD. Poor maintenance and shortages of trained information technology staff meant data had become unreliable because of lost reports and duplication. FSD started a clean-up of the database in 2017.[32] With the closure of the PRODECO project in 2022, HCND's information management system has been managed by an IMSMA unit chief and database operator. FSD concluded that maintaining and developing HCND's information management system posed a major challenge in view of the small number of qualified staff and the risks of staff leaving for better-paid jobs.[33] The database has not been updated or maintained since the end of the PRODECO project.

In 2023, three HCND staff received training in Senegal with the support of Humanity and Inclusion (HI), two on IMSMA and the third on quality assurance and control.[34] MAG is not focusing on information management and does not have ready access to the database.[35]

## PLANNING AND TASKING

Chad has never had a strategic plan for CMR survey and clearance. A series of CCM Article 7 reports indicated plans to conduct NTS to identify the location of cluster munitions in Tibesti (and previously also Ouaddaï) provinces and to clear any contamination found, but in the absence of international donor and owing to the volatile security situation, this has not been possible.[36]

Chad's CCM second extension request of 2024 is largely based on its first, submitted two years earlier. It plans for an initial period of four months that includes two months to mobilise resources and five weeks to deploy five teams (four NTS teams and one risk education/victim assistance team) to carry out the survey in Tibesti. A detailed work plan covering the remaining period will be drawn up based on the results of the NTS.[37]

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

FSD completed a three-year revision of Chad's national standards in November 2021.[38] Chad did not review its national standards in 2023.[39] In its 2024 extension request, Chad says it has 22 national mine action standards that are said to comply with the International Mine Action Standards (IMAS). In 2022, Chad indicated that it was still missing a national standard for NTS. In 2024, its Article 4 deadline extension request stated that it now had a national standard on NTS.[40] None of these standards is CMR-specific.[41]

### OPERATORS AND OPERATIONAL TOOLS

The HCND has said it has the requisite equipment as well as skilled and trained human resources to undertake demining.[42] In 2023, it employed three multitask teams, comprising a total of 51 personnel.[43] The HCND carried out battle area and minefield clearance with national funding in 2022 and 2023,[44] but did not address CMR contamination.[45]

The EU's PRODECO project, which is believed to have cost €23 million,[46] started in 2017 and concluded in April 2022 after a no-cost extension due to the COVID-19 pandemic.[47] It funded operations by a consortium of four organisations in which FSD provided technical support; HI and MAG conducted survey and clearance; and Secours Catholique et Développement (SECADEV) supported victim assistance. HI and FSD concluded mine action operations in Chad with the end of the PRODECO project.[48]

32 Emails from Moussa Soultani, HCND, 27 April 2020; and Eugenio Balsini, Programme Manager, FSD, 28 April 2022.
33 Email from Eugenio Balsini, FSD, 28 April 2022.
34 Email from Soultani Moussa, HCND, 7 June 2024.
35 Email from Caroline Bruvier, MAG, 30 April 2024.
36 Article 7 Reports (covering 2019), Form F; (covering 2021), Form I; (covering 2022), Form F; and (covering 2023), p. 3; and 2024 Article 4 deadline Extension Request, pp. 4, 8, and 12.
37 2024 Article 4 deadline Extension Request, pp. 10 and 12.
38 Email from Eugenio Balsini, FSD, 28 April 2022.
39 Email from Soultani Moussa, HCND, 7 June 2024.
40 2022 Article 4 deadline Extension Request, p. 4; and 2024 Article 4 deadline Extension Request, p. 6.
41 Email from Soultani Moussa, HCND, 7 June 2024.
42 Presentation by Chad on Article 4, CCM Eleventh Meeting of States Parties, Geneva, 11 to 14 September 2023.
43 Email from Soultani Moussa, HCND, 7 June 2024.
44 APMBC Article 7 Report (covering 2022), p. 4; and CCM Article 7 Report (covering 2023), p. 3.
45 CCM Article 7 Report (covering 2023), p. 3.
46 EU Emergency Trust Fund for Africa, "PRODECO: déminage humanitaire, une approche", 31 January 2022, at: https://bit.ly/3tHBOY5.
47 Emails from Gérard Kerrien, Country Director, MAG, 4 April 2022; and Eugenio Balsini, FSD, 28 April 2022.
48 Email from Matt Wilson, Head of Operations, FSD, 22 May 2024; and online interview with Seydou Gaye, HI, 22 April 2024.

MAG is implementing a weapons and ammunition management programme. Additionally, MAG and the HCND started a one-year project in October 2023 supported by the French Ministry of Foreign Affairs. The tasks include BAC and EORE in Massaguet, Hadjer-Lamis province; spot tasks and EORE in Kanem, Bahr-el-Gazal, and Hadjer-Lamis provinces; and EORE in Lac province. MAG had 30 national and international staff in Chad at the end of 2023. The HCND is seconding six deminers, a team leader and support staff to MAG for the BAC in Massaguet, as well as three deminers and support staff for mobile EOD and spot tasks.[49]

# LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

## LAND RELEASE OUTPUTS IN 2023

Chad did not report release of any cluster munition-contaminated area through survey or clearance in 2023.[50] Some clearance of mined area started in Tibesti in 2023, but this was interrupted by a security incident.[51] According to the HCND, Tibesti is the last remaining province with likely CMR contamination.[52]

## DEMINER SAFETY

In August 2023, 11 HCND staff were abducted when conducting clearance at Hadjar-Magdoud site, in the Kori-Bogodi area of Tibesti province. They were released after nine months in captivity at the end of April 2024.[53]

## ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR CHAD: 1 SEPTEMBER 2013

↓

ORIGINAL ARTICLE 4 DEADLINE: 1 SEPTEMBER 2023

↓

FIRST EXTENDED DEADLINE (13 MONTHS): 1 OCTOBER 2024

↓

**SECOND EXTENDED DEADLINE SOUGHT (TWO YEARS): 1 OCTOBER 2026**

**NOT ON TRACK TO MEET ARTICLE 4 DEADLINE (EXTENSION REQUESTED)**

Under Article 4 of the CCM (and based on a 13-month extension granted in 2022), Chad is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 October 2024. It will not meet this deadline and has requested a further two-year extension to 1 October 2026 to allow it time to conduct NTS of the northern province of Tibesti. The request was due to be considered at the Twelfth Meeting of States Parties in September 2024.

Chad proposes to deploy four NTS teams to conduct the survey in the five departments of Tibesti (Aouzou, Bardaï, Emi Koussi, Wour, and Zouar), but the surface area to be surveyed was not specified.[54] Chad said it has sufficient trained capacity to conduct the survey but has identified the inability to mobilise resources for the NTS and climatic conditions as possible obstacles to implementing the proposed plan. The volatile security situation in Tibesti may also prove to be a problem.[55]

The NTS budget is estimated at €115,038 of which Chad said it would contribute €15,244 and provide in-kind support of four vehicles and communication equipment.[56] In its 2024 CCM Article 4 deadline extension request, Chad said the government would pay for the salaries of the personnel and operating costs of the HCND, which it calculated at €1,331,520 per year.[57]

49 Emails from Caroline Bruvier, MAG, 30 April and 5 June 2024.
50 CCM Article 7 Report (covering 2023), p. 3.
51 Emails from Soultani Moussa, HCND, 7 and 17 June 2024.
52 2024 Article 4 deadline Extension Request, pp. 8 and 10.
53 Interview with Gen. Brahim Djibrine and Soultani Moussa, HCND, in Geneva, 30 April 2024; and emails from Soultani Moussa, HCND, 7 and 17 June 2024.
54 Ibid., pp. 8 and 11.
55 Ibid.
56 2024 Article 4 deadline Extension Request, p. 11.
57 Ibid., p. 10.

**Table 1: Five-year summary of CMR clearance**

| Year | Area cleared (km²) |
|---|---|
| 2023 | 0 |
| 2022 | 0 |
| 2021 | 0.74 |
| 2020 | 0.41 |
| 2019 | 1.35 |
| **Total** | **2.50** |

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Chad indicated having set up a multi-task unit to deal with residual contamination.[58] There is no active planning for the management of residual contamination.

58 Email from Soultani Moussa, HCND, 7 June 2024.

# CHILE

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

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

## KEY DATA

**CLUSTER MUNITION CONTAMINATION:** MEDIUM

NATIONAL AUTHORITY ESTIMATE

**29.33KM²**

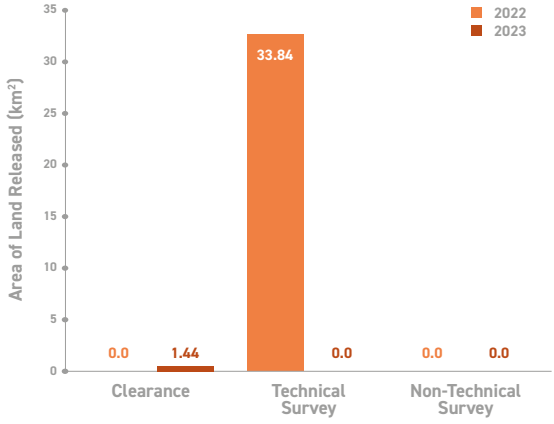
SUBMUNITION CLEARANCE IN 2023

**1.44KM²**

SUBMUNITIONS DESTROYED IN 2023

**229**

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

In a welcome development, 13 years after becoming a State Party to the Convention on Cluster Munitions (CCM), Chile finally began clearing cluster munition remnants (CMR) on its territory in 2023. In accordance with the clearance plan it submitted as part of 2022 request for an extension to its Article 4 deadline, Chile released one of the four CMR-contaminated areas through manual clearance. The area was at the Punta Zenteno military range in Punta Arenas in the Magallanes and Chilean Antarctic region.

## RECOMMENDATIONS FOR ACTION

- **Chile should ensure sufficient resources are in place to complete clearance by its extended Article 4 deadline of 1 June 2026.**
- **Chile should elaborate a gender and diversity policy and implementation plan for its programme for clearing CMR as per the International Mine Action Standards (IMAS).**
- **Chile should ensure the environment is taken into consideration in its clearance programme.**

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

| Criterion | Score (2023) | Score (2022) | Performance Commentary |
|---|---|---|---|
| **UNDERSTANDING OF CMR CONTAMINATION** (20% of overall score) | 7 | 7 | Chile has a reasonably accurate baseline of CMR contamination following the technical survey (TS) conducted in 2021. This reduced its total estimate of CMR contamination by just over one half. All contamination is classified in confirmed hazardous areas (CHAs) across three military ranges. |
| **NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT** (10% of overall score) | 8 | 8 | Since February 2022, the newly created Department for the Implementation of Conventions on Explosive Remnants of War (DICOR) has been responsible for planning and coordinating CMR clearance. Units of the Chilean armed forces conduct that clearance. Chile funds its own mine action activities and funds were allocated for the clearance in 2023. Chile plans to pay for all of its clearance although budgets in Chile are only approved annually by the Chilean Congress. |
| **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, there was no mention of a Gender Policy in its 2022 Article 4 deadline extension request. In March 2022, the Ministry of National Defence appointed gender focal points who will guide the development of the demining programme, and it also created a "Gender Working Group". No further developments have been reported for 2023. Chile should also formulate a mine action-specific gender and diversity policy. |
| **ENVIRONMENTAL POLICIES AND ACTION*** (10% of overall score) | 6 | Not Scored | Chile does not have a specific environmental policy for mine action. It does, however, have a law on the environment that it considers sufficient for implementing CMR clearance. |
| **INFORMATION MANAGEMENT AND REPORTING** (10% of overall score) | 7 | 6 | Chile uses the Information Management System for Mine Action (IMSMA) Version 6. Chile has submitted Article 7 reports annually since 2012. In 2022, Chile submitted a request for an additional three-year extension to its Article 4 deadline and provided further information on its extension request as requested by the CCM Article 4 Analysis Group. It reported on clearance in 2023 in its Article 7 transparency report. |
| **PLANNING AND TASKING** (10% of overall score) | 7 | 7 | Chile included plans to clear all CMR-contaminated area in its 2022 extension request, beginning in the second half of 2023 and taking up to 31 months (with a five-month contingency period). Chile has also determined its annual clearance targets for land release and the associated resource requirements. |
| **LAND RELEASE SYSTEM**** (10% of overall score) | 6 | 5 | Chile says it is operationally guided by the IMAS. It has designated survey and clearance responsibility for the CMR-contaminated areas to specific units within its army, navy, and air force. |
| **LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE** (20% of overall score) | 5 | 4 | Chile conducted technical survey during 2021 but achieved no further release of affected areas in 2022. Chile was granted an Article 4 deadline extension for three years to June 2026 by which time it plans to have completed clearance of all remaining CMR-contaminated area. Chile cleared one of the four remaining cluster munition-contaminated areas in 2023, which was located in the southern Magallanes and Chilean Antarctic region. |
| **Average Score** | **6.4** | **5.9** | **Overall Programme Performance: AVERAGE** |

* New criterion introduced in 2024 to assess performance.
** The weighting of this criterion was previously 20% of overall performance score, but is now given a 10% weighting.

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

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

### NATIONAL OPERATORS

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

### INTERNATIONAL OPERATORS

- None

### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)

# UNDERSTANDING OF CMR CONTAMINATION

Chile has reported that 29.33km$^2$ of cluster munition-contaminated area remain in the regions of Arica Parinacota and Tarapacá in the north of the country at the end of 2023.[1] The initial estimate of the extent of national contamination was 97km$^2$.[2] In 2019, through non-technical survey (NTS), 32.27km$^2$ was cancelled. In 2021, through technical survey (TS) Chile reduced the overall estimate by a further 52%.[3] As at the end of 2023, there were three confirmed hazardous areas (CHAs) in three military training ranges (See Table 1).[4]

Contamination is the consequence of use of cluster munitions in peacetime exercises in military training ranges. In Arica and Parinacota, MK-II LAR 160 cluster munition rockets were fired while in Tarapacá and the Magallanes and Chilean Antarctic region CB-250K cluster bombs were dropped.[5] The contaminated areas remain within military enclosures and are inaccessible to the public.[6] Clearance was carried out after the submunitions detonated so Chile believes that the remaining CMR contamination is minimal.[7]

**Table 1: Cluster munition-contaminated area by region (at end 2023)[8]**

| Region | Military training range | CHAs containing CMR | Area (m$^2$) |
|---|---|---|---|
| Arica and Parinacota | Pampa Chaca Este | 1 | 17,106,753 |
| Tarapacá | Delta | 1 | 11,324,319 |
| Tarapacá | Barrancas | 1 | 906,064 |
| **Totals** | | **3** | **29,337,136** |

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Chile is also affected, to a limited extent, by unexploded ordnance (UXO) other than unexploded submunitions. On 13 November 2020, Chile officially declared completion of mine clearance, having addressed all known mined areas, meeting its extended Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline (see Mine Action Review's *Clearing the Mines 2021* report on Chile for further information).[9]

# NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

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

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

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

1 Chile CCM Article 7 Report (covering 2023), Form F, pp. 4–5. Chile is divided into 16 administrative regions, 56 provinces, and 346 communes. For details, see: https://bit.ly/3NyLnCK.

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

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

4 Email from Valentín Segura Flores, Head of International Cooperation Department, Office of the Undersecretary of Defence, Ministry of National Defence, 17 May 2024.

5 Article 7 Report (covering 2023), Form F, pp. 4–5.

6 Article 7 Report (covering 2023), Form I, p. 8.

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

8 Email from Valentín Segura Flores, Ministry of National Defence, 17 May 2024.

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

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

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

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

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

14 Emails from Valentín Segura Flores, Ministry of National Defence, 7 June 2023 and 17 May 2024; and telephone interview, 9 June 2023.

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

Chile allocated CLP$34.13 million[16] (approx. US$31,000) for clearance during 2023 in addition to other logistical resources (explosives, fuel, vehicles, and equipment) which were provided by the navy.[17] It expected to be able to fund all its operations from national sources, and at the time of writing the State budget for 2024 was in discussion before Congress.[18]

In Chile's latest 2022 Article 4 deadline extension request it reported that US$818,954 had been requested from the international community to replace demining equipment but Chile has stated that if no external funding can be secured it will cover these costs itself.[19] In its latest Article 7 report, Chile informs that it requires nearly CLP$285 million (approx. US$302,000) for EOD equipment including detectors and personal protective equipment (PPE).[20] According to DICOR, the funds for the actual clearance come from the national budget and no international funding is being sought.[21] At the Eleventh Meeting of States Parties to the CCM, Chile reiterated that it was operationalising the provisions of its Clearance Plan 2023–2026, "including the allocation of the necessary resources, in order to move forward with the provisions at the level of national planning".[22]

## GENDER AND DIVERSITY

At present, the Minister of National Defence is a woman: Maya Fernández Allende. All military and strategic planning is carried out by the Ministry of National Defence, which it says is implemented in an inclusive and non-discriminatory manner that allows the full integration of women in all defence tasks.[23] Furthermore, to ensure standards of inclusion and non-discrimination, the ministerial structure has a Gender Liaison Network with focal points and a gender working group that includes the participation of delegates from each of the Armed Forces and the Joint Chiefs of Staff, as well as a delegate who acts as the gender focal point of the international ministerial agenda. These structures are responsible for dealing with possible situations that are detrimental to the principles of equality and discrimination. In this context, research is being conducted with a view to addressing barriers to women's participation in the military along with co-responsibility policies to facilitate childcare.[24]

According to the Chilean authorities, the gender approach of the ministerial policy on national defence is clearly represented by the participation of women in demining, within the framework of the CCM. All military personnel who join the EOD Units of the Armed Forces, do so voluntarily; therefore, the inclusion of men or women in the EOD Units is a personal decision. The Ministry of National Defence's commitment to gender equity encompasses all its dependent agencies, including the EOD Units of the Armed Forces.[25] Additional laws on gender, diversity and non-discrimination exist in Chile.[26]

No women were part of the EOD unit that conducted clearance during 2023 in Punta Zenteno.[27] With regard to the EOD unit that was due to clear the CHA in Barrancas in 2024, the number of women was not known at the time of writing. Nevertheless, Chile stated that instructions from DICOR had been transmitted to the Air Force to encourage women to join.[28]

In 2023, none of the officials working at DICOR was a woman (see Table 2).[29]

**Table 2: Current Composition by Gender in the Department for the Implementation of Explosive Remnants of War Conventions (DICOR)**

| Staff employed | Women staff | Managerial or supervisory staff | Women in managerial or supervisory positions | Operational staff | Women in operational positions |
|---|---|---|---|---|---|
| 3 | 0 (0%) | 1 | 0 (0%) | 2 | 0 |

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

16 Article 7 Report (covering 2023), Form I, p. 8; and email from Valentín Segura Flores, Ministry of National Defence, 17 May 2024.

17 Article 7 Report (covering 2023), Form I, p. 8.

18 Dirección de Presupuestos (DIPRES), "Senado inicia análisis del Presupuesto 2024 y aprueba 21 partidas", 21 November 2023, at: https://bit.ly/3XdFpMN.

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

20 Article 7 Report (covering 2023), Form I, pp. 8–9.

21 Email from Valentín Segura Flores, Ministry of National Defence, 17 May 2024.

22 Statement of Chile on "clearance and destruction of CMR and risk education (topic 10(c)) of the provisional agenda", CCM Eleventh Meeting of State Parties, Geneva, 11–14 September 2023.

23 Article 7 Report (covering 2023), Form J, p. 11; and email from Valentín Segura Flores, Ministry of National Defence, 17 May 2024.

24 Revised Article 4 deadline Extension Request, May 2022, p. 21; and telephone interview with Valentín Segura Flores, Ministry of National Defence, 9 June 2023.

25 Emails from Valentín Segura Flores, Ministry of National Defence, 1 June 2022 and 7 June 2023 and 17 May 2024; and telephone interview, 9 June 2023. See also Gender Policy of Chile at: https://bit.ly/3XgobN0.

26 Law 16611 on legal equality between men and women at: https://bcn.cl/2fall; Law 21120 on the recognition and guarantees to the Right to Gender Identity at: https://bcn.cl/3atcv; and Law 20609 on measures against arbitrary discriminations and judicial procedures at: https://bcn.cl/2g7mr.

27 Article 7 Report (covering 2023), Form J, p. 11, does not mention participation by gender within the EOD unit that cleared Punta Zenteno. However, an email from Valentín Segura Flores, Ministry of National Defence, 18 June 2024 clarified the absence of women in the EOD unit that cleared the said CHA.

28 Email from Valentín Segura Flores, Ministry of National Defence, 18 June 2024.

29 Email from Valentín Segura Flores, Ministry of National Defence, 17 May 2024.

Information on beneficiaries of CMR clearance by sex and age is not collected and no community liaison activities are carried out as the CHAs are in zones inaccessible to civilians.[30]

## ENVIRONMENTAL POLICIES AND ACTION

Chile does not have a policy on environmental management in mine action. In its revised 2022 Article 4 deadline extension request, with respect to environmental implications of the proposed extension, Chile said "There are no environmental implications [for the areas], as they are military estates, which comply with Chilean environmental regulations".[31] In June 2023 and May 2024, however, Chile stated that Law 19300, which sets out general protections with respect to the environment, including the right to live in an environment free of contamination, applies to all clearance and destruction of explosive ordnance.[32] In addition, a number of other laws regulate environmental issues more broadly.[33] Chile believes that its approach to environmental management in CMR clearance is aligned with the law and that it promotes the protection and conservation of the environment.[34]

Chile does not have National Mine Action Standards, but operations are said to be IMAS compliant including for the environmental management of clearance operations. Chile does not consider there is environmental damage as camps are not set up for clearance, thereby minimising the possible environmental damage. Nonetheless, the Chilean Navy, for the clearance of the Punta Zenteno CHA, took into account national environmental legislation and regulations and applied measures to ensure the mitigation of the environmental damage. As such, work sectors and access and evacuation routes were marked and divided, restricting access to other areas without contamination and which could have caused damaged to the vegetation and the soil vegetation cover.[35] The use of vehicles is also restricted to the movement of personnel, equipment, and materials needed for clearance operations.[36]

In planning CMR clearance, climate and atmospheric factors are always taken into account. In the case of clearance in the Punta Zenteno polygon, which is in the south of the country, land release was conducted during the summer season. For 2024 and onwards, the contaminated polygons are located in the north where the climate is desert conditions and there is hardly any rain.[37]

## INFORMATION MANAGEMENT AND REPORTING

Chile has been using IMSMA since 2003 as its national mine action database. Since 2017, it used IMSMA New Generation (NG) after starting the MARS (Mine Action Reporting System) application that replaced IMSMA Mobile. This system was deployed in 2019 alongside NTS with a view to calculating the area of possible CMR contamination.[38] Since February 2022, DICOR has been managing IMSMA at the national level.

Currently, DICOR is using IMSMA V6 as it cannot use the MARS system for collecting georeferenced data, due to the MARS Cloud no longer being available.[39] DICOR is looking for other tools to feed in the data in a safe and secure manner and with a reliability equal to or better than MARS. If financial resources are available for IMSMA training during 2024, the information management personnel of the EOD unit of the Chilean air force would be trained.[40] According to DICOR, the Geneva International Centre for Humanitarian Demining (GICHD) has provided technical support for IMSMA every time it has been requested.[41]

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

30 Ibid.

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

32 Emails from Valentín Segura Flores, Ministry of National Defence, 7 June 2023 and 17 May and 18 June 2024.

33 For instance, Law 20173 creates the position of President of the National Commission for the Environment, with the rank of a Minister of State, at: https://bcn.cl/2iq0p.

34 Email from Valentin Segura, Ministry of National Defence, 18 June 2024.

35 Ibid.

36 Email from Valentín Segura Flores, Ministry of National Defence, 17 May 2024.

37 Ibid.

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

39 Email from Valentín Segura Flores, Ministry of National Defence, 17 May 2024.

40 Ibid.

41 Ibid.

# PLANNING AND TASKING

The 2022 ministerial directive number 002 at present continues to be in force, it addresses the planning of clearance operations for 2023–26.[42] According to Chile's 2022 Article 4 extension request plan, clearance was conducted in Punta Zenteno Military Range Polygon in the Magallanes and Chilean Antarctic region.[43] Table 3 shows the clearance plan presented in the last extension request until completion in 2026.

**Table 3: Planned clearance of cluster munition-contaminated areas (2023–26) (as reported in 2022)[44]**

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

Chile does not intend to draft a national strategic plan. According to DICOR, there have been changes to the planning of clearance operations for 2023–26, as shown in Table 3, as a result of budget restrictions. Updates to the clearance plan submitted in the 2022 Article 4 extension request were conducted internally, and the Implementation Support Unit (ISU) of the CCM is said to have been updated via video conference.

In 2024, Chile was set to clear completely the Barrancas Military Range, which is located in Tarapacá region and has contamination covering 906,064$m^2$. According to the Article 7 report for 2023, funds for the acquisition of outdated equipment are being dealt with, and the main challenge to compliance with Article 4 is the financial budget allocations, given wide-ranging government priorities.[45] Even so, Chile considers that with existing capacities and resources, it will comply with the Article 4 clearance deadline of 1 June 2026.[46] That said, it has not been made public when the 4,414,646$m^2$ of CMR contamination in the Delta Military Range in Tarapacá region, originally planned for release in 2024, will be cleared. This puts into question timely compliance with the CCM.

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

Chile is guided by the IMAS and associated standards and protocols. In addition, Chile has a Manual on Procedures and Equipment for CMR Clearance, which was published in October 2023. This new manual was developed by DICOR based on consultation with the armed forces and CEDDEX.[47]

## OPERATORS AND OPERATIONAL TOOLS

Survey and clearance of explosive ordnance are conducted by the EOD Units of the Army Corps of Engineers, the Navy, and the Air Force.[48] The 2022 extension request had planned that two fifteen-strong EOD units would be assigned to clear the Pampa Chaca Este and Delta military ranges. For the Barrancas and Punta Zenteno military ranges, one EOD unit (also of 15 personnel) would be assigned to clear each range. This does not include the logistical and administrative support that accompanies each unit.[49] Table 4 summarises the number of personnel involved in clearance during 2023.[50]

42 Ministry of National Defence, Ministerial Order 002, 22 March 2021, on the provision of activities for compliance with the CCM, at: https://tinyurl.com/3n7ymr62

43 Telephone interview with Valentín Segura Flores, Ministry of National Defence, 20 June 2023; and emails, 7 June 2023 and 17 May 2024.

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

45 Article 7 Report (covering 2023), Form F, p. 7.

46 Email from Valentín Segura Flores, Ministry of National Defence, 17 May 2024.

47 Ibid.

48 Ibid.

49 2022 Article 4 deadline Extension Request, p. 12.

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

**Table 4: Operational survey and clearance capacities for 2023[51]**

| Region and Military Range polygon | Operator | Teams | Personnel | Comments |
|---|---|---|---|---|
| Punta Zenteno<br>Magallanes and Chilean Antarctic | EOD Unit Chilean Navy POMTA | 1 | 16 | The personnel are all qualified to also conduct TS and NTS. Two of the Unit are also information management specialists, and both participated in earlier years in NTS and TS teams. |
| **Totals** | **1 EOD Unit** | **1** | **16** | |

# LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

## LAND RELEASE OUTPUTS IN 2023

In 2023, Chile released 1,435,872m$^2$ through manual clearance, destroying in situ 229 submunitions. This is the first clearance of CMR since Chile became a State party to the CCM in June 2011. The contamination was in one CHA in the Punta Zenteno military range, located in Punta Arenas, in the Magallanes and Chilean Antarctic region.[52] Priority was given to clearance of the Punta Zenteno polygon as the Navy Unit "Partida de Operaciones de Minas Terrestres" (POMTA) was based there and the equipment and PPE had an expiry date of the end of the year.[53]

No area was released through survey or clearance in 2022.[54] In 2021, Chile reduced almost 33.84km$^2$ of CMR-contaminated area through TS.[55]

## ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR CHILE: 1 JUNE 2011

↓

ORIGINAL ARTICLE 4 DEADLINE: 1 JUNE 2021

↓

FIRST EXTENDED DEADLINE (INTERIM ONE-YEAR EXTENSION): 1 JUNE 2022

SECOND EXTENDED DEADLINE (INTERIM ONE-YEAR EXTENSION): 1 JUNE 2023

↓

**THIRD EXTENDED DEADLINE (THREE YEARS): 1 JUNE 2026**

**JUST ON TRACK TO MEET ARTICLE 4 DEADLINE**

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

Chile was granted a second interim extension request at Part 2 of the Second CCM Review Conference in September 2021. Chile conducted TS in late 2021, reducing the estimate of contaminated area by more than 50%. In April 2022, Chile submitted a third extension request to 1 June 2026 during which time Chile plans to clear all CMR-contaminated area. In May 2022, Chile submitted a revised extension request, providing additional information to the Article 4 Analysis Group in response to their concerns that the amount of clearance capacity Chile was allocating to each site was not sufficient to meet the annual clearance targets. However, as Chile has already conducted military clearance of these sites in the past, it is expected that the actual remaining CMR contamination will be low. During the Tenth Meeting of State Parties to the CCM, Chile was granted its third extension to June 2026.

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

51 Email from Valentín Segura Flores, Ministry of National Defence, 17 May 2024.

52 Ibid.; and Article 7 Report (covering 2023), Form F, pp. 6 –7.

53 Email from Valentín Segura Flores, Ministry of National Defence, 17 May 2024.

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

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

**Table 5: Five-year summary of CMR clearance**

| Year | Area cleared ($m^2$) |
|---|---|
| 2023 | 1,435,872 |
| 2022 | 0 |
| 2021 | 0 |
| 2020 | 0 |
| 2019 | 0 |
| **Total** | **1,435,872** |

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

As CMR contamination is solely located in military training ranges, once clearance has been completed, the ranges will continue to be used for military training with different types of ordnance. Clearance will be carried out by the EOD units with the Armed Forces once each training exercise has been completed.[56] Both the EOD teams of the armed forces and the CEDDEX will continue functioning after the compliance with Article 4.[57]

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

57 Email from Valentín Segura Flores, Ministry of National Defence, 14 May 2024.

# GERMANY

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

**ARTICLE 4 DEADLINE: 1 AUGUST 2025**
EXTENSION REQUESTED TO 1 AUGUST 2030

## KEY DATA

**CLUSTER MUNITION CONTAMINATION:** LIGHT

NATIONAL ESTIMATE

**4.4KM²**

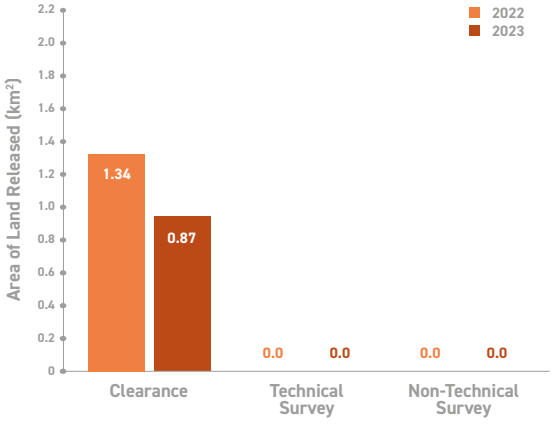
SUBMUNITION CLEARANCE IN 2023

**0.87KM²**

SUBMUNITIONS DESTROYED IN 2023

**483**

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

In 2023, Germany's clearance output decreased by a third compared to the previous year, primarily due to a reduction in the number of clearance personnel and the high levels of other unexploded ordnance (UXO) found. For the past five years, Germany has struggled to meet its clearance targets and is not on track to meet its current Article 4 deadline under the Convention on Cluster Munitions (CCM). Consequently, in 2024, Germany requested an extension to 2030. If Germany can sustain its current clearance capacity and ensure adequate areas are available for clearance, it should be able to achieve the new deadline being sought.

## RECOMMENDATIONS FOR ACTION

- **Germany should regularly update its CCM Article 4 planning based on annual outputs and provide updates on the progress of clearance at Wittstock in its Article 7 transparency reports.**
- **Germany should ensure that its second extension period should be the last.**

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

| Criterion | Score (2023) | Score (2022) | 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 use of weapons at the site and the significant amount of other explosive remnants of war (ERW), Germany has not been able to determine the exact extent and density of CMR. |

| Criterion | Score (2023) | Score (2022) | Performance Commentary |
|---|---|---|---|
| **NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT** (10% of overall score) | 8 | 8 | There is strong national ownership and commitment to release the sole CMR-contaminated area. Roles and responsibilities for clearance are clear, coherent, and entirely funded by the federal government, albeit at high cost. |
| **GENDER AND DIVERSITY** (10% of overall score) | 7 | 7 | There is equal access to employment for qualified women and men for explosive ordnance disposal (EOD), including of CMR, although women make up only a small proportion of the sector. At the end of 2023, 15% of all clearance personnel were female, a similar proportion to 2022. |
| **ENVIRONMENTAL POLICIES AND ACTION*** (10% of overall score) | 7 | Not Scored | Germany does not have a stand-alone environmental management policy or national mine action standard on the environment. However, strict environmental procedures are in place as the site is located within a special area of conservation and is afforded protections under German and European law. There are specific mitigation measures in place to preserve priority natural habitat types and limit the amount of controlled burning that can take place. |
| **INFORMATION MANAGEMENT AND REPORTING** (10% of overall score) | 8 | 8 | Germany submits timely and accurate Article 7 reports, and for the first time in 2023 included annual clearance figures as well as cumulative output. Once again, however, Germany still included only cumulative figures for the number of submunitions destroyed. |
| **PLANNING AND TASKING** (10% of overall score) | 7 | 7 | While Germany does not have a national mine action strategy, it has submitted a new completion plan to 2030 with annual targets for clearance. Germany also elaborates annual work plans, which it adjusts according to capacity and output. |
| **LAND RELEASE SYSTEM**** (10% of overall score) | 8 | 8 | Germany's clearance capacity decreased in 2023 following the termination of one of its three contractors and the very high levels of other UXO contamination found. Demining at Wittstock is primarily conducted manually due to the high levels of other ERW at the site, which restricts the use of technical survey and full application of mechanical assets. |
| **LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE** (20% of overall score) | 6 | 6 | In 2023, Germany cleared 0.87km$^2$ of cluster munition-contaminated area, two-thirds that of the previous year. It will not meet its first extended Article 4 deadline and has thus submitted a second request for an extension to 1 August 2030. If Germany can maintain its clearance capacity at current levels and provided there are enough areas to be cleared given the restrictions on controlled burning, it could meet its new deadline. |
| **Average Score** | **7.3** | **7.4** | **Overall Programme Performance: GOOD** |

* New criterion introduced in 2024 to assess performance.
** The weighting of this criterion was previously 20% of overall performance score, but is now given a 10% weighting.

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

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

### NATIONAL OPERATORS

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

### INTERNATIONAL OPERATORS

- None

### OTHER ACTORS

- None

## UNDERSTANDING OF CMR CONTAMINATION

As at the end of 2023, Germany reported 4.41km$^2$ 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 the 5.28km$^2$ reported for the end of 2022,[2] the result of clearance in 2023.

Cluster munition remnants (CMR) were discovered "by chance" at Wittstock and declared at the CCM intersessional meetings in June 2011.[3] From 2011 to early 2014, suspected CMR contamination was reported to total 4km$^2$.[4] In August 2014, however, Germany reported that the total suspected hazardous area (SHA) was actually 11km$^2$.[5] The increased estimate was ascribed to discovery of submunitions during non-technical survey (NTS) across a wider area than previously reported.[6] According to Germany, the dense vegetation cover and the special hazards posed by CMR and other explosive ordnance precluded the conduct of technical survey over the SHA.[7] A wide range of Soviet-era submunitions have been found at the site: 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.[8]

The entire Wittstock site, which extends over 120km$^2$, is heavily contaminated with a range of unexploded ordnance (UXO) in varying spatial distribution and overlapping contamination as a result of use of the site for military training purposes in 1952–93.[9] CMR contamination is found in the area of a mock airfield within the site. This area was used by the air force for bombing practice and by the army for artillery firing exercises, as well as for general military exercises and training. Use 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 unexploded submunitions and other UXO is not known for a large part of the hazardous area.[10]

In early October 2011, ownership of Wittstock was transferred from the military to the federal government authority in charge of real estate, Institute for Federal Real Estate (BImA). BImA implemented a risk education programme that included marking the perimeter and preventing civilian access to the area, based on a "danger prevention plan".[11] Persistent delay in initiating clearance of CMR at Wittstock until March 2017[12] was ascribed to extensive preliminary work needed to prepare the area for CMR clearance.

Due to contamination from large items of UXO, fire-breaks were created using an unmanned, remote-controlled caterpillar by an explosive ordnance disposal (EOD) contractor in 2016.[13] This was completed that year with the exception of a small, forested area on the eastern edge of the SHA.[14] The prescribed burning of the first sections of the SHA started in 2017 and continues 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.[15]

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Germany has full national ownership of its land release efforts. The Wittstock site is administrated and project managed by the Federal Forestry Agency as a subdivision of the BImA. The BImA is wholly owned by the federal government.[16] 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.[17] Commercial UXO clearance operators are contracted and managed by the local branch of the Federal Forestry Agency, Bundesforstbetrieb West Brandenburg.[18] The Regulatory Agency of the County of Ostprignitz-Ruppin is responsible for public security under the police law of the federal state of Brandenburg.[19]

1 CCM Article 7 Report (covering 2023), Form F.

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

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

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

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

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

7 CCM Article 4 deadline Extension Request, 2019, p. 9.

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

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

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

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

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

13 2019 Article 4 deadline Extension Request, 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.

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

15 2019 Article 4 deadline Extension Request, p. 22.

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

17 Ibid.

18 Ibid.

19 Ibid., p. 6.

In Germany, clearance and disposal of UXO is a security task under the control of the police and administrative legislation and is therefore the responsibility of the respective federal states. Almost all federal states have set up a corresponding state agency for EOD for these tasks. In Brandenburg, this is the KMBD (an abbreviation for, in English, the Brandenburg state war material disposal service), which is part of the Brandenburg police. Under German legislation, the federal government is not allowed to maintain an agency for EOD.[20] Contracting foreign companies for CMR clearance in Wittstock is also not possible under German law.[21] SafeLane Global, an international commercial clearance contractor, has been registered and operational in Germany since 2018 and was therefore eligible to bid for the tender.[22]

All CMR clearance costs are paid for by the federal BImA and national funding to complete CMR clearance has been fully secured.[23] CMR clearance costs have increased substantially from just over €1.6 million in 2017 to €32.1 million in 2022 and down to €29.6 million in 2023.[24] In its second Article 4 deadline extension request, Germany forecasts that average annual spending will be around €30 million, meaning that €150 million will be required in total for 2024 to 2028 with the spend in 2029 estimated to be up to €20 million. This differs considerably from the estimates made for the 2019 extension request because the projected duration of the clearance operation is significantly longer; costs in general have risen significantly because of inflation and personnel costs; and the need to employ more technological interventions.[25]

## GENDER AND DIVERSITY

Although there is equal access to employment for qualified women and men for EOD clearance in Germany, women only make up a small proportion of the sector, especially in terms of the number of qualified female EOD technicians with a licence for commercial EOD.[26] In 2023, as Table 1 illustrates, the proportion of women in operational roles was between 11% and 14%, while IB Winkelmann, the on-site project management/clearance supervision company had 33% female staff.[27]

**Table 1: Gender composition of operators in 2023[28]**

| Operator | Total staff | Women staff | Total managerial or supervisory staff | Women in managerial or supervisory positions | Total operational staff | Women in operational positions |
|---|---|---|---|---|---|---|
| Röhll Munitionsbergung GmbH (Brandenburg/ Havel) | 87 | 12 (14%) | 6 | 1 (17%) | 81 | 11 (14%) |
| Schollenberger Kampfmittelbergung GmbH (Celle) | 76 | 10 (13%) | 6 | 2 (33%) | 70 | 8 (11%) |
| IB Winkelmann | 6 | 2 (33%) | 6 | 2 (33%) | 0 | 0 |
| **Totals** | **169** | **24 (14%)** | **18** | **5 (28%)** | **151** | **19 (13%)** |

## ENVIRONMENTAL POLICIES AND ACTION

The clearance site is located within a special area of conservation in the Kyritz-Ruppiner-Heide, the largest contiguous area of heather-rich habitat in Germany managed by BImA as part of the Europa NATURA 2000 site, under the European Union (EU) Habitats Directive.[29] Germany does not have a stand-alone environmental management policy or national mine action standard (NMAS) on the environment in place. However, environmental considerations are considered in the federal "Guidelines for the Clearance of Explosive Ordnance". At Wittstock, close coordination is reported to have been established with relevant and responsible authorities including conservation authorities with respect to environmental aspects during planning and execution of clearance work, to assure that negative effects are avoided.

20 2019 Article 4 deadline Extension Request, p. 12.
21 Ibid., p. 34.
22 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 24 June 2022.
23 2024 Article 4 deadline Extension Request, p. 58.
24 Article 7 Report (covering 2023), Form I; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 25 May 2023.
25 2024 Article 4 deadline Extension Request, p. 58.
26 Emails from official on the Desk for Conventional Arms Control, Federal Foreign Office, 31 July 2020 and 10 May 2021.
27 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 27 June 2024.
28 Ibid.
29 APMBC Article 5 deadline Extension Request, 15 April 2013, p. 7; and CCM Article 7 Report (covering 2015), Form F.

Special emphasis is placed on preserving priority natural habitat types. For example, restoration efforts in areas previously characterised by shifting dunes aim to restore these regions to their original dune habitat state upon project completion. Whenever feasible, synergies between clearance efforts and nature conservation are leveraged. In instances where these synergies are not possible, additional funding is allocated to ensure compliance with conservation laws.[30]

The burning of the heath is a necessary step before any clearance can take place, and strict environmental regulations are enforced. These regulations include conducting the burning outside bird-breeding seasons, and when the ground fauna, such as insects and lizards, are in their hibernation habitats. The burning, followed by the ploughing of the topsoil, deprives the vegetation of nutrients, which contributes to a NATURA 2000 objective to preserve the native flora as it has adapted to dry, nutrient-poor soil conditions.[31] However, there are also environmental implications of vegetation burning, including the resultant carbon emissions.

Nature conservation requirements limit the controlled burning to a maximum of 2–3km$^2$ annually, which, for safety reasons and environmental concerns, is limited to a few days per year. Germany plans to burn approximately 2.5km$^2$ per year, to build up a reserve of burnt areas for clearance.[32] In 2023, however, unfavourable weather conditions prevented any controlled burning. The areas that have already been burned were expected to be cleared by the middle of 2024. If controlled burning is not feasible, it could result in a significant reduction in the clearance rate, or potentially stop operations altogether.[33] The positive effects of burning only last for up to two years before the heath grows back more densely than before.[34]

Another aspect of environmental protection is associated with EOD. Only explosive ordnance that is too hazardous to transport is destroyed on site, primarily consisting of cluster munitions and certain types of bombs. The remaining explosive ordnance will be disposed of by the clearance service "in a skilled and environmentally responsible manner."[35] While energy supplies are currently maintained by generators, Germany is making plans to replace these generators with solar panels.[36]

## INFORMATION MANAGEMENT AND REPORTING

Germany uses its own information management system to record the special distribution of CMR, which includes a geographic information system (GIS).[37]

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. In its Article 7 report for 2023, Germany included annual clearance figures as well as its cumulative output from 2017 for the first time. Once again, however, Germany included only cumulative figures for the number of submunitions destroyed.

## PLANNING AND TASKING

Due to the fact that cluster munition contamination is limited to Wittstock, Germany does not have a national mine action strategy for CCM Article 4 implementation.[38] Germany's second Article 4 deadline extension request, submitted in 2024, includes annual clearance projections of approximately 0.82km$^2$ in 2023; 0.80–0.90km$^2$ per year from 2024 to 2028, and 0.40–0.50km$^2$ in 2029, with associated documentation to be finalised in 2030.[39] 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.[40]

Germany has committed to continuously monitoring targets by comparing planned objectives with actual clearance. This process will identify discrepancies, enabling appropriate measures to be taken.[41] Evidence-based annual work plans guide clearance operations and are adjusted as necessary, such as by increasing demining capacity.[42] A project coordination committee meets on a weekly basis with its core members, and each month with an extended group, to assess the status of clearance progress as well as the quality of clearance, costs, and milestones compared to the project plans. Fortnightly reports are disseminated to document clearance and progress.[43]

30 2024 Article 4 deadline Extension Request, p. 20.
31 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 18 July 2023.
32 2019 Article 4 deadline Extension Request, p. 35.
33 2024 Article 4 deadline Extension Request, p. 50.
34 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 22 June 2022.
35 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 18 July 2023.
36 2024 Article 4 deadline Extension Request, p. 44.
37 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 16 April 2019.
38 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.
39 2024 Article 4 deadline Extension Request, p. 56.
40 Ibid.
41 Ibid.
42 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.
43 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.

# 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] These guidelines are updated on an ongoing basis, for instance to include new technical and safety aspects.[46]

Although Germany does not have NMAS in place, it references the International Mine Action Standard (IMAS) 07.14 on risk management in its 2024 Article 4 deadline extension request as Germany plans to develop a risk register based on IMAS 07.14 guidelines.[47]

The entire area suspected to be contaminated with CMR has been divided into 50 x 50 metre boxes.[48] 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.[49] The smallest target for detector sensitivity for clearance has been defined as a half sphere of a ShOAB-0.5 submunition.[50]

Under state regulation of war material ("Kampfmittelverordnung"), the transport and disposal of explosive ordnance in Brandenburg state is the sole responsibility of the KMBD.[51]

## 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. Two commercial UXO clearance contractors won the original public tender for CMR clearance at Wittstock: Röhll Munitionsbergung GmbH (Brandenburg (Havel)) and Schollenberger Kampfmittelbergung GmbH (Celle).[52] A third contractor, SafeLane Global (Ludwigsfelde), was hired in late 2021, which led to an increase in capacity in 2022, but their contract was terminated on 1 January 2023.[53] In 2023, there were 190 personnel on site, compared to 212 in 2022, and of this 160 were operational clearance staff. In 2023, Germany operated with 10 clearing squads (each comprising five manual clearance teams) totalling 100 EOD technicians, 10 "Verantwortliche Personen" (i.e., supervisors or managers), and 13 excavator squads with about 50 personnel. The remaining 30 individuals work in storage facilities and site management.[54]

The process of clearing CMR at Wittstock involves controlled burning of vegetation followed by subsurface clearance to process the upper soil layers. In areas highly contaminated with ferromagnetic metal objects, which has increased in extent during clearance, the procedure involves controlled burning and the clearance of larger munitions, followed by volume clearance using screening buckets. The screening buckets are attached to armoured excavators, which are operated under the supervision of licensed personnel via video monitoring.[55]

According to federal guidelines, while mechanical clearance would be possible for CMR, it is not possible at Wittstock. This is due to the large calibre of some of the munitions present (large quantities of air-dropped and shaped-charge munitions), which would pose a hazard to both the operators and the equipment. Tilling can also lead to widespread environmental contamination with explosive compounds, a type of pollution that is explicitly prohibited under German environmental legislation.[56]

44 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 2; and CCM Article 4 Extension Request 2024, p. 16.
45 2019 Article 4 deadline Extension Request, p. 12.
46 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 10 May 2022.
47 2024 Article 4 deadline Extension Request, p. 48.
48 2019 Article 4 deadline Extension Request, p. 25.
49 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 2.
50 Ibid.
51 2019 Article 4 deadline Extension Request, p. 12.
52 Germany, Extension Request Report – Answers to the Analysis Group, 8 February 2019, p. 5.
53 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 25 May 2023.
54 2024 Article 4 deadline Extension Request, p. 41.
55 Ibid., p. 21.
56 Ibid., pp. 20–21; and email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 22 June 2022.

# LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

## LAND RELEASE OUTPUTS IN 2023

More than 0.87km$^2$ of CMR-contaminated area was cleared in 2023, with the destruction of 483 submunitions. No area was released through survey.

## SURVEY IN 2023

No CMR-contaminated area was cancelled through non-technical survey or reduced through technical survey in 2023, or in the previous year.[57]

## CLEARANCE IN 2023

The clearance total in Germany's Article 7 report for 2023 was 872,500m$^2$ while the figure provided directly to Mine Action Review (see Table 2) was 873,000m$^2$. Clearance involved destruction of a total of 483 submunitions, which occurred either *in situ* or at a nearby demolition site.[58] Output was a 35% decrease from the 1.34km$^2$ of CMR-contaminated area that was cleared in 2022 when 1,187 submunitions were destroyed.[59]

**Table 2: CMR clearance in 2023[60]**

| Operator | Area cleared (m$^2$) | Submunitions destroyed |
|---|---|---|
| Röhll Munitionsbergung GmbH (Brandenburg/Havel) | 512,000 | 86 |
| Schollenberger Kampfmittelbergung GmbH (Celle) | 361,000 | 397 |
| **Totals** | **873,000** | **483** |

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.[61]

## ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR GERMANY: 1 AUGUST 2010

↓

ORIGINAL ARTICLE 4 DEADLINE: 1 AUGUST 2020

↓

FIRST EXTENDED DEADLINE (5 YEARS): 1 AUGUST 2025

↓

**SECOND EXTENDED DEADLINE SOUGHT (5 YEARS): 1 AUGUST 2030**

**NOT ON TRACK TO MEET ARTICLE 4 DEADLINE (EXTENSION REQUESTED)**

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 has requested a five-year extension to this deadline to 1 August 2030, the second extension it has requested.

After extensive and lengthy preliminary work for preparation of the site for clearance, including survey and a creation of a fire protection system, Germany finally began CMR clearance in March 2017. A total of 5.36km$^2$ of CMR contamination has been cleared in the last five years (see Table 3).

**Table 3: Five-year summary of CMR clearance**

| Year | Area cleared (km$^2$) |
|---|---|
| 2023 | 0.87 |
| 2022 | 1.34 |
| 2021 | 0.85 |
| 2020 | 1.09 |
| 2019 | 1.21 |
| **Total** | **5.36** |

57 Article 7 Reports (covering 2023 and 2022), Form F.

58 Ibid.

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

60 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 27 June 2024.

61 2019 Article 4 deadline Extension Request, p. 28.

In its 2019 Article 4 deadline extension request, Germany predicted that clearance would take between five and six years (meaning completion between 2023 and 2024), based on the estimated 9.8km$^2$ of remaining CMR contamination as at the end of 2018, and an estimated annual clearance capacity of 140 personnel, working 225 days per annum, at a clearance rate of 50–60m$^2$ per person per day. This corresponds to clearance of 1.5–2km$^2$ per annum. Reporting and documentation relating to clearance efforts were predicted to be finalised in 2025.[62]

But Germany has not been able to meet the annual planned clearance outputs as set out in its 2019 Article 4 deadline extension request. Germany stated that the obstacles which impeded its ability to meet its 2025 deadline include the very high levels of other UXO contamination being found. The screening process of every UXO and piece of scrap metal that is detected considerably slows down clearance of the area.[63] Germany also has difficulty hiring and retaining staff at Wittstock due to the peripheral location of the site and a lack of trained personnel from which to recruit from. Germany's clearance plan also assumes that a sufficient amount of controlled burning can take place to meet the planned clearance output and due to the ongoing drought and high temperatures in the area there are various fire protection works that must take place alongside clearance as well as the need for frequent scheduled breaks for staff. There are also long lead times for new equipment and replacement parts which results in unplanned downtime.[64] These are all legitimate circumstances, which will continue to pose challenges for Germany and could potentially prevent it from completing by the next five-year extended deadline.

Germany's predicted clearance calculations are based on 190 personnel working 225 days a year with an average clearance rate of 20m$^2$ per day, resulting in an annual clearance output of 855,000m$^2$.[65] However, as detailed in the section above, Operators and Operational Tools, Germany operated with around 160 clearance personnel in 2023.[66] Germany then re-calculated its clearance calculation in its response to the request from the Article 4 Committee to 24.4m$^2$ per day giving an annual output for 160 staff of 878,400m$^2$ which is in line with its clearance output for 2023.[67] Germany told Mine Action Review in June 2024:

> So far, we have always calculated average performance per person based on all those working on the site. It is not practicable to calculate this figure on the basis of the number of clearance personnel only, as clearance output depends equally on the presence and efficiency of site management personnel, documentation, quality assurance, as well as supporting staff (e.g. equipment maintenance, cleaning). … The daily clearance performance determined by the number of all employees is an average value that represents a realistic order of magnitude with a certain margin and thus preferable to a costly and time-consuming evaluation of the personnel actually deployed in the fields on a daily basis.[68]

If Germany can sustain its current clearance capacity and avoid running out of areas to be cleared due to limited controlled burning, which is restricted to a few days each year and dependent on meteorological conditions, it should be able to meet its second extended deadline.

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Germany is not aware of any further cluster munition contamination beyond Wittstock, but if, contrary to expectations, contamination does become known in the future, the responsible authority would depend on the ownership of the area in question. For any federal property, the BImA responsible for clearance at Wittstock would be the authority to deal with such new contamination.[69]

62 Ibid., pp. 33 and 37.

63 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 25 May 2023; and online meeting, 15 June 2023.

64 Article 7 Report (covering 2022), Form F; and CCM Article 4 Extension Request 2024, p. 49.

65 2024 Article 4 deadline Extension Request, p. 54.

66 Ibid., p. 41.

67 Email response to Article 4 Committee, 10 June 2024.

68 Email from official on the Desk for Conventional Arms Control, Federal Foreign Office, 27 June 2024.

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

# IRAQ

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

**ARTICLE 4 DEADLINE: 1 NOVEMBER 2028**
NOT ON TRACK TO MEET DEADLINE

## KEY DATA

**CLUSTER MUNITION CONTAMINATION:** HEAVY

OFFICIAL BUT PARTIAL ESTIMATE

**208KM²**

SUBMUNITION CLEARANCE IN 2023

**13.26KM²**

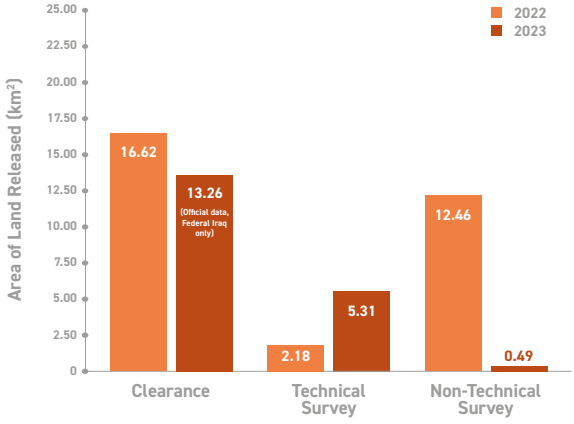
(OFFICIAL DATA, FEDERAL IRAQ ONLY)

SUBMUNITIONS DESTROYED IN 2023

**8,080**

(INCLUDING 69 IN SPOT TASKS IN THE KRI)

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

In 2023, Iraq received a five-year extension to its Article 4 clearance deadline under the Convention on Cluster Munitions (CCM) until November 2028 but estimated that with the resources available at the time it would require 16 years to achieve completion. The government reportedly allocated $17 million from the national budget for mine action in the south over three years but additional national funding reportedly was not received. Continued rapid turnover of Directorate of Mine Action (DMA) leadership in 2023 was accompanied by widespread changes of senior staff affecting continuity of policy. The DMA moved ahead in 2023 with preparations for upgrading its database from Information Management System for Mine Action (IMSMA) New Generation to IMSMA Core but in 2024 reportedly decided not to proceed.

## RECOMMENDATIONS FOR ACTION

- **The Iraqi government should provide the DMA with the legal authority, funding, human resources, and training to strengthen its effectiveness as the national mine action authority.**
- **The government should stabilise leadership of the DMA to facilitate continuity of policy and consistency in its implementation, including in the issuance of task orders.**
- **The government should increase national financial funding for mine action to offset declining international donor support and provide greater transparency in its allocation and use of resources.**
- **The DMA as a matter of priority should take action to upgrade and update its IMSMA database and the resources supporting information management.**

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

| Criterion | Score (2023) | Score (2022) | Performance Commentary |
|---|---|---|---|
| **UNDERSTANDING OF CMR CONTAMINATION** (20% of overall score) | 6 | 6 | Large, previously unrecorded cluster munition-contaminated areas continued to be identified in 2023, underscoring the limitations of previous survey and Iraq's understanding of how much it has to clear. The DMA's Regional Mine Action Centre-South (RMAC-S) agreed with Norwegian People's Aid (NPA) in 2023 that it should focus on survey to develop an evidence-based baseline estimate of contamination. |
| **NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT** (10% of overall score) | 6 | 7 | Iraq officially approved a new mine action strategy for 2023–28, the first produced in consultation between the mine action authorities for the Kurdish Region and Federal Iraq. It recognised the need to increase national ownership and increase national funding for the sector but stakeholders report that funding earmarked for operations in the south in the national budget was spent on other programmes. Management of the sector meanwhile suffered from high turnover of leadership in the DMA. |
| **GENDER AND DIVERSITY** (10% of overall score) | 7 | 7 | Iraq's 2023–28 mine action strategy acknowledged the importance of gender and diversity to the sector. The DMA and the Iraq Kurdistan Mine Action Agency (IKMAA) have conducted workshops and training promoting inclusion in what has been a male-dominated sector. Political sensitivities on gender led to the term being banned in official announcements in 2023 but did not appear to affect employment of women despite conservative social attitudes. |
| **ENVIRONMENTAL POLICIES AND ACTION*** (10% of overall score) | 4 | Not Scored | Iraq does not have a national standard on environmental management in mine action. Some international demining organisations are exploring how their capacity can help address severe pressure on water supply and irrigation systems to facilitate productive use of cleared land. The HALO Trust is looking into possibilities of partnerships with local organisations to follow up clearance with assistance to rehabilitate soil and irrigation systems to address acute problems of water quality and supply. |
| **INFORMATION MANAGEMENT AND REPORTING** (10% of overall score) | 6 | 6 | DMA information management still struggled with obsolete reporting procedures causing chronic delays uploading operating results to the database and big discrepancies between official and operator data. IKMAA is upgrading its database from IMSMA NG to a new system based on open-source software. The DMA was preparing in 2023 to upgrade from IMSMA NG to Core but in 2024 appeared to have halted the process. Iraq submits annual updates on progress in Article 7 reports. |
| **PLANNING AND TASKING** (10% of overall score) | 7 | 7 | Planning and tasking for survey and clearance of cluster munition-contaminated areas have benefitted from good coordination between RMAC-S, operators, and local authorities. Operators say RMAC-S's task-order system works, efficiently prioritising tasks according to local recommendations, DMA priorities, and operator requests. |
| **LAND RELEASE SYSTEM**** (10% 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. The DMA has worked since 2022 to update national mine action standards. |
| **LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE** (20% of overall score) | 5 | 6 | Official figures show release of CMR-affected areas in 2023 dropped to around one third of the level in the previous year. This mainly reflected the significant drop in cancellation through non-technical survey (NTS) recorded by the DMA in 2023, but clearance was also down by nearly one quarter. Iraq received a five-year extension of its Article 4 deadline until 2028 but indicated with the resources currently available it would take close to 16 years to achieve completion. |
| **Average Score** | **5.9** | **6.5** | **Overall Programme Performance: AVERAGE** |

* New criterion introduced in 2024 to assess performance.

** The weighting of this criterion was previously 20% of overall performance score, but is now given a 10% weighting.

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

### INTERNATIONAL OPERATORS

- Danish Refugee Council

- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)

OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

## UNDERSTANDING OF CMR CONTAMINATION

Iraq ranks as one of the countries most heavily affected by cluster munition remnants (CMR) and its estimate of contamination is still growing. At the end of 2023, Iraq reported total CMR contamination of close to 206km$^2$ (see Table 1), 8.5% more than a year earlier.[1] This is despite reported clearance of more than 13km$^2$ in 2023.

Contamination at the end of 2023 affected nine of Federal Iraq's 15 governorates, but 92% of it was concentrated in just three southern governorates of Basrah, Muthanna, and Thi Qar. Missan was reported cleared of CMR in 2023 but the northern governorate of Kirkuk joined the list of affected governorates in 2023, which saw estimates of contamination increase in six governorates.

**Table 1: Federal Iraq cluster munition-contamination[2]**

| Province | Area (at end 2023) (m$^2$) | Area (at end 2022) (m$^2$) |
|---|---|---|
| Anbar | 11,216,039 | 10,974,800 |
| Babylon | 911,758 | 633,031 |
| Basrah | 56,053,577 | 46,497,041 |
| Karbala | 141,910 | 141,910 |
| Kirkuk | 79,109 | 0 |
| Missan | 0 | 955,962 |
| Muthanna | 90,117,749 | 81,790,909 |
| Najaf | 3,704,571 | 3,700,442 |
| Ninewa | 215,758 | 21,224 |
| Thi Qar | 43,329,654 | 44,887,183 |
| Qadisiya | 0 | 0 |
| **Totals** | **205,770,125** | **189,602,502** |

CMR survey concentrated in southern governorates continues to add substantial areas of previously unrecorded contamination to the database. Iraq's Article 4 deadline extension request estimated that operators would find another 79km$^2$ of CMR-contaminated area over the five years to 2028, an estimate that looks extremely conservative. Iraq reported that survey added a total of 24km$^2$ in 2023,[3] including 9.6km$^2$ in Basrah governorate and 8.3km$^2$ in Muthanna. This was substantially less than the nearly 48km$^2$ added in the previous year[4] and the 30km$^2$ of previously unrecorded hazardous area identified by Norwegian People's Aid (NPA) in 2023.[5] At this rate, Iraq looked more likely to identify more than 150km$^2$ of additional hazardous areas in this extension period.

Federal Iraq's contamination dates back to the Gulf War of 1991 and the United States (US)-led invasion of Iraq in 2003, and follows the path of allied forces' advance from the south to Baghdad. Coalition aircraft also struck Iraqi army positions in the northern governorate of Kirkuk but DMA data no longer identifies any CMR contamination in the governorate.[6] The most commonly found items are M77, BLU-63 and BLU-97 submunitions. Other CMR found include BLU-61, M42, and M118 submunitions.[7]

Although not reflected in Iraq's CCM Article 7 report, the Kurdish Region of Iraq (KRI) has identified close to 3km$^2$ of CMR contamination, 60% of it in Erbil (see Table 2). IKMAA did not identify the origin or device types.

**Table 2: KRI cluster munition-contaminated area[8]**

| Province | Hazardous areas | Area (m$^2$) |
|---|---|---|
| Duhok | 8 | 572,949 |
| Erbil | 2 | 1,753,000 |
| Slemani | 8 | 588,401 |
| **Totals** | **18** | **2,914,350** |

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The mine action programme in Iraq is managed along regional lines. The DMA has represented Iraq internationally and oversees mine action for humanitarian purposes in Federal Iraq, covering 15 of the country's 19 governorates.

Mine action in the KRI's four governorates is overseen by the Iraq Kurdistan Mine Action Agency (IKMAA), which acts as both regulator and operator. The two bodies have functioned largely autonomously and a memorandum of understanding

1 CCM Article 7 Report (covering 2023), p. 5 and Form F; and email from Haitham Fattah Lafta, DMA, 25 April 2024.

2 Article 7 Report (covering 2023), p. 5 and Form F; and email from Haitham Fattah Lafta, DMA, 25 April 2024.

3 Article 7 Report (covering 2023), Form F, p. 27.

4 Ibid., p. 5 and Form F; and Article 7 Report (covering 2022), Form F.

5 Email from Chimwemwe Tembo, Programme Manager, NPA, 2 May 2024.

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

7 Interviews with Nibras Fakhir Matrood, Director, DMA RMAC-S; Haitham Fattah Lafta, RMAC-S, Basrah, 29 April 2019; and Mats Hektor, Project Manager, NPA South Iraq, Basrah, 28 April 2019; and Article 7 Report (covering 2021), Form F; email from Chris Ramsden, Deputy Programme Manager, South Iraq, NPA, 7 June 2024.

8 Email from Niyazi Khalid, IKMAA, 26 June 2024.

(MoU) drafted in 2022 to facilitate cooperation between them was signed in May 2024.

The DMA and IKMAA collaborated in drawing up Iraq's draft National Mine Action Strategy 2022–28, the first produced jointly by the two authorities.[9] The strategy sets increasing national ownership as a key objective and says this will be achieved by strengthening both authorities and "ensuring these national entities are empowered, appropriately structured and sufficiently equipped and resourced to allow them to fulfil their responsibilities."[10]

In 2023, the government earmarked 20 billion Iraqi dinars (US$17 million) over three years to support implementation of the CCM[11] but the funding was not disbursed on mine action and appears to have been used by the Ministry of Environment for other projects.

## FEDERAL IRAQ

The inter-ministerial Higher Committee of Mine Action,[12] which reports to the Prime Minister, oversees and approves mine action strategy, policies, and plans. The committee, which is chaired by the prime minister, includes representatives of the ministries of defence, interior, oil and environment as well as the National Security Council and IKMAA. The DMA "plans, coordinates, supervises, monitors and follows up all the activities of mine action". It draws up the national strategy and is responsible for setting national standards, accrediting, and approving the standing operating procedures (SOPs) of demining organisations, and certifying completion of clearance tasks.[13]

DMA coordination of mine action remains a challenge in a sector in which its formal status as a department of the relatively low-ranking Ministry of Environment gives it less authority than the powerful ministries of defence, interior, and oil, which are also major actors in the sector. Long-running discussions on a proposed demining law have raised the possibility of placing the DMA directly under the Office of the Prime Minister but there was no indication in 2023 the government planned to take up the idea.

DMA policy making and implementation has also suffered from a rapid turnover of directors. The DMA has had at least 19 directors general since 2003, including three in the last year. All but one were appointed on an acting basis, which also limited their authority. Dr Sabah Hasan al-Hussaini, who assumed the position in February 2023, was already the head of another directorate and returned full time to that position after some months. Shawkat Tayeh Masoud, a former director of operations who had left the DMA in 2022, returned as acting director in September 2023.

Under Director General Masoud, the DMA experienced sweeping changes of senior managers and a restructuring. The DMA previously oversaw three Regional Mine Action Centres (RMACs) for the North, the Middle Euphrates (MEU) region and the South[14] but RMACs North and MEU were closed down in September 2023. RMAC South, located in Basra City, remains the focal point for Federal Iraq's response to CMR contamination. It collects and uploads results of survey and clearance to Federal Iraq's IMSMA database and is responsible for tasking operators in its area of operations.[15]

The government approved a national strategic plan for 2023–28 in June 2023[16] which acknowledges the institutional issues, citing "widespread belief" that the DMA should be strengthened to give it the authority commensurate with its mandate. The plan calls for an external assessment of the DMA's mandate and position that would provide recommendations to the Higher Council for Mine Action but it does not indicate any timeline for this review and as at June 2024 there was no sign of any move to conduct it.[17]

The strategic plan calls for strengthened national ownership and more national funding, recognising the dependence on external donor support as a key risk to sustainability of Iraq's mine action programme.[18] To boost the capacity available for mine action the DMA says Iraq's Popular Mobilisation Forces (PMF) "have accepted to be involved" in mine action. The DMA reported the PMF had their own EOD [explosive ordnance disposal] Directorate and a significant workforce in many governorates.[19]

Donor funding for demining operations channelled through UNMAS has declined significantly from its high point of US$77 million in 2019 (some of it for activities in 2019–20) and faced the possibility of a further significant drop in 2024.[20] International donors have prioritised funding for clearance of improvised mines in areas occupied by Islamic State in western and northern governorates, largely bypassing the financial requirements for clearance of the south which account for almost all Iraq's CMR contamination and are dependent on Iraqi government funding.

Iraq reported that government funding for mine action totalled about $81 million in the decade to 2022 and averaged close to $4 million a year in 2020–22.[21] The government

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

10 Iraq National Mine Action Strategy 2002-2028, p. 36.

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

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

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

14 RMAC North covered governorates of Anbar, Diyala, Kirkuk, Nineveh, and Salah ad-Din; RMAC MEU included Babylon, included Baghdad, Karbala, Najaf, Qadisiya, and Wassit; RMAC South included Basrah, Missan, Muthanna, and Thi Qar.

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

16 Email from Ahmed Aljasem, DMA, 8 August 2023.

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

18 Ibid., pp. 17 and 22.

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

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

21 Article 4 deadline Extension Request, 11 April 2023, p. 40.

budget for 2023 earmarked a payment variously reported as US$20 million and of ID20 billion (US$17 million) over three years towards implementation of the CCM[22] but the funds were not disbursed on CMR activities and appear to have been diverted to other projects.[23]

### KURDISTAN REGION OF IRAQ

IKMAA functions as both the regulator and an operator in the KRI. It reports directly to the Kurdish Regional Government's Council of Ministers and is led by a director general who has ministerial rank. It coordinates four directorates in Dohuk, Erbil, Garmian, and Sulaymaniyah (Slemani). IKMAA had a total staff of more than 900 personnel in 2023, including 432 in operations, largely unchanged from the previous year, but a budgetary crisis in the KRI in recent years has imposed severe constraints on the mine action sector.[24]

IKMAA has received support from Slovenian Aid since 2022 when it provided a grant of €168,000 through ITF Enhancing Human Security. The funds financed the hiring of vehicles enabling IKMAA to deploy 15 demining teams and contributing to a rise in release of mined areas in 2022.[25] Additional Slovenian funding approved at the end of 2023 allowed the hiring of 48 vehicles which enabled teams to deploy in 2024.[26]

### OTHER ACTORS

UNMAS established a presence in Iraq in 2015 to assess the explosive ordnance hazard threat in liberated areas and set three priorities: explosive hazard management to support stabilisation and recovery, including the return of people displaced by conflict; delivery of risk education; and technical support to build capacity of government entities to manage, regulate, and coordinate Iraq's response to explosive ordnance contamination. Since 2021, as donor funding slowed and in line with a greater focus on localisation, UNMAS shifted its focus from explosive hazard management to providing technical support to the mine action authorities and their implementing partners. The UNMAS mission in Iraq employed 100 people with 43 international staff in 2019 but by 2023 numbered only 51 of whom 7 were internationals.[27] The number of donors funding operations in Iraq through UNMAS has dropped from a peak of 21 to 10 in 2023.[28]

## GENDER AND DIVERSITY

The Iraq National Strategic Mine Action Plan for 2017–2021 referred to gender equality and gender mainstreaming within mine action activities as objectives of an effective programmatic response.[29] Iraq's 2023–2028 strategic plan recognises that the impact of contamination varies according to gender, age, and ethnic or religious affiliations and requires specific activities targeting those needs, for which disaggregated data is a prerequisite.[30] The DMA dropped reference to gender mainstreaming in 2023 amid heated political debate on LGBTQ issues which saw the Communications and Media Commission issue a directive in August 2023 banning use of the term 'gender' in public communications.[31] The Council of Ministers instructed in November 2023 that the term "gender" should be replaced by "justice between men and women". The government also launched a National Strategy for Iraqi Women 2023–30 which emphasised women's political participation and economic empowerment.[32]

It was not immediately clear what further action, if any, was planned by the DMA, which created a gender unit in 2017, adopted its first Gender Unit Action Plan in early 2021 and in 2022 cooperated with the Geneva International Centre for Humanitarian Demining (GICHD) and NPA conducting training courses on gender balance and diversity.[33] Iraq's Article 4 deadline extension request submitted in 2023 reported that the DMA, in partnership with NPA, had established and trained two mixed-gender teams (for technical survey and clearance).[34]

IKMAA said it aims to improve its gender and diversity balance in line with Iraq's six-year national strategy but in 2023 employed only 123 women in its total staff of 991 (12%), and only 9 women among the 623 operations staff. IKMAA has plans to deploy all-female demining and EOD teams in all provinces but implementation is dependent on finding donor support.[35]

22 Interviews with Nibras Fakhir Matrood, Director, RMAC-S, in Basra City, 8 May 2023; and Bakr Sahib Ahmed, DMA, in Baghdad, 11 May 2023.
23 Interviews with international mine action stakeholders in Geneva, 28 April to 1 May 2024.
24 Email from Khatab Omer Ahmad, IKMAA, 3 May 2023.
25 Interview with Jabar Mustafa, Director of IKMAA in Erbil, 18 May 2023; and email from Khatab Omer Ahmad, IKMAA, 3 May 2023.
26 Emails from Niyazi Khalid, Deputy Head of IKMAA, 15 April and 13 May 2024.
27 Emails from Shinobu Mashima, UNMAS, 4 May 2019, 6 April 2020, and 11 May 2023; and Hayder Ghanimi, Programme Officer, UNMAS, 28 April and 31 August 2022.
28 Interview with Pehr Lodhammar, UNMAS, in Geneva, 23 June 2023; and email from Ban Yaseen, Programme Management Specialist, UNMAS, 23 June 2024.
29 Iraq National Mine Action Strategy 2023–2028, pp. 12, 18, 20, and 30.
30 Ibid., p. 15.
31 T. Alkuhadry, "As Iraq backslides on gender equality where are its women MPs?", *Aljazeera*, 9 September 2023.
32 Email from Safa Jamal, UNMAS, 27 May 2024.
33 Article 7 Report (covering 2022), pp. 30–36.
34 Article 4 deadline Extension Request, 11 April 2023, p. 26.
35 Email from Niyazi Khalid, IKMAA, 13 May 2024.

Heightened political sensitivities surrounding gender issues prompted several operators to postpone a number of activities but does not appear to have interfered with recruitment and deployment of female staff. Operators have identified declining donor support as an obstacle to employing more women. UNMAS developed a Gender and Diversity toolkit to assist gender mainstreaming by implementing partners. In June 2023, it organised a workshop for female staff of the DMA and ministries of defence and interior and in November it held another workshop for IPs' female field staff.[36]

Among organisations tackling CMR, Danish Refugee Council (DRC) employed 10 women among its 56 operations staff, including six deminers split between two teams.[37] NPA has a gender focal point position to promote mainstreaming which is funded until 2025 and recruited additional female staff in 2023 bringing the number to 105 out of 526 total staff, including 76 women in field roles out of 405 operations personnel.[38]

## ENVIRONMENTAL POLICIES AND ACTION

Iraq does not have a policy on environmental management in mine action. In 2022, the DMA and IKMAA were in the process of preparing a national standard but as of May 2024 this has not been released. Demining organisations mostly apply their own SOPs for managing the environment and minimising harm from operations.

IKMAA, in line with policies of the KRG cabinet's Environment Board, said it seeks to minimise any environmental harm from demining operations through training of deminers, community engagement and rigorous monitoring and evaluation. IKMAA reported mine action planning increasingly had to take account of climate change and the impact of extreme weather events, which include flooding, forest fires and damage to infrastructure. IKMAA said it was developing a range of mitigation strategies including early warning systems.[39]

Some international demining organisations are exploring how their capacity can help address severe pressure on water supply and irrigation systems to facilitate productive use of cleared land. The HALO Trust is looking into possibilities of partnerships with local organisations to follow up clearance with assistance to rehabilitate soil and irrigation systems to address acute problems of water quality and supply.[40] NPA has an environmental SOP followed during the planning and implementation of tasks. Teams avoid disturbing soil unless specifically required for technical survey or clearance operations, and seek to ensure that the soil is in a state suitable for its intended use after completion of a task.[41] In 2022, NPA appointed a global environmental adviser and piloted collection of environmental data in the course of NTS. NPA is also developing support for local communities in rehabilitating irrigation canals and use of irrigation pipelines that help conserve water.[42]

## INFORMATION MANAGEMENT AND REPORTING

Iraq's National Mine Action Strategy 2023–2028 underscores the importance of comprehensive information management processes to effective planning, tasking, implementation, and reporting. It also says Iraq will seek to increase understanding of its remaining mine and CMR contamination through continuous updating of its baseline data by means of a database clean-up, desktop analysis, and contact with communities.[43]

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

The DMA was preparing from 2022 to upgrade to IMSMA Core with support from the GICHD and iMMAP but in 2024 DMA Director General Masoud decided not to proceed. The DMA had installed an IMSMA Core server in December 2022, started field testing reporting forms in 2023, and was due to launch the system by December 2023.[44] It expected to start data migration by uploading risk education and victim assistance data before extending to include survey and clearance results.[45] In March 2024, however, the DMA informed the GICHD it had decided to halt the upgrade and continue working with IMSMA NG.

The policy change added to concerns about an information management system which implementing partners say suffers from significant data gaps and long delays uploading operating results. This means that the database and an online dashboard are not up to date and do not accurately reflect

36 Email from Safa Jamal, UNMAS, 27 May 2024.
37 Email from Mohammed Qassim Abdulridha, Basrah Manager, DRC, 25 April 2024.
38 Email from Chimwemwe Tembo, NPA, 2 May 2024.
39 Email from Niyazi Khalid, IKMAA, 13 May 2024.
40 Email from Hein Bekker, Programme Manager, HALO, 4 May 2023; and interview in Baghdad, 10 May 2023.
41 Email from Chimwemwe Tembo, then Deputy Programme Manager, NPA, 12 April 2023.
42 Ibid; and interview with Chris Tierney, Programme Manager, NPA, in Baghdad, 13 May 2023.
43 Iraq National Mine Action Strategy 2022–2028, pp. 20–21.
44 Statement of Iraq, CCM Intersessional Meetings, Geneva, 19 June 2023.
45 Interview with Ahmad Aljasim, DMA, in Baghdad, 11 May 2023.

the results of survey or clearance. The DMA attributes delays to the need to correct reporting errors and apply quality control.[46] Implementing partners point to cumbersome procedures which require them to submit operational data in hard copy and on CD-ROMs to be uploaded manually into the database.[47] Data verification and correction can add further significant delays.[48] The DMA introduced an Online Task Management System in 2019 to facilitate tasking but took it offline in October 2021, reportedly over sensitivities about the data available.

The limited number and high turnover of the DMA's data processing staff has further contributed to the DMA's information management challenges. iMMAP has progressively reduced the scope of its engagement with the DMA and reduced the number of its staff working in the DMA from five at the start of 2023 to two by the end of the year.[49]

IKMAA has also pursued an upgrade from IMSMA NG but opted to avoid costly IMSMA licenses and install a system tailor made from open source software, including PostgreSQL and PHP, and using the open-source geographic information system, QGIS. IKMAA said the system, developed with support from iMMAP, provided robust functionality and a user-friendly interface.[50] IKMAA completed migration to the new system in February 2024 and was due to close IMSMA NG at the end of July.[51]

## PLANNING AND TASKING

Iraq's National Mine Action Strategy 2023–2028, officially approved in July 2023, sets broad goals for both the DMA and IKMAA, the first time the two authorities have cooperated in drawing up a national plan.[52] These include as a strategic priority the development of "a prioritisation system based on clear and transparent criteria" to inform all planning and tasking decisions. Iraq has not had a specific strategic plan for CMR which has been overshadowed by the priority given to tackling dense improvised mine contamination in areas liberated from Islamic State.

Iraq's Article 4 deadline extension request, submitted in November 2022, was updated in April 2023 to include for the first time a work plan based on the capacity available in 2022. The work plan did not provide any details of Iraq's targets for survey but set the goal of completing clearance of six governorates with total contamination estimated at almost 16.5km$^2$ in the first five years. These included clearing in 2024, the first year of the extension, all contamination in four governorates with small quantities of CMR: Babylon (0.7km$^2$), Kerbala (1.5km$^2$), Missan (1.1km$^2$) and Ninewa (0.02km$^2$). The plan provided for completing clearance of Najaf (4.1km$^2$) in the third year of the extension and Anbar (9.1 km$^2$) in the fifth year.[53]

The DMA issues tasks requested by operators after consultation with DMA operations and RMAC staff and taking account of requests from government, local authorities, development plans and prioritisation criteria that include an NTS scoring system.[54] In much of Federal Iraq, tasking suffers from cumbersome procedures. In the south, planning and tasking for survey and clearance of cluster munition-contaminated areas have benefitted from good coordination between the RMAC-S, operators, and local authorities. RMAC-S's task order system prioritises tasks according to local recommendations, DMA priorities, and operator requests, and is said to be working well.[55]

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Federal Iraq started working with UNMAS in 2021 on updating national mine action standards for mine and battle area clearance (BAC), NTS, and technical survey (TS). The standards were written in 2004–05, existed in Arabic only, and did not specifically address cluster munitions. Since 2020, the DMA has reviewed, updated, and released 23 of 35 national mine action standards.[56] They included standards for NTS and TS and mine clearance, BAC, EOD, marking, personal protective equipment, mechanical demining, post-clearance documentation, accreditation, EOD, IED disposal, land release, safety in the workplace, house clearance, monitoring, sampling procedures, quality management, and marking. In November 2022 they were still only available in Arabic.[57] The DMA released seven national standards that were translated

46 Interview with Nibras Fakhir Matrood, RMAC South, DMA, in Basrah, 8 May 2023.
47 Interviews with mine action operators in Iraq, 7–20 May 2023.
48 NPA reported receiving a request in 2022 to verify data relating to a task completed in 2019.
49 Interviews with Clare Pritchard, Country Representative, iMMAP, in Erbil, 15 May 2023, and in Geneva, 1 May 2024.
50 Email from Niyazi Khalid, IKMAA, 13 May 2024.
51 Interview with Clare Pritchard, iMMAP, in Geneva, 1 May 2024.
52 Email from Ahmed Aljasim, DMA, 15 April 2022.
53 Article 4 deadline Extension Request, 11 April 2023, Annex B.
54 Emails from Marie-Josée Hamel, DRC, 30 March 2022; Peter Smethers, FSD, 22 February 2022; Tim Marsella, HALO Trust, 17 March 2022; and Chris Tierney, NPA, 17 April 2022.
55 Email from Marie-Josée Hamel, DRC, 30 March 2022.
56 Email from Safa Jamal, Senior Officer – Programme Management, UNMAS, 27 May 2024.
57 Email from Ahmed Aljasim, DMA, 15 April 2022.

into English with support from NPA in November 2022, and 10 standards were translated by UNMAS in 2023.[58] It also reviewed six standards and four technical notes in 2023 which were still awaiting official endorsement in 2024. The DMA was reportedly preparing a technical note on the use of thermite for demolitions.[59]

The DMA adopted the Cluster Munition Remnants Survey (CMRS) methodology as a national standard in 2019, citing the benefits it has delivered for survey, planning, and clearance.[60]

In August 2021, after a review of NMAS 09.11 for battle area clearance, Iraq increased the national standard for depth of CMR clearance from 20cm to 30cm because in areas with moving sand or soft ground some CMR, most commonly larger BLU-97 submunitions, had been found to penetrate deeper than 20cm. NPA said the new standard did not affect operations because 30cm was within the range of its existing detectors.[61] NPA data also showed that the great majority of CMR were found within 5cm of the surface.[62]

### OPERATORS AND OPERATIONAL TOOLS

Iraq's 2023 Article 4 extension request said the government covered the costs of a total of 11 teams working on cluster munitions tasks but other capacity may also be active. The extension request identified five teams from the Ministry of Defence and the Ministry of Interior's Civil Defence organisation conducting survey and clearance. Two of these teams focused on technical survey and three on clearance). Another six MoD teams (EOD) conducted submunition demolitions, a task restricted to the military.[63] Iraq's Article 7 report does not identify which organisations were operational but Units of Iraq's Popular Mobilisation Forces were also reportedly working in Muthanna governorate in 2023.[64]

Two international demining organisations also conducted survey and clearance of CMR-contaminated areas. DRC had one manual demining and two EOD/BAC teams with a total of 30 people, including 21 deminers, working in Basrah governorate's Zubair district and Rumaila sub-district in 2023. It expected to add an international technical adviser to the programme in 2024.[65]

NPA operated in south Iraq with a total staff of 124 based in Basra City, including nine multi-task teams (MTTs) doing TS and clearance, 2 NTS teams, and a mechanical unit.[66] NPA's mechanical unit deployed in Basrah governorate's Shatt al-Arab district working on AP mine tasks but the rest of the teams worked on CMR tasks in Muthanna governorate. One NTS team and four MTTs worked in Zubair district, where heavy contamination is blocking agricultural production, while the other NTS team and three MTT teams worked in the central area. The two remaining MTTs worked close to the Saudi border. NPA had to reduce capacity in the south in 2024 as a result of cuts in donor support for Iraq.[67]

## LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

### LAND RELEASE OUTPUTS IN 2023

Iraq reported releasing 19km$^2$ of CMR-affected land in 2023: 0.49km$^2$ cancelled through non-technical survey, 5.31km$^2$ reduced through technical survey, and 13.26km$^2$ released through clearance.[68] The 2023 output was a reduction on the area officially reported as released in 2022 when Iraq said it released nearly 15km$^2$ through survey as well as 16.6km$^2$ through clearance.[69]

Despite the drop in land released, Federal Iraq said it destroyed a total of 8,011 submunitions in 2023,[70] 71% more than it recorded in 2022. Most were cleared in the southern governorates of Basrah, Missan, and Muthanna, but Iraq's Article 7 report also included 336 items cleared in central and northern areas and 802 destroyed during TS.[71] The KRI did not conduct any clearance of CMR tasks but reported destroying 69 submunitions in the course of its operations in 2023.[72]

58 Email from Shinobu Mashima, UNMAS Iraq, 11 May 2023.
59 Email from Safa Jamal, UNMAS, 27 May 2024.
60 Email from Haitham Fattah Lafta, RMAC-S, 12 August 2020.
61 Emails from Chris Tierney, NPA, 17 April and 2 May 2022.
62 Interview with Chris Ramsden, NPA, 7 May 2023 and email 12 May 2023. NPA data showed that 85% of M77 submunitions, which accounted for over half of cleared CMR, were found at a depth of 0–5cm and 70% of BLU-97 CMR were also found within this range.
63 Article 4 deadline Extension Request, updated 11 April 2023, p. 13.
64 Email from Chris Ramsden, NPA, 13 May 2024.
65 Email from Mohammed Qassim Abdulridha, DRC, 25 April 2024.
66 Email from Chimwemwe Tembo, NPA, 2 May 2024.
67 Virtual interview with Chris Ramsden, NPA, 2 May 2024 and email, 19 May 2024.
68 Article 7 report (covering 2023), Form F.
69 Article 7 Report (covering 2021), Form F; and email from Haithem Fattah, RMAC-South, DMA, 25 May 2023.
70 Article 7 report (covering 2023), Form F.
71 Ibid.
72 Email from Niyazi Khalid, IKMAA, 26 June 2024.

## SURVEY IN 2023

Although official data did not record any area cancelled through non-technical survey in 2023, NPA reported cancelling 494,970m² through NTS in Basrah governorate in 2023.[73] RMAC South acknowledged the discrepancy was due to delays in quality management checks and uploading the data into the database.[74]

Iraq's Article 7 report showed additionally that it reduced 5.3km² through technical survey in 2023, all of it located in the southern governorates of Basrah (3.29km²), Missan (0.73km²), Muthanna (0.2km²), and Thi Qar (1.08km²).[75]

## CLEARANCE IN 2023

The DMA does not identify which organisations conduct clearance and delays and inconsistencies between official and operator data prevent a clear determination of actual progress in any year. The 13km² Iraq reported as cleared in 2023 represented a 20% drop from the 16.6km² which the Mine Action Review determined was the CMR-contaminated area cleared in 2022.[76]

**Table 3: CMR clearance in Federal Iraq in 2023 (official data)[77]**

| Governorate | Area cleared (m²) | Items cleared |
|---|---|---|
| Basrah | 2,360,833 | N/R |
| Missan | 222,915 | N/R |
| Muthanna | 10,674,540 | N/R |
| **Subtotal** | | **6,873** |
| TS | N/R | 802 |
| Central and North | N/R | 336 |
| **Totals** | **13,258,288** | **8,011** |

N/R = not reported

Results reported by the two international operators conducting systematic CMR survey and/or clearance also registered an almost 10% drop in area cleared – from 8.4km² the previous year to 7.7km² (see Table 4) while the number of items cleared dropped by 40%. However, NPA, released 33% more area than in 2022 despite working with largely the same capacity. It attributed that result to the fact its teams had more working days than in 2022, when delays issuing access letters forced teams to stand down.[78]

**Table 4: CMR clearance in Federal Iraq in 2023 (NGO operator data)[79]**

| Operator | Governorate | Area cleared (m²) | Submunitions cleared | Other UXO cleared |
|---|---|---|---|---|
| DRC | Basrah | 28,542 | 7 | 0 |
| NPA | Basrah NPA | 2,681,591 | 510 | 462 |
| | Muthanna | 4,976,363 | 2,854 | 8 |
| **Totals** | | **7,686,496** | **3,371** | **470** |

73 Email from Chimwemwe Tembo, NPA, 2 May 2024.

74 Email from Chris Ramsden, NPA, 13 May 2024.

75 Article 7 Report (covering 2023), Form F. The Article 7 report recorded reduction of 7,692,449m² through TS but its detailed breakdown of the areas reduced totalled 5,310,129m².

76 Iraq's Article 7 report covering 2022 recorded clearance of 33.6km² in that year but included 17.2km² which Mine Action Review assessed to be battle area clearance, not CMR clearance.

77 Article 7 report (covering 2023), Form F.

78 Email from Chimwemwe Tembo, NPA, 2 May 2024.

79 Emails from Mohammed Qassim Abdulridha, DRC, 25 April 2024; and Chimwemwe Tembo, NPA, 2 May 2024.

## ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR IRAQ: 1 NOVEMBER 2013

↓

ORIGINAL ARTICLE 4 DEADLINE: 1 NOVEMBER 2023

↓

**FIRST DEADLINE EXTENSION (FIVE-YEAR EXTENSION): 1 NOVEMBER 2028**

**NOT ON TRACK TO MEET ARTICLE 4 DEADLINE**

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 2028. However, Iraq's extension request makes clear that with the operating capacity available at the time it submitted the report it would not achieve completion by the new deadline. The DMA estimated its five-year strategy for completion needed 34 teams.[80] A second strategy based on the 15 teams available in 2023 projected completion would take up to 16 years.[81]

Moreover, the amount of CMR contamination to be cleared is still rising with the discovery of previously unrecorded hazardous areas. Small amounts of CMR were added to the database for Babylon, Kirkuk, and Ninewa governorates, and a substantial amount for Muthanna, which was sparsely populated by nomadic communities at the time of initial survey. NPA is identifying an average of about 30km$^2$ a year of CMR contamination to add to the database, which could add around 150km$^2$ in the five years of this extension, close to double the amount of additional CMR-affected areas allowed for in the extension request.

The downward trajectory of donor support for mine action in oil-rich Iraq looks set to slow the pace of land release unless the government sharply increases the funding provided from the national budget. Iraq has ambitious plans for road, rail, port, and energy infrastructure in the south that weigh in favour of increased government spending on mine action but there is little clarity about the government's intentions.

Mine action in recent years has prioritised survey and clearance of improvised mine contamination in western and northern areas saturated with improvised mines by Islamic State eclipsing the extensive mine as well as CMR contamination in southern governorates. In 2023, the government reportedly earmarked $17 million over three years to support implementation of the CCM[82] but the funding did not materialise in mine action and was reportedly spent on other programmes.

**Table 5: Five-year summary of CMR clearance**

| Year | Federal Iraq (km$^2$) | KRI (km$^2$) | Totals (km$^2$) |
|---|---|---|---|
| 2023 | 13.3 | 0 | 13.3 |
| 2022 | 16.6 | 0 | *16.6 |
| 2021 | 10.2 | 0 | 10.2 |
| 2020 | 5.7 | N/R | 5.7 |
| 2019 | 4.3 | 0.4 | *4.7 |
| **Totals** | **50.1** | **0.4** | **50.5** |

* Based on Mine Action Review calculation N/R = Not reported

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

It is too soon for Iraq to be planning for the management of residual cluster munition contamination.

80 Article 4 deadline Extension Request, 11 April 2023, Annex A.

81 The 2023 extension request of 11 April 2023 cites 15.2 years (p. 10) while Annex B of the request puts the figure at 16 years.

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

# LAO PDR

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

**ARTICLE 4 DEADLINE: 1 AUGUST 2025**
FIVE-YEAR EXTENSION REQUESTED TO 1 AUGUST 2030
LAO PDR WILL REQUIRE MULTIPLE EXTENSIONS BEFORE REACHING COMPLETION

## KEY DATA

### CLUSTER MUNITION CONTAMINATION:

MASSIVE. NO RELIABLE ESTIMATE OF THE EXTENT OF CONTAMINATION

SUBMUNITION CLEARANCE IN 2023

**56.67 KM²**

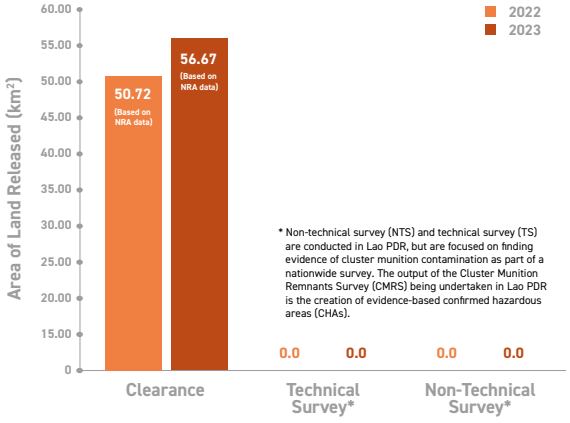
(BASED ON NRA DATA)

SUBMUNITIONS DESTROYED IN 2023

**58,382**

(BASED ON NRA DATA)

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

Clearance output in Lao People's Democratic Republic (Lao PDR) in 2023 was again higher than the previous year. This was largely the result of the continued shift towards clearance since 2021, which has seen the United States (US) increase its funding for clearance capacity to address the confirmed hazardous areas (CHAs) identified through the ongoing Cluster Munition Remnants Survey (CMRS). US funding has also seen progress made in historical data correction and an improvement of the quality of data in IMSMA. Lao PDR's 2024 request for a five-year extension to its deadline was due to be considered at the Twelfth Meeting of States Parties to the Convention on Cluster Munitions (CCM) in September. It predicts total clearance of an estimated 325km$^2$ of CHA and identification of a further 1,000km$^2$ of CHA during the extension period. With a view to strengthening programme coordination, in September 2023, the chairing of the National Regulatory Authority (NRA) moved from the Ministry of Labour and Social Welfare (MoLSW) to the Ministry of Foreign Affairs (MoFA).

## RECOMMENDATIONS FOR ACTION

- **The NRA should, as a matter of urgency, develop a national planning and prioritisation system to support survey and clearance of cluster munition remnants (CMR).**
- **Procedures for issuing, amending, or renewing memoranda of understanding (MoUs) should be streamlined. Lao PDR should also consider permitting longer-term MoUs to help attract more investment into the sector.**
- **The NRA should review national standards to ensure best practices are being applied.**
- **The NRA should continue efforts to ensure the Information Management System for Mine Action (IMSMA) database is accurate and up to date. Historical operational data not already in the database should be available to operators engaged in survey and clearance.**
- **The NRA should take on board the recommendations of the international clearance NGOs and allow use of mine/explosive detection dogs (MDDs/EDDs) and drones in order to increase operational effciency.**

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

| Criterion | Score (2023) | Score (2022) | 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 of populated areas. As at end 2023, almost 1,996km$^2$ of CHA had been identified through survey. Systematic CMRS of assigned villages from the official list has been concluded in five of the six most contaminated provinces and is ongoing in the most heavily contaminated province, Xiengkhouang. CMRS is also being undertaken in five other provinces, although not systematically, as funding has been sporadic in these provinces. Of the remaining seven provinces, four are known to have contamination but do not currently have funding for CMRS. The other three are thought to have no or very little contamination from CMR. Since 2021, a greater focus has been placed on clearance rather than survey, to address the CHAs generated through CMRS. |
| **NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT** (10% of overall score) | 7 | 6 | There is strong national ownership from the NRA. A fully functioning national mine action platform, the Sector Working Group, brings all stakeholders together on a regular basis. In September 2023, the NRA was brought under the aegis of MoFA with a view to strengthening programme coordination. Preliminary reports suggest the MoU process has been streamlined under the MoFA. Nonetheless, MoU procedures remained complex, causing delays and impeding implementation and expansion of survey and clearance, and in some cases preventing the use of international funding. |
| **GENDER AND DIVERSITY** (10% of overall score) | 7 | 7 | In its new "Safe Path Forward III" strategy (2021–30), the NRA states that gender mainstreaming is important for the national strategic plan and work plans, that data need to be disaggregated by sex and age, and that women must be engaged in work planning and the implementation of projects. In 2023, the NRA elaborated a Gender and Inclusion Code of Conduct, due to be approved by the MoFA in 2024, together with a gender-sensitive human resources policy for the NRA. Clearance operators report having gender policies in place and also putting measures in place to take into account diversity considerations in their survey and clearance programming, such as inclusion of minority ethnic groups and language groups, older people, and persons with disabilities. |
| **ENVIRONMENTAL POLICIES AND ACTION*** (10% of overall score) | 6 | Not Scored | Lao PDR has a national mine action standard (NMAS) on Environmental Management (chapter 21), but it is out of date and was being reviewed in 2024. The new Safe Path Forward III strategy says that climate change is a challenge to addressing unexploded ordnance (UXO) in the country. It reiterates that mine action activities have to be compliant with both the national standard and the Environmental Protection Law. Clearance operators are undertaking a range of measures to assess and mitigate the environmental impact of survey and clearance operations, and to reduce waste and greenhouse gas emissions. |
| **INFORMATION MANAGEMENT AND REPORTING** (10% of overall score) | 7 | 6 | Efforts to correct historical data in IMSMA and improve data collection forms and other information management systems are ongoing. In 2023, a common approach and methodology for addressing UXO historical data correction was established. A tracking system was set up to reflect the progress of the data correction by relevant operators. International operators reported a noticeable improvement in addressing the quality of data in IMSMA, including with respect to accuracy and timeliness. Furthermore, the database is now fully accessible to all operators via a virtual private network (VPN). |
| **PLANNING AND TASKING** (10% of overall score) | 6 | 6 | The new national strategy for the UXO Sector, "Safe Path Forward III" (2021–30) was adopted in January 2023. The targets in the strategy are very ambitious, far exceeding current survey and clearance outputs. Since 2021, there has been a shift towards increasing clearance capacity and reducing survey capacity. There is not yet a comprehensive national-level prioritisation matrix of clearance tasks, but Tetra Tech is supporting the NRA to remedy this. |

| Criterion | Score (2023) | Score (2022) | Performance Commentary |
|---|---|---|---|
| **LAND RELEASE SYSTEM**** (10% 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, were due for review in 2024. While survey and clearance operations are adapted to the local threat and context and adopt an evidence-based land release methodology, there is still room for improvement, such as through the use of drones and MDDs, which are not currently permitted. Clearance capacity of international organisations, in particular HALO and NPA, has increased as part of the national strategy to address a greater proportion of the CHAs already generated through CMRS. |
| **LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE** (20% of overall score) | 8 | 8 | Lao PDR is continuing the nationwide CMRS of cluster munition contamination, with the amount of CHA continuing to increase each year as the survey progresses. In 2023, CMR clearance output increased compared to the previous year, as a result of increased clearance capacity and a continued focus to address more CHAs already identified through CMRS. |
| **Average Score** | **7.1** | **7.1** | **Overall Programme Performance: GOOD** |

* New criterion introduced in 2024 to assess performance.
** The weighting of this criterion was previously 20% of overall performance score, but is now given a 10% weighting.

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

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

### NATIONAL OPERATORS

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

### INTERNATIONAL OPERATORS

- The HALO Trust (HALO)
- Humanity and Inclusion (HI)
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)
- Commercial operators

### OTHER ACTORS

- Asian Regional Mine Action Center (ARMAC)
- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Development Programme (UNDP)
- Tetra Tech

## UNDERSTANDING OF CMR CONTAMINATION

Lao PDR 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, including more than 270 million submunitions (known locally as bombies).[1] The failure rate is not known, but Lao PDR reports it may have been as high as 30 per cent,[2] and an estimated 80 million submunitions are thought to have remained unexploded at the end of the war.[3]

Lao PDR does not yet have a reliable estimate of CMR contamination. Its initial estimation of 8,470km$^2$ of total CMR contamination was based on 70,000 individual US cluster munitions target locations[4] with each cluster munition strike producing an estimated footprint of up to 12 hectares (0.12km$^2$). These calculations gave a very broad understanding of the extent of contamination, but were, obviously, based on assumptions.[5] Efforts to determine the extent of CMR contamination are ongoing through the CMRS of affected villages that should produce a more evidence-based assessment of the extent of CMR contamination in populated areas.[6] According to Lao PDR's 2024 Article 4 extension request, 15 of its 18 provinces are contaminated with CMR.[7] The nine provinces most heavily affected by CMR are Attapeu, Champassak, Houaphanh, Khammouane, Luang Prabang, Saravan, Savannakhet, Xekong, and Xiengkhouang.[8]

1 2024 CCM Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 3.
2 Ibid.
3 2019 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 1.
4 "US bombing records in Laos, 1964–73, Congressional Record", 14 May 1975; and 2024 Article 4 deadline Extension Request, Part A, Executive Summary.
5 2024 Article 4 deadline Extension Request, Part A, Executive Summary; and Part B, Detailed Narrative, p. 7; and email from Chanmy Keodara, International Cooperation and Treaty Officer, NRA, 25 May 2024.
6 2024 Article 4 deadline Extension Request, Part A, Executive Summary; and Part B, Detailed Narrative, p. 7.
7 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 4.
8 Ibid.; and National Strategic Plan for the UXO Sector in the Lao PDR 2021–2030, "Safe Path Forward III" (hereafter, Lao PDR, "Safe Path Forward III"), p. 4.

In 2015, new survey procedures were approved and Lao PDR initiated systematic technical survey (TS) using the CMRS methodology to determine the extent of contamination in populated areas.[9] "Proactive" CMRS (i.e. the systematic village-by-village CMRS of all villages assigned to clearance operators using the NRA's list of contaminated villages) is only focused on populated areas. But with a low population density and villages and settlements often isolated and hard to reach, much of the country is relatively untouched by human activity. There are therefore large areas of CMR contamination in parts of the country with no human activity, notably forested and mountainous areas. Such areas are deprioritised for survey and clearance, as contamination in populated areas takes precedence.[10]

The "proactive" phase of survey has now been completed in the populated areas of five of the six most heavily contaminated provinces in Lao PDR, namely Attapeu, Champassak, Saravan, Savannakhet, and Xekong.[11] These five provinces, all located in the south of the country, are now in a "reactive" phase of survey where CMRS is only conducted in response to *ad hoc* requests when evidence of CMR is found by villagers outside of previously established CHAs.[12] Considering the high level of CMR contamination in Lao PDR, previously unknown CMR evidence points will continue to be discovered outside of the existing CHA, even after completion of systematic CMRS of villages. Adequate TS capacity has been maintained by Norwegian People's Aid (NPA) and The HALO Trust (HALO) to respond to new evidence points.[13] The completion of proactive survey in these five southern provinces is notwithstanding the fact that survey of some villages or parts of villages in Lao PDR were not assigned for systematic survey by operators, as they are restricted, often for reasons of national security. Furthermore, it is unclear to what extent survey of villages assigned to UXO Lao has been fully "completed" in these five provinces, as UXO Lao does not complete survey of entire villages in the same way that HALO, Mines Advisory Group (MAG), and NPA do.

In the sixth, and most heavily contaminated, province of Xiengkhouang located in the north of the country, systematic village-to-village CMRS (proactive survey phase) is still underway.[14] Completion of proactive CMRS in Xiengkhouang has yet to be achieved due to the extent of contamination and the frequent overlapping of cluster munition strikes, which has meant that operators often have to arbitrarily end CHAs and start new ones, due to the massive size of the CHAs being identified.[15]

CMRS is also being undertaken in five other CMR-contaminated provinces (Bolikhamxai, Houaphanh, Khammouane, Luang Prabang, and Vientiane province), although not systematically, as funding for TS/CMRS has been sporadic in these provinces and undertaken according to operator budget availability, rather than targeted for the completion of CMRS of all villages.[16] Of Lao PDR's remaining seven affected provinces, four (Oudomxay, Phongsaly, Vientiane Capital, and Xaisomboun) are known to have CMR contamination but do not currently have funding for systematic TS/CMRS,[17] although HI began CMRS in two districts of Phongsaly at the start of 2023.[18]

According to data provided to Mine Action Review by the NRA, as at the end of 2023, a total of almost 1,996km$^2$ of CHA had been identified through survey (see Table 1);[19] an increase on the 1,745km$^2$ of CMR-contaminated area as at the end of 2022.[20] The amount of CHA will continue to increase as CMRS continues to identify CHA, although since 2021, there has been a shift towards increasing clearance capacity and reducing survey capacity, in order to clear a greater proportion of the CHAs already identified during the CMRS up to now.

**Table 1: Cluster munition-contaminated area confirmed through survey (at end 2023)[21]**

| Province | Villages | CHAs | Total area (km$^2$) |
|---|---|---|---|
| Attapeu | 125 | 1,633 | 153.13 |
| Bolikhamxai | 70 | 43 | 2.37 |
| Champassak | 141 | 520 | 28.92 |
| Houaphanh | 119 | 487 | 47.79 |
| Khammouane | 115 | 769 | 150.97 |
| Luang Prabang | 55 | 286 | 28.31 |
| Phongsaly | 5 | 6 | 0.53 |
| Saravan | 369 | 2,612 | 131.30 |
| Savannakhet | 428 | 5,146 | 223.93 |
| Vientiane | 25 | 7 | 0.48 |
| Xekong | 151 | 1,371 | 95.94 |
| Xiengkhouang | 274 | 2,074 | 1,132.17 |
| **Totals** | **1,877** | **14,954** | **1,995.84** |

9 Article 7 Report (covering 2023), Form F; and email from Olivier Bauduin, UXO Program Advisor, US Embassy Vientiane, 21 July 2023.

10 2024 Article 4 deadline Extension Request, Part A, Executive Summary; Part B, Detailed Narrative, p. 21; and Convention on Certain Conventional Weapons (CCW) Protocol V Article 10 Report (covering 2023), Form A.

11 2024 Article 4 deadline Extension Request, Part B; Detailed Narrative, pp. 8 and 18; and Article 7 Report (covering 2023), Form F.

12 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, pp. 8 and 18.

13 Emails from Olivier Bauduin, US Embassy Vientiane, 21 July 2023; and Katherine Harrison, NPA, 9 May 2023.

14 2024 Article 4 deadline Extension Request, Part A, Executive Summary; and Part B, Detailed Narrative, p. 9; and Article 7 Report (covering 2023), Form F.

15 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 9.

16 Article 7 Report (covering 2023), Form F.

17 Ibid.

18 Email from Alexandra Letcher, Regional Armed Violence Reduction (AVR) Specialist – Mekong and Myanmar-Thailand, HI, 6 April 2023.

19 Email from Chanmy Keodara, NRA, 13 July 2024. This differs from data reported in Lao PDR's 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, pp. 11 and 17, which recorded that a total of 1,957km$^2$ of CHA had been identified through survey as at the end of 2023. The Table on p. 8 of the extension request indicates that almost 1,844 CHAs had been identified as at the end of 2023. There is also a discrepancy compared to the Article 7 report (covering 2023), which reported that almost 196,378 hectares (1,964km$^2$) had been confirmed as containing CMR as at the end of 2023.

20 Email from Khammoungkhoun Southivong, Information Management Officer, NRA, 8 June 2023.

21 Email from Chanmy Keodara, NRA, 13 July 2024.

The current baseline of CMR contamination is being established through inclusive consultation with women, girls, boys, and men, including, where relevant, from minority groups, during non-technical survey (NTS) at the village level.[22]

### 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. An online reference manual compiled by Humanity and Inclusion (HI), documenting all types of explosive ordnance found in Lao PDR, has reported the presence of at least 214 types of munition.[23] These range from 20lb fragmentation bombs to 3,000lb general-purpose bombs, as well as artillery shells, grenades, mortars, rockets,[24] cluster munitions, air-dropped mines (such as the BLU 42, BLU 43, and BLU 45), and other miscellaneous items of explosive ordnance.[25] HI also reported discovering M83 submunitions with airburst/impact, time-delay, or anti-handling fuzes; other items such as XM 146 sensors that are equipped with an explosive charge; and several items of UXO fitted with hazardous types of fuzes such as all-ways acting fuzes (AWF) in BLU 26 submunitions and M74 incendiary 10lb submunitions. In steep mountainous areas these UXO can easily roll downhill during clearance and detonation. Items of explosive ordnance with cocked strikers and time-delay or anti-withdrawal fuzes present a particular hazard and they cannot be moved, so have to be destroyed in situ.[26] Lao PDR is also contaminated, but to a much lesser extent, by anti-personnel and anti-vehicle mines (See Mine Action Review's *Clearing the Mines* report on Lao PDR for more information).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The NRA, created by government decree in 2004 and active since 2006, has an inter-ministerial board composed of representatives from government ministries. Since 1 September 2023, the NRA has been chaired by the MoFA, having previously been chaired by the Ministry of Labour and Social Welfare.[27] The move to bring the NRA under the Ministry of Foreign Affairs was part of measures taken by the Laos government in 2023 to strengthen coordination systems among various agencies including government and operators.[28] On 27 June 2024, the Deputy Prime Minister/ Foreign Minister, who chairs the NRA, led a special session of the UXO Sector Working Group demonstrating the high-level commitment of the Lao government.[29]

A 2018 decree, "On the Organisation and Operations of the National Regulatory Authority for UXO in Lao PDR" defines the position, role, duties, rights, organisational structure, and the working principles and methods of the NRA.[30] A further national decree on UXO management was endorsed by the government in 2022.[31] 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, accreditation, quality management (QM), and coordination of the implementation of the national strategy nationwide, as well as NRA planning and coordination functions at the provincial and district levels.[32] As at time of writing, an acting Director of the NRA was in post, pending appointment of a permanent NRA Director to replace the previous director who had been in post since June 2019.

According to Lao PDR's Article 7 report for 2023, the Laos government allocated US$5,000 for administration and facilitation, including funding through the MoLSW and the NRA for explosive ordnance disposal (EOD) tasks for provinces in which there were no operators in 2023.[33] Lao PDR also makes in-kind contributions to mine action including the salaries of the NRA staff (at provincial and district level) and the humanitarian clearance teams of the Lao People's Army (Unit 58), administrative support, and infrastructure in collaboration with funding provided by KOICA and coordinated by the United Nations Development Programme (UNDP).[34] Salaries of NRA personnel at central level in Vientiane are paid by international donors, with funding channelled through UNDP.[35] In addition, the government provides in-kind contributions such as for UXO Lao facilities, and through tax exemptions for equipment for humanitarian operators.[36] Clearance operators are, however, required to pay visa

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

23 Email from Yvon Le Chevanton, Technical Survey/Clearance Operations Manager, HI, 24 July 2024.

24 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 4.

25 Email from Yvon Le Chevanton, HI, 13 July 2024.

26 Emails from Alexandra Letcher, HI, 6 April and 28 June 2023; and Yvon Le Chevanton, HI, 13 and 24 July 2024.

27 Article 7 Report (covering 2023), Form J.

28 Ibid.

29 Email from Olivier Bauduin, US Embassy Vientiane, 24 July 2024.

30 Government Decree No. 67, dated 12 February 2018; 2019 Article 4 deadline Extension Request, 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.

31 Government Decree No. 210, dated 29 July 2022. Presentation by Chomyaeng Phengthongsawat, NRA, minutes of the UXO Sector Working Group meeting, 16 September 2022.

32 2019 Article 4 deadline Extension Request, Part B, Detailed Narrative, pp. 14, 15, and 18.

33 Article 7 Report (covering 2023), Form I.

34 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 13; CCW Protocol V Article 10 Report (covering 2023), Form I; and email from Chanmy Keodara, NRA, 13 July 2024.

35 Email from Olivier Bauduin, US Embassy Vientiane, 24 July 2024.

36 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 13; CCW Protocol V Article 10 Report (covering 2023), Form I; and email from Chanmy Keodara, NRA, 13 July 2024.

fees for expatriates and the previous tax concession of tax exemption for international experts was removed from all MoUs after 2018.[37] In addition, changes to the law mean that international NGO staff have paid income tax since 2021.[38]

Lao PDR's Article 7 report said that it requires US$50 million annually for clearance and mine risk education,[39] and its 2024 Article 4 extension request puts the amount of international funding required at US$45 million per year. The NRA planned to produce a resource mobilisation strategy in 2024, which will detail activities to maintain donor interest and also explore alternative funding avenues. These include exploring diversified sources of funding, such as working to attract smaller donors.[40]

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 National Socio-Economic Development Plan (NSEDP) for 2021–2025, launched in April 2021, demonstrates Lao PDR's commitment to removing UXO as a barrier to development.[41]

UNDP provides programmatic and technical support to the NRA focusing on areas such as quality management (QM), policy, and support with national standards and treaty compliance. UNDP also supports UXO Lao with funding and capacity building support.[42]

Further capacity development in information management (IM), QM, and operations support is provided, primarily to UXO Lao, and to a lesser extent the NRA, through a US-funded contractor, Tetra Tech.[43] In 2023, NPA conducted a Capacity Needs Assessment workshop for the NRA, within the framework of the NPA IM Capacity Development project, funded by the US State Department Bureau of Political-Military Affairs, Office of Weapons Removal and Abatement (PM/WRA).[44] The national mine action authority in Lao PDR also receives capacity development support in IM, clearance, explosive ordnance risk education (EORE), and victim assistance (VA), including training and support from the Geneva International Centre for Humanitarian Demining (GICHD) and the Japan International Cooperation Agency (JICA).[45]

In 2019, Lao PDR had begun to create a Country Coalition, but progress was then delayed by the outbreak of COVID-19.[46] In May 2022, Lao PDR announced that a Country Coalition had been set up under the existing name of the "UXO Sector Working Group" (SWG). The new SWG is chaired by the Minister/Vice Minister of Foreign Affairs, and co-chaired by UNDP and by donor countries (with co-chairs rotated alphabetically). It meets twice a year.[47] Its main objective is to promote the efficiency and transparency of mine action in Lao PDR and increase funding opportunities. In 2023, the government announced plans to strengthen the SWG, both in terms of its technical function and its coordination/strategic function. The SWG consists of five sub-sector Technical Working Groups (TWGs): survey and clearance; VA; EORE; IM; and a new TWG established in 2023 on coordination of policy and funding strategy.[48] The TWGs are tasked by the SWG on specific issues and report back to the SWG regularly.[49]

International clearance operators continued to have good cooperation and coordination with the NRA at the national, provincial, and district levels,[50] but the multiple layers of bureaucracy in Lao PDR remain a challenge.[51] While international operators were notified of Lao PDR's CCM 2024 extension request, they were not involved in its elaboration.[52] Lack of resources and capacity of some of the provincial NRAs can impact their ability to fulfil their roles.[53]

The 2023 shift in line ministry of the NRA from the MoLSW to the MoFA in late summer led to a transition period and a change of directorship at the NRA. However, overall, the move has been viewed as positive and operators had already started to benefit from the streamlining and shortening of the paperwork process, including for MoUs.[54] Nonetheless, the procedure for MoUs remains lengthy, complex, and labour-intensive, and is still one of the biggest challenges encountered by operators in Lao PDR at each level (district, provincial, and central). It can cause significant delays and can impede the implementation and expansion of survey and clearance, including by preventing the procurement and import of equipment.[55] Historically, it typically takes a

37 Emails from Katherine Harrison, NPA, 9 September 2020; Cameron Imber, Programme Manager, HALO, 11 June 2021; Julien Kempeneers, Regional Armed Violence Reduction and Humanitarian Mine Action Specialist, HI, 16 June 2021; and Rebecca Letven, Country Director, MAG, 19 June 2021.

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

39 Article 7 Report (covering 2023), Form I.

40 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, pp. 14, 24, and 25.

41 Email from Olivier Bauduin, US Embassy Vientiane, 6 July 2021.

42 Email from Rupert Leighton, Chief Technical Advisor, UNDP, 14 August 2023.

43 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.

44 Email from Aubrey Sutherland, Country Director, NPA, 18 May 2024.

45 Email from Chanmy Keodara, NRA, 13 July 2024.

46 Statement of Lao PDR on International Cooperation and Assistance, Second CCM Review Conference (Part 1, virtual meeting), 25–27 November 2020.

47 Article 7 Report (covering 2023), Form J; and email from Chanmy Keodara, NRA, 13 July 2024.

48 CCW Protocol V Article 10 Report (covering 2023), Form D.

49 Article 7 Report (covering 2023), Form J.

50 Emails from Yvon Le Chevanton, HI, 8 May 2024; William Hunter, Programme Manager, HALO, 30 May 2024; Aubrey Sutherland, NPA, 18 May 2024; and Katherine Harrison, MAG, 8 May 2024.

51 Emails from Simon Rea, Regional Director, South and South East Asia, MAG, 17 June 2020; Katherine Harrison, NPA, 6 May 2020 and 31 March 2021; Rebecca Letven, MAG, 30 March 2022; Cameron Imber, HALO, 31 March 2022; and Alexandra Letcher, HI, 6 April 2023.

52 Emails from William Hunter, HALO, 30 May 2024; Katherine Harrison, MAG, 8 May 2024; and Aubrey Sutherland, NPA, 18 May 2024.

53 Emails from Julien Kempeneers, HI, 30 March 2022; Rebecca Letven, MAG, 30 March 2022; Cameron Imber, HALO, 31 March 2022; and Katherine Harrison, NPA, 6 May 2020 and 31 March 2021.

54 Emails from Aubrey Sutherland, NPA, 18 May 2024; William Hunter, HALO, 30 May 2024; and Katherine Harrison, MAG, 8 May 2024.

55 Interviews with international operators, Lao PDR, 1–12 May 2018; and emails from Fiona Kilpatrick, HALO, 29 March 2019; Blossum Gilmour, MAG, 21 March 2019; Rebecca Letven, MAG, 26 March 2021; Katherine Harrison, NPA, 6 May 2020 and 31 March 2021; and Julien Kempeneers, HI, 16 March 2021.

minimum of six months for an MoU to be approved, but it may even take years, sometimes resulting in donor funding not being spent and being returned.[56] That said, UXO Sector MoUs are regularly approved quicker than most of the other sectors of Development Cooperation in Lao PDR.[57] Every year the NRA, in collaboration with MoFA, organises a meeting on MoU procedures for the UXO Sector. The last one was on 20 June 2024.[58] The current procedure does not favour integrated approaches or partnerships, as according to MoFA rules, it is not possible to present a consortium of international organisations in the same MoU.[59] Furthermore, even after formal approval of an MoU, operators may still experience challenges importing necessary equipment[60] or small items of additional equipment, which require time-intensive MoU amendments.[61]

In the new Safe Path Forward III strategy, the NRA says that it has made progress in simplifying the MoU procedures in the UXO sector, but acknowledged that they remain slow and this that impacts operational efficiency and may impact sector funding. It said that alternative MoU modalities that simplify management, both by NRA and the operators, may increase operational efficiency and funding.[62]

All of HALO's MoUs approved in 2023 were delayed, one up to seven months. Delays resulted in significant shifts in deployment plans and postponed the importation of equipment and vehicles. That said, HALO's most recently approved MOU, for funding from the UK Foreign, Commonwealth and Development Office (FCDO), took two months to organise and sign – a significant improvement over previous FCDO projects.[63] MAG and NPA also reported an improvement to the MoU process in 2023, following the change in line ministry.[64] MAG believed the procedure for MoUs has been streamlined, resulting in shorter and simpler procedures, making it easier and more efficient for MAG to obtain MoUs.[65] Despite improvements to the process, NPA's 2023 MoU was still late by three months, although NPA was allowed to continue operations thanks to interim permission from MoFA.[66]

## GENDER AND DIVERSITY

The NRA has integrated gender into all core UXO documents including work plans and the national strategy, and relevant mine action data are disaggregated by sex and age. Women are consulted in group discussions as part of survey and clearance activities, but the needs of women and children have yet to be fully taken into account in prioritisation and planning. Lao PDR's 2024 Article 4 deadline extension request makes reference to a new Gender and Inclusion Code of Conduct, which aims to establish a minimum standard and targets for all operators, to ensure workforces are representative of the population and that redress mechanisms are set up for any complaints.[67] In July 2024, the NRA informed Mine Action Review that a gender-sensitive human resources policy supplement and a Code of Conduct for the NRA office were expected to be approved by the MoFA in the third quarter of the year, and that these two documents were not yet sector-wide policies.[68]

In its new Safe Path Forward III strategy, the NRA states that gender mainstreaming is important for the national programme and that women must be involved in both work planning and project implementation.[69] The NRA has pledged to continuing mainstreaming gender in the national programme by increasing cooperation with concerned stakeholders to make progress towards gender equality a more visible part of the UXO Sector. This is evidenced by efforts in 2024, which include a Training of Trainers Workshop on Gender Mainstreaming in February, organised by the NRA in conjunction with UNDP and the Lao Women's Union, and with support from Ireland; appointment by the MoFA in March 2024 of a Gender Coordination Committee for the UXO Sector, composed of representatives from the NRA Office, Unit 58, UXO Lao, and the Lao Women's Union; and appointment by the NRA in April of Gender Focal Points for the TWGs on survey and clearance, EORE, VA, and IM. The

56 Email from Katherine Harrison, NPA, 9 September 2020.
57 Email from Olivier Bauduin, US Embassy Vientiane, 21 July 2023.
58 Email from Olivier Bauduin, US Embassy Vientiane, 24 July 2024.
59 Emails from Julien Kempeneers, HI, 16 June 2021 and 30 March 2022.
60 Interviews with international operators, Lao PDR, 1–12 May 2018.
61 Email from Julien Kempeneers, on behalf of Yvon Le Chevanton, HI, 25 March 2020.
62 Lao PDR, "Safe Path Forward III", p. 12.
63 Email from William Hunter, HALO, 30 May 2024.
64 Emails from Aubrey Sutherland, NPA, 18 May 2024; and Katherine Harrison, MAG, 8 May 2024.
65 Email from Katherine Harrison, MAG, 8 May 2024.
66 Email from Aubrey Sutherland, NPA, 18 May 2024.
67 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 29.
68 Email from Chanmy Keodara, NRA, 13 July 2024.
69 Lao PDR, "Safe Path Forward III", p. 17.

Gender Focal Points, who come from the NRA, HALO, HI, MAG, and UXO Lao, provide updates on gender mainstreaming during quarterly TWG meetings.[70]

Of the 69 employees at the NRA (including the national training centre), 19 (28%) were women, including 13% (2) of the 15 managerial or supervisory positions and 35% (19) of the 54 operational positions.[71]

**Table 2: Gender composition of operators in 2023[72]**

| Operator | Total staff | Women staff | Total managerial or supervisory staff | Women in managerial or supervisory positions | Total operational staff | Women in operational positions |
|---|---|---|---|---|---|---|
| HALO | 1,403 | 702 (50%) | 105 | 52 (50%) | 1,267 | 650 (51%) |
| HI | 46 | 19 (41%) | 12 | 6 (50%) | 30 | 16 (53%) |
| MAG* | 1,221 | 448 (37%) | 217 | 87 (40%) | 1,005 | 361 (36%) |
| NPA | 805 | 313 (39%) | 77 | 11 (14%) | 728 | 293 (40%) |
| UXO Lao | 1,460 | 398 (27%) | 261 | 44 (17%) | 1,250 | 314 (25%) |
| **Totals** | **4,935** | **1,880 (38%)** | **672** | **200 (30%)** | **4,280** | **1,634 (38%)** |

* Average during the year, to reflect reduction of MAG clearance capacity from June to December 2023.

HALO, HI, MAG, and NPA all reported having gender and diversity policies in place, and that they disaggregate mine action data by gender and age, and consult with women and girls during survey and clearance operations.[73]

As per Table 2, of the humanitarian clearance operators in Lao PDR, HALO had the highest overall proportion of female staff, including in operational positions. This was achieved by setting quotas during recruitment drives. HALO continued to prioritise the hiring of women into operational roles during recruitment, particularly at the technician/deminer level. The programme also ensured representation from across the province and, in particular, individuals from minority ethnic groups, as well as employing eight staff with disabilities, two of whom are UXO victims.[74]

HI provides equal opportunities to employment for qualified women and men in its survey and clearance teams in Lao PDR and it trains and promotes women to managerial positions. HI has mixed NTS teams, with employees of different ethnic origins and persons with disability, including UXO survivors. It has developed marker tools to support the mainstreaming of gender and diversity into projects, and encourages women and persons with disabilities to apply to all positions.[75] In 2022–23, HI, together with the MoLSW, organised an Annual Disability Policy Dialogue in which 60% of the panellists were women from government ministries, UN agencies, donor agencies, and NGOs. The focus of the discussion was on how the 9th NSEDP can be inclusive for persons with disabilities, including those impacted by UXO.[76] HI considers older persons with disabilities as one of the underrepresented groups and efforts are made to collaborate with local partners to ensure the rights of older persons with disabilities are appropriately addressed.[77] In 2023, HI created an all-female EOD multi-task team (MTT) supervised by two women, one EOD level 3-qualified and the other EOD level 2-qualified. HI also provided two trainings to its staff in its operating districts in 2023, on HI's code of conduct that includes gender and diversity, as well as violence, corruption, bribery, child protection, integration of persons with disability, and human rights.[78]

In 2023, MAG conducted two internal training workshops on gender and disability mainstreaming and inclusion, one in Khammouane province and the other in Vientiane, with funding support from the Australian Embassy. The disability mainstreaming components were delivered by the Disability Services Centre – a local Organisation for Disabled People.[79]

NPA has had a programme-specific gender strategy in place since 2018. As a result of gender mainstreaming, NPA increased the percentage of female staff from 34% in 2022 to 39% by the end of 2023.[80] In September 2023, a national staff member was recruited and assigned as the NPA Gender, Diversity, and Safeguarding Programme Officer (GDSP Officer). The GDSP Officer conducted various training sessions in late 2023 and early 2024 for personnel from NPA's four southern provinces.[81]

70 Email from Chanmy Keodara, NRA, 13 July 2024.

71 Ibid.

72 Emails from William Hunter, HALO, 30 May 2024; Yvon Le Chevanton, HI, 8 May 2024; Katherine Harrison, MAG, 8 May 2024; Aubrey Sutherland, NPA, 18 May 2024; and Vilaivanh Thongmanivong, UXO Lao, 8 June 2024.

73 Emails from Fiona Kilpatrick, HALO, 29 March 2019; Blossum Gilmour, MAG, 21 March 2019; Aubrey Sutherland, NPA, 25 March 2019; Julien Kempeneers, HI, 22 March 2019; and Saomany Manivong, Chief of Programme Office and Public Information, UXO Lao, 10 May 2019.

74 Email from William Hunter, HALO, 30 May 2024.

75 Emails from Julien Kempeneers, HI, 25 March 2020 and 30 March 2022; and on behalf of Minla Nanthavong, HI, 16 March 2021.

76 Emails from Julien Kempeneers, HI, on behalf of Pradeep Bagival, HI Inclusive Governance Specialist, 30 March 2022; and Alexandra Letcher, HI, 6 April 2023.

77 Email from Alexandra Letcher, HI, 6 April 2023.

78 Email from Yvon Le Chevanton, HI, 8 May 2024.

79 Email from Katherine Harrison, MAG, 8 May 2024.

80 Email from Aubrey Sutherland, NPA, 18 May 2024.

81 Ibid.

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 mixed gender, to facilitate access and participation from all groups.[82] While UXO Lao has yet to determine a mainstreaming gender and diversity policy, it advocates for equality in the workplace and its human resource policies encourage female applicants at all levels.[83] It aims to increase the number of females employed, which currently stands at 27% of its workforce.[84]

## ENVIRONMENTAL POLICIES AND ACTION

Lao PDR has a NMAS on Environmental Management (chapter 21), but it is in need of revision. The NMAS refers to outdated 1999 national laws on environmental protection, rather than the current national environmental legal framework.[85] The new Safe Path Forward III strategy says that climate change is a challenge to addressing UXO and reiterates that mine action activities have to be compliant with national standards and environmental protection law.[86] Lao PDR was planning to review the compatibility of its National Standard on Environmental Management in 2024 with IMAS 7.13 on Environmental Management in Mine Action.[87] The NRA said revision of NMAS chapter 21 was ongoing as at July 2024. It also said it takes into account climate-related or extreme weather risks when planning and prioritising survey and clearance.[88]

HALO Laos said it is committed to minimising environmental harm and reducing greenhouse gas emissions across all its operations. It prioritises fuel-efficient vehicles and utilises solar panels on its VHU to supply electricity to all fleet buildings. All drivers have recently undergone eco-driving training to reduce fuel consumption, and supervisors now use motorcycles instead of Land Cruisers or Land Rovers to further cut emissions. At HALO's Sepon headquarters, a reverse osmosis system is used to produce drinking water, which is delivered to field teams, significantly reducing plastic waste.[89]

In June 2023, HI completed the development of a dedicated environment SOP for its operations in Lao PDR. HI does not cut trees over a certain. The SOP also covers management of temporary facilities in the field; protection of water courses and ground water; and protection of wildlife, including through a ban on hunting during HI field deployment.[90]

MAG globally adopted a new strategy in 2024 which highlights the environment as one of its key focus areas over the next five years. MAG Laos has an SOP on Environmental Management in place. In its task assessment/planning, MAG takes into consideration environment-related factors, such as erosion of site access tracks/land and interference with natural water courses. MAG does not conduct open burning/open detonation as a method of disposal in Laos. Where demolitions must take place, MAG teams always take protective measures to reduce the spread of fragmentation and noise pollution. During ground preparation, MAG predominantly uses manual vegetation cutting that does not disturb soil and root structures. Trees whose trunk diameter is greater than 6cm are protected and MAG does not engage in the removal/disposal of vegetation by burning.[91]

NPA has an annex on environmental management in its SOP on UXO clearance operations.[92] In 2023, NPA Laos recruited a dedicated Environmental Protection and Awareness Coordinator. Several activities were conducted in 2023 by the new coordinator and/or through NPA's cooperation with the national youth volunteer NGO, Zero Waste Laos (ZWL). NPA has promoted and implemented waste separation, recycling, composting, and banned the burning of garbage in NPA workplaces and sites. In addition, NPA is assessing ways to reduce its annual carbon footprint. In 2023, ZWL delivered three environmental awareness trainings for 375 EOD level one trainees and provided a separate training for 25 staff from NPA's four southern offices – all aimed at fostering a sense of responsibility for environmental protection and equipping individuals with knowledge and skills on resource and energy efficiency, climate change, sustainable lifestyles, and waste management. ZWL also developed online environmental training modules. Since November 2023, NPA Lao PDR has integrated environment and climate policies into the contracts of all new staff in the four southern provinces.[93]

NPA Head Office has developed a Green Field Tool to assess and manage environmental impacts from mine action activities and better understand increasing climate risks for mine action programmes. The tool was trialled by NPA Vietnam in 2023 and is now being rolled out in NPA Lao PDR.[94] In September 2023, NPA joined with ZWL to organize the planting of over 6,000 seedlings of fruit trees at the Nursery of Champasak University.[95]

82 Email from Saomany Manivong, UXO Lao, 10 May 2019.
83 Email from Vilaivanh Thongmanivong, UXO Lao, 25 May 2023.
84 Email from Vilaivanh Thongmanivong, UXO Lao, 8 June 2024.
85 Email from Katherine Harrison, NPA, 9 May 2023.
86 Lao PDR, "Safe Path Forward III", pp. 12 and 17.
87 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 28.
88 Email from Chanmy Keodara, NRA, 13 July 2024.
89 Email from William Hunter, HALO, 30 May 2024.
90 Email from Yvon Le Chevanton, HI, 8 May 2024.
91 Email from Katherine Harrison, MAG, 8 May 2024.
92 Email from Katherine Harrison, NPA, 9 May 2023.
93 Email from Aubrey Sutherland, NPA, 18 May 2024.
94 Ibid.
95 Ibid.

As per UXO Lao's SOP for vegetation cutting, the operations team is not allowed to burn forest or cut down trees with a diameter of over 60cm. If the vegetation cutting team needs to conduct any demolition or dig holes, they are required to return soil to the area after clearance.[96]

All clearance operators plan annual survey and clearance operations with consideration of seasonal weather patterns (rainy/dry season) and conditions and the impact on accessibility of tasks, for example working on as areas prone to flooding during the dry season.[97] According to Lao PDR's 2024 Article 4 extension request, the movement of ordnance through flooding or landslides is increasing due to climate change. The functioning of local coordinators (at province and district levels) allows the government of the Lao PDR to react to localised challenges and humanitarian needs resulting from such incidents.[98] MAG is currently working with Khammouane authorities to clear task sites for villages that often get flooded annually so that they can safely move to pre-cleared safer ground and/or establish new villages in less-flood prone areas that have been pre-cleared by MAG.[99] HALO Laos has conducted emergency clearance for villages which were relocated due to major flooding.[100]

## 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.[101] The National Decree on UXO management, endorsed by the government in July 2022, was being revised to adapt to changes in Quality Management for data entry to the IMSMA system.[102] A TWG on IM meets quarterly, with meetings in 2023 reported to be more effective than in previous years, with defined action points and follow-up.[103]

In 2023, NPA, together with other operators and capacity development partners such as UNDP and Tetra Tech, supported the NRA in a review of the NMAS on IM (Chapter 24), funded by the PM/WRA capacity development project. A review of the final draft of the revised NMAS was carried out in February 2024 and as May was awaiting translation and sign off from the NRA board.[104]

The NRA has identified the need for better quality control of data in the IMSMA database.[105] Expanding the use of IMSMA to support survey planning and the review of all historical operational data (both electronic and paper), will help ensure that NTS is followed up by robust TS operations.[106] The NRA continued to improve data quality in 2023, and new forms and processes have now been streamlined for operators to feed information into IMSMA in a coordinated centralised format.[107]

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.[108] Efforts to correct historical data within IMSMA (including incorporation of correct current data) are ongoing. In 2023, a common approach and methodology for addressing the UXO historical data correction process was established. Additionally, a tracking system was set up to reflect the progress of the historical data correction by relevant operators. International operators reported a noticeable improvement in the quality of data in IMSMA in 2023.[109]

With support from Tetra Tech, UXO Lao aims to improve the quality of data by providing electronic tablets to all field operation teams, using Survey123 for data capture and analysis. In 2024, UXO Lao and Tetra Tech planned to conduct a trial, training UXO Lao staff in Survey123, to test the new system before expanding to all nine provinces in 2024–25.[110]

Operators reported that data submitted to the NRA were typically updated in a timely manner and accurately.[111] In a positive development, the IMSMA database has now been made fully accessible to all operators via the IMSMA virtual private

96 Email from Vilaivanh Thongmanivong, UXO Lao, 8 June 2024.

97 Emails from William Hunter, HALO, 30 May 2024; Katherine Harrison, MAG, 8 May 2024; Aubrey Sutherland, NPA, 18 May 2024; and Vilaivanh Thongmanivong, UXO Lao, 8 June 2024.

98 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 27.

99 Email from Katherine Harrison, MAG, 8 May 2024.

100 Email from William Hunter, HALO, 30 May 2024.

101 Emails from Bouala Thongsavanh, NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018; and Aubrey Sutherland, NPA, 25 March 2019; NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017; interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018; and interview with Hugh Hosman and Marco Heuscher, Sterling International, Vientiane, 2 May 2018.

102 CCW Protocol V Article 10 Report (covering 2023), Form B.

103 Email from Aubrey Sutherland, NPA, 18 May 2024.

104 Emails from Yvon Le Chevanton, HI, 8 May 2024; Katherine Harrison, MAG, 8 May 2024; and Aubrey Sutherland, NPA, 18 May 2024.

105 2019 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 4.

106 Ibid., p. 3.

107 Email from Katherine Harrison, MAG, 8 May 2024.

108 "Data errors on IMSMA", Nigel Orr, Technical Adviser, (then with) Sterling International, 26 April 2017.

109 Email from Aubrey Sutherland, NPA, 18 May 2024.

110 Email from Vilaivanh Thongmanivong, UXO Lao, 8 June 2024.

111 Emails from Cameron Imber, HALO, 7 April 2020; Julien Kempeneers, HI, 25 March 2020; and Katherine Harrison, NPA, 9 May 2023.

network (VPN), which has improved the accessibility of data, the speed and quality of data entry, and the reporting process, with cross-checks raising discrepancies for correction.[112]

NPA is helping enhance the IM capacity of the provincial authorities in nine provinces and fifty-five districts within the framework of a three-year capacity development project funded by PM/WRA.[113] Full implementation of the planned activities started in January 2023.[114] Required equipment was provided to the NRA, PRAs, and district regional authorities (DRAs) in Attapeu, Champassak, Khammouane, Savannakhet, Xekong, and Xiengkhouang provinces. In addition, IM training courses were conducted in these provinces between May 2023 and April 2024.[115] This capacity development project adjusted to the new leadership of the UXO Sector, and in 2024, the recipients of the support and equipment are the Department of Foreign Affairs. There is ongoing discussion to consider an expansion of this project in five additional provinces.[116]

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

In 2018, Lao PDR began a national CMRS baseline survey of populated areas, with funding from the United States. Proactive, systematic CMRS of villages in five provinces in the south (Attapeu, Champassak, Saravan, Savannakhet, and Xekong) has now been concluded and CMRS was still underway in Xiengkhouang. CMRS is also being undertaken in five other provinces (Bolikhamxai, Houaphanh, Khammouane, Luang Prabang, and Vientiane provinces), although not systematically, as funding for TS/CMRS has been sporadic in these provinces, rather than targeted for full completion as in other provinces. Of the remaining seven provinces, three (Oudomxay, Vientiane Capital, and Xaisomboun) are known to have significant contamination but do not currently have funding for TS/CMRS. In the fourth remaining province of Phongsaly, HI began CMRS in two districts from the start of 2023.[117] The remaining three provinces (Bokeo, Luang Namtha, and Xayabouli) are either not thought to have CMR contamination or have low levels of contamination and are therefore deprioritised.[118]

A new 10-year National Strategy for the UXO Sector (2021–30), "Safe Path Forward III", was developed under the leadership of the NRA.[119] The new strategy was adopted in January 2023.[120] The target, by 2030, is to have identified 2,500km$^2$ of CHA and cleared 1,000km$^2$ of land for agricultural and development purposes.[121] This is an ambitious target, which is more than double the current clearance output, and one that far exceeds predicted clearance outputs in Lao PDR's 2024 Article 4 extension request, detailed below.

### WORK PLAN FOR ARTICLE 4 IMPLEMENTATION IN 2025–30

Lao PDR's 2024 CCM Article 4 extension request includes a five-year work plan for survey and clearance (see Table 3), with progress dependent maintaining current funding levels. Clearance is taking place simultaneously with survey activities to identify CHAs containing CMR.[122] Lao PDR estimates that it will clear a total of 325km$^2$ of cluster munition-contaminated area between 1 August 2025 and 31 July 2030 (65km$^2$ per annum), with the predicted destruction of approximately 375,000 submunitions in total (75,000 per annum). Lao PDR plans to simultaneously conduct CMRS on a total of area of 1,000km$^2$. These outputs are based on a total cost of US$225 million (US$45 million per annum) from international funding, in addition to in-kind national support.[123]

112 Emails from Yvon Le Chevanton, HI, 8 May 2024; Katherine Harrison, MAG, 8 May 2024; and Aubrey Sutherland, NPA, 18 May 2024.
113 Email from Katherine Harrison, NPA, 11 May 2022.
114 Email from Katherine Harrison, NPA, 9 May 2023.
115 Email from Aubrey Sutherland, NPA, 18 May 2024.
116 Email from Olivier Bauduin, US Embassy Vientiane, 24 July 2024.
117 Email from Alexandra Letcher, HI, 6 April 2023.
118 Article 7 Report (covering 2022), Form F.
119 Statement of Lao PDR on National Implementation Measures, Second CCM Review Conference (Part 1, virtual meeting), 25–27 November 2020; email from Chomyaeng Phengthongsawat, NRA, 21 June 2021; and Lao PDR, "Safe Path Forward III", p. 2.
120 Statement of Lao PDR on victim assistance, CCM Tenth Meeting of States Parties, Geneva, 30 August–2 September 2022; and Lao PDR, "Safe Path Forward III", p. 2.
121 Lao PDR, "Safe Path Forward III", p. 14.
122 2019 Article 4 deadline Extension Request, Executive Summary.
123 2024 Article 4 deadline Extension Request, Part A, Executive Summary; and Part B, Detailed Narrative, Annex 1.

**Table 3: Planned Survey and Clearance in 1 August 2025–31 July 2030 (based on 2024 CCM Article 4 extension request data)[124]**

| Year | Total clearance (km²) | Total submunitions to be destroyed | Total area to be surveyed through CMRS (km²) | NTS (no. of villages) | External funding (US$) |
|---|---|---|---|---|---|
| 2025 (1 Aug to 31 Dec) | 27.08 | 31,250 | 83 | 62.5 | 18.75 |
| 2026 | 65 | 75,000 | 200 | 150 | 45 |
| 2027 | 65 | 75,000 | 200 | 150 | 45 |
| 2028 | 65 | 75,000 | 200 | 150 | 45 |
| 2029 | 65 | 75,000 | 200 | 150 | 45 |
| 2030 (1 Jan to 31 July) | 37.92 | 43,750 | 117 | 87.5 | 26.25 |
| **Totals** | **325** | **375,000** | **1,000** | **750** | **225** |

Planned 2025–2030 clearance and survey output in Lao PDR's 2024 extension request is realistic and in line with current output, based on existing capacity. This is in contrast to Safe Path Forward III (2021–2030) and to the 9th NSEDP 2021–2025 five-year plan, which both set overly ambitious targets for survey and clearance, which have not been met. It is also in contrast to the overly ambitious clearance outputs in its 2019 extension request, which have not been fully realised, as Lao PDR only achieved the annual CMR clearance target of 50km² envisaged in the request, for the first time in 2022.

In its 2024 Article 4 extension request, Lao PDR expects to increase productivity in UXO clearance year on year, through the application of good practice, the adjustment of national standards to respond to evidence and best practice in-country, and better use of data over the forthcoming years.[125] If achieved, this may result in increased clearance output compared to the extension request work plan.

The number of CHAs containing CMR will continue to increase during the five-year period of the extension request, as CMRS continues, but there is now an increased focus on clearance. This is largely thanks to increased US funding to support the Lao government's strategic plan to clear more high-priority CHAs.[126] Survey teams have been converted to clearance teams and additional clearance teams recruited and trained.

## PRIORITISATION

In a positive development, a first-ever sector-wide annual work plan for Lao PDR for 2018 was developed in an inclusive manner and approved by the NRA Board.[127] There were sector-wide work plans in 2022, 2023, and 2024[128] but they were not shared with international NGOs.[129]

The NRA sets operators yearly targets and they in turn develop their own work plans, but tasks sometimes overlap.[130] HALO shares its work plan with UXO Lao to avoid any overlap of CHAs.[131] HI developed its 2023 work plan in close collaboration with the provincial NRA and with the district authorities in HI's areas of operations.[132] MAG continues to collaborate with provincial and district authorities to improve historical data and ensure that tasking between MAG and UXO Lao is deconflicted and to avoid overlapping.[133] The NRA uses operator work plans to facilitate a sector-wide planning process.[134] In January 2024, the NRA provided a centralised format for operators to use to prepare and submit annual work plans.[135]

124 Ibid.

125 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, pp. 24 and 25.

126 Email from Olivier Bauduin, US Embassy Vientiane, 13 July 2022.

127 Email from Bouala Thongsavanh, NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018; and interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.

128 Email from Chanmy Keodara, NRA, 13 July 2024.

129 Emails from Cameron Imber, HALO, 31 March 2022; William Hunter, HALO, 30 May 2024; Katherine Harrison, MAG, 8 May 2024; and Katherine Harrison, NPA, 9 May 2023.

130 Emails from Katherine Harrison, NPA, 9 May 2023; and Portia Stratton, MAG, 15 May 2023.

131 Email from William Hunter, HALO, 8 May 2023.

132 Email from Alexandra Letcher, HI, 6 April 2023.

133 Email from Portia Stratton, MAG, 15 May 2023.

134 CCW Protocol V Article 10 Report (covering 2023), Form A.

135 Emails from Yvon Le Chevanton, HI, 8 May 2024; and Katherine Harrison, MAG, 8 May 2024.

Prioritisation of clearance is a critical step in the land release cycle. However, at present no comprehensive national-level guidance on the prioritisation of clearance tasks yet exists and prioritisation systems and criteria vary markedly between the operators. Currently, each operator has its own prioritisation system, but considerable time is allocated to discussing annual work plans for humanitarian operators with provincial and district authorities.[136] In the new Safe Path Forward III strategy (2021–2030), the NRA has committed to develop a policy for determining national priorities, and said it considers UXO clearance on agricultural land a top priority, and that UXO clearance is especially crucial for the development of educational, community and government facilities, public infrastructure and tourism sites.[137] At the SWG meeting in September 2022, the Deputy Chairperson of the NRA Board said Lao PDR will create a national prioritisation system to help ensure that UXO sector activities contribute to the socio-economic development plan.[138]

Tetra Tech is supporting the NRA in the development of the nationwide prioritisation matrix.[139] Work on the national prioritisation system (district training, consultation workshop with line ministries) was initiated in the first half of 2022.[140] The NRA had aimed to launch a national prioritisation process in 2023,[141] but this was not realised. In its 2024 Article 4 extension request, Lao PDR said that development of a forthcoming National Standard on prioritisation will further prioritise high impact clearance within each individual village. Lao PDR believes that focus of clearance on facilitating rural development projects within confirmed CHAs can foster poverty alleviation.[142] The government will also strive to ensure that hard-to-reach communities are served by survey and clearance to ensure equal access to support, irrespective of location of village.[143] 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.[144]

# 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.[145] The standards were officially approved by the NRA in 2018.[146] They are said to conform with IMAS[147] and are fully reflected in the SOPs of clearance operators, who confirm their relevance to the local threat and context.[148] There is, however, scope to further strengthen the standards, based on best practice.

According to its 2019 Article 4 extension request, the NRA had planned to formally review the national standards at least every three years.[149] In 2021, operators were invited by the NRA to submit recommendations to update the national standards,[150] but no changes to the standards were made in 2022[151] or in 2023, with the exception of revisions to the IM NMAS, which as at May 2024 were still awaiting endorsement by the NRA board.

At the SWG meeting in September 2022, UNDP called for the revision of national standards to be "fast-tracked", highlighting that the updated standards would improve the effectiveness and efficiency of UXO operations by having the best practices effectively disseminated across all operators. According to UNDP, the current standards are out of date and as a result the productivity of the operators has been compromised.[152] The review of the standards is planned to begin in 2024, in collaboration with operators and other stakeholders.[153] The Geneva International Centre for Humanitarian Demining (GICHD) will support Lao PDR on the revision and development

136 Comments by Rupert Leighton, UNDP, minutes of the UXO Sector Working Group meeting, 16 September 2022; and Lao PDR, "Safe Path Forward III" (2021–2030), p. 5; and emails from Olivier Bauduin, US Embassy Vientiane, 21 July 2023; Aubrey Sutherland, NPA, 18 May 2024; and William Hunter, HALO, 30 May 2024.

137 Lao PDR, "Safe Path Forward III" (2021–2030), p. 5.

138 Comments by Padeumphone Sonthany, MoLSW, minutes of the UXO Sector Working Group meeting, 16 September 2022.

139 Emails from Alexandra Letcher, HI, 6 April 2023; Katherine Harrison, NPA, 9 May 2023; and Portia Stratton, MAG, 15 May 2023.

140 Presentation by Chomyaeng Phengthongsawat, NRA, minutes of the UXO Sector Working Group meeting, 16 September 2022.

141 Statement of Lao PDR on clearance, CCM Tenth Meeting of States Parties, Geneva, 30 August–2 September 2022; and email from Khammoungkhoun Southivong, NRA, 8 June 2023.

142 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 27.

143 Ibid., pp. 21 and 22.

144 Interviews with international and national operators, Laos, 1–12 May 2018.

145 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017; and 2019 Article 4 deadline Extension Request, Executive Summary, p. 3.

146 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.

147 2019 Article 4 deadline Extension Request, Executive Summary, p. 2; and Part B, Detailed Narrative, pp. 9 and 17; and CCW Protocol V Article 10 Report (covering 2023), Forms B and G.

148 Emails from Saomany Manivong, UXO Lao, 10 May 2019; Cameron Imber, HALO, 7 April 2020; Katherine Harrison, NPA, 6 May 2020; and Simon Rea, MAG, 17 June 2020.

149 2019 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 18.

150 Emails from Julien Kempeneers, HI, 30 March 2022; Rebecca Letven, MAG, 30 March 2022; and Cameron Imber, HALO, 31 March 2022.

151 Emails from Khammoungkhoun Southivong, NRA, 8 June 2023; William Hunter, HALO, 8 May 2023; Katherine Harrison, NPA, 9 May 2023; and Portia Stratton, MAG, 15 May 2023.

152 Presentation by Catherine Phuong, UNDP, minutes of the UXO Sector Working Group meeting, 16 September 2022.

153 Emails from William Hunter, HALO, 30 May 2024; Katherine Harrison, MAG, 8 May 2024; and Aubrey Sutherland, NPA, 18 May 2024; and CCW Protocol V Article 10 Report (covering 2023), Form A.

of NMAS.[154] In July 2024, the NRA reported that review of the national standards was ongoing.[155]

Prior to 2014, UXO operators in Lao PDR primarily conducted general survey on areas intended for clearance and roving clearance tasks, based on requests and reports from villagers.[156] 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.[157]

The survey approach has been strengthened over the last couple of years, with more emphasis on desk assessment of historical data and comprehensive NTS. TS is only conducted based on CMR evidence points.[158] HALO, MAG, and NPA all conduct TS on whole villages, whereas in 2018, UXO Lao stated it does not conduct TS of whole villages, due to their limited TS capacity. Typically UXO Lao will, over the years, go to the same villages on multiple occasions, but they do not "complete" CMRS of the whole village in the same way that HALO, MAG, and NPA do. Rather, UXO Lao's TS teams identify CHAs for their area clearance teams.[159]

TS works outwards from the initial evidence point, searching no less than 50% of each 50 metre by 50 metre box with a detector, with emphasis on finding a submunition. As soon as a submunition is found, TS moves to the adjacent boxes. If cluster munition fragments are found, searching must continue until a submunition is found or at least 50% of the box is covered.[160]

Operators continue to refine their CMRS methodology in a bid to accelerate operations, including using the technique of "skipping boxes", in which teams finding CMR in one survey box skip one or more of the immediate neighbouring boxes and then survey the next box. Skipping boxes is permitted in the national survey procedure, and, where appropriate, has become standard practice for TS teams, where the focus is on identifying the boundaries of CHAs.[161] CHAs are established based on red boxes and include a 50-metre fade-out from the place submunitions are found during TS, unless fade-out extends into inaccessible or commercial concession areas (responsibility for survey and clearance in commercial concession areas is then that of the concession holder).[162]

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".[163] 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.[164] In 2016, Prime Ministerial Order No. 43 stipulated that development projects in provinces and districts affected by UXO must benefit from survey and clearance before project implementation and that these projects must allocate funding for survey and clearance.[165]

Except in the case of permanently inaccessible land or commercial concession areas, CHAs that are incomplete or have not been created using the TS process are not to be entered into IMSMA.[166] Interpretation and understanding as to what constitutes "inaccessible" is not clearly defined and can vary between clearance operators,[167] but according to the national survey standards, dense vegetation and seasonal flooding are not valid reasons for the NTS.[168] 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 to ensure the physical obstacles do not reduce the quality of the survey and clearance.[169]

According to the national mine action standards, the minimum clearance depth in Lao PDR is 25cm, which is intended to capture all surface and shallow CMR contamination.[170] A study on ordnance depth distribution in Lao PDR, commissioned by UNDP and conducted by FENIX Insight, found that the current default clearance depth of 25cm captures 97% of UXO finds.[171] Operators have been collecting data on the depth at which CMR are found.[172] HI Laos continued to generate interesting results from using the Minelab F3 (with large coil and yellow end cap) detectors, successfully demonstrating that operators are able to work swiftly and still pick up full BLU-26 submunitions buried 35cm deep in rice fields.[173] In 2023, HI continued to excavate fully functional BLU 26 buried below 25cm and sometimes up to 48cm from the surface, mostly in rice fields. HI noted the possibility that deeply buried items could be particular to

154 Email from Namrita Singh, GICHD, 21 May 2024.

155 Email from Chanmy Keodara, NRA, 13 July 2024.

156 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.

157 2019 Article 4 deadline Extension Request, Executive Summary, p. 2; and Part B, Detailed Narrative, p. 9.

158 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017; and emails from Cameron Imber, HALO, 11 June 2017; Rebecca Letven, MAG, 18 June 2017; and Katherine Harrison, NPA, 18 June 2017.

159 Email from Olivier Bauduin, US Embassy Vientiane, 21 July 2023.

160 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.

161 Ibid., p. 17; interviews with Neil Arnold, MAG, Phonsavanh, 6 May 2018, and Robby Dehondt, Sterling International, Sepon, 11 May 2018; and email from Ulric Eriksson, NPA, 1 May 2018.

162 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.

163 Ibid.

164 Interviews with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018 and 7 February 2019, Geneva.

165 Statement of Lao PDR on National Implementation Efforts, CCM Seventh Meeting of States Parties, Geneva, 4–5 September 2017.

166 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.

167 Interviews with international operators, Laos, 1–12 May 2018.

168 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.

169 2019 Article 4 deadline Extension Request, Executive Summary, p. 5; and Part B, Detailed Narrative, pp. 24–25.

170 2019 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 17.

171 FENIX Insight, "A study on ordnance depth distribution in Lao PDR", July 2023, pp. 8 and 12.

172 Email from Katherine Harrison, NPA, 9 September 2020.

173 Email from Alexandra Letcher, HI, 6 April 2023.

the rice fields in the north of Laos, which are located in low land, where mud from the steep flank of hills and mountains has built up year after year.[174] HI believes that the 25cm default clearance depth is not safe everywhere for all land users, as modern tractors can reach items buried deeper and displace them to the surface.[175] Based on empirical evidence analysed as part of the 2023 study, FENIX Insight concluded there was no clear or compelling case to increase the default (25cm) clearance depth.[176] There is broad agreement on this conclusion among mine action stakeholders in Lao PDR.[177]

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.[178] Furthermore, in TS tasks in areas of massive contamination, with overlapping strikes, it is not always possible to continue to fade-out, as the confirmed areas extend too far.[179]

Discussions were ongoing to consider testing new predictive tools and other possible adjustments to survey methodology to accelerate the completion of the survey, particularly in Xiengkhouang province. The NRA is exploring means to better use existing data to maximise clearance outputs, including better examination and analysis of existing US bomb data. This is especially pertinent in Xiengkhouang province where levels of contamination have meant that identifying stand-alone CHAs has been challenging and where massive contamination has led to the identification of 'never-ending' CHAs. Close examination of data may mean that resources dedicated to CMRS process could go straight to clearance, potentially hastening clearance outputs and reducing costs. The NRA is considering this concept.[180]

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 where random mines are reported and there is no evidence of systematic mine-laying or the presence of minefields. CWS involves the commencement of full clearance from the evidence point.[181] HI revised its clearance SOP to integrate CWS. The SOP has yet to be formally approved, but the NRA had deemed the procedure as being adequate, including during quality assurance (QA) and quality control (QC) inspections and during a TWG presentation. HI has also proposed to the NRA that a modification is made to the national standards.[182]

HI understand the importance and relevance of systematic CMRS to provide important information on the size and location of contamination to inform long-term planning and resource mobilisation by the national authorities. At the same time, HI highlights that CWS will be quicker and require less paper work overall compared to CMRS during which CHAs are recorded in IMSMA, but not tasked for immediate clearance.[183] HI has suggested that clearance could replace CMRS earlier where it is well established that there is CMR contamination, as clearance would cover the entire CHA in any event, including a 50 metre buffer zone until green boxes are reached. In locations where operators are called back year-on-year to destroy submunitions found by farmers, HI believes evidence-based clearance could be commenced directly, rather than needing to first conduct CMRS. HI believed that the remoteness of target villages in Houaphanh and the presence of landmines and anti-handling fuzes (M83 submunitions) discovered in 2021, justifies that it continued to conduct a CWS approach when there is a risk to personnel engaged in CMRS procedures. In Houaphanh province, HI did not conduct CMRS strictly village by village, but instead focused on highest priority areas first, as it is working in very remote forested areas, with steep terrain.[184]

HI is concerned that when TS occurs and items are excavated and left behind, this leads to submunitions becoming visible for children and the local population, exposing them to risk. This had been raised during the TWG on the Technical Note for CMRS.[185] As a standard practice, HALO tries to destroy all items found on the day they are found. If this cannot be done, HALO posts staff to guard the items overnight and then destroys them the next day.[186] Other international operators reported that items identified during TS are clearly marked as a hazard and are disposed of as soon as operationally possible (subject to availability of explosives), typically within a few days.[187] HI also raised concerns around clearance of land for construction and the risk of BLU-26s posing a risk to workers digging by hand or even for an excavator operator without personal protective equipment (PPE). HI believes there should be a requirement for land to be searched and released layer by layer, with each layer searched down to the

174 Email from Yvon Le Chevanton, HI, 8 May 2024.

175 Emails from Alexandra Letcher, HI, 6 April 2023; and Yvon Le Chevanton, HI, 13 July 2024.

176 FENIX Insight, "A study on ordnance depth distribution in Lao PDR", July 2023, p. 12.

177 Interview with Aubrey Sutherland, Sasa Jelicic, and Nguyen Thi Dieu Linh, NPA, online, 10 July 2024; and emails from Eli Mechanic, Country Director, MAG, 12 July 2024; and William Hunter, HALO, 19 July 2024.

178 Interviews with Ulric Eriksson, NPA Laos, Saravan, 4 May 2018; and Olivia Meader, HALO, Sepon, 11 May 2018.

179 Interview with Neil Arnold, MAG, Phonsavanh, 6 May 2018.

180 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, pp. 10 and 11; and meeting between the CCM Article 4 Analysis Group and the MoFA and NRA, Geneva, 30 April 2024.

181 Emails from Julien Kempeneers, HI, 25 March 2020; and Yvon Le Chevanton, HI, 13 July 2024.

182 Emails from Julien Kempeneers, HI, 30 March 2022; and Alexandra Letcher, HI, 6 April 2023.

183 Email from Yvon Le Chevanton, HI, 8 May 2024.

184 Emails from Julien Kempeneers, HI, 30 March 2022; and Alexandra Letcher, HI, 6 April 2023.

185 Email from Alexandra Letcher, HI, 6 April 2023.

186 Email from William Hunter, HALO, 19 July 2024.

187 Interview with Aubrey Sutherland, Sasa Jelicic, and Nguyen Thi Dieu Linh, NPA, online, 10 July 2024; and email from Eli Mechanic, MAG, 12 July 2024.

maximum clearance depth of the detector in question (e.g. 40–45cm) and then down to the required clearance depth (e.g. 120 cm), rather than the land being released to 120cm in a single search by shallow-search detectors.[188]

According to the NRA, understanding of the CMRS process, especially at the local and field levels, is sometimes limited.[189] 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.[190]

UXO Lao is focusing its TS on its annual clearance work plan, which is based on the needs of local authorities and communities.[191] For development projects, clearance is conducted without TS having first taken place.[192]

## OPERATORS AND OPERATIONAL TOOLS

Land release operations in Lao PDR are conducted by a range of implementing partners, which includes humanitarian operators such as the national operator UXO Lao; international NGOs, HALO, HI, MAG, and NPA; and humanitarian teams of the Lao People's Army (Unit 58). In addition, 24 accredited commercial clearance companies support commercial activities, such as infrastructure development and extractive industries.[193]

In the last couple of years survey capacity in Lao PDR has been reduced, and clearance capacity increased, in order to address a higher proportion of the CHAs already identified. With respect to survey capacity in 2023, HALO deployed five CMRS teams, totalling 55 personnel.[194] HI had one NTS team of two people and one MTT team of 6 personnel, from January to July 2023.[195] MAG had an average of seven NTS teams in 2023, totalling 15 people and 17 TS teams totalling 130.[196] NPA had eight CMRS teams (totalling 48 personnel) and four EORE/community liaison teams.[197] UXO Lao had 7 NTS teams totalling 21 personnel and 12 TS teams totalling 91 personnel.[198] The Lao People's Army (Unit 58) deployed two TS teams totalling fourteen personnel, and two NTS teams totalling ten personnel in 2023.[199]

According to Lao PDR's 2024 extension request, the average daily clearance rate is 811m$^2$ per team per day, based on an average 13 people per team and with an average 22 working days per month.[200]

**Table 4: Operational clearance capacities deployed in 2023[201]**

| Operator | Manual teams | Total clearance personnel | Machines | Comments |
|---|---|---|---|---|
| Lao People's Army (Unit 58) | 3 | 39 | 0 | |
| HALO | 89 | 890 | 0 | Each team has two deminers trained as medics. |
| HI | 3 | 24 | 0 | HI's three multi-task teams are used to conduct TS, clearance, or roving tasks, as required. HI had three MTT teams in January–July 2023, and its capacity was then reduced to two teams totalling 16 personnel to the end of 2023, when HI moved to Phongsaly province. |
| MAG | 49 | 432 | 0 | Based on an average of June and December data. |
| NPA | 42 | 589 | 0 | |
| UXO Lao | 73 | 438 | 9 | Two cluster munition demolition machines and seven brush cutter machines which provide support to area clearance operations, by preparing access roads and vegetation cutting where this cannot be done by hand. |
| **Totals** | **Approx. 259** | **Approx. 2,412** | **9** | |

188 Emails from Yvon Le Chevanton, HI, 8 May and 13 July 2024.
189 Email from Bouala Thongsavanh, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018.
190 Response to Mine Action Review questionnaire from Olivia Meader, HALO, 11 May 2018; and interview with Olivier Bauduin, UNDP, Vientiane, 2 May 2018.
191 Email from Saomany Manivong, UXO Lao, 11 May 2021.
192 Email from Nouphin Phimmasy, UXO Lao, 4 June 2022.
193 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 15.
194 Email from William Hunter, HALO, 30 May 2024.
195 Email from Yvon Le Chevanton, HI, 8 May 2024.
196 Email from Katherine Harrison, MAG, 8 May 2024.
197 Emails from Aubrey Sutherland, NPA, 18 May 2024; and Sasa Jelicic, NPA, 10 July 2024.
198 Email from Vilaivanh Thongmanivong, UXO Lao, 8 June 2024.
199 Email from Chanmy Keodara, NRA, 13 July 2024.
200 2024 Article 4 deadline Extension Request, Annex 2.
201 Emails from Chanmy Keodara, NRA, 13 July 2024; Yvon Le Chevanton, HI, 8 May 2024; William Hunter, HALO, 30 May 2024; Aubrey Sutherland, NPA, 18 May 2024; Katherine Harrison, MAG, 8 May 2024; and Vilaivanh Thongmanivong, UXO Lao, 8 June 2024.

HALO's survey and clearance efforts are focused on Savannakhet province. HALO's Clearance capacity continued to increase significantly in 2023 and it trained and deployed an additional 250 cluster munition clearance personnel between May and September 2024, under its PM/WRA contract.[202]

HI is deploying MTTs which can conduct TS, area clearance, or roving tasks.[203] HI had been conducting survey and clearance in Houaphanh province up until 2023, when it relocated to Phongsaly province.[204] HI also implements projects in Champassak, Savannakhet, and Vientiane provinces, relating to other fields (such as disability inclusion, health, and rehabilitation).[205]

MAG is operational in Xiengkhouang province in the north and Khammouane province in the south. In 2023, MAG had to reduce the number of teams deployed due to the funding situation in Khammouane province. It made four clearance teams redundant at the end of June 2023 and another two teams redundant in December. Some staff were absorbed to other teams that had staff vacancies and one clearance team was re-established as a TS team.[206]

NPA is operational in the four southern and heavily contaminated provinces of Attapeu, Champassak, Saravan, and Xekong. In 2021, NPA shifted its focus from CMRS to clearance of CHAs identified through survey. In 2023–24, NPA received significantly increased funding from PM/WRA to double its clearance capacity (from 20 to 40 teams). NPA is now deploying 42 BAC teams (two funded by the NMFA and the remainder by PM/WRA).[207]

In 2023, the government organisation, UXO Lao, was fully operational in four provinces (Attapeu, Khammouane, Savannakhet, and Xiengkhouang) and partially operational in three others (Champassak, Saravan, and Xekong). In Houaphanh and Luang Prabang provinces field operations in were suspended throughout 2023 due to lack of funding. PM/WRA funding to both provinces restarted in November 2023 to support reopening of the provincial offices and the planning and mobilisation of operations. Field operations in Houaphanh and Luang Prabang then restarted in March 2024 after delivery of all related trainings and equipping of the teams, with support from Tetra Tech's Technical Advisors.[208] The United States now funds UXO Lao in six provinces.[209] UXO Lao planned to increase its survey and clearance capacity in 2024, due to PM/WRA resuming funding in Houaphanh and Luang Prabang provinces and funding from Japan enabling UXO Lao to implement at full operational capacity in Champassak, Saravan, and Xekong provinces.[210]

According to Lao PDR's 2024 deadline extension request, the Lao armed forces humanitarian demining teams (Unit 58) has three clearance teams, each with thirteen personnel, in addition to two roving teams, each with nine personnel.[211] The extension request also said that Unit 58 was being expanded, with the support of KOICA and UNDP, to have a total of 20 clearance, survey, and risk education teams by the end of 2023.[212] According to data provided by the NRA to Mine Action Review in July 2024, Unit 58 now has seven clearance teams.[213] The NRA has said that Unit 58 teams 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 in 2017 to enable construction work on the US$6 billion Laos-China high-speed railway to proceed in safety.[214] According to an online media source, since 2018, specialists from the International Mine Action Center (IMAC) of the Russian Armed Forces have been clearing UXO in Laos, and have surveyed 0.17km$^2$ and cleared 2,300 items of explosive ordnance. Since November 2023, the unit has cleared 0.10km$^2$ of land and located 656 pieces of UXO (including submunitions) in two areas of Kasy district, Vientiane province. The unit is also reported to have cleared UXO in Bolikhamxai, Khammouane, and Xiengkhouang provinces.[215]

The use of drones for mine action operations, including survey, clearance, and EOD is not currently permitted. The restriction on the use of drones reportedly originates from high levels within the Government of Lao PDR and is beyond the control of the NRA.[216] MAG had previously secured a drone permit in late 2019, and used drones in 2020 to assess the ground situation and to serve as a safety asset for MAG's rapid EOD response teams, providing an aerial perspective to inspect cordons and excavations.[217] However, MAG has not received approval from the NRA to deploy drones in 2022 or 2023.[218] Similarly, HALO, HI, and NPA have consistently been refused permission to use drones, including to ensure the safety radius when disposing large items of explosive ordnance.[219] The use of drones, including large surveillance drones is, however, permitted in other contexts and by other

202 Email from William Hunter, HALO, 30 May 2024.
203 Email from Julien Kempeneers, HI, 30 March 2022.
204 Email from Alexandra Letcher, HI, 6 April 2023.
205 Emails from Julien Kempeneers, HI, 25 March 2020 and 16 June 2021.
206 Email from Katherine Harrison, MAG, 8 May 2024.
207 Email from Aubrey Sutherland, NPA, 18 May 2024.
208 Email from Vilaivanh Thongmanivong, UXO Lao, 8 June 2024.
209 Email from Olivier Bauduin, US Embassy Vientiane, 24 July 2024.
210 Email from Vilaivanh Thongmanivong, UXO Lao, 8 June 2024.
211 2024 Article 4 deadline Extension Request, Annex 2.
212 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, p. 22.
213 Email from Chanmy Keodara, NRA, 13 July 2024.
214 S. Vaenko, "Army deployed to clear UXO for Laos-China railway", *Vientiane Times*, 6 January 2017; and email from Bouala Thongsavanh, NRA, on behalf of Phoukhieo Chanthasomboune, NRA, 30 April 2018.
215 "Lao, Russian army personnel remove 656 UXO items in Kasy", *Vientiane Times*, 22 January 2024, at: https://tinyurl.com/228zj47r.
216 Email from Katherine Harrison, MAG, 8 May 2024.
217 Email from Rebecca Letven, MAG, 26 March 2021.
218 Emails from Portia Stratton, MAG, 15 May 2023; and Katherine Harrison, MAG, 8 May 2024.
219 Emails from William Hunter, HALO, 30 May 2024; Yvon Le Chevanton, HI, 8 May 2024; and Aubrey Sutherland, NPA, 18 May 2024.

government ministries, such as by the company Vientiane Geomatic Services, including to locate bomb craters.[220]

NPA has continued to seek permission to use innovations already approved in Lao PDR's National Standards, such as the use of 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.[221] In June 2023, NPA organised a visit of a high-level delegation from the NRA and Lao Ministries of Defence and Foreign Affairs to NPA's Global Training Centre for MDD in Bosnia-Herzegovina in June.[222]

# LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

## LAND RELEASE OUTPUTS IN 2023

According to data reported by NRA to Mine Action Review, CMR clearance output in Lao PDR in 2023 was almost 56.67km$^2$. A total of 58,382 submunitions were destroyed during area clearance, TS, and spot tasks,[223] together with a large number of other items of UXO and small number of anti-personnel mines.

Lao PDR's most recent Article 7 report declared more than 61.9km$^2$ of CMR was cleared in 2023, with the destruction of 58,735 submunitions, 73 big bombs, 23,693 other items of UXO, and 67 mines.[224]

The 58,735 submunitions destroyed in 2023, as reported in Lao PDR's Article 7 report, was significantly less than the total number of submunitions reported by humanitarian operators (excluding the Army Unit 58)) to Mine Action Review (see Tables 6 and 9), which came to 64,410 submunitions (11,358 through TS; 38,272 through clearance; and 14,780 through spot tasks).[225]

## SURVEY IN 2023

According to the NRA data reported to Mine Action Review, a total of almost 238km$^2$ of CHA containing CMR was identified in 2023 (see Table 5).[226] This is an increase on the 211km$^2$ of CHA identified in 2022.[227]

According to Lao PDR's Convention on Certain Conventional Weapons (CCW) Protocol V transparency report, 206.68km$^2$ of CHA was identified in 2023 across 11 provinces.[228]

**Table 5: Technical survey of CMR-suspected area in 2023 (based on NRA data)[229]**

| Operator | Area surveyed (m$^2$) | Area identified (m$^2$) | Submunitions destroyed | Other UXO destroyed | Mines destroyed |
|---|---|---|---|---|---|
| Lao People's Army (Unit 58) | 4,570,000 | 666,000 | 102 | 0 | 0 |
| HALO | 5,592,500 | 1,598,200 | 502 | 118 | 0 |
| HI | 1,377,500 | 782,500 | 228 | 9 | 0 |
| MAG | 186,040,438 | 182,626,283 | 5,406 | 48 | 0 |
| NPA | 4,917,500 | 2,180,205 | 175 | 207 | 0 |
| UXO Lao | 69,251,522 | 50,051,218 | 5,119 | 1,397 | 1 |
| **Totals** | **271,749,460** | **237,904,406** | **11,532** | **1,779** | **1** |

* Already included in EOD roving task total

According to the data reported to Mine Action Review by humanitarian clearance operators (with the exception of Army Unit 58), almost 238km$^2$ of CHA containing CMR was identified in 2023 (see Table 6).

220 Vientiane Geomatic Services (VGS) website and Facebook page, accessed 5 June 2024, at: https://bit.ly/3IZSnG4, and https://bit.ly/3D5eRC5.

221 Email from Katherine Harrison, NPA, 19 June 2021.

222 Emails from Aubrey Sutherland, NPA, 18 May 2024; and Sasa Jelicic, NPA, 10 July 2024.

223 Email from Chanmy Keodara, NRA, 13 July 2024.

224 Article 7 Report (covering 2023), Form F. The total of the clearance Table in Article 7 report is 62,096,837m$^2$, however the sum of the individual lines comes to 61,904,288m$^2$.

225 Emails from Yvon Le Chevanton, HI, 8 May 2024; William Hunter, HALO, 30 May 2024; Katherine Harrison, MAG, 8 May 2024; Aubrey Sutherland, NPA, 18 May 2024; and Vilaivanh Thongmanivong, UXO Lao, 14 June 2024.

226 Email from Chanmy Keodara, NRA, 13 July 2024.

227 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

228 CCW Protocol V Article 10 Report (covering 2023), Form A.

229 Email from Chanmy Keodara, NRA, 13 July 2024.

**Table 6: Technical survey of CMR-suspected area in 2023 (based on operator data)[230]**

| Operator | Area surveyed ($m^2$) | Area identified ($m^2$) | Submunitions destroyed | Other UXO destroyed | Mines destroyed |
|---|---|---|---|---|---|
| Lao People's Army (Unit 58) | N/R | N/R | N/R | N/R | N/R |
| HALO | 7,732,500 | 2,265,991 | 434 | 117 | 0 |
| HI | 1,377,500 | 782,500 | 228 | 9 | 0 |
| MAG | 186,040,438 | 182,626,283 | 5,406 | 48 | 0 |
| NPA | 4,825,000 | 2,180,205 | 177 | 207 | 0 |
| UXO Lao | 69,954,022 | 50,546,001 | 5,113 | 1,398 | 1 |
| **Totals** | **269,929,460** | **238,400,980** | **11,358** | **1,779** | **1** |

N/R = Not reported

## CLEARANCE IN 2023

According to the NRA data reported to Mine Action Review, a total of more than 56.67$km^2$ of cluster munition-contaminated area was cleared in 2023, excluding commercial clearance. During the year, a total of 58,382 submunitions were destroyed during technical survey, clearance, and spot tasks, together with a large number of items of UXO and a small number of anti-personnel mines.[231]

The 2023 clearance output reported by the NRA to Mine Action Review of 56.67$km^2$ was an increase on the 50.72$km^2$ of CMR clearance identified for 2022 by Mine Action Review.[232] The increase in clearance in 2023 compared to the previous year is due to increased funding and thus capacity.[233]

**Table 7: CMR clearance by operator in 2023 (based on NRA data)[234]**

| Province | Operator | Area cleared ($m^2$) | Submunitions destroyed during clearance | Submunitions destroyed during spot tasks | UXO destroyed | AP mines destroyed |
|---|---|---|---|---|---|---|
| Attapeu | NPA | 3,743,477 | 1,556 | 137 | 169 | 0 |
| | UXO Lao | 3,481,934 | 1,779 | 941 | 68 | 0 |
| Bolikhamxai | Lao People's Army (Unit 58) | 256,392 | 220 | 226 | 167 | 0 |
| Champassak | NPA | 1,286,939 | 785 | 90 | 429 | 1 |
| | UXO Lao | 330,985 | 343 | 103 | 328 | 0 |
| Houaphanh | HI | 901,792 | 1,589 | 111 | 519 | 0 |
| Khammouane | MAG | 2,801,048 | 1,792 | 2,368 | 1,154 | 0 |
| | UXO Lao | 2,396,593 | 1,304 | 1,876 | 1,455 | 0 |
| Phongsaly | HI | 163,993 | 222 | 158 | 283 | 4 |
| Saravan | NPA | 1,704,758 | 1,282 | 46 | 64 | 0 |
| | UXO Lao | 3,123,943 | 3,569 | 1,046 | 639 | 0 |

230 Emails from Yvon Le Chevanton, HI, 8 May 2024; William Hunter, HALO, 30 May 2024; Katherine Harrison, MAG, 8 May 2024; Aubrey Sutherland, NPA, 18 May 2024; and Vilaivanh Thongmanivong, UXO Lao, 14 June 2024.

231 Email from Chanmy Keodara, NRA, 13 July 2024.

232 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

233 Emails from William Hunter, HALO, 30 May 2024; Yvon Le Chevanton, HI, 8 May 2024; Katherine Harrison, MAG, 8 May 2024; and Aubrey Sutherland, NPA, 18 May 2024.

234 Email from Chanmy Keodara, NRA, 13 July 2024.

**Table 7 Continued**

| Province | Operator | Area cleared ($m^2$) | Submunitions destroyed during clearance | Submunitions destroyed during spot tasks | UXO destroyed | AP mines destroyed |
|---|---|---|---|---|---|---|
| Savannakhet | HALO | 8,928,767 | 6,199 | 1,972 | 6,391 | 1 |
| | UXO Lao | 3,947,976 | 1,561 | 1,243 | 880 | 0 |
| Vientiane Province | Lao People's Army (Unit 58) | 56,410 | 100 | 17 | 532 | 3 |
| Vientiane Capital | Lao People's Army (Unit 58) | 0 | 0 | 9 | 953 | 0 |
| Xaisomboun | Lao People's Army (Unit 58) | 23,459 | 3 | 35 | 172 | 0 |
| Xekong | NPA | 2,622,657 | 4,322 | 258 | 395 | 0 |
| | UXO Lao | 589,702 | 441 | 248 | 99 | 0 |
| Xiengkhouang | MAG | 13,831,241 | 4,631 | 6,861 | 2,618 | 1 |
| | UXO Lao | 6,481,973 | 5,995 | 2,944 | 5,954 | 3 |
| **Totals** | | **56,674,039** | **37,693** | ***20,689** | **23,269** | **13** |

* Believed to include submunitions destroyed during technical survey.

According to Lao PDR's CCM Article 7 report covering 2023, a total of 61.9$km^2$ of cluster munition-contaminated area was cleared (presumably including humanitarian and commercial clearance) in 2023 across 15 provinces, with the destruction of 58,735 submunitions, 73 big bombs, 23,693 other items of UXO, and 67 mines (see Table 8).[235] Commercial clearance, unlike humanitarian clearance, tends to involve clearance of land in which no or very few submunitions are destroyed. It is not targeted clearance of CHAs, but instead clearance at the request of clients of often uncontaminated land, required for confidence building for construction and development projects. Mine Action Review does not consider this as CMR clearance.

The CCM Article 7 data vary slightly from the almost 62.1$km^2$ reported as cleared in Lao PDR's CCW Protocol V transparency report covering 2023 (with the destruction of 58,739 CMR, 72 bombs, and 67 mines), and which reports that approximately 90% of clearance was of land used for agricultural purposes and 10% for land used for development.[236] It also varies from the almost 57.9$m^2$ of CHA cleared in 2023, with the destruction of 38,272 submunitions during clearance and 14,780 submunitions during spot tasks, as per data reported to Mine Action Review by clearance operators (excluding Unit 58 of the Lao People's Army) (see Table 9).

**Table 8: CMR clearance by province in 2023 (Article 7 data)[237]**

| Province | Area cleared ($m^2$) |
|---|---|
| Attapeu | 7,596,413 |
| Bolikhamxai | 256,392 |
| Champassak | 1,758,006 |
| Houaphanh | 907,884 |
| Khammouane | 7,159,586 |
| Luang Namtha | 0 |
| Luang Prabang | 0 |
| Oudomxay | 408,291 |
| Saravan | 4,924,456 |
| Savannakhet | 13,774,510 |
| Vientiane Province | 18,286 |
| Vientiane Capital | 9,568 |
| Xaisomboun | 1,250,037 |
| Xekong | 3,523,445 |
| Xiengkhouang | 20,317,414 |
| **Total** | **61,904,288** |

235 Article 7 Report (covering 2023), Form F. The total of the clearance table in Article 7 report is 62,096,837$m^2$, however the sum of the individual lines comes to 61,904,288$m^2$.

236 CCW Protocol V Article 10 Report (covering 2023), Form A.

237 Article 7 Report (covering 2023), Form F. The total of the clearance table in Article 7 report is 62,096,837$m^2$, however the sum of the individual lines comes to 61,904,288$m^2$.

**Table 9: CMR clearance by operator in 2023 (based on operator data)[238]**

| Operator | Area cleared ($m^2$) | Submunitions destroyed | Submunitions destroyed in spot tasks | UXO destroyed | AP mines destroyed |
|---|---|---|---|---|---|
| Lao People's Army (Unit 58) | N/R | N/R | N/R | N/R | N/R |
| HALO | 10,134,427 | 6,746 | 1,538 | 5,274 | 2 |
| HI | 1,050,526 | 1,811 | 266 | 795 | 11 |
| MAG | 16,581,470 | 6,420 | 9,232 | 1,097 | 1 |
| NPA | 9,622,664 | 8,363 | 348 | 1,038 | 1 |
| UXO Lao | 20,472,904 | 14,932 | 3,396 | 7,007 | 3 |
| **Totals** | **57,861,991** | **38,272** | **14,780** | **15,211** | **18** |

HALO reported that of the cluster munition-contaminated area it cleared in 2023, 75 tasks totalling $1km^2$ proved not to contain CMR. Fourteen of the 75 tasks, totalling $55,885m^2$, were development tasks requested by the government of Lao PDR.[239] HI found submunitions in all its CHA clearance tasks in 2023. HI also cleared one small development task of $2,100m^2$ in Houameuang district in which no items of explosive ordnance where discovered, but this task was not part of a CHA.[240] MAG reported that 35 tasks, totalling $226,079m^2$, were completed in 2023 in which no further CMR were discovered during clearance.[241] According to MAG, the majority were tasks outside of CHAs, which it cleared at the request of the Implementation Management Committee (IMC)/provincial authorities for development priorities.[242] NPA cleared twelve tasks in 2023 which proved to contain no CMR, with a total size of $407,815m^2$.[243] All these NPA clearance tasks had been established as CHAs due to the discovery of submunitions during TS. NPA said that it is possible that TS had already identified and destroyed all items down to national clearance depth of 25cm and any remaining items were at a greater depth. Alternatively, items found during TS might have been moved from another location in the past. This is hard to confirm as this may have occurred decades ago.[244] UXO Lao said it found CMR in all its CHA clearance tasks in 2023.[245] UXO Lao also supports development projects, for which the areas requested for clearance by local authorities sometimes do not contain CMR, and clearance is conducted to ensure the areas were free from UXO in order for development projects to take place.

Compared to the previous year, and based on operator data, HALO, HI, MAG, and NPA's clearance output increased in 2023.[246] However, UXO Lao's CMR clearance in 2023 was a 17% decrease on the previous year, due to lack of funding.[247]

HI increased the area it technically surveyed in 2023 by 22%, compared to the previous year and also achieved a more than 50% increase in clearance – achieving its highest annual clearance output to-date in Laos. HI said that its increased clearance in 2023 compared to the previous year was due to the land topography of task sites, with rice paddies being less time-consuming to clear; cooperation from the villagers in supporting with vegetation cutting; favourable weather conditions; the use of large coil on the Minelab F3 detector, which reduced detection of scrap metal located close to the surface and the need for unnecessary excavations; and the proximity of the clearance site to the office.[248]

HALO achieved a 42% increase in the amount cleared in 2023, compared to the previous year, as a result of the significant expansion of the programme which saw the addition of 250 clearance staff in June 2023.[249] MAG saw an 8% increase in clearance output in 2023 compared to 2022, due to small improvements in its approach to supervision, management training, and QM aspects of its clearance assets.[250] NPA increased its annual clearance output by 21% compared to 2022, which was the result of the increase in clearance capacity from 22 to 42 teams in 2023 (staggered deployment of 10 new BAC effective as from 1 June 2023, and 10 more from 1 December 2023 respectively).[251]

238 Emails from Yvon Le Chevanton, HI, 8 May 2024; William Hunter, HALO, 30 May 2024; Katherine Harrison, MAG, 8 May 2024; Aubrey Sutherland, NPA, 18 May 2024; and Vilaivanh Thongmanivong, UXO Lao, 8 June 2024.

239 Email from William Hunter, HALO, 26 July 2024.

240 Email from Yvon Le Chevanton, HI, 8 May 2024.

241 Email from Katherine Harrison, MAG, 8 May 2024.

242 Email from Katherine Harrison, MAG, 8 July 2024.

243 Email from Aubrey Sutherland, NPA, 18 May 2024.

244 Email from Sasa Jelicic, NPA, 10 July 2024.

245 Vilaivanh Thongmanivong, UXO Lao, 8 June 2024.

246 Emails from William Hunter, HALO, 30 May 2024; Yvon Le Chevanton, HI, 8 May 2024; Katherine Harrison, MAG, 8 May 2024; and Aubrey Sutherland, NPA, 18 May 2024.

247 Email from Vilaivanh Thongmanivong, UXO Lao, 8 June 2024.

248 Email from Yvon Le Chevanton, HI, 8 May 2024.

249 Email from William Hunter, HALO, 30 May 2024.

250 Email from Katherine Harrison, MAG, 8 May 2024.

251 Email from Aubrey Sutherland, NPA, 18 May 2024.

All clearance organisations in Lao PDR are required to have a documented internal QM system, covering both QA and QC procedures. The NRA conducts external QM inspections of clearance organisations.[252] The NRA doubled its QM capacity in 2022, from two QM teams to four (with five people per team),[253] but capacity is still under-resourced given that these four teams cover sector-wide clearance.

## ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR LAO PDR: 1 AUGUST 2010

↓

ORIGINAL ARTICLE 4 DEADLINE: 1 AUGUST 2020

↓

FIRST EXTENDED DEADLINE (5 YEARS): 1 AUGUST 2025

↓

**SECOND EXTENDED SOUGHT (5 YEARS): 1 AUGUST 2030**

**NOT ON TRACK TO MEET ARTICLE 4 DEADLINE. LAO PDR WILL REQUIRE MULTIPLE EXTENSION REQUESTS BEFORE REACHING COMPLETION**

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. Lao PDR has requested a five-year extension of its deadline until 1 August 2030, which will be considered by States Parties at Twelfth Meeting of States Parties in September 2024. Due to the massive extent of CMR contamination, and based on current capacity and output, Lao PDR will require multiple extensions to its Article 4 deadline.

As at end of 2023, Lao PDR had cleared 19% of the CHAs identified to-date, and if the most heavily contaminated province of Xiengkhouang is excluded from calculations, almost a third of CHAs identified to-date have been cleared.[254] As at end of 2023, a total of almost 1,996km$^2$ of CHA had been identified through the ongoing nationwide survey.[255] The rate in which land is currently being confirmed as contaminated through CMRS is far quicker than the rate of clearance of the CHA identified, and the baseline will continue to increase. The NRA has said that it will take decades of clearance, based on current clearance capacity output.[256]

An estimate of the true extent of CMR contamination will not be known until the nationwide CMRS is completed,[257] which is still many years away and which does not cover survey of unpopulated areas, such as uninhabited forested and mountainous areas. It is a notable achievement that to-date, the proactive survey phase (i.e. systematic CMRS of assigned villages) has been completed in five of the most heavily contaminated provinces in the south and good progress is also being made in Xiengkhouang. In addition, some CMRS is also being conducted to a varying, but far lesser, extent in five additional contaminated provinces, but in the four other contaminated provinces, no survey is yet being undertaken.

Clearance of CMR in Lao PDR will take many decades and will require long-term national and international capacity and funding. According to Lao PDR's 2024 Article 4 extension request, the predicted annual clearance output based on current capacity and resources available is 65km$^2$.[258] While annual humanitarian clearance output over the last five years has been far less (see Table 10), clearance capacity was significantly increased in 2023, resulting in increased clearance output in 2023 and a further increase in output in 2024.

**Table 10: Five-year summary of CMR clearance**

| Year | Area cleared (km$^2$) |
|---|---|
| 2023 | *56.67 |
| 2022 | *50.72 |
| 2021 | *46.68 |
| 2020 | *42.90 |
| 2019 | *45.77 |
| **Total** | **242.74** |

* Excluding commercial clearance

FCDO-funded clearance operations in Lao PDR in 2019 helped increase clearance output, but funding subsequently decreased dramatically April 2021.[259] Since 2021, the United States has, however, shifted its focus to clearance of CHAs generated by CMRS, and has funded increased clearance capacity of both international clearance operators and UXO Lao,[260] which resulted in a significant increase in clearance capacity, in particular for HALO, MAG, and NPA. The combined number of US-funded area clearance teams across operators in Lao PDR has tripled, from 70 in 2020 to 210 in

252 NRA, draft "Lao PDR UXO Survey Procedures", 20 September 2017.

253 Email from Khammoungkhoun Southivong, NRA, 8 June 2023.

254 Email from Chanmy Keodara, NRA, 13 July 2024.

255 Ibid., pp. 11 and 17. However, the Table on p. 8 of the 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative indicates almost 1,844 of CHA had been identified as at the end of 2023. There is also a discrepancy compared to the Article 7 report (covering 2023), which said almost 1,964km$^2$ had been confirmed as containing CMR as at the end of 2023.

256 2024 Article 4 deadline Extension Request 2024, Part B, Detailed Narrative, p. 22.

257 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 2 May 2018.

258 2024 Article 4 deadline Extension Request, Part A, Executive Summary; and Part B, Detailed Narrative, Annex 1.

259 Emails from Rebecca Letven, MAG, 20 June 2022; and Cameron Imber, HALO, 28 June 2022.

260 Interview with Olivier Bauduin, US Embassy Vientiane, in Geneva, 13 February 2020.

March 2024.[261] Nonetheless, existing clearance capacity is not sufficient to address the significant area of CHA already identified for through CMRS, and the size of CHA being added to the database annually far outstrips the area being released through clearance, even taking into account the increased clearance capacity since 2023. The NRA is seeking international assistance for the ongoing CMRS and clearance efforts, including to expand teams and provide equipment to deploy clearance teams nationwide; to further build the capacity of national humanitarian operators (Unit 58 of the army) and UXO Lao; and to upgrade its data and IM systems.[262]

In addition to insufficient clearance capacity, Lao PDR also cites mountainous terrain (which can impede comprehensive survey to accurately identify the location and size of CMR-contaminated area and make clearance more complex and time-consuming) and inadequate and unpredictable funding (which sometimes results in the halting of operations or reduction in number of employees), as challenges to implementation of Article 4. According to the NRA, the limited number of clearance teams, means that for most villages, clearance is required on multiple separate occasions before the entire village is completed.[263] According to operators, challenges in clearance tasks also include heavy rains during the wet season; high scrap-metal contamination and fragmentation from other UXO; difficulty accessing tasks due to flooding and vehicles getting stuck in the mud; and the proximity of high-voltage pylons and power lines.[264]

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Lao PDR is still determining the extent of its baseline of CMR contamination and is many decades from fulfilling its Article 4 obligations. The GICHD believes the NRA would still, however, benefit from taking a strategic view on how to prepare for transition to a more reactive phase, and ultimately for completion within the same framework. The GICHD organised a regional workshop in south-east Asia in May 2023, on Risk Management and Liability in Land Release and the Management of Residual Contamination.[265] In its 2024 Article 4 extension request, Lao PDR said that the government is committed to working with national capacities to develop long-term solutions to residual contamination issues, most notably deployment of the clearance capacity of Unit 58 of the Lao People's Army.[266]

261 Email from Olivier Bauduin, US Embassy Vientiane, 24 July 2024.

262 Presentation by HALO, Sepon, 10 May 2018.

263 Article 7 Reports (covering 2022 and 2023), Form F.

264 Article 7 Report (covering 2023), Form F.

265 Email from Namrita Singh, GICHD, 21 May 2024.

266 2024 Article 4 deadline Extension Request, Part B, Detailed Narrative, pp. 4 and 22.

# LEBANON

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

**ARTICLE 4 DEADLINE: 1 MAY 2026**
NOT ON TRACK TO MEET DEADLINE

## KEY DATA

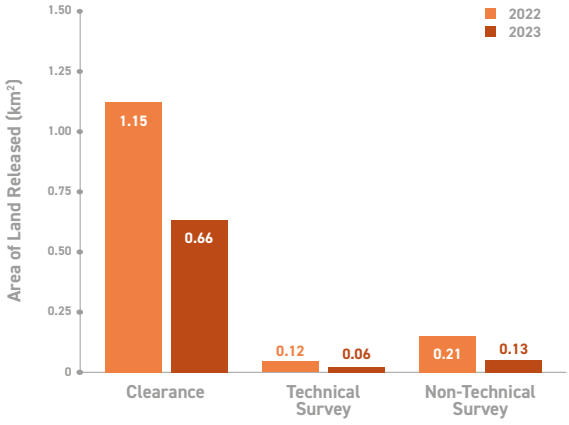
**CLUSTER MUNITION CONTAMINATION:** LIGHT

NATIONAL ESTIMATE
**4.65KM²**

SUBMUNITION CLEARANCE IN 2023
**0.66KM²**

SUBMUNITIONS DESTROYED IN 2023
**1,956**
(INCLUDING 508 DESTROYED IN CALL-OUTS AND MINE CLEARANCE)

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

The Lebanon Mine Action Centre (LMAC) continued to strengthen Lebanon's mine action programme during 2023 with a review of the national mine action standards (NMAS) and a mid-term review of its strategy. However, there was a decrease in both clearance and overall release of cluster munition-contaminated area in 2023. Lebanon continues to see a drop in clearance capacity, a reduction in international funding, and the absence of national funding to clear cluster munition remnants (CMR). In addition, the situation in South Lebanon involving hostilities between Israel and Hezbollah since 7 October 2023 is an obstacle to clearance with operations having been suspended there. As a result, Lebanon is not on track to meet its extended Convention on Cluster Munitions (CCM) Article 4 clearance deadline of 1 May 2026, and at current capacity predicts it will not meet its obligations until 2030.

## RECOMMENDATIONS FOR ACTION

- **Following the updates to the NMAS, all implementing agencies in Lebanon should routinely conduct technical survey (TS) in the release of CMR tasks.**
- **LMAC should determine how it plans to address CMR in especially difficult terrain, such as deep canyons and very steep cliffs, and should publicly report on the number and size of CMR tasks concerned and LMAC's plans to address these areas.**
- **Lebanon should regularly update its CCM Article 4 planning based on annual land release outputs.**
- **Lebanon should develop a resource mobilisation strategy to enable it to meet its annual CMR clearance targets as set out in its 2020 Article 4 deadline extension request.**

# ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

| Criterion | Score (2023) | Score (2022) | Performance Commentary |
|---|---|---|---|
| **UNDERSTANDING OF CMR CONTAMINATION** (20% of overall score) | 8 | 8 | LMAC has a good baseline understanding of its CMR contamination. New previously unrecorded CMR contamination added to the database in 2023 was the result of re-survey through non-technical survey (NTS), which is conducted on a three-year cycle, or through the correction to the perimeters of existing CMR polygons, also following NTS. As of writing, no use of cluster munitions had been identified in Lebanon in the cross-border hostilities between Hezbollah and Israel that began on 8 October 2023. |
| **NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT** (10% of overall score) | 8 | 8 | LMAC continued to show strong national ownership and commitment in 2023, further strengthening programme management. Coordination with implementing partners was maintained through regular Mine Action Forum and technical working group (TWG) meetings. The Lebanese government contributed US$7.5 million in 2023 to support the running of LMAC and the Lebanese Armed Forces (LAF) engineering regiments. Regrettably, however, set against the backdrop of continued political and financial unrest in the country, none of the 50 billion Lebanese pounds (approx. US$33 million) pledged for CMR clearance in 2019–23 had been provided. |
| **GENDER AND DIVERSITY** (10% of overall score) | 8 | 8 | LMAC is committed to promoting the mainstreaming of gender and diversity in Lebanon. Gender and diversity considerations are included in the National Mine Action Strategy 2020–25 and LMAC has a gender work plan and Gender, Diversity and Inclusion Steering Committee in place. In 2023, LMAC conducted a full review of NMAS to integrate gender and diversity considerations. |
| **ENVIRONMENTAL POLICIES AND ACTION*** (10% of overall score) | 7 | Not Scored | LMAC does not have an environmental management policy in place but does have an NMAS on Safety and Occupational Health – Protection of the Environment (10.70) which it reports aligns with IMAS (07.13). LMAC reports that environmental assessments are conducted during the planning and delivery of survey and clearance tasks and that climate-related and extreme weather risks are considered when planning and prioritising survey and clearance tasks. |
| **INFORMATION MANAGEMENT AND REPORTING** (10% of overall score) | 8 | 8 | LMAC and operators continued to make efforts to improve the accuracy of the Information Management System for Mine Action (IMSMA) Core database in 2023. Lebanon submitted an Article 7 report covering 2023 but there were some inconsistencies with the data. |
| **PLANNING AND TASKING** (10% of overall score) | 8 | 8 | LMAC has a National Mine Action Strategy for 2020–25 and an accompanying plan for its implementation and monitoring of progress. In 2023, LMAC conducted a mid-term review of the strategy to align it with a theory of change model which had been adapted for Lebanon. In 2023, Lebanon cleared only 34% of its 1.9km$^2$ clearance target from its 2020 Article 4 extension request. |
| **LAND RELEASE SYSTEM**** (10% of overall score) | 8 | 8 | LMAC has steadily strengthened its NMAS over the last five years. In 2023, LMAC conducted a review of the NMAS in consultation with all implementing partners to ensure compliance with IMAS and incorporate case studies and lesson learnt. Unfortunately, capacity for CMR TS and clearance decreased further in 2023. |
| **LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE** (20% of overall score) | 5 | 6 | CMR-contaminated area clearance decreased in 2023 compared to 2022. Lebanon will not meet its 2026 deadline and has stated that at current capacity clearance will not be completed until 2030. Obstacles to the completion of clearance in Lebanon include the continued drop in international funding and absence of national funds for CMR clearance, discovery of new unreported contaminated areas, the impact of working in "difficult terrains", and the ongoing situation since 8 October 2023 which has led to the suspension of operations in South Lebanon. |
| **Average Score** | **7.3** | **7.6** | **Overall Programme Performance: GOOD** |

* New criterion introduced in 2024 to assess performance.
** The weighting of this criterion was previously 20% of overall performance score, but is now given a 10% weighting.

# CLUSTER Mmunition SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Lebanon Mine Action Authority (LMAA)
- Lebanon Mine Action Centre (LMAC)
- Regional Mine Action Centres (RMAC-N and RMAC-RB)

### NATIONAL OPERATORS

- Lebanese Armed Forces (LAF)/Engineering Regiment (ER)
- Peace Generation Organization for Demining (POD)

### INTERNATIONAL OPERATORS

- DanChurchAid (DCA)
- Humanity and Inclusion (HI)
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)

OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Development Programme (UNDP)
- UN Interim Force in Lebanon (UNIFIL)
- UN Mine Action Service (UNMAS)

## UNDERSTANDING OF CMR CONTAMINATION

At the end of 2023, Lebanon had a total of 4.65km$^2$ of confirmed hazardous area (CHA) containing CMR (see Table 1).[1] This shows a decrease from the end of 2022, when the hazardous area was 5.23km$^2$ across 662 CHAs.[2] This reduction is the result of continued survey and clearance efforts in 2023.

In 2023, a total of 268,339m$^2$ of previously unrecorded CMR contamination was added to the database. Of this, 42,196m$^2$ was discovered through non-technical survey (NTS) conducted by Mines Advisory Group (MAG) and DanChurchAid (DCA).[3] A further 226,143m$^2$ was added to the baseline due to the unpredictable increase of the fade-out because of the high density of CMR found in some tasks.[4]

**Table 1: Cluster munition-contaminated area by province (at end 2023)[5]**

| Province | CHAs | Area (m$^2$) |
|---|---|---|
| Beqaa | 29 | 88,283 |
| Janoub and Nabatiyeh (South of Lebanon) | 497 | 4,432,477 |
| Jabal Loubnan (Mount Lebanon) | 35 | 132,726 |
| **Totals** | **561** | **4,653,486** |

With support from the Geneva International Centre for Humanitarian Demining (GICHD), LMAC migrated to Information Management System for Mine Action (IMSMA) Core in 2021. This migration revealed that several villages were registered in the wrong province, which has changed the distribution but not the total amount of CMR contamination.[6]

During a 2018 database review, LMAC standardised the size of CHAs with no defined boundaries to 10,000m$^2$.[7] However, operators have found that the standardised 10,000m$^2$ area can sometimes overestimate or underestimate the actual task size.[8] LMAC continues to believe in this approach and in its CCM Article 4 planning it has increased the size of these areas by 250% (to 25,000m$^2$) to factor in fade-out.[9]

The accuracy of the baseline is further complicated by clearance conducted in the aftermath of the 2006 cluster munition strikes, which was not compliant with the International Mine Action Standards (IMAS) and was mostly limited to rapid surface clearance. This included emergency clearance undertaken by the Lebanese Armed Forces (LAF) in and around infrastructure, schools, and roads, and clearance contracted out to NGOs, commercial operators, and government groups by the UN Mine Action Coordination Centre – south Lebanon (MACC-SL), in cooperation with the National Demining Office (now known as LMAC).[10] To improve accuracy and inform Article 4 planning, LMAC completed a nationwide non-technical re-survey of all remaining CMR areas in November 2020, with NTS teams revisiting sites every three years.[11] LMAC also agreed with the NGO operators the option for each to have a NTS team to re-survey each new task prior to starting clearance.[12]

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.[13] An estimated one million submunitions failed to explode.[14] Some Israeli bombing data was provided—most recently through the UN Interim Force in Lebanon (UNIFIL)—but has proved to be very inaccurate.[15] In addition, some CMR still remain from earlier conflicts with Israel in 1978 and 1982,[16] 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.[17] Types of submunitions found in Lebanon include Israeli, Soviet,

1 Email from Lt.-Col. Ali Makki, EORE and Media Section Head, LMAC, 2 May 2024; and CCM Article 7 report (covering 2023), Form F.
2 Email from Lt.-Col. Fadi Wazen, Operations Section Head, LMAC, 15 May 2023; Article 7 report (covering 2022), Form F; and LMAC, "Annual Report 2022", p. 15.
3 Emails from Lt.-Col. Ali Makki, LMAC, 2 May 2024; Sylvain Lefort, Country Director, MAG, 13 May 2024; and Mohamed Chour, Head of Mine Action Lebanon, DCA, 30 April 2024.
4 Email from Lt. Col. Charbel Njeim, Operations Section Head, LMAC, 2 July 2024.
5 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024; and Article 7 report (covering 2023), Form F.
6 Article 7 Report (covering 2022), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.
7 Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; LMAC, "Annual Report 2018", p. 13; Article 7 Report (covering 2018), Form F; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 10.
8 Email from Valerie Warmington, Programme Manager, Norwegian People's Aid (NPA), 28 May 2020.
9 Email from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020.
10 Human Rights Watch, "Flooding South Lebanon. Israel's use of cluster munitions in Lebanon in July and August 2006", 16 February 2008.
11 Article 7 Report (covering 2022), Form F.
12 Emails from Lt.-Col. Fadi Wazen, LMAC, 5 April 2019 and 19 March 2020.
13 Landmine Action, "Foreseeable Harm: the use and impact of cluster munitions in Lebanon: 2006", 2006.
14 Email from Brig.-Gen. Ziad Nasr, Director, LMAC, 27 April 2018; and Article 7 Report (covering 2022), Form F.
15 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakih, Head of Operations, LMAC, Beirut, 11 April 2016; presentation by Brig.-Gen. Fakih, LMAC, Beirut, 16 November 2016; and Article 7 Report (covering 2019), Form F.
16 Landmine Action, "Foreseeable Harm: the use and impact of cluster munitions in Lebanon: 2006", 2006; interview with Brig.-Gen. Elie Nassif, Director, and Brig.-Gen. Fakih, LMAC, Beirut, 11 April 2016; and Article 7 Report (covering 2022) Form F.
17 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 2.

and United States (US)-made submunitions, types AO-2.5 RT, BLU-18, BLU-26, BLU-61, BLU-63, M42, M43, M46, M77, M85, MK118, and MZD-2.[18] Some areas contain unexploded submunitions resulting from both ground-launched and air-dropped cluster munitions, which can further complicate the picture.[19]

### 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).

On 8 October 2023, Hezbollah launched attacks on Israel in solidarity with the Palestinian people. Israel and Hezbollah have engaged in thousands of attacks against each other across the border. The majority of attacks had involved artillery or missile, around a quarter were air or drone strikes, while a much smaller proportion concerned armed clashes, destruction of property, and the use of improvised explosive devices (IEDs).[20] At the time of writing, there were no known reports of cluster munitions having been used by Israel or by Hezbollah or other armed groups in Lebanon. In October 2023, Amnesty International reported that the Israeli army had used white phosphorus artillery shells during an attack on the southern border town of Dhayra, a populated civilian area, in violation of international humanitarian law.[21]

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Lebanon's mine action programme is under the control of the military. The Lebanon Mine Action Authority (LMAA), which has overall responsibility for Lebanon's mine action programme, is the responsibility of the Ministry of Defence and is chaired by the Minister of Defence. In 2007, a national mine action policy outlined the structure, roles, and responsibilities within the programme, and LMAC was tasked to execute and coordinate the programme on behalf of the LMAA.[22]

LMAC, part of the LAF, is based in Beirut. Since 2009, the Regional Mine Action Centre-Nabatiyeh (RMAC-N), which is a part of LMAC, has overseen operations in south Lebanon and western Beqaa, under LMAC supervision.[23] At the end of 2018, a new regional centre, the RMAC-Ras Baalbek (RMAC-RB), was established in the north-east of Lebanon to oversee the mine action operations there.[24] LMAC has a capacity that, in general, functions well, but as the staff are army officers, the senior management of LMAC and RMAC are typically routinely rotated every two years or so, which hampers development and continuity in the management of the three mine action centres.[25] The current director of LMAC started in March 2019.[26]

A new standing operating procedure (SOP) for LMAC was approved in November 2020. The SOP specifies the roles of each section of LMAC and clarifies the responsibilities and cooperation between sections. It is hoped that it will help preserve institutional memory, assist new LMAC staff, and reduce the impact of staff rotations.[27]

United Nations Development Programme (UNDP) personnel, funded by the Netherlands, are also seconded to LMAC, providing support for capacity building, including for studies, NTS, community liaison, and information management.[28] In 2023, four UNDP personnel were supporting LMAC.[29]

The United States (US) started a project in 2022 to support LMAC through International Trust Fund (ITF) Enhancing Human Security, aimed at sustaining LMAC during the financial crisis (e.g. car maintenance, solar power systems, demining equipment, training).[30]

The GICHD provides support to LMAC on information management and on gender and diversity. LMAC and Regional School for Humanitarian Demining in Lebanon (RSHDL) staff have benefitted and co-supported the GICHD with courses under the regional framework of the Arab

18 Ibid., p. 23.

19 Interview with Oussama Merhi, UNDP, in Geneva, 26 June 2015.

20 Al Jazeera, 15 April 2024, Mapping Israel-Lebanon cross-border attacks, at: https://bit.ly/3VlYtWy.

21 Amnesty International, 31 October 2023, Lebanon: *Evidence of Israel's unlawful use of white phosphorus in southern Lebanon as cross-border hostilities escalate*, at: https://bit.ly/3VBUxT4.

22 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014, pp. 4–5.

23 LMAC, "Lebanon Mine Action Strategy 2011–2020", September 2011, p. 4.

24 Email from Lt.-Col. Fadi Wazen, LMAC, 21 August 2019.

25 LMAC, Lebanon Mine Action Strategy 2020–25, signed June 2020, p. 4.

26 Email from Brig.-Gen. Ziad Nasr, LMAC, 26 March 2019.

27 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020 and 15 March 2021; and LMAC, "Annual Report 2020", p. 28.

28 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

29 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.

30 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

Regional Cooperation Programme (ARCP). Information management (IM) staff from LMAC have also supported the GICHD to deliver global IMSMA Core training. In addition, the GICHD is partnering with LMAC on a study of contamination in "difficult" terrain (for details see the section below, "Article 4 Deadline and Compliance").[31]

MAG supports LMAC on key areas such as information management, the introduction of GPS for completion tasks, explosive ordnance disposal (EOD), new detection systems, and enhancing the Centre's gender approach. The MAG quality assurance manager facilitated a basic demining course for 24 staff members (20 men and 4 women) over four weeks. In addition to training and mentoring, MAG delivered several courses to LMAC staff covering IMAS, operational efficiency and analysis, quality management, and TS. The first course, held in July 2023, trained 17 staff members (14 men and 3 women), and the second in October trained 15 staff (14 men and 1 woman).[32]

DCA supported LMAC to train new NTS teams from LMAC and other NGOs by demonstrating how IMSMA Core can be used in NTS.[33]

There is good coordination and collaboration between LMAC/the RMAC and clearance operators, with the operators consulted before key decisions are taken.[34] International clearance operators reported that an enabling environment exists for mine action in Lebanon, with LMAC facilitating the processing of visas for international staff and assisting with the importation of equipment, including exemption of customs fees for equipment.[35] In 2022, however, Norwegian People's Aid (NPA) reported that a challenge was the length of time needed to obtain security clearances for new local staff. This process can take more than three months,[36] although usually it takes less than a month, during which the operator is allowed to start training the new staff.[37] NPA noted that this situation remained unchanged in 2023.[38]

A "Humanitarian Mine Action Forum" was established in Lebanon in close partnership between LMAC and Norway. The forum aims to meet twice a year, with UNDP designated as the secretariat for the Forum.[39] In 2021, the Netherlands took over from Norway as Forum co-chair.[40] In 2023, the Forum met once.[41] It focused on the challenges posed by difficult terrain, discussing the implications for funding and completion of clearance.[42] A technical working group (TWG), established in March 2018 under the auspices of LMAC, met three times in 2023.[43] The TWG is a useful forum for LMAC/the RMACs to meet with clearance operators.[44] Discussions in 2023 concentrated on revising the NMAS, promoting TS and the use of machines, responses to the emergency situation in November 2023, and operations in difficult terrain.[45]

The Lebanese government contributed approximately US$7.5 million in 2023 towards the mine action programme (for both landmine- and CMR-related work), to support costs associated with the running of LMAC (facilities and staff); two LAF Engineering Regiment battle area clearance (BAC) teams and three Engineering Regiment companies to cover rapid response across Lebanon; risk education; victim assistance; training; and advocacy.[46] This is down on the US$9 million provided in 2022, reflecting the ongoing economic crisis in the country. This crisis affects the work of the Engineering Regiment demining teams.[47] Increased maintenance costs and fuel shortages were also major obstacles. The morale of the LMAC staff, whose income has dropped significantly, has also taken a hit.[48]

The Lebanese government had pledged an additional 50 billion Lebanese pounds (approximately US$33 million) to CMR clearance over the five years in 2019–23, in order to increase the number of CMR clearance teams and help meet the State's Article 4 obligations under the CCM. But due to political and financial turmoil in Lebanon this national funding has not been provided.[49] LMAC had expected that a reduced amount of around US$3 million would still be allocated to CMR clearance yearly.[50] In fact, no national funding was allocated for CMR clearance in 2020–23.[51]

31 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

32 Email from Sylvain Lefort, MAG, 13 May 2024.

33 Email from Lt. Col. Charbel Njeim, LMAC, 2 July 2024.

34 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.

35 Emails from Hiba Ghandour, Programme Manager, MAG, 7 April 2022; and Southern Craib, Operations Manager, NPA, 28 March 2022.

36 Email from Southern Craib, Programme Manager, NPA, 28 March 2022.

37 Email from Lt.-Col. Fadi Wazen, LMAC, 30 June 2023.

38 Email from Southern Craib, NPA, 22 April 2024.

39 LMAC, "Annual Report 2018", p. 23.

40 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

41 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.

42 Emails from Sylvain Lefort, MAG, 13 May 2024; and Mohamed Chour, DCA, 30 April 2024.

43 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.

44 LMAC, "Annual Report 2018", pp. 4, 7, and 17; and emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; Emile Ollivier, NPA, 19 March 2019; Hiba Ghandour, MAG, 7 April 2022; Southern Craib, NPA, 28 March 2022; and Mouhamed Chour, DCA, 4 April 2022; and Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 8 and 54.

45 Emails from Sylvain Lefort, MAG, 13 May 2024 and Mohamed Chour, DCA, 30 April 2024.

46 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.

47 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Article 7 report (covering 2022), Form I.

48 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.

49 Article 7 Report (covering 2019), Form I; and email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

50 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.

51 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021, 29 March 2022, and 15 May 2023; Article 7 Reports (covering 2020, 2021, 2022 and 2023), Form I; and LMAC, "Annual Report 2022", p. 24.

## 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.[52] LMAC remains committed to promoting the mainstreaming of gender and diversity among key stakeholders and mine action operators in Lebanon.[53] It has taken several actions to mainstream gender in its implementation plan, including through inclusive policies, data disaggregation in risk education and victim assistance, assigning a gender focal point, and organising and participating in courses at the RSHDL.[54]

MAG has supported LMAC in the implementation of the gender work plan, with LMAC engaging all implementing partners on the plan in 2023.[55] MAG has also assisted LMAC in establishment of a Gender, Diversity and Inclusion (GDI) Steering Committee led by LMAC's gender focal point and consisting of gender focal points and human resources (HR) managers from all clearance NGOs.[56] In 2023, MAG supported LMAC in the review and drafting of their GDI approach and strategy, and co-lead a training workshop on Gender in Mine Action with the LMAC for all HMA operators in March 2023 on international women's day.[57]

Lebanon's National Mine Action Strategy 2020–25 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]

The GICHD conducted its most recent gender and diversity capacity assessment mission to the Lebanon programme in November 2021 and said LMAC had followed many of its recommendations on gender and diversity mainstreaming from that visit.[60] In July 2023, LMAC and the GICHD organised a three-day course titled 'Gender and Diversity Mainstreaming in Mine Action in Lebanon'. The objective was to strengthen the integration of gender and diversity considerations among key stakeholders and mine action operators.[61]

LMAC conducted a full review of its NMAS in 2023, a component of which was to integrate gender and diversity considerations to align with IMAS.[62] MAG supported LMAC in this process and, in 2024, was reviewing its internal SOPs to ensure they are gender-sensitive and aligned with the revised NMAS.[63]

**Table 2: Gender composition in 2023[64]**

| Operator | Total staff | Women staff | Total managerial or supervisory staff | Women in managerial or supervisory positions | Total operational staff | Women in operational positions |
|---|---|---|---|---|---|---|
| DCA | 61 | 12 (20%) | 20 | 8 (40%) | 55 | 4 (7%) |
| LMAC | 152 | 18 (12%) | 20 | 2 (10%) | 44 | 7 (16%) |
| MAG | 208 | 32 (15%) | 52 | 4 (8%) | 184 | 26 (14%) |
| NPA | 83 | 17 (20%) | 22 | 3 (14%) | 74 | 12 (16%) |
| HI | 76 | 32 (42%) | 17 | 5 (29%) | 64 | 27 (42%) |
| POD | 99 | 1 (1%) | 21 | 1 (5%) | 83 | 0 (0%) |
| **Totals** | **679** | **112 (16%)** | **152** | **23 (15%)** | **504** | **76 (15%)** |

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.[65] 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.[66]

52 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
53 LMAC "Annual Report 2022", p. 33.
54 LMAC, "Annual Report 2018", p. 5; and email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019.
55 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.
56 Email from Sylvain Lefort, MAG, 14 April 2023.
57 Email from Sylvain Lefort, MAG, 13 May 2024.
58 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March and 22 July 2020.
59 LMAC, Lebanon Mine Action Strategy 2020–25, p. 8.
60 Email from the GICHD, 6 April 2023.
61 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.
62 Ibid.
63 Email from Sylvain Lefort, MAG, 13 May 2024.
64 Emails from Lt.-Col. Ali Makki, LMAC, 2 May 2024; Sylvain Lefort, MAG, 13 May 2024; Mohamed Chour, DCA, 30 April 2024; Southern Craib, NPA, 22 April 2024 and Aurélien Thienpont, Country Manager, HI, 30 May 2024.
65 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.
66 LMAC, "Annual Report 2020", p. 37.

LMAC now has seven female members of staff in operational role, and an increase from one in 2022.[67]

MAG, NPA, DCA, HI, and Peace Generation Organization for Demining (POD) all reported having gender policies in place.[68] DCA's was implemented in 2023 and it reported that all its staff participated in a training session on gender and diversity.[69]

In 2022, MAG began systematic outreach to civil organisations to look for joint efforts to empower women and overcome stereotyping in the communities it works in, conducted detailed gender analysis to better disaggregate its data, and created a platform for reaching women in the community to attract more women to be involved in mine action.[70] MAG reported that it conducts annual refresher training for all staff on gender mainstreaming in mine action and MAG's gender policy. Revisions to explosive ordnance risk education (EORE) materials to ensure accessibility for persons with disabilities were approved in 2023 and will be implemented during 2024.[71]

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.[72] In 2023, both of NPA's main support departments (finance and logistics) were led by women. A new female Programme Officer, hired in late 2023, has since been made responsible for managing NTS, which will be increasingly important in 2024. For operational staff, hiring is more challenging due to limited turnover. New positions only become available when current staff leave or retire, or when funding increases. When such positions open, NPA ensures an equal number of male and female candidates are shortlisted and undergo training. Selection is based on merit, with the highest scoring candidates securing the jobs, regardless of gender.[73]

## ENVIRONMENTAL POLICIES AND ACTION

LMAC does not currently have an environmental management policy, although there is a vision to develop one in the future and it recognises its responsibility to ensure that demining operations are conducted responsibly and efficiently while also minimising the impact on the environment. Lebanon's NMAS on Safety and Occupational Health – Protection of the Environment (10.70), which is said to align with IMAS 07.13, specifically aims to achieve this.

LMAC and its implementing partners are required to coordinate with local authorities and landowners before operations start. All NTS reports and clearance plans include information on the climatic and weather characteristics of the region, their impact on the clearance operation, and the measures to be taken. After clearance has been completed at a worksite, operators must remove and dispose of appropriately all rubbish and large fragments of munitions, filling in any holes in the ground to stabilise the surface so that natural regeneration can take place.[74] Additionally, when planning and prioritising survey and clearance tasks, Lebanon considers climate-related and extreme weather risks.[75]

DCA's SOPs designate specific smoking areas at task sites to prevent uncontrolled fires and monitor vegetation-cutting procedures to protect flora under Lebanese law. DCA has an environmental management policy and conducts environmental assessments to support survey and clearance tasks.[76] During the summer, DCA prioritises tasks with a lower risk of fires during demolitions. In June 2023, DCA Lebanon hosted a consultant from DCA HQ to review environmental management best practices in mine action, looking at soil degradation, wildlife and vegetation disturbance, and waste generation. Recommendations for improvements included adjustments to SOPs (for vegetation cutting, demolition, and subsurface clearance to minimise topsoil damage and protect water and air quality) and capacity-building needs.[77]

HI has an environmental management system in place and its SOP21 on environmental management includes general protection for watercourses and groundwater, during vegetation clearance, in the construction and removal of temporary support facilities, during transport of toxic and hazardous materials, for livestock, wildlife, and cultural resources, and provision for the environmental awareness of clearance personnel.[78]

MAG has an environmental management system and an SOP to minimize environmental impact.[79] MAG's Beirut office is now 100% solar powered with plans to introduce solar energy panels to MAG's South base upon redeployment from Nabatiyeh. MAG conducts environmental assessments for every task, incorporating a checklist into the clearance plan to evaluate potential impacts and identify necessary mitigation. Annual work plans divide tasks into dry and wet season activities, with strategies to mitigate and adapt to these risks.[80]

67 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.
68 Emails from Emile Ollivier, NPA, 19 March 2019; David Willey, MAG, 7 March 2019; Mahmoud Rahhal, POD, 8 March 2019; and Mohamed Chour, DCA, 30 April 2024.
69 Email from Mohamed Chour, DCA, 30 April 2024.
70 Email from Sylvain Lefort, MAG, 27 May 2021.
71 Email from Sylvain Lefort, MAG, 13 May 2024.
72 Email from Valerie Warmington, NPA, 28 May 2020.
73 Email from Southern Craib, NPA, 22 April 2024.
74 Emails from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022 and 5 May 2023.
75 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.
76 Emails from Mouhamed Chour, DCA, 4 April 2022 and 3 May 2023.
77 Email from Mohamed Chour, DCA, 30 April 2024.
78 Emails from Nahed Al-Khlouf, HI, 6 August 2022; and Aurélien Thienpont, HI, 13 April 2023.
79 Email from Sylvain Lefort, MAG, 14 April 2023.
80 Email from Sylvain Lefort, MAG, 13 May 2024.

NPA Lebanon has an environmental plan in place which includes the storage of paper, plastics, and metal waste for recycling and has been upgrading its fleet for better fuel efficiency. It strives to minimise the removal of vegetation and explosive residues are removed from demolition pits where possible. NPA installed a solar system at its office in 2022, upgrading the back-up batteries to Lithium in late 2023, which reduced generator diesel usage by 19,207 litres and saved more than US$20,000. NPA has also begun to track its environmental footprint using an annual reporting tool.[81] NPA does not conduct formal environmental assessments for survey and clearance tasks. Flash-fire risks in dry grass are mitigated by postponing demolitions, spraying water, and using sandbags. No flash-fire incidents have occurred since implementing these measures.[82]

## INFORMATION MANAGEMENT AND REPORTING

Since 2021, LMAC has been using IMSMA Core.[83] Key improvements in the new IM system include more accurate drawing of surveyed polygons using tools based on GPS and imagery base maps; reducing instances of double counting of polygons; and recording the depth at which ordnance was discovered, its condition of, and whether it is safe to move.[84]

Disclaimed areas in the database are those for which the owner of the land has not granted permission for implementing agencies to conduct land release operations. In such cases, the landowner has to sign a personal disclaimer taking full responsibility for any kind of explosive remnants of war (ERW), including CMR on the land. LMAC is trying to end the disclaimers, the records of which were mainly taken before 2009. The majority of disclaimed areas are being cancelled as a result of ongoing re-survey when the owners are found to be using the land. If clearance is required, survey and community liaison teams, along with local authorities, will encourage landowners to allow clearance in order to ensure the land is free from hazards and will provide assurance of measures that will be taken to prevent disruption to the use of the land.[85] According to its 2020 Article 4 deadline extension request, there were 116 disclaimed areas on the database totalling 338,932m$^2$.[86]

DCA has been using the Tiramisu Information Management Tool (T-IMS) for the past three years.[87] MAG adopted the Survey123 software in Lebanon in 2021.[88] In 2023, it implemented version 2 of the Operational Management Information System (OMIS), which optimises data collection, validation, visualisation, and analysis, with digitalised forms reducing errors and centralised data storage enhancing decision-making. Efforts to ensure compatibility between OMIS and IMSMA Core by allowing direct data transfer are ongoing.[89] Since 2020, NPA has been using the ARC-GIS programme for better data collection and monitoring and evaluation of its programme.[90]

Lebanon submitted a timely CCM Article 7 report covering 2023. However, the land release data provided in the report did not match the data provided to Mine Action Review.

## PLANNING AND TASKING

LMAC has a National Mine Action Strategy for 2020–25, developed with support from the UNDP project funded by the European Union (EU).[91] One objective of the new strategy is to complete clearance of all known cluster munition-contaminated areas by the end of 2025,[92] but LMAC will not meet this target.

LMAC also has a strategic implementation plan for the 2020–25 strategy.[93] In 2023, LMAC conducted a midterm review of the strategy and implementation plan in cooperation with programme stakeholders. The key outcomes of the review were that the strategy's impacts, outcomes, and outputs are aligned with the theory of change newly developed by ITAD and adapted to Lebanon's specific context.[94] A final external review of the strategy was done at the beginning of 2024.[95]

81 Emails from Southern Craib, NPA, 28 March 2022; and Tomislav Vondracek, NPA, 5 May 2023.
82 Email from Southern Craib, NPA, 22 April 2024.
83 LMAC, "Annual Report 2022", p. 31.
84 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.
85 Emails from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020 and 15 June 2021.
86 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 36.
87 Email from Matthew Benson, Country Director, DCA, 4 June 2021.
88 Email from Hiba Ghandour, MAG, 7 April 2022.
89 Email from Sylvain Lefort, MAG, 13 May 2024.
90 Email from Hala Amhaz, NPA, 15 March 2021.
91 LMAC, Lebanon Mine Action Strategy 2020–25; and LMAC, "Annual Report 2019", p. 7.
92 LMAC, Lebanon Mine Action Strategy 2020–25, p. 4.
93 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.
94 Emails from Lt.-Col. Ali Makki, LMAC, 2 May 2024; Sylvain Lefort, MAG, 13 May 2024; Mohamed Chour, DCA, 30 April 2024.
95 Email from Lt. Col. Charbel Njeim, LMAC, 2 July 2024.

Table 3 outlines the predicted annual clearance output and capacity up to the end of 2025, as per its 2020 Article 4 deadline extension request. LMAC plans to conduct TS where appropriate, but it did not provide predictions in the request of the area it expected to be reduced as a result. Projected clearance rates in the request were based on an average of the previous three years and while LMAC expects more efficient methodologies such as TS will increase this average, any gain is likely to be offset by the more difficult terrain that remains to be cleared.[96] Planned output also considers fade-out and the possible increase in the area to be cleared in the 10,000m$^2$ sites, using a factor of 2.5.[97] In 2023, LMAC cleared 0.65km$^2$ which is only 34% of the 2023 clearance target in the extension request.[98] In 2021 – 23, only 2.8km$^2$ was cleared of the 5.7km$^2$ that was planned.

**Table 3: Planned CMR clearance and capacity (2021–25) as per 2020 Extension Request[99]**

| 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 |

LMAC conducted a study in 2021 of tasking leading to the creation of 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.[100] The prioritisation of actions and allocation of resources is automated in IMSMA Core.[101]

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

Lebanon developed its first NMAS in 2010.[102] In 2017, LMAC started revising and harmonising national standards with IMAS, adding new modules to the original standards.[103] A 2020 study on operational efficiency highlighted the need for greater emphasis on TS in the land release process in Lebanon.[104] These recommendations were subsequently incorporated in Lebanon's revised NMAS in 2021.[105] Prior to the incorporation of TS into the revised NMAS released in May 2021, TS activities had not been a routine part of the toolbox for operators for the release of cluster munition tasks.[106] NGO clearance operators updated their SOPs accordingly and commenced application of TS on BAC tasks.[107] A full review of the LAF Engineering Regiment's SOPs was completed with the support of LMAC/UNDP, with TS included for CMR operations.[108] LMAC found that where TS for CMR tasks was applied in 2022, an average of 51% of land was reduced.[109]

In 2023, LMAC conducted a review of the NMAS to ensure compliance with IMAS, incorporate case studies and lessons learned, and integrate gender and diversity considerations. These updates were made in consultation with all implementing partners. All 34 of the NMAS were revised to reflect changes in content and terminology from the IMAS, improve effectiveness, and correct parts that were ambiguous or confusing.[110] In addition, following recommendations and discussions with implementing partners in early 2021, the fade-out distance requiring full clearance was formally reduced from a 50-metre radius to a 30-metre radius in high-density CMR tasks, and to a minimum 25-metre radius in low density tasks.[111] MAG had also previously noted that excessive marking reduced productivity and increased costs. It presented and demonstrated to LMAC a new marking system for BAC tasks, which LMAC approved.[112]

96 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 5 and 34.

97 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

98 Email from LMAC; and Article 7 report (covering 2023), Form F.

99 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 37.

100 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021; and LMAC, "Annual Report 2020", p. 35.

101 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and LMAC, "Annual Report 2022", p. 32.

102 Email from Brig.-Gen. Elie Nassif, LMAC, 17 June 2015.

103 Emails from Brig.-Gen. Elie Nassif, LMAC, 7 July 2015; Dave Wiley, MAG, 27 April 2018 and 7 March 2019; and Craig McDiarmid, Programme Manager, NPA, 17 April 2018 and 19 March 2019; and Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 15.

104 LMAC, "Annual Report 2020", p. 36.

105 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

106 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakih, LMAC, Beirut, 11 April 2016 and with Lt.-Col. Fadi Wazen, LMAC, Beirut, 16 April 2019; and emails from Lt.-Col. Fadi Wazen, LMAC, 15 June 2020; and Hala Amhaz, NPA, 15 March 2021.

107 Emails from Hiba Ghandour, MAG, 7 April 2022; and Mouhamed Chour, DCA, 4 April 2022 and 3 May 2023.

108 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

109 LMAC, "Annual Report 2022", p. 13.

110 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.

111 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021; Hiba Ghandour, MAG, 7 April 2022; and Mouhamed Chour, DCA, 4 April 2022.

112 Emails from Sylvain Lefort, MAG, 24 March and 27 May 2021; Hiba Ghandour, MAG, 7 April 2022; and Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

LMAC plans to update the NMAS on demolitions. This follows discussions with operators which showed that reducing the frequency of destruction of items found in cluster munition sites to a single demolition day each week (rather than daily demolitions as suggested in the existing NMAS) would save an average of two hours per day. This means that up to eight hours per team will be saved each week.[113] As at July 2023, the updates for demolitions were already in place and applied by operators wherever possible.[114]

HI has been developing innovative techniques to support land release for several years. HI employs advanced sensors to locate buried explosive ordnance, and in collaboration with LMAC, HI has been training their teams and other operators in Lebanon, ensuring the adoption of improved surveying methodologies to enhance efficiency. In 2023, HI introduced portable body-worn camera systems to aid clearance. This technology enhances safety, communication, helps identify training needs, and provides real-time technical support. The implementation of body-worn cameras by the CMR clearance team in Aley district is expected to accelerate land release and improve safety. Currently, this system is in the assessment phase in Aley district, working alongside existing procedures.[115]

## OPERATORS AND OPERATIONAL TOOLS

In 2023, CMR clearance was conducted by international operators DCA, HI, MAG, and NPA; national operator POD; and the LAF Engineering Regiment.[116] But in 2023, the CMR clearance capacity decreased due to a reduction in funding for NPA and the ongoing conflict, which led to operations being suspended and teams redeployed.[117]

The LAF Engineering Regiment has two BAC teams. A further three Engineering Regiment companies conduct rapid response call-outs. In addition, each deployed combat brigade has its own combat engineering company that can also conduct call-outs. The LAF has seven mine detection dog (MDD) teams for TS and for use as a secondary asset supporting clearance, but none of these is used for CMR.

Through the Engineering Regiment, LMAC provides mechanical assistance to operators lacking this capacity.[118] In Lebanon, machines are mostly used as secondary assets to support clearance teams (e.g. for ground preparation, rubble removal, or for fade-out); in areas where manual clearance is difficult; and for TS and low threat hazardous area (LTHA).[119] Often, however, the terrain is not suitable for machines. Unfortunately, the economic crisis in Lebanon has resulted in huge budget cuts in all government institutions and therefore the LAF teams are not able to conduct the same level of activities as before, including with respect to mechanical assets. Clearance operators who are supported by mechanical assets from the LAF are providing fuel, maintenance, and spare parts for the machines.[120] In addition, new mechanical assets have been introduced by MAG, which will be used as primary assets.[121]

NPA worked with LMAC and the LAF to assess the capacities of the LAF MDDs for surveying and clearing CMR. However, as at May 2024, there had been no further progress on the development of a proposal to build the capacity of the LAF MDD teams in order to provide LMAC with IMAS/NMAS compliant MDD capacity for TS.[122] LMAC said use of MDDs in TS proved successful previously for addressing CMR, and LMAC plans to promote funding for MDDs and work with NPA to train new MDD teams in the Engineering Regiment.[123] MDDs are not currently accredited for CMR clearance in Lebanon.[124]

**Table 4: NGO operational CMR clearance capacities deployed in 2023[125]**

| Operator | Manual teams | Total clearance personnel* | Machines** | Comments*** |
|---|---|---|---|---|
| MAG | 2.5 | 10 | 8 | MTT |
| DCA | 4 | 25 | 1 | MTT |
| NPA | 2–5 | 15–35 | 1 | MTT (staff worked at 50% during the year due to loss of funding) |

113 Article 7 Report (covering 2021), Form F; and presentation of Lebanon, CCM Intersessional meetings, Geneva, 16 May 2022; and LMAC, "Annual Report 2021", p. 33.
114 Email from Lt.-Col. Fadi Wazen, LMAC, 30 June 2023.
115 Email from Roger Eid, Chief of Operations, HI, 18 June 2024.
116 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.
117 Ibid.; and email from Southern Craib, NPA, 22 April 2024.
118 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.
119 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.
120 Ibid.
121 Ibid.
122 Ibid.; and email from Southern Craib, NPA, 22 April 2024; Article 7 Report (covering 2021), Form F; and LMAC, "Annual Report 2021", p. 32.
123 Article 7 report (covering 2022), Form F.
124 Email from Southern Craib, NPA, 28 March 2022.
125 Emails from Lt.-Col. Ali Makki, LMAC, 2 May 2024; Sylvain Lefort, MAG, 13 May 2024; Mohamed Chour, DCA, 30 April 2024; Southern Craib, NPA, 22 April 2024; and Aurélien Thienpont, HI, 30 May 2024.

**Table 4 Continued**

| Operator | Manual teams | Total clearance personnel* | Machines** | Comments*** |
|---|---|---|---|---|
| HI | 1 | 7 | 0 | MTT |
| POD | 7 | N/K | N/K | |
| **Totals** | **16.5–19.5** | **57–77** | **10** | |

* Clearance personnel may also conduct TS. ** Excluding vegetation cutters and sifters. *** Clearance teams also work on TS tasks. N/K = not known.

DCA's clearance capacity remained broadly constant in 2023. In 2024, DCA has submitted proposals to increase its capacity in the second half of the year.[126]

MAG's operations in South and West Beqaa and Jezzine were heavily impacted by ongoing conflict which resulted in a decrease in CMR survey and clearance capacity in 2023. In 2024, MAG expected capacity to remain the same and it has started gradually redeploying teams on BAC sites with two teams deployed in Jezzine and two teams deployed in West Beqaa.[127]

NPA's funding in Lebanon decreased from the end of March 2023, which resulted in NPA putting all operational staff on part-time contracts (50%) from January 2023 in order to avoid lay-offs.[128] In 2024, NPA hoped to be able to deploy all six teams at 60% (six days out of every 10) for the duration of the year with funding currently available.[129]

In 2023, HI expanded its operations in the Aley district by deploying a BAC team, an increase from 2022 when it only conducted mine clearance. HI plans to maintain the current number of personnel through to the end of the BAC project in July 2024. However, a reduction in personnel may be necessary thereafter.[130]

# LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

## LAND RELEASE OUTPUTS IN 2023

A total of almost 0.85km$^2$ of CMR-contaminated area was released in 2023, of which almost 0.66km$^2$ was cleared, almost 0.13km$^2$ was cancelled through NTS, and 0.06km$^2$ was reduced through TS. A total of 1,956 submunitions were destroyed in 2023, of which 508 were destroyed during EOD spot tasks.

## SURVEY IN 2023

In 2023, 129,825m$^2$ was cancelled through NTS (see Table 5) and a further 62,782m$^2$ was reduced through TS (see Table 6).[131] This was a 38% reduction from the 209,593m$^2$ cancelled through NTS and a 46% reduction from the 115,836m$^2$ reduced through TS in 2022.[132]

**Table 5: Cancellation through NTS in 2023[133]**

| Province | Operator | No. of areas cancelled | Area cancelled (m$^2$) |
|---|---|---|---|
| Beqaa (including North-East Region) | MAG | 9 | 106,686 |
| South Lebanon | DCA | 1 | 12,271 |
| | MAG | 0 | 3,114 |
| | DCA | 0 | 1,731 |
| | LMAC | 7 | 6,023 |
| **Totals** | | **17** | **129,825** |

126 Email from Mohamed Chour, DCA, 30 April 2024.

127 Email from Sylvain Lefort, MAG, 13 May 2024.

128 Email from Tomislav Vondracek, NPA, 5 May 2023.

129 Email from Southern Craib, NPA, 22 April 2024.

130 Email from Roger Eid, HI, 18 June 2024.

131 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.

132 Article 7 report (covering 2022), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

133 Emails from Lt.-Col. Ali Makki, LMAC, 2 May 2024; Sylvain Lefort, MAG, 13 May and 28 June 2024; Mohamed Chour, DCA, 30 April 2024; and Roger Eid, HI, 18 June 2024. No information on area released through survey was provided in Lebanon's Article 7 report covering 2023. MAG reported cancelling eight areas totalling 86,000m$^2$ in Beqaa (including North-East region) of which five areas totalling 56,000m$^2$ was in the North East region and three areas totalling 30,000m$^2$ was in the Beqaa. DCA reported cancelling 2 areas in South Lebanon totalling 24,011m$^2$.

**Table 6: Reduction through TS in 2023[134]**

| Province | Operator | No. of areas reduced | Area reduced (m²) |
|---|---|---|---|
| Beqaa (including North-East Region) | MAG | 2 | 42,066 |
| South Lebanon | DCA (Baabda) | 2 | 11,842 |
| | NPA | 3 | 8,874 |
| **Totals** | | **7** | **62,782** |

## CLEARANCE IN 2023

Lebanon reported clearing almost 0.66km² of CMR-contaminated land in 2023 (see Table 7) and destroying 1,448 submunitions in the process. In addition, a further 95 submunitions were destroyed by POD during EOD spot tasks and LAF cleared 8,299m² and destroyed 413 submunitions during mine clearance and in EOD spot tasks.[135] This is a 43% reduction from the more than 1.15km² of CMR-contaminated land in cleared in 2022.[136]

**Table 7: CMR clearance by province in 2023[137]**

| Province | Name of Area | Operator | Area cleared (m²) | Submunitions destroyed | UXO destroyed during CMR clearance |
|---|---|---|---|---|---|
| Beqaa | MAG | 16 | 207,851 | 129 | 7 |
| Mount Lebanon | DCA | 9 | 241,654 | 755 | 216 |
| | HI | 0 | 3,299 | 7 | 0 |
| South Lebanon | POD | 0 | 151,311 | 421 | 12 |
| | NPA | 10 | 43,890 | 136 | 1 |
| EOD/mine clearance | POD/LAF | N/K | 8,299 | 508 | N/A |
| **Totals** | | **35** | **656,304** | **1,956** | **236** |

N/K = Not known

The main reason for the decrease in clearance output from 2022 to 2023 was an overall 30% decrease in funding and the cessation of clearance activities in southern Lebanon after 7 October 2023.[138]

DCA's survey and clearance output increased in 2023 because two multi-task teams were moved from Blue Line in South Lebanon to Mount Lebanon to conduct BAC. DCA reported that one task, an SHA in the Kfar Selwan village, released a total of 10,000m² through TS with no items found.[139]

MAG saw a significant decrease in its land release output in 2023 mainly due to the stand down from October to December 2023 because of the security situation. MAG reported that seven tasks totalling 81,410m² were cleared without submunitions being found.[140]

NPA's land release output fell significantly in 2023 due to a decrease in funding which led to NPA choosing to operate its six teams at 50% capacity. NPA's operations were also affected by the stand-down from October to December 2023. NPA worked on CMR tasks during 2023 for only 14.25 "team months" producing 43,890m² of clearance or an average of 3,080m² per team month compared to 1,821m² per team month in 2022. NPA reported that 10 CMR tasks were cleared in 2023 with no submunitions found, although seven of the tasks were suspended on 16 October and submunitions may still be found once they are restarted. The three completed tasks that produced no items were cleared under funding from the Republic of Korea (through the ITF) and at the insistence of the donor these tasks were selected due to their proximity to the ROK UNIFIL base rather than any national priority or the likelihood of items being present. Only 69% of these tasks were cleared with the remaining 31% reduced.[141]

134 Emails from Lt.-Col. Ali Makki, LMAC, 2 May 2024; Sylvain Lefort, MAG, 13 May 2024; Mohamed Chour, DCA, 30 April 2024; and Southern Craib, NPA, 22 April 2024.

135 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.

136 Article 7 report (covering 2022), Form F.

137 Emails from Lt.-Col. Ali Makki, LMAC, 2 May 2024; Sylvain Lefort, MAG, 13 May 2024; Mohamed Chour, DCA, 30 April 2024; and Southern Craib, NPA, 22 April 2024. In Lebanon's Article 7 report covering 2023 it was reported that 135,777m² was cleared in Beqaa, 304,009m² was cleared in Mount Lebanon, and 215,518m² was cleared in South Lebanon totalling 656,304m², with 1,956 submunitions destroyed.

138 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.

139 Email from Mohamed Chour, DCA, 30 April 2024.

140 Email from Sylvain Lefort, MAG, 13 May 2024.

141 Email from Southern Craib, NPA, 22 April 2024.

## ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR LEBANON: 1 MAY 2011

↓

ORIGINAL ARTICLE 4 DEADLINE: 1 MAY 2021

↓

**FIRST EXTENDED DEADLINE (FIVE YEARS): 1 MAY 2026**

**NOT ON TRACK TO MEET ARTICLE 4 DEADLINE**

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. Lebanon will not meet this deadline.

In September 2011, LMAC adopted a strategic mine action plan for 2011–20.[142] 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. Progress was also hindered by the historical lack of NTS and TS, which often resulted in inefficient land release and unnecessary clearance of uncontaminated land. LMAC has now rectified this through the application of TS and its incorporation into the NMAS.

Lebanon has cleared approximately 5.34km$^2$ of cluster munition-contaminated area in the last five years (see Table 8). According to LMAC, results until the beginning of 2022 showed that Lebanon was on track to meet its Article 4 extension request plan targets.[143] At the end of 2023, the amount of CMR contamination remaining was 4.66km$^2$ whereas if the extension request plan targets had been met it should have been 3.63km$^2$. With its current capacity, Lebanon expects that at the end of 2025, a total of 2.55km$^2$ of CMR contamination will remain, necessitating an additional extension request.[144] LMAC had previously said it could complete clearance by summer of 2027 but a new assessment indicates it will need until the end of 2030, provided that the necessary funding is secured.[145]

In light of improvements to the CMR land release methodology in the last couple of years, funding now represents the most significant challenge to Lebanon's Article 4 implementation. Many international donors have stopped funding clearance operations in Lebanon, and the current shortfall between the amount sought in the 2020 extension request and that secured for cluster munition survey and clearance in 2021, 2022 and 2023 totals US$14.25 million, half of the amount sought. No new donors were brought on board in 2023.[146] Operators have been trying to engage with new donors and will continue to advocate for mine action in Lebanon to support LMAC in their quest.[147] The drop in funding directly impacts the number of clearance teams and thus the annual clearance output.

What is more, Lebanon is in the midst of a deep and unprecedented economic, financial, and social crisis and none of the 50 billion Lebanese pounds pledged by its government in 2017 for cluster munition clearance has been disbursed.[148] Operators have reported that the economic and political crises have made their operations more expensive, driving up the cost per square metre due to higher supply prices and limited fuel availability.[149] Lebanon has issued new decrees affecting social security payments and income tax for both employees and employers. MAG has accounted for these significant cost increases in its budgets, but this impacts the number of teams that can be funded and leads to reductions in capacity.[150]

**Table 8: Five-year summary of CMR clearance**

| Year | Area cleared (km$^2$) |
|---|---|
| 2023 | 0.65 |
| 2022 | 1.15 |
| 2021 | 1.00 |
| 2020 | 1.28 |
| 2019 | 1.26 |
| **Total** | **5.34** |

In addition to the funding challenges, LMAC also says that obstacles to completion come from the persistent discovery of unreported contamination and the impact of working in "difficult terrains" which can slow down clearance at some sites.[151] LMAC acknowledges, however, that all cluster munition-contaminated areas even those on difficult terrain need to be released in order to comply with Article 4.[152]

In partnership with the GICHD, a joint study was launched in November 2020 to find a solution on how to address this

142 LMAC, Lebanon Mine Action Strategy 2011–2020, September 2011, p. 4.

143 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; and Article 7 Report (covering 2021), Form F.

144 Article 7 report (covering 2023), Form F.

145 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.

146 Ibid.

147 Emails from Sylvain Lefort, MAG, 14 April 2023; and Tomislav Vondracek, NPA, 5 May 2023.

148 Article 7 Report (covering 2023), Form F.

149 Email from Matthew Benson, DCA, 24 May 2021.

150 Email from Sylvain Lefort, MAG, 13 May 2024.

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

152 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020; revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 40–42; and LMAC, "Annual Report 2021", pp. 30 and 33.

terrain and satisfy the requirements of the CCM.[153] The study was expected to be finalised in 2023 but this did not occur. The GICHD now expects to finalise the study by the end of 2024.[154]

In 2023, NPA reported that most of the submunitions found (122 out of 136) originated from a single task. This task was suspended by LMAC in March, despite NPA's objections, to reassign clearance teams to smaller and easier tasks in hopes of removing more items from the database. NPA believes this approach is flawed, as the suspended task is the most densely contaminated area in Lebanon. It accounted for 53% of all submunitions destroyed by all agencies between January 2016 and December 2022. Located in a steep-sided, heavily vegetated, and rocky valley, this task is considered a 'difficult terrain task'. NPA believes it will take at least another four years to clear. They argue that the longer the suspension lasts, the more challenging the task will become due to regrowth of vegetation and the increased risk of submunitions rolling into previously cleared areas.[155]

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

According to LMAC, a tolerable level of residual risk will remain even after all major clearance is complete as hazardous areas not previously identified as containing CMR may be found in the future. LMAC understands the need to start building a sustainable national mine action capacity to deal with residual contamination. 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 and any residual challenge; and obtain national funding for the structures and build their capacity, all with support from international actors.[156] LMAC presented a draft exit strategy to all stakeholders including donors at a Mine Action Forum meeting in 2022.[157] LMAC has drafted an exit strategy but has postponed its finalisation until after Lebanon submits a second Article 4 deadline extension request,[158] due in 2025.

153 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021, and 29 March and 7 July 2022; and GICHD, 14 May 2021; and Article 7 Report (covering 2021), Form F; and presentation of Lebanon, CCM Intersessional meetings, Geneva, 16 May 2022.

154 Email from Lt.-Col. Ali Makki, LMAC, 2 May 2024.

155 Email from Southern Craib, NPA, 22 April 2024.

156 LMAC, "Annual Report 2020", p. 31.

157 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

158 Email from Lt. Col. Charbel Njeim, LMAC, 2 July 2024.

# MAURITANIA

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

**ARTICLE 4 DEADLINE: 1 AUGUST 2026**
NOT ON TRACK TO MEET DEADLINE

## KEY DATA

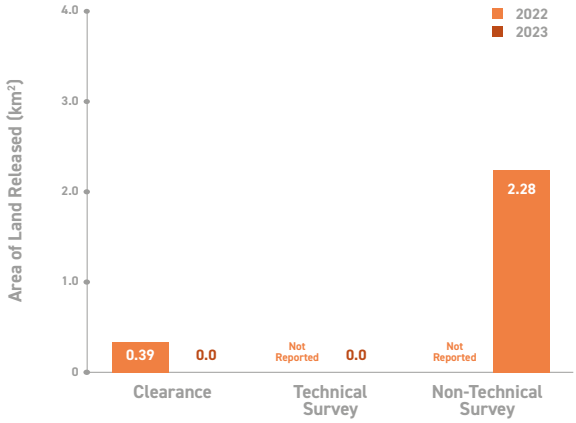
**CLUSTER MUNITION CONTAMINATION:** MEDIUM

NATIONAL ESTIMATE
**16.3KM²**

SUBMUNITION CLEARANCE IN 2023
**0KM²**

SUBMUNITIONS DESTROYED IN 2023
**0**

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

Mauritania's second two-year Article 4 deadline extension request was granted at the Eleventh Meeting of States Parties to the Convention on Cluster Munitions (11MSP), setting a new deadline of 1 August 2026. In 2023, Mauritania reported the discovery of previously unrecorded areas containing cluster munition remnants (CMR) as a result of non-technical survey (NTS). It did not report any clearance of cluster munition-contaminated areas during the year, but indicated to Mine Action Review that it had cleared just over 0.1km² in early 2024 at Dalet Tigert site, near Bir Moghrein area in the region of Tiris Zemmour, destroying in the process 29 MK118 submunitions. Funding had still to be secured for future clearance, with contamination estimated at the end of 2023 to cover more than 16km².

## RECOMMENDATIONS FOR ACTION

- **Mauritania should continue its efforts to mobilise the necessary international funds and operational support to enable it to fulfil its Article 4 obligations.**
- **The National Humanitarian Demining Programme for Development (Programme National de Déminage Humanitaire pour le Développement, PNDHD) should share information on survey and clearance with operators and strengthen coordination mechanisms in order to ensure lessons are effectively learnt and reflected in the programme.**

# ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

| Criterion | Score (2023) | Score (2022) | Performance Commentary |
|---|---|---|---|
| **UNDERSTANDING OF CMR CONTAMINATION** (20% of overall score) | 7 | 7 | Mauritania's current baseline of CMR contamination comes from survey by Norwegian People's Aid (NPA) and the PNDHD in February 2021, in addition to additional CMR-contaminated areas discovered subsequently. In 2023, Mauritania reported the discovery of two CMR-contaminated areas while conducting NTS. Further technical survey is required to determine accurately the size of the eleven remaining suspected hazardous areas (SHAs) and confirmed hazardous areas (CHAs). |
| **NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT** (10% of overall score) | 6 | 5 | Mauritania contributes resources to support its mine action programme but the PNDHD needs greater operational, financial, and technical capacities to fulfil that role and is seeking international funding to fulfil its Article 4 obligations. Mauritania was seeking to establish a Country Coalition and has discussed the possibility of forming a coalition with France. However, as at June 2024, no known concrete steps had been taken to establish this. |
| **GENDER AND DIVERSITY** (10% of overall score) | 4 | 3 | Mauritania's 2023–26 mine action plan recognises that it has yet to develop a specific gender and diversity policy. The PNDHD reported having set up a gender unit that aims at enhancing women participation in the programme. In its 2023 Article 4 deadline extension request, Mauritania stated that ensuring inclusivity, gender sensitivity, and diversity are important considerations. Mauritania said it would strive for diverse and gender-balanced teams, but that attaining complete gender balance within the seconded staff from the Corps of Engineers might present certain limitations. |
| **ENVIRONMENTAL POLICIES AND ACTION*** (10% of overall score) | 5 | Not Scored | The PNDHD has stated that Mauritania has an environmental policy reflected in national standards along with standard operating procedures. The PNDHD listed a number of measures aiming at minimising potential harm to the environment from land release. Mauritania's 2023 Convention on Cluster Munitions (CCM) Article 4 deadline extension request included a section on "Humanitarian, social, economic and environmental implications of the proposed extension", but made no reference to environmental implications. |
| **INFORMATION MANAGEMENT AND REPORTING** (10% of overall score) | 5 | 4 | The PNDHD hosts and manages the national mine action database. From 2017 to 2020, it used an old version of the Information Management System for Mine Action (IMSMA) but in 2021, the PNDHD said it had created its own database. Due to lack of resources to cover the hosting costs, this database is only working offline and is not directly accessible to operators. The PNDHD said that data would be available to partnering operators upon request, and that it had solicited the support of the Geneva International Centre of Humanitarian Demining (GICHD) to deploy IMSMA Core. In its 2023 CCM Article 4 deadline extension request, Mauritania classified cluster munition-contaminated areas as CHAs, which it had not done previously. It also indicated to Mine Action Review that the two newly discovered areas in 2023 had been recorded as SHAs. |
| **PLANNING AND TASKING** (10% of overall score) | 4 | 3 | Planning and tasking is done by the PNDHD. Mauritania submitted an updated mine action strategic plan for 2023–26 at the 21st Meeting of States Parties to the Anti-Personnel Mine Ban Convention in November 2023 but the plan does not cover CMR. Mauritania included information on how it plans to address CMR in its 2023 CCM Article 4 deadline extension request. |
| **LAND RELEASE SYSTEM**** (10% of overall score) | 7 | 6 | The PNDHD is the only entity to clear CMR in Mauritania. Following a request from the PNDHD and a field visit in Mauritania, the GICHD drafted national mine action standards (NMAS) for clearance, marking, quality management, and accreditation. The draft NMAS were shared with the PNDHD during the first quarter of 2023. The proposed timeline and process for approving the new national standards are not known. |
| **LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE** (20% of overall score) | 6 | 6 | The PNDHD did not report any CMR clearance for 2023 but only discovery of two further contaminated areas. It informed Mine Action Review that clearance of 0.1km$^2$ at Dalet Tigert site, near Bir Moghrein area, was completed in early 2024 and would be reported in the forthcoming Article 7 report. Mauritania's two-year deadline extension to August 2026 was granted by CCM States Parties in September 2023. |
| **Average Score** | **5.7** | **5.3** | **Overall Programme Performance: AVERAGE** |

* New criterion introduced in 2024 to assess performance.

** The weighting of this criterion was previously 20% of overall performance score, but is now given a 10% weighting.

# 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

- HAMAP-Humanitaire
- Mines Advisory Group (MAG) (only for NTS and risk education)

### OTHER ACTORS

- Geneva International Centre of Humanitarian Demining (GICHD)

# UNDERSTANDING OF CMR CONTAMINATION

In 2014, Mauritania had declared fulfilment of its Convention on Cluster Munitions (CCM) Article 4 obligations at the Fifth Meeting of States Parties, having completed CMR clearance the previous year.[1] Nine areas covering 1.96km$^2$ had been cleared and 1,246 submunitions destroyed.[2] Contamination resulted from use of MK118, BLU-63, and M42 cluster munitions during the 1975–78 conflict over Western Sahara and was located in the northern border areas, around the village of Bir Moghrein, in the region of Tiris Zemmour.[3]

In 2020, Mauritania reported newly discovered cluster munition-contaminated areas in its Article 7 report for 2019.[4] These areas were reported to be located in "Tigert 2", the same remote desert region in the far north of Mauritania, bordering Western Sahara.[5] In 2020, Mauritania requested Norwegian People's Aid (NPA)'s support to survey the newly discovered contamination to better determine its scale. The following year, NPA identified the presence of some 14km$^2$ of CMR contamination across nine confirmed hazardous areas (CHAs) in Tiris Zemmour region.[6] It cautioned that the contamination is in very remote and sparsely populated areas and that residual contamination is likely to remain after the completion of large-scale clearance.[7] Following the assessment, surveys by the PNDHD found further contamination in the same region. PNDHD personnel cleared one additional area, "Guneive 2" (covering 177,574m$^2$), in 2021 and a second, "Guneive 1" (392,998m$^2$), in 2022.[8]

In 2023, the PNDHD reported the discovery of previously unrecorded CMR contamination in the same region. NTS was carried out in July 2023 under national funding following information on suspected contamination provided by local authorities. It recorded two suspected hazardous areas (SHAs), which will require technical survey (TS) to confirm and reduce the area of contamination prior to clearance.[9] Mauritania's CCM Article 7 report for 2023 indicates that these are: Dhbeiyatt covering almost 1.59km$^2$ and Dhbeiyatt 1 covering more than 0.69km$^2$. This leads to a total estimated baseline of CMR contamination at end 2023 of around 16.3km$^2$ across 11 areas (see Table 1).[10] This is an increase compared to the just over 14km$^2$ across nine hazardous areas a year earlier.[11]

**Table 1: Cluster munition-contaminated area by location (at December 2023)[12]**

| Region | Location ID | Submunition Type | SHAs | CHAs | Area (m$^2$) |
|---|---|---|---|---|---|
| Tiris Zemmour | Boudheir | BLU-63 | 0 | 1 | 20,556 |
| Tiris Zemmour | Boudheir 1 | BLU-63 | 0 | 1 | 38,667 |
| Tiris Zemmour | Boudheir 2 | BLU-63 | 0 | 1 | 243,147 |
| Tiris Zemmour | Dalet Tigert* | MK118 | 0 | 1 | 345,703 |
| Tiris Zemmour | Dhbeiyatt** | BLU-63 | 1 | 0 | 1,587,276 |
| Tiris Zemmour | Dhbeiyatt 1** | BLU-63 | 1 | 0 | 693,670 |
| Tiris Zemmour | Guneive | BLU-63 | 0 | 1 | 4,683,196 |
| Tiris Zemmour | Lemreir | BLU-63 | 0 | 1 | 2,587,276 |

1 Declaration of Compliance with Art. 4(1)(a) of the CCM, submitted by Mauritania, 3 September 2014.
2 CCM Article 7 Report (covering 2013), Form F; CCM Article 7 Report (covering 2019), Form F.
3 Declaration of Compliance with Art. 4(1)(a) of the CCM, submitted by Mauritania, 3 September 2014; and Mauritania (PNDHD presentation), MASG Meeting, 27 April 2022 (online), available at: https://bit.ly/3MIp1Pm.
4 Article 7 Report (covering 2019), Form F.
5 Ibid.; Mauritania (PNDHD presentation), Mine Action Support Group (MASG) Meeting, 27 April 2022 (online); and Article 4 deadline Extension Request, submitted 5 July 2023, p. 4.
6 NPA, Mauritania Assessment Report, 12 April 2021, p. 8.
7 Ibid., p. 3.
8 Article 7 Reports (covering 2021), Form F; and (covering 2022), Form F.
9 Email from Capitaine Sarr Mamadou, Chef des Opérations, PNDHD, 24 May 2024.
10 Article 7 Report (covering 2023), Form F.
11 Article 7 Report (covering 2021), Form F; and Presentation of Mauritania by the PNDHD, MASG Meeting, 27 April 2022 (online).
12 Article 7 Report (covering 2023), Form F.

**Table 1 Continued**

| Region | Location ID | Submunition Type | SHAs | CHAs | Area (m²) |
|---|---|---|---|---|---|
| Tiris Zemmour | Motlani | BLU-63 | 0 | 1 | 120,365 |
| Tiris Zemmour | Oudeyat Lekhyame | MK118 | 0 | 1 | 5,326,856 |
| Tiris Zemmour | Tigert | MK118 | 0 | 1 | 651,830 |
| **Totals** | | | **2** | **9** | **16,298,542** |

* The PNDHD has stated that 102,703m² of the CHA of Dalet Tigert was cleared in early 2024 with 29 submunitions destroyed.[13] ** Newly discovered areas reported in the CCM Article 7 report (covering 2023). They were discovered during NTS carried out in July 2023. Together, the two SHAs areas cover 2.28km².

Mauritania reported that all identified cluster munition-contaminated areas lie clearly within both its jurisdiction and control,[14] bringing the duty to clear unequivocally within Mauritania's international legal obligations under the CCM. In the case of the most northerly hazardous areas located close to the border, it is possible that CMR contamination extends into the territory of Western Sahara. Such contamination extending beyond the border, if it is found to exist, is outside Mauritania's jurisdiction and control and therefore any clearance would need to be agreed upon with the Saharawi Arab Democratic Republic.

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Mauritania has reported discovering anti-personnel (AP) mine contamination in a number of instances since 2019.[15] See Mine Action Review's *Clearing the Mines* report on Mauritania for more information.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The PNDHD coordinates mine action operations in Mauritania.[16] It provides a framework for the national mine action strategic plan, the most recent of which covers the period 2023 to 2026.[17] Since 2007, the programme has been the responsibility of the Ministry of Interior and Decentralisation, with oversight from an interministerial steering committee composed of representatives from ministerial departments (foreign affairs, defence, and finance), civil society organisations, and international observers (the United Nations Development Programme, UNDP).[18] The PNDHD works in close collaboration with the Military Engineering Department (Direction du Génie militaire), which was responsible for mine action prior to its creation. Following the ratification of the CCM in 2012, the PNDHD's mandate was expanded to include cluster munitions. The PNDHD has its headquarters in the capital, Nouakchott, with a regional mine action centre (RMAC) located at Nouadhibou. PNDHD is made up of five departments (operations, SALW, RE/VA, secretariat, administration and finance). Sitting under the operations department is the Information Management division and the Quality Control division.[19]

In 2023, the annual budget for mine action was €950,000 (€120,000 funded by the government and €830,000 from France, which was provided to the international NGO HAMAP-Humanitaire).[20] In its 2023 Article 4 deadline extension request, Mauritania provided an annual budget for 2023 to 2026, disaggregated per year and by item/activity. In total, Mauritania requires an estimated total of US$1.95 million to address the remaining CMR contamination, of which US$1.765 million is planned to be mobilised from external sources with the remainder to be covered from the national budget.[21] The Government of Mauritania also pledged to provide local staff to facilitate the expansion of the CMR clearance project, most of whom will be drawn in kind from the Army Corps of Engineers and will only be paid a daily per diem. The Corps of Engineers will also support the deployment of the teams to remote areas by providing trucking services for the fuel and water that will be needed in the far north of the country. The PNDHD will support and facilitate the project, including through liaison with national and local governmental and military officials and by providing office space.[22]

Mauritania has said that it would like to form a Country Coalition with a willing donor government and an international mine action NGO to support its completion initiative.[23] France has explored the possibility of establishing a Country Coalition with Mauritania[24] and made a statement

13 Emails from Capt. Sarr Mamadou, PNDHD, 12 and 25 June 2024.

14 Email from Lt-Colonel Moustapha ould Cheikhna, PNDHD, 15 March 2022; and Article 4 deadline Extension Request, submitted 5 July 2023, p. 2.

15 Third Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, received June 2020; and APMBC Article 7 Report (covering 2023), pp 3 and 4.

16 Decree No. 1960/MDAT/MDN establishing the PNDHD, 14 August 2007; Third APMBC Article 5 deadline Extension Request, received June 2020, p. 2; and CCM Article 4 deadline Extension Request, submitted 5 July 2023, p. 3.

17 Mauritania, "Updated Article 5 Extension Request Work Plan", Submitted to the APMBC 21MSP in November 2023.

18 Decree No. 001358/MDAT establishing the Steering Committee of the PNDHD, 3 September 2007; Article 4 deadline Extension Request, submitted 5 July 2023, p. 3.

19 Statement of Mauritania, Regional Conference on Improvised AP Mines, Ghana, 13–15 February 2024.

20 Email from Capt. Sarr Mamadou, PNDHD, 24 May 2024.

21 2023 Article 4 deadline Extension Request, p. 13.

22 Ibid.

23 Article 4 deadline Extension Request, submitted 5 July 2023, p. 13.

24 CCM Implementation Support Unit (ISU), Quarterly Newsletter on the CCM, Q4 2022, 9 January 2023.

at the Anti-Personnel Mine Ban Convention (APMBC) Intersessional Meetings in June 2024. In its statement, France voiced support for the resource mobilisation efforts of several affected countries and regretted that France is the only donor supporting clearance in Mauritania. It also highlighted the importance of setting up coalitions of states to help forgotten countries in their mine action programmes.[25] However, as at time of writing, no known concrete steps had yet been taken to establish a coalition.

HAMAP-Humanitaire, an international NGO, has been present in Mauritania since October 2022 using French government funding. HAMAP is focused on addressing anti-personnel mines and explosive remnants of war other than CMR, as well as providing risk education. In terms of capacity building, in 2023, HAMAP proposed renewed standard operating procedures (SOPs) to the PNDHD, trained four demining teams (29 deminers to EOD Level 1), and provided support to buy equipment and vehicles. The PNDHD performed quality control (QC) of HAMAP clearance.[26]

Mines Advisory Group (MAG) secured funding in late 2022 from Norway for a regional project to support progress by States Parties in meeting their obligations under the Anti-Personnel Mine Ban Convention (APMBC) and the CCM and to enhance national ownership. In Mauritania, the project aims to strengthen the capacities of the PNDHD, optimise the Information Management System for Mine Action (IMSMA), and improve understanding of contamination through community liaison, risk education, and NTS. In September 2023, MAG signed the partnership agreement with the PNDHD. In the first quarter of 2024, MAG trained PNDHD staff on the disarmament treaties (APMBC, CCM, and CCW), community liaison, risk education, IMAS 02.10 "Guide for the establishment of a mine action programme", and budgeting.[27]

## GENDER AND DIVERSITY

The 2023–26 action plan recognises that Mauritania has yet to develop a specific gender and diversity policy. In the meantime, the programme says it complies with the national policy, which aims to guarantee equal opportunities between genders and to encourage the participation of women in roles that have traditionally been assigned to men.[28]

A gender unit has been integrated into the PNDHD's organisation chart, with a focal point trained by the Geneva International Centre of Humanitarian Demining (GICHD). The unit aims to enhance the participation of women in the programme,[29] particularly in management, logistics, and health roles.[30] Women account for around 40% of all PNDHD staff currently. The PNDHD is deploying two female staff as part of ongoing clearance by HAMAP-Humanitaire in Nouadhibou.[31] Mauritania has said that its objective is to strive for gender balance and diverse survey and battle area clearance (BAC) teams, while acknowledging that "attaining complete gender balance within the seconded staff from the Corps of Engineers might present certain limitations".[32]

In its 2023 CCM Article 4 deadline extension request, Mauritania stated that inclusivity, gender sensitivity, and diversity are important considerations in the programme. It intends to engage all segments of the population when designing and implementing activities.[33]

## ENVIRONMENTAL POLICIES AND ACTION

The PNDHD has reported that Mauritania has a policy on environmental protection policy that is incorporated into national standards and SOPs for clearance operations. The PNDHD listed a number of measures illustrating how environmental considerations are taken into account to minimise potential harm from land release activities. These include the filling-in of holes after a munition is blown up, a ban on burning as a means to destroy explosive devices, and the importance of collecting rubbish at the end of field activities. The PNDHD has stressed the importance of flora and fauna and the need for clearance to protect animals, including one of the largest monk seal communities in Nouadhibou, as well as livestock.[34]

While Mauritania's 2023 Article 4 deadline extension request included a section on "Humanitarian, social, economic and environmental implications of the proposed extension", it made no reference to an environmental policy or implications.

25 Statement of France, APMBC Intersessional Meetings, Geneva, 18 June 2024.
26 Email from Gourdo Bocoum, Project Coordinator, HAMAP-Humanitaire, 10 April 2024.
27 Email from Francois Fall, HMA Advisor for West Africa, MAG, 7 May 2024.
28 Mauritania, "Plan d'Action Déminage 2023 – 2026", p. 6.
29 Email from Capt. Sarr Mamadou, PNDHD, 25 June 2024.
30 Mauritania, "Plan d'Action Déminage 2023 – 2026", p. 6.
31 Email from Capt. Sarr Mamadou, PNDHD, 12 June 2024.
32 Article 4 deadline Extension Request, submitted 5 July 2023, pp. 15 and 16.
33 Ibid.
34 Emails from Capt. Sarr Mamadou, PNDHD, 12 and 25 June 2024.

## INFORMATION MANAGEMENT AND REPORTING

The PNDHD hosts and manages the national mine action database. From 2017 to 2020, it used an old version (New Generation) of the Information Management System for Mine Action, IMSMA.[35] In 2021, the PNDHD stated that it had created its own database.[36] Due to lack of resources to cover the hosting costs, this database is now offline and not directly accessible to operators. However, the PNDHD said that data would be available to operators upon request and noted that it was seeking the support of the GICHD to deploy IMSMA Core.[37]

MAG has initiated training and individual coaching activities with PNDHD staff in 2023, notably on information technology tools linked to information management, mine action indicators, and the presentation of accurate, consistent, and IMAS-compliant data.[38]

Mauritania shares its transparency report every year, but sometimes provides inconsistent and inaccurate contamination and clearance figures and dates in its official reports.

## PLANNING AND TASKING

Mauritania submitted an updated strategic mine action plan for 2023–26 to the Twenty-First Meeting of States Parties to the APMBC (21MSP) in November 2023.[39] However, the plan does not cover CMR. Mauritania included information on how it plans to address CMR in its 2023 Article 4 deadline extension request. In the request, Mauritania presented a timeframe and an action plan for the proposed extension period.[40] It envisages an initial period of six months to mobilise resources, including securing funding, staffing, equipment, and team deployment; approximately 375 demining days (18 months) to conduct TS and clearance; and another six months to address any additional contamination that might be found during clearance. The last six months will also be used to finalise reporting on clearance prior to submitting a completion report.[41]

The timeline for clearance is based on planned deployment of four teams, each with five members (four deminers and a team leader).[42] This is half the capacity Mauritania previously envisaged in its 2021 Article 4 extension request,[43] yet the estimated amount of time needed for survey and clearance has not changed. Mauritania's timeline and work plan also assumes that estimates of contamination would remain the same and that no or only limited additional areas of CMR contamination are identified during survey and clearance.[44] Yet, as noted previously, in 2023 Mauritania reported the discovery of previously unrecorded 2.28km$^2$ of CMR contaminated areas.

The Mine Action Plan for 2023–26 and the 2023 Article 4 deadline extension request make no reference to the prioritisation of CMR tasks.

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Survey and clearance are conducted in accordance with the Mauritanian national mine action standards (NMAS, known nationally as les normes Mauritaniennes de l'action antimines, NMAM). These are said to reflect the IMAS and are adapted to the Mauritanian context in terms of geography and equipment.[45] The NMAS, which included standards on NTS, TS, mine clearance, and QC, were first adopted in 2007. They were regularly revised based on experiences in the field, including in 2010 with NPA.[46] Following a request from the PNDHD and a field visit in Mauritania, the GICHD drafted NMAS for clearance, marking, quality management, and accreditation. These NMAS have been shared with the PNDHD during the first quarter of 2023.[47]

Unlike in previous reporting, in its 2023 Article 4 deadline extension request, Mauritania identified the cluster munition-contaminated areas as CHAs.[48] It indicated that the two areas discovered in July 2023 are SHAs.[49]

35 APMBC Article 7 Reports covering 2017, Form D; covering 2019, p. 3; and covering 2020, p. 9.
36 APMBC Article 7 Reports covering 2021, p. 5; covering 2022, p. 4; and covering 2023, p. 5.
37 Emails from Capt. Sarr Mamadou, PNDHD, 12 and 25 June 2024.
38 Email from Francois Fall, MAG, 7 May 2024.
39 Mauritania, "Updated Article 5 Extension Request Work Plan", Submitted to the 21MSP in November 2023.
40 Article 4 deadline Extension Request, submitted 5 July 2023, pp. 8 and 17.
41 Ibid., p. 8.
42 Ibid., p. 7.
43 Response of Mauritania to the CCM Article 4 Analysis Group, 28 July 2021, p. 3.
44 Ibid., p. 2.
45 Article 4 deadline Extension Request, submitted 5 July 2023, p. 8.
46 Email from Alioune O. Mohamed El Hacen, PNDHD, 17 April 2011; Third APMBC Article 5 deadline Extension Request, received June 2020, pp. 5 and 8; and Article 4 deadline Extension Request, submitted 5 July 2023, p. 8.
47 Email from Jérémy Repond, GICHD, 28 May 2024.
48 Article 4 deadline Extension Request, submitted 5 July 2023, p. 6.
49 Email from Capt. Sarr Mamadou, PNDHD, 24 May 2024.

### OPERATORS AND OPERATIONAL TOOLS

At the end of 2021, the PNDHD had four demining teams.[50] In 2023, according to the PNDHD, 32 deminers were added to the initial workforce, bringing their total number to 80.[51] According to its 2023 Article 4 deadline extension request, Mauritania requires four BAC teams for technical survey and clearance of the cluster munition-contaminated areas. If required, and subject to funding, capacity can be increased to a maximum of seven BAC teams.[52] In its 2023 Article 4 extension request, Mauritania said that: "Operators can implement all humanitarian demining activities but priority will be given to the PNDHD and national deminers."[53]

HAMAP-Humanitaire is the only international operator in the country conducting clearance. In 2023, HAMAP had six staff members in Mauritania (four internationals, one volunteer, and one national staff) and 46 other staff seconded from the PNDHD, of whom six were women. All survey and clearance personnel were male. HAMAP cleared two minefields in 2023 and is focusing on addressing AP and anti-vehicle (AV) mines and explosive remnants of war (ERW), rather than CMR. HAMAP initiated a new project in February 2024 focusing on technical survey and mine clearance.[54]

MAG has been working in Mauritania since November 2017, supporting the safe storage of arms and ammunition and providing training on this issue to local security and defence force personnel.[55] In 2022, MAG secured Norwegian funding, complemented by UK funding in 2023, for capacity development support to PNDHD and to conduct NTS and risk education.[56] In 2023, the project completed its inception phase. Capacity-building activities started in early 2024.[57] Following the training, two MAG-PNDHD mixed teams were created to carry out community liaison and risk education in the Dakhlet-Nouadhibou region. In April 2024, MAG received a task order to conduct community liaison, risk education, and NTS in 53 localities in the region.[58]

In February 2021, NPA conducted a one-month assessment mission of CMR contamination 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.[59] Since then, NPA has not been operational in Mauritania.

## LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

### LAND RELEASE OUTPUTS IN 2023

Mauritania did not release any CMR-contaminated area through clearance in 2023.[60]

### SURVEY IN 2023

In 2023, the PNDHD reported the discovery of previously unrecorded CMR contamination in Tiris Zemmour region. Mauritania's CCM Article 7 report for 2023 indicates that two areas, Dhbeiyatt (over 1.58km$^2$) and Dhbeiyatt 1 (almost 0.7km$^2$), were discovered when conducting NTS in July 2023 under national funding following information provided by the local authorities. This brings the total estimated CMR-contaminated area to 16.3km$^2$ across 11 hazardous areas as at the end of 2023.[61] The PNDHD specified that the two areas newly discovered have been recorded as SHAs and will require TS to confirm and reduce the area before clearance.[62]

### CLEARANCE IN 2023

Mauritania did not report any clearance of CMR-contaminated area in 2023.[63] It cleared 0.39km$^2$ in 2022.

50 Email from Lt-Colonel Moustapha ould Cheikhna, PNDHD, 15 March 2022.

51 Mauritania, "Plan d'Action Déminage 2023 – 2026", p. 13.

52 Article 4 deadline Extension Request, submitted 5 July 2023, p. 7.

53 Ibid.

54 Email from François Ropars, Mine Action Project Manager, HAMAP, 3 July 2023; and HAMAP-Humanitaire, "Mauritania", accessed 14 April 2023, at: https://bit.ly/3oedfC9.

55 MAG website, accessed on 28 May 2022, at: https://bit.ly/3NFVEKD.

56 Email from Roxana Bobolicu, MAG, 19 July 2022.

57 Email from Francois Fall, MAG, 7 May 2024.

58 Email from Francois Fall, MAG, 7 June 2024.

59 Interview with Hans Risser, Head Office Management Team, and Melissa Andersson, NPA, 19 April 2021.

60 Article 7 Report (covering 2023), p. 15.

61 Ibid., Form F, pp. 13 and 14.

62 Email from Capt. Sarr Mamadou, PNDHD, 24 May 2024.

## ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR MAURITANIA: 1 AUGUST 2012

↓

ORIGINAL ARTICLE 4 DEADLINE: 1 AUGUST 2022

↓

FIRST EXTENDED DEADLINE (TWO YEARS): 1 AUGUST 2024

↓

**SECOND EXTENDED DEADLINE (TWO YEARS): 1 AUGUST 2026**

**NOT ON TRACK TO MEET ARTICLE 4 DEADLINE**

Under Article 4 of the CCM (and on the basis of the extension granted by States Parties in 2023), Mauritania is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 August 2026.

The 2023 Article 4 deadline extension request was largely based on Mauritania's 2021 request. It plans for six months to mobilise resources, approximately 375 demining days spread across the three years to technically survey and clear the cluster munitions, and six months to address any additional contamination that might be found in the process and finalise reporting.[64] Mauritania highlighted that "despite limited resources, Mauritania is committed to contributing financially and in-kind to its mine action program, displaying strong political will."[65]

Mauritania will need to secure additional international funding to conduct the planned clearance of CMR and fulfil its Article 4 obligations. As previously mentioned, Mauritania was seeking to form a Country Coalition,[66] potentially with France.[67] If used to bring together relevant stakeholders in country: the PNDHD, donors, international operators (HAMAP and MAG), and other actors, a Country Coalition could help strengthen coordination and improve programme performance.

Between 2012–13 and 2021–22, Mauritania cleared a total of over 2.53km$^2$.[68] Since discovering previously unknown CMR contamination in 2019, Mauritania has reported clearance of two areas totalling just over half a square kilometre. In early 2024, the PNDHD reported clearing 0.1km$^2$ of cluster munition-contaminated area. The lack of funding is the main obstacle to the rapid progress of clearance operations according to the PNDHD.[69]

**Table 2: Five-year summary of CMR clearance**

| Year | Area cleared (km$^2$) |
|---|---|
| 2023 | 0.00 |
| 2022 | 0.39 |
| 2021 | 0.18 |
| 2020 | 0.00 |
| 2019 | 0.00 |
| **Total** | **0.57** |

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

As the CMR contamination is located in very remote and sparsely populated areas of desert, it is possible that Mauritania will discover additional previously unknown contamination after completion. The Corps of Engineers will handle future residual risks, and the PNDHD will continue to enhance the capacity of this national entity to address any further contamination that may arise after completing the current CMR tasks.[70] If previously unidentified cluster munition-contaminated areas are identified after the proposed deadline, Mauritania has committed to take prompt action to assess the extent of contamination and dispose of all CMR. Additionally, it has pledged to fulfil its obligations under Article 7 of the Convention by reporting any newly identified contaminated areas and sharing relevant information with stakeholders and States Parties through formal and informal channels.[71]

63 Ibid.

64 Article 4 deadline Extension Request, submitted 5 July 2023, pp. 8 and 17.

65 Ibid., p. 12.

66 Ibid., pp. 12 and 13.

67 CCM ISU, Quarterly Newsletter on the CCM, Q4 2022, 9 January 2023.

68 Article 4 deadline Extension Request, submitted 5 July 2023, p. 3; Statement of Mauritania on Article 4, CCM Eleventh Meeting of State Parties, Geneva, 11–14 September 2023; Article 7 Report (covering 2023), Form F.

69 Email from Capt. Sarr Mamadou, PNDHD, 24 May 2024.

70 2023 Article 4 deadline Extension Request, p. 15.

71 Ibid.

# SOMALIA

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

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

## KEY DATA

**CLUSTER MUNITION CONTAMINATION:** LIGHT

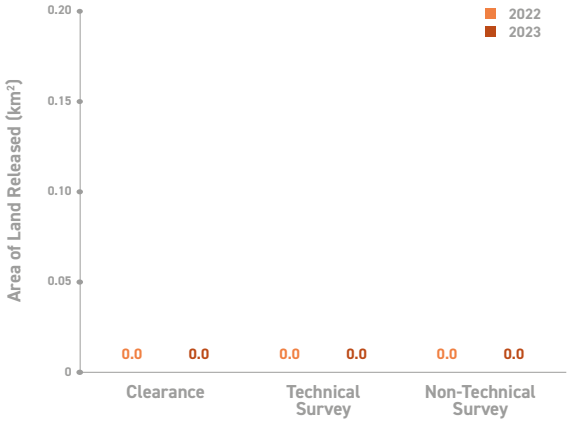
MINE ACTION REVIEW ESTIMATE

**LESS THAN**
**5KM²**

SUBMUNITION CLEARANCE IN 2023
**0KM²**

SUBMUNITIONS DESTROYED IN 2023
**0**

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

In 2022, Somalia had pledged to develop a plan for national survey for cluster munition remnants (CMR) during 2023, but this did not materialise. Somalia continued to make progress with implementation of the Information Management System for Mine Action (IMSMA) Core in 2023, with full implementation expected by the end of 2024. Somalia has still to effectively implement its obligations under Article 4 of the Convention on Cluster Munitions (CCM).

## RECOMMENDATIONS FOR ACTION

- **Somalia should ensure timely survey and clearance of CMR in accordance with its CCM obligations.**
- **Somalia should elaborate a comprehensive baseline of CMR contamination as soon as possible.**
- **Somalia should finalise a new national mine action strategy to replace the strategic plan for 2018–20.**
- **Somalia should elaborate a Gender and Diversity policy and implementation plan for mine action.**

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

| Criterion | Score (2023) | Score (2022) | Performance Commentary |
|---|---|---|---|
| **UNDERSTANDING OF CMR CONTAMINATION** (20% of overall score) | 3 | 3 | No baseline of CMR contamination has been established. Somalia stated in 2022 that it intended to develop a national survey plan for CMR during 2023, though no further progress has been reported. |
| **NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT** (10% of overall score) | 4 | 4 | The Somali Explosive Management Authority (SEMA) continued to receive capacity development support during 2023. The lack of national ownership continues to be an issue as the Federal Government of Somalia has still not formally recognised the Authority as a government institution or formally approved mine action legislation. SEMA continues to be unable to access State funding. |
| **GENDER AND DIVERSITY** (10% of overall score) | 5 | 5 | Somalia's National Mine Action Strategic Plan 2018–2020 included provisions on gender and diversity. However, an updated strategy was pending Federal Government approval as at May 2024. SEMA has advocated action on gender and diversity within survey and community liaison teams. However, there are challenges to achieving gender mainstreaming within Somalia as a patriarchal society. Clan affiliation is also an important consideration in Somalia. |
| **ENVIRONMENTAL POLICIES AND ACTION*** (10% of overall score) | 4 | Not Scored | It has been reported that a section on environmental management is contained within Somalia's national mine action standards (NMAS), which were still pending approval as at May 2024. Somalia does not have an environmental policy or an expected timeline for when one may be developed. International operators have environmental policies and are taking measures to protect the environment during operations. |
| **INFORMATION MANAGEMENT AND REPORTING** (10% of overall score) | 5 | 5 | SEMA has assumed full ownership and responsibility for the national mine action database, although the database is said to be neither up to date nor accurate. SEMA began upgrading to the IMSMA Core system in 2022 and originally expected to complete implementation by the end of 2023, though this is now expected by the end of 2024. Somalia submitted a CCM Article 7 report covering 2022 in September 2023, but as at June 2024, had yet to submit a report covering 2023. |
| **PLANNING AND TASKING** (10% of overall score) | 5 | 5 | Somalia's National Mine Action Strategic Plan 2018–2020 was extended for one year in 2020 to allow SEMA sufficient time to develop a new strategy. In August 2022 SEMA reported that a new strategy has been developed but, as at May 2024, this was still pending approval by the Ministry of Internal Security. The 2018–2020 strategic plan does not contain any specific provisions for survey or clearance of CMR. While there have been some improvements in the tasking process, no agreed prioritisation criteria exist. |
| **LAND RELEASE SYSTEM**** (10% of overall score) | 5 | 5 | A review of Somalia's NMAS took place in 2021. However, the revised NMAS were still in draft and pending government approval at May 2024. Somalia has no national capacity for survey and clearance of CMR. |
| **LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE** (20% of overall score) | 2 | 2 | No CMR survey or clearance took place in 2023 and there were no reports of submunitions being discovered or destroyed in Somalia. Indeed, no nationally coordinated survey or clearance has been reported by Somalia in recent years. Furthermore, UNMAS emphasised security as the most significant challenge as currently, most sites with evidence of CMR cannot be safely accessed. Somalia is not on track to meet its 2026 Article 4 deadline. |
| **Average Score** | **3.8** | **3.9** | **Overall Programme Performance: VERY POOR** |

* New criterion introduced in 2024 to assess performance.

** The weighting of this criterion was previously 20% of overall performance score, but is now given a 10% weighting.

## CLUSTER Mmunition SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Somali Explosive Management Authority (SEMA)
- Mine Action Department, within the Somaliland Ministry of Defence (formerly the Mine Clearance Information and Coordination Authority (MCICA), and before that the Somaliland Mine Action Centre, SMAC)

### NATIONAL OPERATORS

- Federal Member States (FMS) Non-Governmental Organisation (NGO) consortium

### INTERNATIONAL OPERATORS

- The HALO Trust (HALO)
- Norwegian People's Aid (NPA)*
- Ukroboronservice

### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Mine Action Service (UNMAS)
- United Nations Development Programme (UNDP)

* NPA ceased operations in Somalia in April 2023.[1]

## UNDERSTANDING OF CMR CONTAMINATION

The extent of CMR contamination in Somalia remains unknown.[2] While there has been no baseline survey, contamination appears to be light given the low numbers of submunitions found on the ground so far and with historical survey, clearance, and explosive ordnance disposal (EOD) activities yielding little evidence of a more significant problem.[3] Submunitions have been discovered in three of Somalia's six[4] official federal member states: Jubaland (in southern Somalia, bordering Kenya); Puntland (a semi-autonomous administration in the north-east); and South West state (also known as Koonfur Galbeed).

Unlike Somalia's previous CCM Article 7 report, where no details of location or size contaminated areas were provided,[5] Somalia's most recent Article 7 report (covering 2022) includes a table with details of suspected CMR contamination, including locations, size of areas, submunition type and quantities[6] (see Table 1). While all "estimated or known" dates of contamination are between 2015 and 2017, Mine Action Review has not been able to ascertain if any or all of these dates refer to the date of contamination or, in fact, to the date of their discovery. As there has been no baseline survey, Somalia has not been able to specify which areas are suspected hazardous areas (SHAs) and which are confirmed hazardous areas (CHAs).

**Table 1: CMR Contamination (at September 2022)[7]**

| State and location* | Area ($m^2$) | Submunition type | Estimated quantity | Estimated or known date of contamination |
|---|---|---|---|---|
| Jubaland, Gedo, Garbohaarey, Shabeel Garbohaarey | 100 | RBK 250 container | 1 | 02/08/2017 |
| South West, Bakool, Rab Dhuure/ Rab Dhuure | 100 | RBK 250-270 container | 1 | 01/09/2015 |
| Galmudug, Galgaduud, Dhuusamarreeb Mareer Guur, Dhuusamarreeb | 100 | AO-15CH container-submunitions | 1 | 18/07/2017 |
| South West, Bakool, Rab Dhuure/ Rab Dhuure | 100 | RBK 250-275 container | 2 | 01/09/2015 |
| South West, Bakool, Rab Dhuure/ Rab Dhuure | 100 | RBK 250-275 container | 3 | 30/08/2015 |
| South West, Bakool, Rab Dhuure/ Rab Dhuure | 100 | RBK 250-275 container | 2 | 03/09/2015 |
| **Totals** | **600** | | **10** | |

* Locations are as given in the CCM Article 7 report for 2022 (Form F), which include the Federal Member State, Region, District, and a specific location.

1 Email from Liberty T. Hombe, Operations Manager, Puntland, NPA, 24 March 2023.
2 Convention on Cluster Munitions (CCM) Article 7 Report (covering 2022), Form A; and email from Claus Nielsen, Country Director, NPA, 26 May 2021.
3 Email from Rob Syfret, Head of Region, Horn of Africa, The HALO Trust (HALO), 1 June 2023.
4 These six official Federal member states include the uncontrolled state of Somaliland.
5 CCM Article 7 Report (covering 2020 and 2021).
6 Article 7 Report (covering 2022), Form F.
7 Ibid.

Somalia has, to date, provided only limited data disaggregating CMR from other explosive ordnance contamination. In a table in Somalia's Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request of 2021, which summarises Somalia's known contamination, there was only one specific reference to CMR contamination: 784,352m$^2$ of CHA in Galmudug state, contaminated with a mixture of anti-personnel mines, anti-vehicle mines, CMR, unexploded ordnance (UXO), and abandoned explosive ordnance (AXO).[8]

Somalia states that no further survey of CMR-contaminated areas has been possible in recent years, due to a lack of funding and lack of a national survey plan.[9] Somalia stated in 2021 that it would develop a national survey plan in 2023,[10] and, specifically a survey plan for CMR "throughout 2023".[11] In its most recent CCM Article 7 report (covering 2022) Somalia states that "a country-wide survey plan" was developed in 2022, but also states that a lack of international funding is a challenge to implementation of this plan.[12] But neither this Article 7 report nor Somalia's updated 2022–2027 Work Plan, which was submitted to the APBMC in April 2023, include any specific provisions for survey or clearance of CMR.[13] SEMA has stated however, that if CMR are found in the course of nationwide survey, this will be recorded and disaggregated from other weapon types.[14] Norwegian People's Aid (NPA) completed non-technical survey (NTS) of mined areas in Puntland state in February 2023 and has since left the country.[15]

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, with the Soviet Union reportedly supplying both Somalia and Ethiopia with submunitions during the conflict, and PTAB-2.5 and AO-1-Sch submunitions produced by the Soviet Union on a large scale.[16] 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.[17] Photos appeared to show that the KDF used United Kingdom (UK)-manufactured BL755 submunitions in the area of Bu'ale, and subsequently it was reported that al-Shabaab had discovered unexploded submunitions of the same BL755 type, which it used in improvised explosive devices (IEDs).[18]

A United Nations (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 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".[19]

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Somalia states that contamination from explosive remnants of war (ERW) is prevalent across all states and regions of the country[20] and that, following improvements in data consolidation and recent NTS, it had identified a total of 1,114 hazardous areas for all explosive ordnance, measuring a total of just over 169.7km$^2$.[21] Landmines contaminate Somalia's border with Ethiopia in south-central Somalia, mainly as a result of legacy minefields.[22] See Mine Action Review's *Clearing the Mines* report on Somalia, including Somaliland, for further information.

## 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.[23] SEMA maintains a presence across Somalia through its five Federal Member States: the Galmudug State Office, Hirshabelle State

8 Revised Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, September 2021, p. 46.

9 Ibid.; and CCM Article 7 Report (covering 2022), Form F.

10 Revised APMBC Article 5 deadline Extension Request, September 2021, p. 46.

11 CCM Article 7 Report (covering 2020 and 2021), Form F.

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

13 Federal Republic of Somalia, Work Plan for the period from October 2022 to October 2027, Submitted to the Chair of the Committee on Article 5 Implementation, 30 April 2023.

14 Interview with Information Management Manager, Somalia Explosive Management Authority, (SEMA), Individualised Approach Meeting, Twenty-First Meeting of States Parties (21MSP), Geneva, 23 November 2023.

15 Emails from Robert Iga Afedra, Country Director, NPA, 1 and 10 June 2022; and Liberty T. Hombe, NPA, 24 March 2023.

16 Email from Mohamed Abdulkadir Ahmed, Somalia National Mine Action Authority (SNMAA), 17 April 2013; and Article 7 Report (covering 2022), Form F.

17 "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.

18 Ibid.

19 Ibid.

20 Action Plan for Article 5 Implementation, October 2022–October 2027, 30 April 2023, p. 16.

21 Ibid., p. 11.

22 UN Mine Action Service (UNMAS), "UN-suggested Explosive Hazard Management Strategic Framework 2015–2019", undated, pp. 6 and 12.

23 Email from Mohamed Abdulkadir Ahmed, SEMA, 14 October 2016; and telephone interview with Dahir Abdirahman Abdulle, Director, SEMA, 19 August 2020.

Office, Jubaland State Office, Puntland State Office, and South West State Office.[24]

SEMA serves as the de facto mine action authority for Somalia. However, full implementation of mine action legislation in Somalia and formal recognition of SEMA as the national mine action authority remains unfulfilled, although in November 2023, progress towards the adoption of a national law was said to be made.[25]

Due to the ongoing lack of parliamentary approval, SEMA has not received funding from the Federal Government of Somalia since the expiry of its grant in 2015.[26] In its most recent CCM Article 7 report, Somalia stated that only in-kind support was provided by the Government in 2022 "to continue coordination, oversight and regulation of the national mine action programme." Somalia also confirmed that it received no international funding in 2022 to address CMR specifically.[27] As at writing, no information was available on national or international funding in 2023.

Somalia has not shared a resource mobilisation strategy for Article 4 implementation and has stated its need for international support on this topic.[28] Somalia has stated it will develop a resource mobilisation plan during 2024, related to its commitments under Article 5 of the APMBC[29], but it is not yet clear if this plan will make any provision for survey and clearance of CMR.

In its most recent CCM Article 7 report, covering 2022, Somalia noted its need for international support to further build national capacity in the areas of information management, gender and resource mobilisation, as well as a need for increased technical support.[30] An Article 7 report covering 2023 had not been submitted at the time of writing.

### PUNTLAND

The SEMA Puntland State Office, formerly known as the Puntland Mine Action Centre (PMAC), was established in Garowe with UN Development Programme (UNDP) support in 1999. Since then, on behalf of the regional government and SEMA, the Puntland State Office has coordinated mine action with local and international partners, NPA and the Puntland Risk Solution Consortium.[31] In 2021, SEMA reported that the Puntland State Office coordinated mine action under SEMA, working with its international partner, NPA.[32] NPA completed NTS of mined areas in Puntland in February 2023 and closed its operations in Somalia in April 2023.[33]

While Mine Action Review has been able to gain some information about the Puntland State Office, due to NPA's former presence in Puntland, we have no information about SEMA's other State Offices, in Galmudug, Hirshabelle, Jubaland, and South West.

### SOMALILAND

As part of a larger process of government reform in early 2018, SMAC, which had been responsible for coordinating and managing demining in Somaliland since 1997, was restructured and renamed the MCICA. The Agency underwent a change of line ministry from the Office of the Vice President to the Ministry of Defence.[34] It was then renamed the Mine Action Department in January 2019.[35]

The Somaliland government has been working on an Explosive Hazard Management National Action Plan for 2023–27. As at May 2023, the plan had not yet been finalised.[36] No further update was available at the time of writing.

## GENDER AND DIVERSITY

Somalia's National Mine Action Strategic Plan 2018–2020 recognises gender and diversity as cross-cutting issues for the national mine action programme, in line with Somalia's National Development Plan objectives to "implement gender equality in education and mainstream gender in all of its programmes with a focus on adolescent girls". Despite this recognition of the importance of gender and diversity in the National Mine Action Strategic Plan 2018–2020, SEMA informed Mine Action Review

24 Email from Mohamed Abdulkadir Ahmed, SEMA, 14 October 2016.
25 Statement of Somalia, APMBC 21MSP, Geneva, 20–24 November 2023.
26 Emails from Terje Eldøen, Programme Manager, NPA, 22 October 2016; and Mohamed Abdulkadir Ahmed, SEMA, 14 October 2016.
27 Article 7 Report (covering 2022), Form I.
28 Ibid., Form H.
29 'Presentation of an updated work plan to the Twenty-First Meeting of the States Parties' presented by Dahir Abdirahman Abdulle, SEMA, APMBC 21MSP, Geneva, 20–24 November 2023.
30 Article 7 Report (covering 2022), Form H.
31 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 claimed that this NGO, the Puntland Risk Solution Consortium, was no longer functioning but this information has not been confirmed by operators in the field.
32 Email from Dahir Abdirahman Abdulle, SEMA, 22 June 2022.
33 Email from Liberty T. Hombe, NPA, 24 March 2023.
34 Email from Chris Pym, HALO, 9 May 2019.
35 Email from Chris Pym, HALO, 2 June 2019.
36 Email from Rob Syfret, HALO, 16 May 2023.

in May 2019 that it did not have an internal gender or diversity policy or implementation plan. In its most recent CCM Article 7 report, covering 2022, Somalia noted its need for international support to build national capacity in the area of gender.[37] In 2021, the United Nations Mine Action Service (UNMAS) reported that 17% of the workforce of SEMA were women.[38] At the time of writing, a more recent update on the situation was not available.

## ENVIRONMENTAL POLICIES AND ACTION

Somalia has made halting progress towards finalising the national mine action standard (NMAS) and a policy on environmental management. It has been reported that a section on environmental management is contained within Somalia's revised NMAS.[39] In May 2024, however, UNMAS stated that there had been no further update on the pending approval of the revised NMAS, hence the relevant chapter (19) on "Environment, Health, and Safety", also remained pending approval. There had also been no update from SEMA on Somalia's development of an Environmental Policy or an expected timeline for when one may be developed.[40]

UNMAS, NPA, and The HALO Trust (HALO) all report having an environmental policy in place.[41]

## INFORMATION MANAGEMENT AND REPORTING

In 2019 NPA confirmed that, under the database reporting formats, CMR were being recorded separately from other types of ERW[42] although a more recent update on whether this is still the case was not available at the time of writing. Operators report that data collection forms are consistent and enable collection of the necessary data.[43]

SEMA decided to upgrade its database to IMSMA Core starting in 2022. However, the Geneva International Centre for Humanitarian Demining (GICHD) cautioned that the data set was of poor quality, which had led to issues with reporting.[44] Despite these challenges, Somalia does continue to make progress and mine action stakeholders collaborated productively on information management improvements in 2023.[45] The regional mine action centres in Puntland and Somaliland maintain IMSMA databases separate to the national database.[46] UNMAS has said that efforts to migrate data from these regional databases into the planned national IMSMA Core database are "ongoing".[47]

Somalia has submitted four CCM Article 7 reports to date, the first being in October 2019, which included the limited information available on the extent of CMR contamination[48] and the next in September 2020, covering 2019.[49] In August 2022, Somalia submitted an Article 7 report covering both 2020 and 2021, again providing the limited information available on the extent of CMR contamination; that is the type and locations of submunitions found but no data on the size of contaminated areas, stating clearly that this remained "unknown".[50] Somalia submitted its most recent Article 7 report, covering 2022, in September 2023. This report contained information on the estimated size of CMR-contaminated areas, as well as on the type and locations of submunitions found.[51] As at June 2024, Somalia had not yet submitted its CCM Article 7 report covering 2023.

## PLANNING AND TASKING

Somalia's National Mine Action Strategic Plan 2018–2020 noted Somalia's status as a State Party to the CCM and its reporting obligations and commitment to complying with the Convention, but did not contain specific provisions on survey and clearance of CMR. In 2022, Somalia stated that the revision of the national strategy had been completed, with input from operators and SEMA's state offices, and was awaiting approval from the Ministry of Internal Security.[52]

37 Article 7 Report (covering 2022), Form H.
38 Email from Mustafa Bawar, UNMAS, 4 July 2021.
39 Email from Clemence Nyamandi, UNMAS, 17 March 2022.
40 Email from Ghirmay Kiros, HEMS (Humanitarian Explosive Management for Stabilisation) Project Manager, UNMAS, United Nations Assistance Mission in Somalia (UNSOM), 20 May 2024.
41 Emails from Ghirmay Kiros, UNMAS, 20 May 2024; Robert Iga Afedra, NPA, 12 March 2022; and Daniel Redelinghuys, HALO, 29 May 2022.
42 Email from Claus Nielsen, NPA, 13 April 2019.
43 Emails from Rob Syfret, HALO, 1 June 2023; and Clemence Nyamandi, UNMAS, 30 May 2023.
44 Email from Noor Zangana, GICHD), 6 May 2022.
45 Email from Ghirmay Kiros, UNMAS, 20 May 2024.
46 Email from Liberty T. Hombe, NPA, 24 March 2023.
47 Email from Ahmed Hussein Ibrahim, Project Manager, Humanitarian Explosive Management, UNMAS, 28 May 2024.
48 Article 7 Report (Initial Report, submitted October 2019), Form F.
49 Article 7 Report (covering 2019), Form F.
50 Article 7 Report (covering 2020 and 2021), Form A.
51 Article 7 Report (covering 2022), Form A.
52 Article 7 Report (covering 2020 and 2021), Form A.

As at May 2024, however, the strategy had still not been approved.[53] It was also not clear to what extent this revised National Mine Action Strategic Plan will include any provision for Somalia to meet its Article 4 obligations.

Somalia has not shared an annual work plan for the survey and clearance of CMR for 2023–24 or in recent years. It had stated that a country-wide survey plan for CMR would be developed "throughout 2023".[54] However, survey undertaken in 2023 did not include CMR and no further update on provision for CMR survey specifically has been provided.

Somalia's most recent CCM Article 7 report, covering 2022, declared that Somalia's multi-year work plan "covers the response on landmines, ERW and cluster munitions" and acknowledges the need for "countrywide non-technical survey covering in the regions/districts with suspected cluster munition sites."[55] The multi-year work plan referred to is the 2022–2027 work plan for the implementation of Article 5 of the APMBC, submitted in June 2023,[56] whose primary focus is nationwide NTS to more accurately determine a baseline of contamination from anti-personnel mines and other explosive ordnance, disaggregated by threat type.[57] As at May 2024, this multi-year work plan submitted to the APBMC was the only work plan in use for mine action Somalia, with nothing specific developed for CMR.[58]

Despite challenges around coordination of tasking between SEMA and operators in previous years, tasking by SEMA has now been introduced as at June 2023. While tasks have not yet been issued for survey or clearance of cluster munition-contaminated areas, tasking for release of mined areas has been working well and has demonstrated SEMA's capability to manage and issue tasks effectively.[59]

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

UNMAS initially developed National Technical Standards and Guidelines (NTSGs) for Somalia in 2012–13.[60] The first edition of Somalia's NMAS was subsequently published on August 1, 2018. The NMAS are split into four parts covering Land Release, Information Management (IMSMA), Mine Risk Education (MRE), and Quality Assurance. UNMAS notes that the revised draft of the NMAS are sufficient to serve as a guide for the standard operating procedures (SOPs) in implementing partners to deal with legacy contamination, subject to any amends that may be made during government review and approval.[61] A review of Somalia's NMAS took place in 2021. However, the revised NMAS were still in draft and pending government approval at May 2024.[62]

As indicated by the lack of any land release of cluster munition-contaminated areas in recent years, Somalia has extremely limited capacity for survey and clearance of CMR, with no national capacity in place and limited capacity from international humanitarian operators.

## OPERATORS AND OPERATIONAL TOOLS

In 2023, HALO conducted operations in Somalia[63] with separate operations in Somaliland. HALO deployed capacity for release of mined areas only. UNMAS-contracted commercial clearance company, Ukroboronservice, and deployed teams for survey and clearance of mines and other explosive threats. UNMAS also deployed two EOD teams, totalling ten personnel.[64] NPA completed NTS of mine contamination in Puntland state in February 2023 and left Somalia thereafter.[65]

**Table 2: Clearance capacities deployed in Somalia in 2023[66]**

| Operator | Manual teams | Total deminers* | Comments |
|---|---|---|---|
| UOS (UNMAS) | 4 | 40 | Not deployed for CMR. Also 2 teams of 10 personnel for EOD. |
| **Totals** | **4** | **40** | |

53 Email from Ghirmay Kiros, UNMAS, 20 May 2024.
54 Article 7 Report (covering 2020 and 2021), Form F.
55 Article 7 Report (covering 2022), Form A.
56 APMBC Implementation Support Unit, "Somalia", accessed 22 July 2023 at: https://bit.ly/3rHSaBO.
57 Action Plan for Article 5 Implementation, October 2022–October 2027, 30 April 2023, p. 14.
58 Email from Ghirmay Kiros, UNMAS, 20 May 2024.
59 Email from Rob Syfret, HALO, 1 June 2023.
60 Email from Terje Eldøen, NPA, 5 June 2016; and response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.
61 Email from Clemence Nyamandi, UNMAS, 30 May 2023.
62 Email from Ghirmay Kiros, UNMAS, 20 May 2024.
63 Ibid.
64 Ibid.
65 Emails from Robert Iga Afedra, NPA, 1 and 10 June 2022; and Liberty T. Hombe, NPA, 24 March 2023.
66 Email from Ghirmay Kiros, UNMAS, 20 May 2024.

UOS maintained approximately the same manual clearance capacity in 2023 as it had in 2022. UNMAS had reported that four new NTS teams would be deployed for survey of cluster munition-contaminated areas in 2023.[67] In fact, although four UNMAS teams were deployed in accessible areas along the Somali-Ethiopian border, they did not conduct survey of CMR. UNMAS anticipated that UOS would remain operational conducting their mandated activities until June 2024, and then expected to procure a contractor by July 2024[68] and transition to a different structure. Under this new structure UNMAS plans to deploy eight multi-skilled teams, able to conduct EORE, NTS, and EOD, across the four states of South West, Galmudug, Jubaland and Hirshabelle. Two teams were to be deployed in each state, with a primary focus on NTS.[69]

Somalia did not report the introduction or exploration of any specific tools or methodologies for CMR survey or clearance in 2023.

# LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

## LAND RELEASE OUTPUTS IN 2023

Somalia did not release any CMR-contaminated areas through survey or clearance in 2023. No new discoveries of submunitions were recorded and no new areas of CMR contamination were added to the national database in 2023.[70] In 2021, HALO found two submunitions during battle area clearance.[71]

## ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR SOMALIA: 1 MARCH 2016

↓

**ORIGINAL ARTICLE 4 DEADLINE: 1 MARCH 2026**

**NOT ON TRACK TO MEET ARTICLE 4 DEADLINE**

Under Article 4 of the CCM, Somalia is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 March 2026.

Somalia is not on track to meet its Article 4 deadline and its continued inaction places it at risk of non-compliance. Somalia faces significant challenges to improving the overall effectiveness of its national mine action programme. While Somalia states that its national mine action strategy has been updated since the previous strategy expired in 2020, it is still pending approval from the Ministry of Internal Security. Added to this, the Somalia Federal Parliament has yet to formally approve Somalia's mine action legislation[72] or consistently contribute to SEMA's operating costs, providing only "in-kind support" to SEMA for mine action in recent years.[73] Without these legislative and national strategic matters resolved it is difficult to see how sufficient national resources will be allocated, in conjunction with international support, to meet Somalia's 2026 deadline.

In 2019, SEMA informed Mine Action Review that the key challenges which could prevent Somalia from meeting its 2026 deadline, based on capacity at the time, were a lack of funding and the fact that Somalia had not conducted a general survey to build a comprehensive picture of remaining CMR contamination.[74] These challenges remained in 2022, when SEMA described the lack of funding as a "serious concern"[75] and persisted in 2023, with no indication that increased funding is forthcoming and no national survey plan for CMR yet in place. In its most recent CCM Article 7 report covering 2022, Somalia restated the main challenges as a lack of international funding support to be able to carry out planned nationwide survey, and record and analyse data; and security challenges impeding access to operators in some areas.[76] UNMAS emphasises security as the most significant challenge as most sites with evidence of CMR cannot currently be safely accessed.[77]

67 Emails from Clemence Nyamandi, UNMAS, 17 March and 20 June 2022.
68 Email from Ghirmay Kiros, UNMAS, 20 May 2024.
69 Email from Ahmed Hussein Ibrahim, UNMAS, 28 May 2024.
70 Email from Ghirmay Kiros, UNMAS, 20 May 2024.
71 Email from Daniel Redelinghuys, HALO, 29 May 2022.
72 Article 7 Report (covering 2020 and 2021), Form A.
73 Ibid., Form I.
74 Email from Abdulkadir Ibrahim Mohamed Hoshow, SEMA, 9 May 2019.
75 Presentation by Dahir Abdirahman Abdulle, SEMA, APMBC Intersessional meetings, Geneva, 22 June 2022.
76 Article 7 Report (covering 2022), Form F.
77 Email from Ghirmay Kiros, UNMAS, 18 June 2024.

**Table 3: Five-year summary of CMR clearance**

| Year | Area cleared (m²) |
|---|---|
| 2023 | 0 |
| 2022 | 0 |
| 2021 | 0 |
| 2020 | 0 |
| 2019 | 0 |
| **Total** | **0** |

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

NPA reports that, in Puntland in 2022, it employed police personnel in NTS and EOD in an effort to build capacity for dealing with residual contamination upon completion of clearance.[78] UNMAS has trained police EOD teams in every state, which will be available to address residual risks posed by CMR discovered post-completion (i.e. residual capacity).[79]

78 Email from Liberty T. Hombe, NPA, 24 March 2023.

79 Email from Ghirmay Kiros, UNMAS, 18 June 2024.

# SOUTH SUDAN

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

**ARTICLE 4 DEADLINE: 1 FEBRUARY 2034**
ON TRACK TO MEET DEADLINE

## KEY DATA

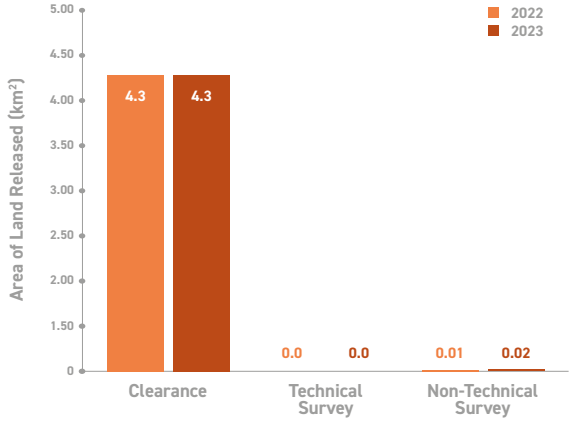
**CLUSTER MUNITION CONTAMINATION:** MEDIUM

NATIONAL ESTIMATE
**10.19KM²**

SUBMUNITION CLEARANCE IN 2023
**4.3KM²**
(UNMAS DATA)

SUBMUNITIONS DESTROYED IN 2023
**2,927**
(INCLUDING 167 DESTROYED DURING SPOT TASKS)

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

South Sudan has made significant advances during the reporting period – acceding to the Convention on Cluster Munitions (CCM) in May 2023; passing into law the Mine Action Authority Act (NMAA Act) in July 2023; and launching a new five-year mine action strategy through to 2028 in April 2024. Following reviews of contamination data in the Information Management System for Mine Action (IMSMA), reported cluster munition remnant (CMR) contamination almost doubled in extent in 2023, with more than 10km² recorded in the database by the year's end. In 2023, clearance teams continued to prioritise clearance of CMR and other unexploded ordnance (UXO) over mine clearance due to the higher number of victims, releasing 4.3km² of CMR-contaminated area – the same output as the previous year. South Sudan aims to clear all CMR-contamination by June 2028, ahead of its Article 4 clearance deadline of 1 February 2034, but later than its previous self-imposed deadline of July 2026.

## RECOMMENDATIONS FOR ACTION

- **South Sudan should increase its financial support for mine action operations as well as to the National Mine Action Authority (NMAA).**
- **South Sudan should continue to work towards establishing an evidence-based baseline of CMR contamination and develop a resource mobilisation strategy, as similarly called for in the new National Mine Action Strategy.**
- **South Sudan and its mine action partners should continue to support the NMAA to take on greater responsibilities, which is also an objective in the new National Mine Action Strategy.**
- **South Sudan should ensure that its CCM Article 7 reports provide accurate data disaggregated by suspected hazardous area (SHA) and confirmed hazardous area (CHA) for the relevant year, consistent with the International Mine Action Standards (IMAS).**
- **South Sudan should continue to mainstream gender across its mine action programme.**

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

| Criterion | Score (2023) | Score (2022) | Performance Commentary |
|---|---|---|---|
| **UNDERSTANDING OF CMR CONTAMINATION** (20% of overall score) | 7 | Not Scored | Targeted re-survey to better define the estimated size of SHAs continues, along with reviews of contamination data in South Sudan's IMSMA database. But access to some SHAs continues to be restricted by the security situation and seasonal rains and flooding. A baseline survey is planned in the future. |
| **NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT** (10% of overall score) | 5 | Not Scored | The NMAA has faced serious financial and technical limitations, preventing it from managing mine action operations effectively, with the United Nations Mine Action Service (UNMAS) still assuming that function. Strengthening national ownership is a key objective in the new five-year mine action strategy. Adhering to the CCM and passing the NMAA Act in 2023 should support this. |
| **GENDER AND DIVERSITY** (10% of overall score) | 6 | Not Scored | Pursuant to the 2024–28 Strategy, a Gender Equality Policy was due to be finalised in 2024. Existing National Technical Standards and Guidelines (NTSGs) cover gender issues. There is a focus on ensuring gender-balanced survey teams and gender- and age-sensitive data collection and community outreach. Ethnic identity is said to be taken into account to a limited extent within both survey and clearance teams. Commercial firms and international NGOs have sought to improve gender balance in their staff but redressing the gender imbalance remains a long-term challenge. |
| **ENVIRONMENTAL POLICIES AND ACTION*** (10% of overall score) | 7 | Not Scored | UNMAS has incorporated environmental considerations into mine action operations, providing guidance in the NTSGs, which operators use to develop their own standard operating procedures. Environmental assessments are conducted for planning purposes in line with the National Environment Policy. UNMAS and international NGOs are working to improve their environmental policies and action. |
| **INFORMATION MANAGEMENT AND REPORTING** (10% of overall score) | 7 | Not Scored | A comprehensive review of all data in the IMSMA database was undertaken in 2018, with further reviews of contamination data in 2023 and early 2024, and re-survey of recorded hazardous areas, have resulted in significant gains in the understanding of CMR contamination. In 2022, a major transition of IMSMA information to Survey123 was completed. |
| **PLANNING AND TASKING** (10% of overall score) | 7 | Not Scored | South Sudan launched the new five-year national mine action strategy in April 2024, setting out clear objectives and measurable outcomes. UNMAS and the NMAA, have also elaborated a supporting work plan through to June 2028. |
| **LAND RELEASE SYSTEM**** (10% of overall score) | 8 | Not Scored | South Sudan's NTSGs were strengthened during 2023. A number of revisions were made with regard to battle area clearance (BAC), to improve quality control procedures; NTSGs for mechanised vegetation removal were introduced; a requirement was introduced for same-day disposal of all CMR; and explosive ordnance disposal (EOD) Level 2 was introduced as a minimum level of competency for clearance team leaders. |
| **LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE** (20% of overall score) | 8 | Not Scored | South Sudan's clearance output of CMR-contaminated area remained constant in 2023 at 4.3km$^2$, once again far surpassing the target for the year of 1.76km$^2$. |
| **Average Score** | **7.0** | **Not Scored** | **Overall Programme Performance: GOOD** |

* New criterion introduced in 2024 to assess performance.
** The weighting of this criterion was previously 20% of overall performance score, but is now given a 10% weighting.

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- National Mine Action Authority (NMAA)

### NATIONAL OPERATORS

- None

### INTERNATIONAL OPERATORS

- DanChurchAid (DCA) until July 2023 (decommissioning completed by August 2023)
- Danish Refugee Council (DRC)
- G4S Ordnance Management (G4S)
- Mines Advisory Group (MAG)
- The Development Initiative (TDI)
- SafeLane Global (SLG)

### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Mine Action Service (UNMAS)

# UNDERSTANDING OF CMR CONTAMINATION

At the end of 2023, South Sudan had recorded 105 CMR-contaminated areas covering an area estimated to cover almost 10.19km$^2$: over 9.3km$^2$ of CHA and more than 0.8km$^2$ of SHA.[1] Seven of South Sudan's ten states have areas suspected to contain CMR (see Table 1), with Central and Eastern Equatoria in the south of the country by far the most heavily contaminated. Contamination has almost doubled in size from the estimated 5.3km$^2$ across 127 hazardous areas the previous year.[2] This is as a result of initiatives to improve data in the IMSMA database: merging polygons located adjacent to each other, and increasing the size of hazardous areas recorded as less than 93,000m$^2$ (for further detail see below).[3] Just over 4.3km$^2$ of CMR-contaminated area was released in 2023, almost exactly the same output as the previous year.[4]

**Table 1: Cluster munition-contaminated area by state (at end 2023)[5]**

| State | CHAs | Area (m$^2$) | SHAs | Area (m$^2$) | Total CHAs/ SHAs | Total area (m$^2$) |
|---|---|---|---|---|---|---|
| Central Equatoria | 38 | 3,716,195 | 1 | 475,503 | 39 | 4,191,698 |
| Eastern Equatoria | 43 | 4,249,328 | 1 | 93,000 | 44 | 4,342,328 |
| Jonglei | 8 | 567,699 | 1 | 93,000 | 9 | 660,699 |
| Lakes | 2 | 178,358 | 0 | 0 | 2 | 178,358 |
| Upper Nile | 4 | 185,487 | 0 | 0 | 4 | 185,487 |
| Warrap | 1 | 93,000 | 0 | 0 | 1 | 93,000 |
| Western Equatoria | 5 | 358,905 | 1 | 175,698 | 6 | 534,603 |
| **Totals** | **101** | **9,348,972** | **4** | **837,201** | **105** | **10,186,173** |

A countrywide baseline survey was never conducted in South Sudan due to insecurity and poor access,[6] and historically the size of cluster munition strike sites has been underestimated. Various initiatives undertaken in recent years have sought to improve the accuracy of contamination data. In 2017, UNMAS initiated a review of the national IMSMA database followed by targeted re-survey to determine more accurately the size of SHAs, and re-survey of SHAs became part of the process whenever clearance teams are tasked to clear cluster munition-contaminated area.[7] Between the end of 2017 and the end of 2021, CMR contamination increased. Reviews of database records indicated this was because some task records had been wrongly recorded as other types of hazardous area and were re-classified as CMR-contaminated areas; because several estimates of the extent of existing CHAs in the database were overly conservative; and as a result of previously unrecorded areas containing CMR coming to light, for example through detonations of submunitions.[8]

CMR contamination reduced in 2022 before almost doubling in 2023. In 2023, UNMAS claimed that the assessment of CMR contamination probably still underestimated the scale of the problem.[9] CMR contamination in South Sudan is complex, with several CMR strikes (and therefore overlapping footprints) often found in an area, making it difficult to estimate the extent of contamination and the required clearance time.[10] Moreover, as refugees return, they are likely to encounter previously unrecorded submunitions. The areas with the highest levels of contamination, especially in Central and Eastern Equatoria, are sparsely populated,[11] where information about contamination is difficult to verify through non-technical survey (NTS).[12] In April 2023, UNMAS began a review of the size of CHAs to improve the accuracy of recorded CMR-contaminated area.[13] By adopting the mandatory standard clearance fade out of 50m$^2$ radius from the last known submunition, any existing CMR polygons that were within a 50m$^2$ radius of each other were merged.[14]

In another initiative in January 2024, UNMAS conducted a thorough review of the size of all CMR hazard records in the IMSMA database using data from December 2023.[15] The average size of a confirmed CMR area between 2013 and 2023 was deemed to be 42,088m$^2$, but data since 2018 have indicated that the average size released was in fact 92,865m$^2$.

1 Email from Deborah Asikeit, Senior Programme Officer, UNMAS, United Nations Mission in South Sudan (UNMISS), on behalf of UNMAS and the NMAA, 26 April 2024.
2 Email from Matt Williams, Senior Programme Officer, UNMAS South Sudan, 23 March 2023.
3 Email from Deborah Asikeit, UNMISS, 26 April 2024.
4 Emails from Matt Williams, UNMAS South Sudan, 23 May 2023; and Deborah Asikeit, UNMISS, 26 April 2024.
5 Email from Deborah Asikeit, UNMISS, 26 April 2024.
6 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.
7 Email from Fran O'Grady, Chief of Mine Action, UNMISS, 9 March 2022.
8 Email from Jakob Donatz, Programme Officer, UNMAS UNMISS, 23 May 2024.
9 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.
10 "South Sudan National Mine Action Strategy 2024–2028", NMAA, April 2024, p. 18.
11 Email from Brendan Ramshaw, Operations Manager, DanChurchAid (DCA), 22 April 2021.
12 Email from Lisa Müller-Dormann, then Programme Officer/Co-coordinator Mine Action Sub-cluster, Mines Advisory Group (MAG), 22 March 2022.
13 Emails from Matt Williams, UNMAS South Sudan, 23 March and 3 May 2023.
14 Email from Deborah Asikeit, UNMISS, 26 April 2024.
15 Email from Jakob Donatz, UNMAS UNMISS, 23 May 2024.

Consequently, all CMR hazardous areas in the database recorded as less than 93,000m$^2$ were increased to 93,000m$^2$, as were partially cleared hazardous areas where the combined cleared and uncleared areas added up to less than 93,000m$^2$. This contributed to the sharp increase in cluster munition-contaminated area at the end of 2023.[16]

These two initiatives have provided increased confidence among UNMAS personnel that the current CMR contamination baseline is reasonably accurate and evidence-based. However, UNMAS emphasises that contamination figures cannot be considered complete given that some areas that are suspected to be contaminated with CMR remain inaccessible.[17]

A small pilot baseline survey started by UNMAS in Unity state in 2023 did not identify any CMR contamination in the payams selected for the exercise.[18] However, in line with South Sudan's new national mine action strategy, a list of prioritised payams will be elaborated where baseline studies would be conducted before the end of 2024. The National Mine Action Strategy 2024–2027 pledges that "South Sudan will continue its efforts to better define the boundaries of CMR and AP mine contamination to gain clarity on the remaining contamination. This will be achieved through continued analysis of historical land release data, ongoing database clean-up, continuous survey and clearance activities and the implementation of a baseline survey (BLS) in line with South Sudan's Technical Note."[19] UNMAS has confirmed that the plan is to conduct a national baseline survey at a later date.[20]

Cluster munitions were used during the decades-long war between Sudan and the Sudan People's Liberation Army/Movement (SPLA/M) that ended in 2005. Prior to South Sudan's independence, Sudanese government forces dropped many cluster bombs over the south. In early 2014, remnants of Soviet-era RBK 250-275 AO-1SCh cluster bombs, including intact unexploded submunitions, were found near a major road in Jonglei state, 16km south of the state capital, Bor.[21] The area was not previously known to be CMR-contaminated and it is not confirmed who was responsible for the use of the weapons. Uganda denied using cluster bombs in the area when it was providing air support to the government of South Sudan against opposition forces in early 2014. The South Sudanese government also denied that either its forces or the Ugandan military used cluster munitions during the conflict. It described the use as an "unfortunate incident" and pledged not to use cluster munitions.[22]

### 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* report on South Sudan for further information on landmines).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The South Sudan Demining Authority (SSDA)—since renamed the South Sudan National Mine Action Authority (NMAA)—was established by presidential decree in 2006 to function as the national agency for planning, coordination, and monitoring of mine action in South Sudan.

In 2011, UN Security Council Resolution 1996 tasked UNMAS with supporting South Sudan in demining and strengthening the capacity of the NMAA, and UNMAS derives its current responsibilities from the United Nations Mission in South Sudan (UNMISS) mandate.[23] Working together, UNMAS and the NMAA oversee mine action across the country. The NMAA and UNMAS both have offices in Juba; UNMAS has sub-offices in Bentiu, Bor, Malakal, and Wau; and the NMAA also has offices in Wau and Yei (although the office in Yei was not operational as at April 2024, having closed in 2021 for security reasons).[24]

16 Ibid.

17 Email from Deborah Asikeit, UNMISS, 26 April 2024.

18 Remarks by Goran Tomasevic, Deputy Chief of Operations, at a meeting with UNMAS, Juba, 30 May 2023; and email from Deborah Asikeit, UNMISS, 26 April 2024. A payam is the second-lowest administrative division (just below counties) in South Sudan.

19 "South Sudan Mine Action Strategy 2024 – 2028", NMAA, April 2024, p.19.

20 Email from Deborah Asikeit, UNMISS, 26 April 2024.

21 Landmine and Cluster Munition Monitor, "South Sudan", accessed 11 April 2023, at https://bit.ly/3Kqz5cU.

22 Ibid.

23 Remarks by Fran O'Grady, Chief of Mine Action, at a meeting with UNMAS, Juba, 30 May 2023.

24 Emails from Matt Williams, UNMAS South Sudan, 23 March 2023; and Deborah Asikeit, UNMISS, 26 April 2024.

The NMAA continues to expand its responsibilities gradually. However, it has faced serious financial and technical limitations preventing it from managing mine action operations effectively and UNMAS and international NGOs continue to support the authority.[25] The NMAA is, though, said to play a significant role in facilitating mine action operations.[26] It chairs monthly coordination meetings with all operators, while UNMAS coordinates monthly operations meetings with its commercial contractors.[27]

The recent strengthening of the mine action infrastructure in South Sudan should provide a platform for increasing national ownership of the mine action programme. In August 2023, South Sudan acceded to the CCM, becoming a State Party on 1 February 2024. Its Article 4 clearance deadline is thus 1 February 2034, with its initial Article 7 transparency report was due by 30 July 2024[28] A report (dated June 2024) was submitted by South Sudan in May 2024.

Further progress was made on 27 July 2023, when the National Mine Action Authority Act became law, providing a clear legal framework for the mine action programme in domestic law for the first time. The Act governs the establishment, powers, functions, and operations of the NMAA, which is responsible for overseeing, regulating, coordinating, supervising, prioritising, and monitoring all mine action activities.[29] South Sudan does not have a separate mine action centre and, pursuant to the Act the NMAA's structure is to include a board with oversight responsibilities, which will be an interministerial body involving nine different ministries. As of January 2024, the board had not yet been established.[30]

There is generally an enabling environment for mine action operations in South Sudan and the authorities support the necessary administrative processes for granting visas to international staff and importing equipment, and approve memoranda of understanding.[31] However, the Ministry of Labour sometimes rejects work permit applications for international mine action staff if they feel that national staff have the required skills, and in 2023 Mines Advisory Group (MAG) reported facing more persistent delays in receiving work permits and tax exemptions.[32] Delays are often encountered when importing demining equipment as multiple approvals are required from different government offices, a problem that has reduced productivity.[33] April 2024 saw the launch of the South Sudan Mine Action Strategy 2024–2028, which was developed by the NMAA with the support of the Geneva International Centre for Humanitarian Demining (GICHD).[34] (For details see the section *Planning and Tasking* below.)

International NGOs reported close collaboration between different demining actors, UNMAS, and the NMAA, including in identifying and prioritising areas for CMR and anti-personnel mine (AP mine) clearance at monthly coordination meetings. The meetings also provided the opportunity to review National Technical Standards and Guidelines (NTSGs) and give feedback on the new national mine action strategy.[35] In 2023, UNMAS and Danish Refugee Council (DRC) were the co-coordinators of the Mine Action Sub-Cluster, with MAG replacing DRC in the final quarter of the year.[36] The Sub-Cluster initiated various activities for 2024, including a psychological first-aid workshop on providing humane, supportive and practical help to people suffering serious crisis events,[37] for mine action field personnel.[38]

In terms of capacity building, UNMAS provided a range of support to the NMAA, including training on IMSMA.[39] MAG continued to accept NMAA secondees and ringfence places for NMAA staff on MAG training, and it supported NMAA visa and travel costs for international conferences.[40] Capacity building previously provided by DRC and DanChurchAid (DCA) to national NGOs was scaled down due to funding challenges.[41] In addition, the Japan International Cooperation Agency (JICA) funded and facilitated an NMAA exchange visit to Cambodia in 2023.[42] NMAC says it will need international assistance to prepare for residual clearance, for resource mobilisation, and to finalise the legal framework for CMR clearance.[43]

Overall, the mine action sector in South Sudan has seen a drop in funding in recent years. The Government of South Sudan provides little financial support to the NMAA. In 2023, it allocated a US$131,400 budget, though the full amount

25 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.
26 Remarks by Fran O'Grady, Chief of Mine Action, at a meeting with UNMAS, Juba, 30 May 2023.
27 "South Sudan Mine Action Strategy 2024–2028", NMAA, April 2024, p. 8.
28 Convention on Cluster Munitions website, South Sudan, accessed 9 May 2024, at https://bit.ly/3JXviEk.
29 Email from Deborah Asikeit, UNMISS, 26 April 2024.
30 "South Sudan National Mine Action Strategy 2024–2028", NMAA, April 2024, p.7.
31 Email from Lisa Müller-Dormann, Humanitarian Disarmament and Peacebuilding Programme Manager, Danish Refugee Council (DRC), 27 March 2023.
32 Emails from Eric Okoth, Country Director, MAG, 20 March 2023; and from Leah Grace, Programme Officer, MAG, 9 April 2024.
33 Email from John Sorbo, Humanitarian Disarmament and Peacebuilding Programme Manager, DRC, 30 April 2024.
34 Email from Deborah Asikeit, UNMISS, 26 April 2024.
35 Emails from Leah Grace, MAG, 9 April 2024; John Sorbo, DRC, 30 April 2024; and Ida Marie Højgaard Jørgensen, Programme Manager - Humanitarian Response and Mine Action, DCA, 8 May 2024.
36 Email from Deborah Asikeit, UNMISS, 26 April 2024.
37 World Health Organization, "Psychological first aid: Guide for field workers", accessed 15 May 2024, at: https://bit.ly/3wtZuno.
38 Email from Deborah Asikeit, UNMISS, 26 April 2024.
39 Ibid.
40 Emails from Deborah Asikeit, UNMISS, 26 April 2024; and Leah Grace, MAG, 9 April 2024.
41 Emails from John Sorbo, DRC, 30 April 2024; and Ida Marie Højgaard Jørgensen, DCA, 8 May 2024.
42 Email from Deborah Asikeit, UNMISS, 26 April 2024.
43 Article 7 Report (covering 2023), Form G.

was not released, and no funding was provided for survey or clearance of CMR.[44] Civil servants did not receive their salaries for many months in 2023.[45] There was no resource mobilisation plan for South Sudan in 2023, but this was due to be developed in 2024 in line with the mine action strategy.[46]

UNMISS is the largest funder of mine action in South Sudan, supporting three quarters of the total costs in 2023, with US$20.7 million paid via UNMAS to 21 commercial demining teams for explosive ordnance clearance, survey, and risk education.[47] This is a down from the $22.5 million UNMAS spent contracting 24 commercial demining teams in 2022.[48]

The international NGOs do not currently have UNMAS contracts. They have indicated that the requirements of UNMAS contracts make it difficult for them to tender,[49] and they largely rely on bilateral donor support. While MAG increased its funding in 2023–24,[50] in July 2023, DCA had to close its mine action unit for lack of funding, and DRC had to stand down two multi-task teams (MTTs) in July 2023 (leaving one explosive ordnance disposal team (EOD) team), but both teams were recalled in August 2023 when other funding was identified.[51] This left a total of nine teams run by two international NGOs by the end of 2023.[52]

## GENDER AND DIVERSITY

The National Mine Action Strategy 2024–2028 outlines how South Sudan will ensure that gender and diversity are considered throughout mine action projects.[53] The NMAA Act stipulates that at least 35% of the NMAA positions (Board and Management) shall be filled by women.[54] A Gender Equality Policy, developed by the GICHD in partnership with UNMAS and NGOs, was being finalised at the time of writing.[55] UNMAS has reported that, in theory, employment opportunities for qualified men and women in survey and clearance teams across the organisations operating in South Sudan are equal. However, redressing the gender balance is a long-term challenge and a work in progress.[56]

Ethnic identity is taken into account within survey and clearance teams to ensure safe access and acceptance by local communities.[57] However, UNMAS has indicated that the participation of different ethnic minority groups in survey and clearance operations across the country continues to be limited in extent.[58] Community liaison staff are said to capture the needs of different groups including vulnerable and minority groups such as internally displaced persons (IDPs) and refugees, which feeds into operational priorities.[59] UNMAS has, though, acknowledged that task prioritisation is predominantly dependent on security and that resources are concentrated on tasks within limited geographical areas.[60]

Among UNMAS-contracted companies, there was an increased focus on gender and diversity in procurement, and the number of female personnel employed across the sector was reported to have slightly increased.[61] Data provided as at the end of 2023, however, indicated little change with the overall proportion of female staff remaining low.

**Table 2: Gender composition of operators (at end 2023)[62]**

| Operator | Total staff | Women staff | Total managerial or supervisory staff | Women in managerial or supervisory positions | Total operational staff | Women in operational positions |
|---|---|---|---|---|---|---|
| UNMAS | 50 | 14 (28%) | 13 | 5 (38%) | 9 | 3 (33%) |
| G4S | 397 | 63 (16%) | 57 | 3 (5%) | 84 | 11 (13%) |
| SLG | 172 | 43 (25%) | 19 | 3 (16%) | 139 | 40 (29%) |
| TDI | 126 | 21 (17%) | 11 | 1 (9%) | 121 | 14 (12%) |

44 Email from Deborah Asikeit, UNMISS, 26 April 2024.
45 APMBC Article 7 Report (covering 2023), p. 23.
46 Ibid.
47 Email from Deborah Asikeit, UNMISS, 26 April 2024.
48 Email from Matt Williams, UNMAS South Sudan, 3 May 2023.
49 Interviews with Andrew Steele, Logistics Manager, MAG, 20 May 2023; Lisa Müller-Dormann, DRC, 21 May 2023; and Janardhan Rao, Country Director, DCA, 26 May 2023.
50 Email from Leah Grace, MAG, 9 April 2024.
51 Email from John Sorbo, DRC, 24 May 2024.
52 Email from Jakob Donatz, UNMAS UNMISS, 23 May 2024.
53 "South Sudan Mine Action Strategy 2024 – 2028", NMAA, April 2024, p. 10.
54 Ibid.
55 Email from Deborah Asikeit, UNMISS, 26 April 2024.
56 Email from Ayaka Amano, UNMAS, 2 May 2019.
57 Email from Richard Boulter, UNMAS, 8 July 2020.
58 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.
59 Ibid.
60 Emails from Ayaka Amano, UNMAS, 2 May 2019; and Matt Williams, UNMAS South Sudan, 23 March 2023.
61 Email from Matt Williams, UNMAS South Sudan, 3 May 2023; and Article 7 Report (covering 2023), Form J.
62 Emails from Deborah Asikeit, UNMISS, 26 April and 30 July 2024; and Jakob Donatz, UNMAS UNMISS, 16 July 2024.

**Table 2 Continued**

| Operator | Total staff | Women staff | Total managerial or supervisory staff | Women in managerial or supervisory positions | Total operational staff | Women in operational positions |
|---|---|---|---|---|---|---|
| MAG | 157 | 55 (35%) | 33 | 5 (15%) | 121 | 45 (37%) |
| DRC* | 64 | 16 (25%) | 7 | 1 (14%) | 43 | 11 (26%) |
| DCA** | 25 | 6 (24%) | 6 | 1 (17%) | 21 | 3 (14%) |
| **Totals** | **991** | **218 (22%)** | **146** | **19 (13%)** | **538** | **127 (24%)** |

* DRC figures at April 2024. ** DCA figures until August 2023, when the demining programme closed. DCA also had three women in its risk education team.[63]

In international NGO operators, the proportion of female staff has generally been slightly higher. During the reporting period, they implemented initiatives to strengthen gender equality in mine action including the implementation of women-only demining training, and developed gender action plans.[64] There has been an increased focus on female representation, and in February 2024 a woman deminer workshop was held to kickstart the process.[65] Discussions on capacity strengthening of female staff to support their access to more senior positions were said to be "ongoing", but this requires additional funding according to one NGO expert.[66]

MAG's Global Gender Advisor conducted a week-long needs assessment in October 2023 to improve its understanding of the barriers that female staff face in progressing to managerial and supervisory roles and an action plan is to be launched in 2024.[67] MAG's Gender Advisor is working with its country team to ensure gender and diversity considerations are included in programme design and implementation, and to support gender mainstreaming across the organisation in South Sudan.[68] MAG continues to ring-fence spaces on all trainings for female staff and encourages women to apply for new positions. DRC has allocated a budget to send at least one female deminer to attend EOD Level 3 training in Denmark in 2024 and has provided land rights and livelihood training for female beneficiaries in clearance areas.[69]

MAG and DCA aim to include representatives from different ethnic and minority groups with equal opportunity for all qualified individuals to apply and be considered for employment, but indicate that recruitment is purely based on qualification and skills.[70] MAG and DCA employ casual labourers and cooks from the local community on a rotating basis in accordance with guidance from local chiefs to spread the benefits of employment among communities.[71] DRC is pursuing a localisation approach, recruiting survey and liaison teams from different ethnic groups in its project locations, while clearance teams are composed of different ethnic groups and are roving unless there are security concerns.[72] DCA teams always employ a local person to assist in their work and to translate to local languages where such skills are lacking among their existing staff.[73]

DCA staff are trained on protection and safeguarding, and women are offered different items in their field kits to men (more soap and hygiene products) based on consultations with female staff.[74] In addition, DCA is proposing training EORE and community liaison teams on protection issues so teams can facilitate referrals if they identify any protection cases during their community visits.[75] DCA mainly operates in agricultural areas (as part of the integration of humanitarian mine action and food security and livelihoods under the theme "from Hazard to Harvest"), which means that operations often affect women disproportionally because women do the majority of farming work. As a result, all operations are coordinated with women in relation to harvest times, but also with their daily lives i.e. the mechanical asset is stopped at certain times so people can pass by.[76]

63 Email from Ida Marie Højgaard Jørgensen, DCA, 16 May 2024.
64 Email from Ida Marie Højgaard Jørgensen, DCA, 8 May 2024.
65 Ibid., and email from Jakob Donatz, UNMAS UNMISS, 28 June 2024.
66 Email from Ida Marie Højgaard Jørgensen, DCA, 8 May 2024.
67 Email from Leah Grace, MAG, 9 April 2024.
68 Ibid.
69 Email from John Sorbo, DRC, 30 April 2024.
70 Emails from Leah Grace, MAG, 9 April 2024; and Ida Marie Højgaard Jørgensen, DCA, 8 May 2024.
71 Emails from Leah Grace, MAG, 9 April 2024; and Ida Marie Højgaard Jørgensen, DCA, 16 May 2024.
72 Email from Lisa Müller-Dormann, DRC, 27 March 2023; and John Sorbo, DRC, 30 April 2024.
73 Email from Ida Marie Højgaard Jørgensen, DCA, 8 May 2024.
74 Ibid.
75 Ibid.
76 Ibid.

## ENVIRONMENTAL POLICIES AND ACTION

The National Mine Action strategy 2024–2028 highlights that South Sudan ranks as the second most vulnerable country to natural hazards globally, though there is little explicit focus on the environment in the strategy.[77] UNMAS has incorporated environmental considerations into mine action operations, in collaboration with the NMAA, providing guidance in the NTSGs.[78] The NTSG on Health and Safety, Social and Environment (HSSE), introduced in 2018, is said to be in line with IMAS 07.13 on Environmental Management in Mine Action.[79] This is updated annually, and amendments were made to the NTSG in 2023 on conducting environmentally compliant disposal and the subsequent treatment of the "Free From Explosives" metal scrap.[80] Environmental assessments are conducted for planning to determine the impact of different demining assets in line with the National Environment Policy.[81] Since 2023, all demining teams follow the Waste Management Policy in accordance with the HSSE guidelines during operations, at camp sites and during travel times. The use of incinerators is a requirement in the disposal of small arms ammunition, while camp sites are adopting the use of solar panels for energy.[82]

South Sudan's Article 7 report covering 2023 highlights that over the last five years South Sudan has experienced adverse effects of climate change on operations in several ways, including limited access due to extreme flooding; extended periods of flooding; displacement of explosive ordnance (which may lead to the need for emergency clearance); longer rainy seasons which shorten the window for mine action operations; and seasons becoming more irregular and less predictable, posing challenges to planning. At present, South Sudan does not have measures in place to address, or prepare for, the climate change-related factors that pose a risk of displacing explosive ordnance and which potentially reveal submunitions to the ground surface, posing a risk to civilians. Risk education and survey teams visit formerly flooded areas to assess the situation. The report also notes that there is no environmental impact assessment of CMR pollution on topsoil, but South Sudan recommends the need for a topsoil study of the demolition site to know the impact of cluster munitions on the soil.[83]

Implementing partners in South Sudan establish their own standard operating procedures (SOPs) and policies based on the relevant NTSG. When survey and clearance are completed, an area should be restored in accordance with the wishes of the local community. At a minimum, restoration should include the removal of large items of scrap metal, the filling in of any pits or craters due to EOD, and the fencing off of any areas where there may be residual non-explosives hazardous materials left in the ground.[84] To minimise the impact of mine action activities on the environment, UNMAS has continued to sensitise mine action operators in South Sudan on environmental considerations in planning demolitions as well as in post-demolition procedures, during mechanical operations, and when conducting vegetation clearance.[85]

The international NGOs have embedded environmental considerations in their operations. DRC conducts environmental assessments of hazardous areas with the support of community leaders and key community members.[86] In 2023, DRC began reviewing its implementation measures to minimise environmental harm during demining operations resulting in some key changes: using vegetation trimmers that are more environmentally friendly; enhancing waste management protocols; improving energy efficiency at demining camps including by using solar power; and optimizing route planning to minimize fuel consumption.[87] In addition, DRC integrates climate risk assessments into its planning.[88] DCA considers environmental impact during clearance operations and climate-related risks, and plans accordingly, especially when using its mechanical asset. Following an organisation-wide environmental assessment in South Sudan in 2023,[89] DCA's SOP was updated from March 2024 with an assessment tool, best practices, avoidance and mitigation measures, and guidance on how to develop environmental protection capacity.[90]

MAG has begun to incorporate environmental considerations into survey and clearance planning, and this approach will be fully formulated in 2024.[91] In 2023, MAG introduced solar-powered security lights on its demining camps, it continues to conduct site remediation when leaving its camps, and there has been a merging of camps to ensure optimal use of diesel generators. MAG combines vehicle movements to reduce fuel consumption and ensures only necessary travel.[92] On MAG's worksites and temporary accommodation facilities, there are robust sanitary and waste management systems and environmental considerations are integrated into daily operations and programming. Mechanical assets are only used when necessary. MAG's community liaison teams maintain contact with community

77 "South Sudan Mine Action Strategy 2024 – 2028", NMAA, April 2024, p .4.
78 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.
79 Voluntary CCM Article 7 Report (covering 2020), Form I.
80 Emails from Matt Williams, UNMAS South Sudan, 23 March 2023; and Deborah Asikeit, UNMISS, 26 April 2024.
81 Email from Deborah Asikeit, UNMISS, 26 April 2024.
82 Ibid.
83 CCM Article 7 Report (covering 2023), Form B.
84 APMBC Article 7 Report (covering 2021), Form B.
85 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.
86 Email from John Sorbo, DRC, 30 April 2024.
87 Ibid.
88 Ibid.
89 Interview with Janardhan Rao, DCA, 26 May 2023.
90 Email from Ida Marie Højgaard Jørgensen, DCA, 8 May 2024.
91 Email from Leah Grace, MAG, 9 April 2024.
92 Ibid.

leaders and provide an opportunity for feedback, including on possible environmental damage.[93] MAG factors into its work plan potential disruptions to operations from flooding, high daytime temperatures, and other climate "events", and has mitigation measures in place to ensure staff safety.[94]

## INFORMATION MANAGEMENT AND REPORTING

A comprehensive review of all data in South Sudan's IMSMA database was undertaken in 2018, along with re-survey of recorded SHAs and CHAs where the size was thought to be exaggerated or location mis-recorded. The database review found that past efforts to upgrade the IMSMA software package had led to serious data losses, which inhibited efforts to present an accurate record of the history of mine action in South Sudan. The ongoing database review has resulted in significant gains in the understanding of mine and ERW contamination. Further progress was made in 2023 when CMR polygons within a 50m$^2$ radius of each other were merged, and CMR hazardous areas recorded as less than 93,000m$^2$ were increased to 93,000m$^2$ (see the section above, Understanding CMR Contamination, for further details).[95]

In 2021, South Sudan was supported by the GICHD to upgrade its IMSMA database to IMSMA Core,[96] and in 2022 the major transition of IMSMA information to Survey123 was completed.[97] UNMAS has indicated that, wherever possible, the database disaggregates mined areas, CMR-contaminated areas, and other ERW-contaminated areas, including spot tasks.[98]

South Sudan submitted four voluntary CCM Article 7 reports between 2020 and 2023. South Sudan's first CCM Article 7 as a State Party was submitted in May 2024.[99] In 2024, and seemingly in 2023, it provided land release data from January 2011–December 2023, and did not disaggregate this for the relevant years.

## PLANNING AND TASKING

In April 2024, the South Sudan National Mine Action Strategy 2024–2028 was formally endorsed by the Office of the President, effectively making it a formal government document. Developed with the support of the GICHD.[100] Clear outcomes are listed under three headings: National Ownership, Land Release, and EORE and Victim Assistance, with corresponding indicators, baselines, and targets.[101]

South Sudan has updated its work plan for all explosive ordnance (EO) clearance, and submitted it to the APMBC Implementation Support Unit (ISU) for review.[102] This includes an annual work plan for 2024, and a multi-year plan to 2028 for CMR clearance. In its new work plan South Sudan envisages that it will clear 2.64km$^2$ of CMR-contaminated area in 2024, 2.4km$^2$ in 2025, 1.92km$^2$ in 2026, 1.68km$^2$ in 2027, and 1.56km$^2$ in 2028.[103] South Sudan far surpassed its CMR clearance targets in 2022 and 2023 as set out in its updated work plan of April 2022, when the annual targets were 1.76km$^2$, and it cleared approximately 4.3km in both years.[104]

The work plan sets out the clearance capacity required to clear all CMRs by clearance method and operator, and provides contamination data by region.[105] It estimates that to complete all EO clearance by 2028, a total of US$109 million will be needed (US$29.45 million in 2024, US$30.4 million in 2025; US$17.3 million in 2026; US$17.3 million in 2027, and US$6.25 million in 2028).[106]

The target of June 2028 for CMR clearance, along with the targets for other EO clearance, is based on a projection of current resources and assumes no further deterioration in the country's economic or security situation.[107] It also assumes that flooded areas of the country will be accessible by June 2025; that few additional contaminated areas will be identified; that survey will cancel or reduce recorded hazards to accurate polygons; and that projected clearance rates can be sustained.[108] Alongside clearance efforts, South Sudan will seek support to develop a regionally based coordination mechanism to address reports of hazardous items and undertake survey of newly identified hazardous areas. In the

93 Email from Eric Okoth, MAG, 20 March 2023.
94 Email from Leah Grace, MAG, 9 April 2024.
95 Email from Deborah Asikeit, UNMISS, 26 April 2024.
96 Emails from Fran O'Grady, UNMISS, 9 March 2022; and Sasha Logie, GICHD, 21 April 2022.
97 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.
98 Email from Deborah Asikeit, UNMISS, 26 April 2024.
99 Convention on Cluster Munitions website, South Sudan, accessed 9 May 2024, at https://bit.ly/3JXviEk.
100 "South Sudan National Mine Action Strategy 2024–2028", NMAA, April 2024, p. 13.
101 Ibid., pp. 16–24.
102 Email from Deborah Asikeit, UNMISS, 26 April 2024.
103 Ibid.; p. 18.
104 Updated Work Plan for January 2024 to June 2026, p. 34, submitted to the APMBC Committee on Article 5 Implementation, 31 April [sic] 2022; and emails from Matt Williams, UNMAS South Sudan, 23 March 2023; and Deborah Asikeit, UNMISS, 26 April 2024.
105 Updated Work Plan for January 2024 to June 2026, pp. 19 and 26–33.
106 Ibid., p. 36.
107 Email from Deborah Asikeit, UNMISS, 30 April 2024; and Updated Work Plan for the period from January 2024 to June 2026, 31 March 2024, pp. 37–38.
108 Updated Work Plan for January 2024 to June 2026, 31 March 2024, pp. 37–38.

early years, the aim is that an independent entity, such as an international NGO will capacity build the NMAA to take the lead on this. The work plan assumes that about another 7km$^2$ of land will need to be searched for AP mines.[109]

South Sudan reports that the programme applies a balanced approach to the clearance of areas contaminated by different types of ordnance, in line with the annual work plan and competing priorities. The commitment to declare South Sudan free from AP mines by June 2026 in line with Article 5 of the APMBC influences the allocation of resources, but in 2023 most clearance teams continued to work on CMR clearance.[110]

In order to coordinate survey and clearance activities with international NGOs, where activities are guided by the NGOs' own agendas, UNMAS conducts two annual workshops, where priorities and seasonal clearance work plans are developed and approved. Prioritisation depends on a number of factors linked to the UNMISS mandate – particularly protection of civilians, and creating conditions conducive to delivery of humanitarian assistance – but also seasonal access, insecurity, accidents and support to vulnerable communities.[111] Task dossiers continue to be issued in a timely and effective manner according to international NGOs.[112]

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

South Sudan's NTSGs, which outline the technical requirements expected of all demining operators working in South Sudan, are adapted from the IMAS. The NTSGs are annually reviewed and revised by UNMAS in consultation with implementing partners and the NMAA,[113] taking into account any lessons learned during the year and addressing any changes in IMAS.[114] These standards and guidelines contain provisions specific to CMR survey and clearance[115] and are said to be fully adapted to the local context for survey and clearance.[116] In 2023, amendments were made to the NTSG on battle area clearance (BAC) to improve quality control (QC) procedures (360-degree check and targeted sampling), procedures for mechanised vegetation removal were elaborated, a requirement was introduced for same-day disposal of CMRs, and IMAS EOD Level 2 was introduced as a minimum level of competency for team leaders.[117] In 2024, MAG asked UNMAS to accredit community liaison teams for NTS as they have received the requisite training.[118]

As indicated above, a considerable number of initial survey reports of CMR-contaminated areas have historically underestimated the extent of contamination.[119] UNMAS believes that the recent merging of cluster strike polygons located close together, and the increase in CMR hazardous areas to 93,000m$^2$ should help to address the planning challenges that these underestimates posed. These recent initiatives should also address the situation where NTSG fade-out requirements sometimes resulted in handover of cleared land while simultaneously creating a new "hazardous area" comprising the fade-out distance.[120]

South Sudan reports having developed a strong methodology for clearing CMR using large-loop detectors, allowing operators to discriminate between potential submunitions and metallic clutter. Operators have further enhanced productivity by using mechanical vegetation-cutting equipment.[121]

DCA noted that, before closing its mine action programme, it had changed its operational set-up to a rolling structure without stand-downs (other than at Christmas), saving considerable time previously allocated to refresher trainings and accreditation and resulting in greater clearance in 2022 and 2023.[122]

UNMAS has 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.[123] The minimum frequency for the senior management internal QA visits to each team was set at one per month in 2021 and a standardised scoring matrix was introduced for the EOD written examination.[124]

109 Ibid., p. 23.
110 Email from Deborah Asikeit, UNMISS, 26 April 2024.
111 Ibid.
112 Emails from Leah Grace, MAG, 9 April 2024, Ida Marie Højgaard Jørgensen, DCA, 8 May 2024; and John Sorbo, DRC, 30 April 2024.
113 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.
114 Ibid.
115 Email from Robert Thompson, Chief of Operations, UNMAS, 21 April 2016; and responses to questionnaire, 30 March 2015; and email from Augustino Seja, Norwegian People's Aid (NPA), 11 May 2015.
116 Emails from Matt Williams, UNMAS South Sudan, 23 March 2023; and Deborah Asikeit, UNMISS, 26 April 2024.
117 Email from Deborah Asikeit, UNMISS, 26 April 2024.
118 Email from Leah Grace, MAG, 9 April 2024.
119 Emails from Matt Williams, UNMAS South Sudan, 23 March 2023; and Leah Grace, MAG, 9 April 2024.
120 Email from Leah Grace, MAG, 9 April 2024.
121 Updated Work Plan for January 2024 to June 2026, p. 19.
122 Email from Ida Marie Højgaard Jørgensen, DCA, 8 May 2024.
123 Email from Ayaka Amano, UNMAS, 2 May 2019.
124 Email from Fran O'Grady, UNMISS, 9 March 2022.

## OPERATORS AND OPERATIONAL TOOLS

Clearance teams in South Sudan are normally accredited for and deployed to a variety of tasks, including CMR, AP mine and anti-vehicle (AV) mine clearance, and EOD. None is exclusively allocated to CMR activities.[125] All teams are accredited to conduct multiple mine action activities, including clearance (see Table 3).

UNMAS reported that a total of 31 teams (three commercial companies (G4S, TDI, and SLG) and three international NGOs (DCA, DRC, and MAG)) conducted CMR survey and clearance tasks in 2023 (NB DCA only fielded two teams until July 2023).[126] This is a decrease from 36 teams in 2022, with one international NGO operator (DCA) completely ceasing operations during 2023 due to a lack of funding.[127] The number of operational personal involved in CMR technical survey (TS) and clearance during 2023 was 393 (see Table 3), down from 447 personnel in 2022.[128]

UNMAS did not expect any major changes in the number of survey or clearance personnel in 2024.[129] However, MAG indicated that from May 2024 it will have at least one additional demining team focusing on survey and clearance of AP mines in Eastern Equatoria, and that it may deploy another clearance team.[130] DRC has submitted a number of funding proposals and hopes to increase the number of clearance personnel in 2024.[131] As at May 2024, DCA only had a risk education team and was also awaiting the outcome of funding applications so that it can restart survey and clearance activities.[132]

**Table 3: Operational TS and clearance capacities deployed in 2023 (data provided by UNMAS)[133]**

| Operator | Manual teams | Total deminers | Dogs and dog handlers | Mechanical assets |
|---|---|---|---|---|
| G4S | 14 | 210 | 4/2 (2 x MDD teams) | 2 (2 x TRAXX RC562 for ground preparation) |
| SLG | 5 | 75 | 0 | 0 |
| TDI | 2 | 20 | 0 | 2 (1 x MW240, 1 x MW330) |
| MAG* | 6 | 54 | 0 | 3 (1 x PT300, 2 x Bozena 4) |
| DRC** | 3 | 22 | 0 | 0 |
| DCA*** | 1 | 9/12 | 0 | 1 MW240 in Aug. 2022–July 2023 |
| **Totals** | **31** | **390/393** | **4/2** | **8 (including the two TRAXX RC562s for ground preparation)** |

* Including two EOD teams with 14 personnel. ** DRC had two MTT teams and one EOD team, the two MTT were temporarily stood down in July 2023 due to funding issues, but were recalled in August 2023.[134] *** DCA initially had one team with nine personnel, which was increased to twelve personnel until July 2023, when the programme closed.[135]

There were two security incidents in 2023 involving UNMAS implementing partners. On 15 March 2023, two vehicles travelling between Pibor and Akobo in Jonglei state were fired on and one was looted. No injuries were reported and the personnel subsequently proceeded with their journey. On 14 July 2023, a UNMAS implementing partner temporarily halted operations in Shalara, Juba County in Central Equatoria state after two armed groups started shooting at each other close to a clearance site. No team members were hurt.[136] DRC reported that threats from communities and clashes in certain locations, led to interruptions in programming related to mine action activities.[137]

125 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.
126 Email from Deborah Asikeit, UNMISS, 26 April 2024.
127 Emails from Matt Williams, UNMAS South Sudan, 23 March 2023; and Deborah Asikeit, UNMISS, 26 April 2024.
128 Ibid.
129 Email from Deborah Asikeit, UNMISS, 26 April 2024.
130 Email from Leah Grace, MAG, 9 April 2024.
131 Email from John Sorbo, DRC, 30 April 2024.
132 Email from Ida Marie Højgaard Jørgensen, DCA, 8 May 2024.
133 Emails from Deborah Asikeit, UNMISS, 26 April 2024; Leah Grace, MAG, 9 April and 16 May 2024; John Sorbo, DRC, 24 May 2024; and Ida Marie Højgaard Jørgensen, DCA, 8 and 16 May 2024.
134 Email from John Sorbo, DRC, 24 May 2023.
135 Email from Ida Marie Højgaard Jørgensen, DCA, 16 May 2024.
136 Email from Deborah Asikeit, UNMISS, 26 April 2024.
137 Emails from John Sorbo, DRC, 30 April 2024; and Ida Marie Højgaard Jørgensen, DCA, 8 May 2024.

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2023

In 2023, according to UNMAS and the NMAA, a total of just over 4.3km$^2$ of CMR-contaminated area was released through survey and clearance, the same area as was cleared in 2022. Of this, less than 0.02km$^2$ was cancelled through NTS and just over 4.3km$^2$ was cleared; there was no reduction of contaminated area through TS.[138] A total of 2,927 submunitions were destroyed in 2023, including 167 as spot tasks. In addition, 1,546,283m$^2$ of previously unrecorded CMR contamination (21 hazardous areas) was added to the IMSMA database in 2023.[139]

## SURVEY IN 2023

In 2023, UNMAS and the NMAA report that a total of 16,063m$^2$ was cancelled through NTS, 3,924m$^2$ in Central Equatoria and 12,139m$^2$ in Eastern Equatoria (see Table 4).[140] This compares with 15,433m$^2$ cancelled through NTS in 2022, all in Eastern Equatoria.[141]

**Table 4: Cancellation through NTS in 2023 (data provided by UNMAS)[142]**

| State | Operator | SHAs | Area cancelled (m²) |
|---|---|---|---|
| Central Equatoria | SLG | 1 | 3,924 |
| Eastern Equatoria | MAG | 3 | 12,139 |
| **Totals** | | **4** | **16,063** |

In 2023, no hazardous area was cleared through technical survey,[143] whereas just 359m$^2$ of hazardous area was reduced through TS in 2022 in Eastern Equatoria.[144] As indicated above, 1,546,283m$^2$ of previously unrecorded CMR contamination was added to the database in 2023.[145]

## CLEARANCE IN 2023

In 2023, a total of just over 4.3km$^2$ of CMR-contaminated area was cleared (see Table 5) with 2,927 submunitions destroyed, including 167 during EOD spot tasks.[146] This is a slight increase in the area cleared, up from just under 4.3km$^2$ cleared in 2022, but a decrease in the total number of submunitions destroyed from 3,320 in 2022.[147]

**Table 5: CMR clearance in 2023[148]**

| State | Operator | CHAs/SHAs | Area cleared (m²) | Submunitions destroyed | Other UXO destroyed |
|---|---|---|---|---|---|
| Central Equatoria | G4S | 17 | 1,081,591 | 694 | 15 |
| Central Equatoria | SLG | 2 | 97,335 | 0 | 10 |
| Eastern Equatoria | DCA* | 2 | 203,231 | 171 | 0 |
| Eastern Equatoria | DRC** | 6 | 306,379 | 253 | 0 |
| Eastern Equatoria | G4S | 4 | 388,792 | 497 | 11 |
| Eastern Equatoria | MAG*** | 15 | 1,667,468 | 947 | 1 |

138 Email from Deborah Asikeit, UNMISS, 26 April 2024; There are, however, discrepancies with release data provided in the South Sudan Mine Action Strategy 2024–2028. UNMAS says that the above figures should be considered accurate as they include data from late completion reports. Email from Jakob Donatz, UNMAS UNMISS, 23 May 2024. Other discrepancies in data are seen in clearance reports by international NGOS (see Table 5 below).

139 Email from Deborah Asikeit, UNMISS, 26 April 2024.

140 Ibid.

141 Emails from Matt Williams, UNMAS South Sudan, 23 March and 19 June 2023. South Sudan's original Voluntary CCM Article 7 Report (covering 2022), submitted 30 April 2023, pp. 15 and 21, indicated that 4,452,613m$^2$ of CMR contamination was cancelled through NTS in 2022, but the figure appears to include cancelled area from earlier years.

142 Email from Deborah Asikeit, UNMISS, 26 April 2024.

143 Ibid.

144 Email from Matt Williams, UNMAS South Sudan, 23 March 2023. The original Voluntary CCM Article 7 Report (covering 2022), submitted 30 April 2023, alternatively suggests that 611,629m$^2$ (p. 22) or 3,611,629m$^2$ (p. 44) of CMR-contaminated area was "reduced" through "non-technical survey", although the latter figure may include NTS from earlier years.

145 Email from Deborah Asikeit, UNMISS, 26 April 2024.

146 Ibid.

147 Email from Matt Williams, UNMAS South Sudan, 23 March 2023. The voluntary CCM Article 7 Report (covering 2022), pp. 22–44, said that 28,391,041m$^2$ of contaminated area was cleared with 20,632 submunitions destroyed, but the figures may include destruction of submunitions from earlier years.

148 Emails from Deborah Asikeit, UNMISS, 26 April 2024.

**Table 5 Continued**

| State | Operator | CHAs/SHAs | Area cleared (m²) | Submunitions destroyed | Other UXO destroyed |
|---|---|---|---|---|---|
| Jonglei*** | SLG | 0 | 97,455 | 42 | 4 |
| Warrap*** | SLG | 0 | 11,504 | 1 | 0 |
| Western Equatoria*** | G4S | 0 | 447,643 | 155 | 17 |
| **Totals** | | **46** | **4,301,398** | **2,760** | **58** |

* DCA reported clearing 3 areas and destroying 161 submunitions.[149] ** DRC reported clearing 16 areas totalling 406,017m², and destroying 259 submunitions (plus another 91 as spot tasks) and 83 UXO.[150] *** MAG reported clearing 2,211,085, and destroying 991 CMRs, 3 AP mines, and 288 UXOs.[151]

Ten CMR clearance tasks in nine states and covering a total of 127,460m² were cleared in 2023 without CMR being found.

MAG reported it cleared almost 727,817m² more CMR-contaminated area in Eastern Equatoria than in 2022, including 17,500m² through surface clearance only. It conducted only CMR clearance and not mine clearance in 2023. This was due to a more stable security situation in its area of operations and a longer dry season.[152] DRC and DCA reported a fall in CMR-contaminated area cleared as a result of having to lay off staff.

## ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR SOUTH SUDAN: 1 FEBRUARY 2024

↓

ARTICLE 4 DEADLINE: 1 FEBRUARY 2034

**ON TRACK TO MEET ARTICLE 4 DEADLINE**

South Sudan became a State Party on 1 February 2024 with an Article 4 clearance deadline of 1 February 2034. South Sudan should be able to complete clearance of CMR well within this 10-year deadline. Indeed, based on existing capacity and expected funding levels, South Sudan plans to clear all CMR contamination recorded in the IMSMA database by June 2028. However, new hazardous areas may be identified in the future, affecting the projected timeline.[153]

Land release figures for 2023 remained the same as in 2022 at 4.3km². Clearance of CMR-contaminated areas would have been greater in 2023 but for a sharp increase in the number of requests from UNMISS and humanitarian partners to support clearance and assessment of locations of interest and route reverification, which meant teams were diverted from CMR clearance to support these requests. In addition, one international NGO (DCA), which had recently acquired a new mechanical demining asset, closed their operations in South Sudan in July 2023 due to a lack of funding, but hopes to restart in 2024 if funding is forthcoming.[154]

**Table 6: Five-year summary of CMR clearance**

| Year | Area cleared (km²) |
|---|---|
| 2023 | 4.3 |
| 2022 | 4.3 |
| 2021 | 6.1 |
| 2020 | 2.2 |
| 2019 | 3.3 |
| **Total** | **20.2** |

Until the last few years, primarily due to conflict, it was impossible to predict when South Sudan might complete clearance of CMR, or even assess the true extent of contamination.[155] With improvements in the security situation, progress in the release of CMR-contaminated areas, and comprehensive database reviews, the situation has begun to look more positive. The arrival of Sudanese refugees

149 Emails from Ida Marie Højgaard Jørgensen, DCA, 8 and 16 May 2024.
150 Emails from John Sorbo, DCA, 24 May 2024; and Leah Grace, MAG, 16 May 2024.
151 Email from Leah Grace, MAG, 16 May 2024.
152 Email from Leah Grace, MAG, 9 April 2024.
153 Email from Deborah Asikeit, UNMISS, 26 April 2024.
154 Ibid.
155 Email from Ayaka Amano, UNMAS, 2 May 2019.

along its northern border, and the return of South Sudanese displaced by the conflict between 2013 and 2016 from Uganda in the south, have given the situation added urgency.[156]

According to South Sudan's updated work plan, clearance of all CMR-contaminated areas was expected by June 2028.[157] Yet a range of logistical and other challenges remain. These include the security situation and flooding continue to significantly affect access to CMR-contaminated areas. In many parts of the country access to CMR-contaminated areas remains impossible for over six months a year due to rains and flooding – some contaminated areas remain under water from severe flooding in 2020 – while other areas cannot be accessed throughout the year due to intercommunal violence or conflict.[158] Other potential obstacles to South Sudan meeting its Article 4 deadline are the likelihood that funding for clearance will continue to decrease[159] and that new contamination will be identified.

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

While there is not yet independent national capacity for clearing residual contamination, an EOD mobile team within the national authority was trained and accredited during an eight-month project that concluded in March 2022.[160] South Sudan has previously indicated that it would seek funding to enable an independent entity – potentially an international NGO – to train and equip the NMAA in taking the lead in coordinating the response to new reports of hazardous items, and has recently reiterated that it will need international assistance to prepare for residual contamination.[161] The National Mine Action Strategy 2024–2028 has a series of targets relating to strengthening national survey and clearance capacities and a specific target regarding the development of a strategy to manage residual contamination by 2028.[162]

156 Article 7 Report (covering 2023), Form F.

157 Email from Deborah Asikeit, UNMISS, 26 April 2024; and Updated Work Plan for January 2024 to June 2026, 31 March 2024, p. 5.

158 Email from Deborah Asikeit, UNMISS, 26 April 2024; and Article 7 Report (covering 2023), Form F.

159 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

160 Ibid.

161 Updated Work Plan for January 2024 to June 2026, 31 March 2024, p. 23; Article 7 Report (covering 2023), Form G.

162 Email from Deborah Asikeit, UNMISS, 26 April 2024; and "South Sudan Mine Action Strategy 2024–2028", NMAA, April 2024, p. 20.

# SIGNATORIES

# ANGOLA

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

## KEY DATA

### CLUSTER MUNITION CONTAMINATION:

RESIDUAL THREAT ONLY

SUBMUNITION CLEARANCE IN 2023

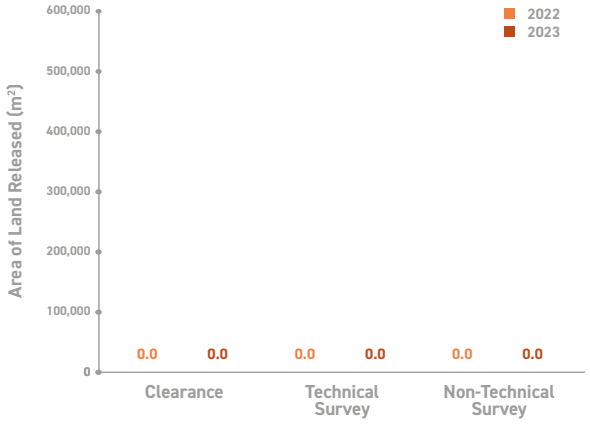
**0 M²**

SUBMUNITIONS DESTROYED IN 2023

**9**

(6 DURING SPOT TASKS AND 3 DURING MINE CLEARANCE)

### LAND RELEASE OUTPUT




## RECOMMENDATIONS FOR ACTION

- **Angola should ratify the Convention on Cluster Munitions (CCM) as a matter of priority.**
- **Angola should consider declaring completion of clearance of cluster munition remnants (CMR) as findings suggest that any remaining contamination is only residual.**
- **Angola should ensure that sustainable national capacity exists to deal with any residual unexploded submunitions that may be encountered in the future.**

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- National Mine Action Agency (ANAM), formally known as The National Intersectoral Commission for Demining and Humanitarian Assistance (Comissão Nacional Intersectorial de Desminagem e Assistência Humanitária, CNIDAH).

### NATIONAL OPERATORS

- The National Demining Centre (Centro Nacional de Desminagem, CND)
- Association of Angolan Experts of Action against Landmines (APACOMINAS)

### INTERNATIONAL OPERATORS

- Anti-Personnel Landmines Detection Product Development (APOPO)
- The HALO Trust (HALO)
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)

### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)

# UNDERSTANDING OF CMR CONTAMINATION

Angola has only a residual threat from unexploded submunitions. Since 2017, a total of 69 submunitions have been found and destroyed. The majority of these, 43 submunitions or 62% of the total, were during explosive ordnance disposal (EOD) call-outs. The remainder were found during mine clearance operations.[1]

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.[2] Between 2005 and 2012, The HALO Trust (HALO) destroyed unused cluster munitions in military storage areas containing a total of 7,284 submunitions.[3]

## 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 Angolan National Mine Action Agency (ANAM). Its mandate is to regulate and supervise mine action work by public and private institutions as well as NGOs. ANAM is a government agency and is subject to the oversight of the president through the Minister of State and the Chief of Staff.[4]

ANAM was formerly known as the National Intersectoral Commission for Demining and Humanitarian Assistance (CNIDAH).[5] In previous years, there were tensions between CNIDAH and the Executive Commission for Demining (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. The CED was dissolved in 2022,[6] and a National Demining Centre (Centro Nacional de Desminagem, CND) was created by presidential decree. The CND is the only public mine action operator in Angola. Its mandate is to clear areas in support of socio-economic development projects, and to contribute to the fulfilment of Angola's obligations under Article 5 of the Anti-Personnel Mine Ban Convention (APMBC).[7]

In 2018, a draft resource mobilisation strategy was developed, but at the time of writing, the strategy had not been finalised.[8] Operators continue to report smooth collaboration with the Angolan authorities.

Two longstanding challenges for operators have been visas and tax exemptions, which have eased somewhat since ANAM took over these responsibilities. APOPO reported improved legal processes for tax exemptions, with all their requests approved.[9] Norwegian People's Aid (NPA) received assistance from ANAM with tax exemption applications in 2024, enabling the importation of vehicles and equipment tax-free, giving NPA confidence in future exemptions.[10] HALO reported continuing difficulties in securing Temporary Stay Visas for international staff.[11] Since 2021, Mines Advisory Group (MAG)'s international staff have been permitted to enter Angola on a tourist/business visa and apply for a Temporary Stay Visa (VPT) in-country, although the VPT process remains prolonged due to required document translations and legalisations that must be prepared in their country of origin before they travel to Angola. In January 2024, Angola introduced a visa waiver for European Union (EU), G7, and G20 nations as well as a number of other countries, allowing short-term, 30-day visas on arrival for up to 90 days a year.[12]

ANAM leads quarterly mine action coordination meetings attended by the national authorities and clearance operators, as well as, on occasion, donors.[13] In November 2023, operators collaborated with ANAM to develop mine action sector priorities for the National Development Plan (2023–27), which were submitted to the Ministry of Planning. In April 2024, ANAM confirmed to MAG that these priorities have been included, potentially paving the way for additional financial resources for the sector, such as EU funding. However, MAG is yet to receive a copy of the document referencing the inclusion of these priorities.[14]

1 Emails from Sarah Coomb, Donor Relations Manager, HALO, 8 May 2024; Chris Pym, Angola Programme Manager, HALO, 14 June 2023; and Daniel Richards, HALO, 25 June 2022; CNIDAH, Article 5 Implementation Workplan 2020–2025, November 2019, p. 4; and telephone interview with Robert Iga Afedra, Country Director, NPA, 22 February 2021. Submunitions found during 2023: 9 (6 spot tasks, 3 mine clearance), 2022: 7 (spot tasks), 2021: 29 (6 spot tasks and stockpile destruction, 23 mine clearance), 2017–19: 24 (spot tasks and community call outs). 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.

2 Interviews with Jose Antonio, Site Manager, Cuando Cubango, HALO; and with Coxe Sucama, Director, INAD, in Menongue, 24 June 2011.

3 Response to questionnaire by Gerhard Zank, HALO, 19 March 2013.

4 Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report (covering 2021), Form A.

5 Telephone interview with Robert Iga Afedra, NPA, 22 February 2021; and email, 28 April 2021.

6 Email from Mário Nunes, Capacity Development Advisor to ANAM, (on behalf of ANAM), NPA, 14 September 2022.

7 Article 7 Report (covering 2022), Form F, and emails from Mário Nunes (on behalf of ANAM), NPA, 14 September 2022 and 10 May 2023.

8 Emails from Robert Iga Afedra (on behalf of CNIDAH), 1 April 2020; Mário Nunes (on behalf of ANAM), NPA, 14 September 2022 and 10 May 2023.

9 Email from Manuel João Agostinho, Program Manager, APOPO, 29 April 2024.

10 Email from Robert Iga Afedra, NPA, 2 May 2024.

11 Email from Sarah Coomb, HALO, 8 May 2024.

12 Emails from Catherine Harris, MAG, 3 May and 25 June 2024.

13 Emails from Manuel João Agostinho, APOPO, 29 April 2024; Sarah Coomb, HALO, 8 May 2024; Catherine Harris, MAG, 3 May 2024; and Robert Iga Afedra, NPA, 2 May 2024.

14 Emails from Catherine Harris, MAG, 3 May and 25 June 2024.

## GENDER AND DIVERSITY

Gender and diversity are integrated into Angola's National Mine Action Strategy 2020–25 as a cross-cutting issue. Disaggregated data collection requirements have been integrated into all relevant standing operating procedures (SOPs) and data collection tools.[15] Although Angola has no gender and diversity implementation plan, the mine action sector has made significant strides towards gender equity. This is demonstrated in the increased participation of women in mine action at all levels. In 2023, 36% of ANAM's employees were female with women holding 48% of operational positions and 33% of managerial positions.[16] This is unchanged from 2022.[17]

## ENVIRONMENTAL POLICIES AND ACTION

There are no formal policies related to environmental management that are specific to mine action in Angola,[18] but ANAM has been developing national mine action standards on occupational health, safety, and the environment. ANAM has also enforced some measures to mitigate mine action's environmental impact, including by banning vegetation burning and tree cutting and restricting the use of fuel and lubricants for demining machines.[19]

## INFORMATION MANAGEMENT AND REPORTING

ANAM manages a national Information Management System for Mine Action (IMSMA) database which is now considered reliable.[20] It has been fully reconciled with operator data, and the previous data backlog and inflated contamination figures have been cleared.[21] APOPO has worked with ANAM to eliminate discrepancies in the national database.[22] ANAM and MAG collaborate closely to address any data discrepancies between the national database and MAG's database. This ongoing effort includes regular (typically quarterly) visits by the ANAM IM team to MAG's operational base.[23]

ANAM requested IMSMA Core from the Geneva International Centre for Humanitarian Demining (GICHD) as a means to increase programme efficiency.[24] In December 2023, ANAM organised a workshop for operators with support from the GICHD to introduce IMSMA Core and discuss information management principles during the project implementation.[25] Meanwhile, MAG reported that ANAM has made efforts to improve on the format of reporting, updating reporting forms so that they are better suited to collecting information on the ground.[26]

## PLANNING AND TASKING

Angola's National Mine Action Strategy 2020–2025 was developed by CNIDAH in 2019, with the support of the GICHD. But the strategy has still to be formally adopted by the government.[27] The strategy sets five objectives, two of which refer to explosive ordnance, though there is no specific mention of CMR. The accompanying APMBC Article 5 Implementation Work Plan 2020–2025 provides a figure for the number of submunitions destroyed in spot tasks in 2017–19 but there is no further mention of CMR in the plan.

15 Email from Robert Iga Afedra, NPA (on behalf of CNIDAH), 1 April 2020.

16 Email from Narciso Paulo Simão Tiacafe, Head of the Demining Operations Accreditation and Certification Department, ANAM, 26 June 2024.

17 Article 7 Report (covering 2021), Form J; and email from Mário Nunes (on behalf of ANAM), 10 May 2023.

18 Emails from Jeanette Dijkstra, MAG, 22 March 2022; Christelle Mestre, GICHD, 4 May 2022; Miroslav Pisarević, NPA, 10 March 2022; Manuel João Agostinho, APOPO, 14 March 2022; and Daniel Richards, HALO, 25 June 2022.

19 Email from Mário Nunes (on behalf of ANAM), 10 May 2023.

20 Emails from Jeanette Dijkstra, MAG, 22 March 2022; and Miroslav Pisarević, NPA, 10 March 2022.

21 Email from Robert Iga Afedra, NPA (on behalf of CNIDAH), 22 March 2021; and Statement by Angola on Article 5 implementation, Fourth APMBC Review Conference, Oslo, November 2019.

22 Email from Manuel João Agostinho, APOPO, 29 April 2024.

23 Email from Catherine Harris, MAG, 25 June 2024.

24 Email from Mário Nunes (on behalf of ANAM), 10 May 2023.

25 Emails from Manuel João Agostinho, APOPO, 29 April 2024; Sarah Coomb, HALO, 8 May 2024; and Catherine Harris, MAG, 3 May 2024.

26 Email from Catherine Harris, MAG, 3 May 2024.

27 Emails from Christelle Mestre, GICHD, 4 May 2022; and Narciso Paulo Simão Tiacafe, ANAM, 26 June 2024.

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

Ten chapters of national mine action standards (NMAS) were completed and fully adopted in 2021.[28] Angola's NMAS are adequate and cover the main topics related to land release.[29] They do not contain provisions specific to CMR survey or clearance. Three additional standards on animal detection systems, EOD, and residual contamination management, were drafted with GICHD support.[30] The NMAS on animal detection systems and EOD were launched in 2023, however, the standard on residual contamination management has yet to be approved.[31]

## OPERATORS AND OPERATIONAL TOOLS

Four international NGOs conducted humanitarian demining in Angola in 2023—APOPO, HALO, MAG, and NPA—, and one national NGO: APACOMINAS. Since the dissolution of the CED and the organisations that work under its supervision, the CND has become the only public operator conducting demining. None of the operators conducted any CMR survey or clearance in 2023.

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2023

There was no reported survey or clearance of cluster munition-contaminated area in 2023. HALO found and destroyed nine submunitions, three during clearance of a mined area and six during EOD call-outs.

## SURVEY IN 2023

There was no reported survey of cluster munition-contaminated area in 2023 and no affected areas were identified.

## CLEARANCE IN 2023

As noted above, in 2023 and in 2024 as of June, HALO found and destroyed a total of nine submunitions.

## PROGRESS TOWARDS COMPLETION

Angola signed the CCM in December 2008, but has yet to become a State Party. It had previously been reported to Mine Action Review that ratification of the CCM is not currently a priority for Angola as there is little to no CMR contamination and the authorities believe that full adherence might require a nationwide survey to be conducted for which Angola does not have the resources.[32] In fact, ratification of the Convention would not require a new national survey given the extent of survey and clearance that has already been conducted over the last ten years.

Based on available information, Mine Action Review believes that only a residual CMR threat remains in Angola and that the authorities should consider declaring that CMR clearance has been completed.

28 APMBC Article 7 Report (covering 2021), Form J.

29 Email from Christelle Mestre, GICHD, 4 May 2022.

30 APMBC Article 7 Report (covering 2021), Form J; and emails from Christelle Mestre, GICHD, 4 May 2022; and Miroslav Pisarević, NPA, 10 March 2022.

31 Emails from Robert Iga Afedra, NPA, 2 May 2024; and Manuel João Agostinho, APOPO, 29 April 2024.

32 Telephone interview with Robert Iga Afedra, NPA, 22 February 2021.

# DEMOCRATIC REPUBLIC OF CONGO

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

## KEY DATA

### CLUSTER MUNITION CONTAMINATION:

BELIEVED TO BE LIGHT BUT NO NATIONAL BASELINE ESTIMATE

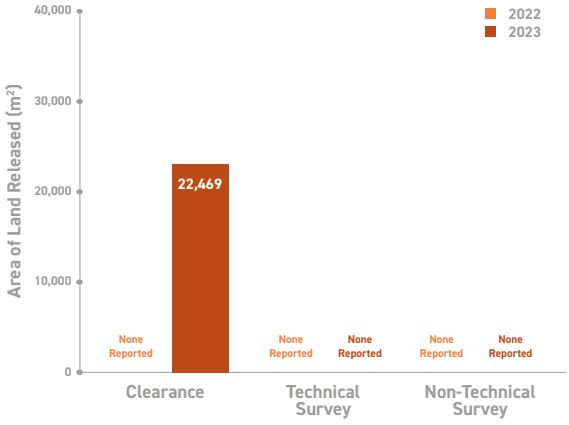
SUBMUNITION CLEARANCE IN 2023

**22,469M²**

SUBMUNITIONS DESTROYED IN 2023

**21**

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

In 2023, the security situation in the Democratic Republic of Congo (DR Congo) deteriorated, with heavy fighting in several provinces of the country, particularly in North Kivu and Ituri, which affected clearance operations. The Congolese Mine Action Centre (CCLAM), the United Nations Mine Action Service (UNMAS), and others made progress on addressing the threats posed by improvised explosive devices (IEDs), which are increasingly used by armed groups.

Cluster munition remnants (CMR) were discovered in Kyomba zone, Kalemie territory in Tanganyika province by national operator AFRILAM, which cleared an area of 22,469m² and neutralised and destroyed 21 submunitions in 2023. In the same zone, DanChurchAid (DCA) destroyed four submunitions in March 2024 during battle area clearance (BAC). The extent of CMR contamination is still thought to be light, but the last national survey dates back to 2013.

In March 2024, the Vice Prime Minister officially signed the National Mine Action Work Plan 2023–32. The plan calls for ratification of the Convention on Cluster Munitions (CCM), which the DR Congo signed in 2009.

## RECOMMENDATIONS FOR ACTION

- **DR Congo should make every effort to ensure that the domestic process to ratify the CCM is completed in 2024.**
- **In line with the National Mine Action Work Plan 2023–32, DR Congo should conduct the necessary survey to determine the extent and location of cluster munition-contaminated areas and other explosive remnants of war (ERW) by the end of 2025 and draw up an updated action plan for land release operations.**
- **DR Congo should comply with its obligations under international human rights law to clear CMR on territory under its jurisdiction as soon as possible.**

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Commission Nationale de Lutte Antimines (CNLAM)
- Centre Congolais de Lutte Antimines (CCLAM)

### NATIONAL OPERATORS

- Forces Armées de la République Démocratique du Congo
- Police Nationale Congolaise
- Afrique pour la Lutte Antimines (AFRILAM)
- Action concrète pour la lutte antimines (ACOLAM) (only for NTS and EORE)
- Emergency Development Action Bureau (BADU) (only for NTS and EORE)
- Synergie pour la Lutte Antimines (SYLAM)
- Synergie des organisations paysannes de développement intégral (SYOPADI) (only for NTS and EORE)

### INTERNATIONAL OPERATORS

- DanChurchAid (DCA)
- The Development Initiative (TDI)
- G4S

### OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

# UNDERSTANDING OF CMR CONTAMINATION

DR Congo has a small amount of CMR contamination but the precise extent is not known. A voluntary Article 7 report submitted at the end of May 2022, the first in eight years and with the latest data available at the time of writing, recorded six confirmed hazardous areas (CHAs) containing CMR in four provinces affecting a total of 161,523m² (see Table 1), almost double the area recorded in the previous Article 7 report submitted in 2014.[1]

**Table 1: Cluster munition-contaminated area by province (at end 2021)[2]**

| Province | Territory | CHAs | Area (m²) |
|---|---|---|---|
| Ituri | Aru | 3 | 3,406 |
| South Kivu | Shabunda | 1 | 719 |
| Tanganyika | Kalemie | 1 | 37,000 |
| Equator | Bolomba | 1 | 120,398 |
| **Totals** | | **6** | **161,523** |

The main change since DR Congo's previous Article 7 report in 2014 was the increase in the estimated size of a single CHA in Equator province amounting to 120,398m², and representing nearly three-quarters of all identified contamination. Since the previous report, DR Congo had also released a total of 57,857m² of cluster munition-contaminated area in five provinces (Equateur, Maniema, South Kivu, Tanganyika, and Tshopo) destroying 572 submunitions between 2017 and December 2020. Some areas were partially cleared and are therefore still listed as open tasks.[3] Estimated CMR contamination in Ituri was reduced from 40,750m² to 3,406m².[4]

The first estimate of CMR contamination came from a national survey conducted along 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 may, though, have under-estimated CMR contamination because of limited technical capacity. Previously unrecorded contamination was discovered during subsequent clearance or following incidents, including in areas already covered by the national survey.[5] Additionally, the survey did not cover Aru, a territory in Ituri province, and Dungu, a territory in Haut Uele province, where insecurity prevented access to survey teams. In early 2024, non-technical survey (NTS) was said to be underway in Aru, conducted by the national organisation SYLAM. CCLAM indicated that no CHA had been identified as at April 2024 and that it was expecting the final report.[6] According to the National Mine Action Work Plan 2023–32, the survey in Dungu territory is scheduled to be conducted by end of 2024.[7]

1 Voluntary CCM Article 7 Report (covering the period 1 January 2013 to 31 December 2021), Form F.

2 Ibid.

3 Voluntary CCM Article 7 Report (covering the period 1 January 2013 to 31 December 2021), Form F.

4 Ibid.; and email from Maître Sudi Alimasi Kimputu, Coordinator, CCLAM, 3 June 2019.

5 "Plan de Travail Pluriannuel de Lutte contre les Mines Antipersonnel et les REG en RDC 2023 – 2032", CCLAM, March 2024 ("National Mine Action Work Plan 2023–32"), p. 17.

6 Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report (covering 2023), p. 2.

7 "National Mine Action Work Plan 2023–32", CCLAM, March 2024, p. 18.

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

DR Congo is also contaminated by ERW other than cluster munitions. The National Mine Action Strategy 2023–32 indicates that mine contamination is rather limited, but that the country has a "significant level of ERW contamination" in many conflict-affected areas.

In recent years, DR Congo has been facing a new and rapid expansion of the use of IEDs. Although the number of reported IED incidents dropped in 2023, more casualties were recorded: a single IED incident on 15 January 2023 caused 78 casualties.[8] (See Mine Action Review's *Clearing the Mines* report on DR Congo for further information on the mine problem).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

A 2011 law implementing the Anti-Personnel Mine Ban Convention (APMBC) also established the formal structures of the Mine Action Programme in the DRC, namely the Commission Nationale de Lutte Antimines (CNLAM) and the Centre Congolais de Lutte Antimines (CCLAM).[9]

The national programme is overseen by the CNLAM, a multi-sectoral body composed of deputies from both parliamentary chambers, officials from four ministries, and representatives of five civil society organisations linked to mine action.[10] A decree governing the operation of the CNLAM still needs to be officially adopted.[11]

CCLAM, which was established in 2012, is the technical coordinating body for all mine action activities. It is supported by UNMAS.[12] At the end of 2023, CCLAM had 168 employees, of whom 46 were women.[13] CCLAM is responsible for setting strategy, accrediting operators, information management, budgeting, and resource mobilisation. In 2024, in line with the National Mine Action Work Plan 2023–32, the national authority started a decentralisation process, with the opening of seven provincial offices to coordinate mine action and ensure quality management.[14] The government has been providing US$530,000 in funding for CCLAM's operating expenses since 2018, but has not provided funding for operations.[15] No update was provided for 2023.

In 2024, UNMAS is preparing for a shift in approach based on the phased withdrawal of United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO), which was due to conclude its operations in South Kivu by June 2024. MONUSCO remains active in Ituri and North Kivu provinces.[16] At the time of writing, funding for UNMAS had been secured until June 2025.[17]

## GENDER AND DIVERSITY

The National Mine Action Work Plan 2023–32 states that it respects the principle of non-discrimination against women as set out in the 1979 Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and that the programme will ensure the involvement of women in all stages of mine action.[18]

CCLAM previously reported that mine action surveys sought to ensure that all at-risk 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.[19]

CCLAM reported that at the end of 2023, 27% of its staff were women (46 of a total of 168 staff).[20] UNMAS says promoting gender and inclusion is a priority and it has a gender and diversity work plan to ensure it is mainstreamed across the programme.[21] At the end of 2023, 30% of UNMAS staff were women (13 of a total of 42 staff).[22] As noted below, of AFRILAM's 32 personnel across four multi-task teams, six (19%) were women.

8 Email from UNMAS DRC, 30 April 2024.
9 "National Mine Action Work Plan 2023–32", CCLAM, March 2024", p. 5.
10 Ibid., p. 6.
11 Ibid., p. 28.
12 Ibid., p. 6.
13 Email from Emmanuel Lokinu Omanga, Coordinator, CCLAM, 8 May 2024.
14 Interview of Emmanuel Lokinu Omanga, CCLAM, Geneva, 29 April 2024.
15 Emails from Maître Sudi Alimasi Kimputu, CCLAM, 3 June 2019; and UNMAS Headquarters, 24 July 2023.
16 "MONUSCO ending its mission in South Kivu after more than 20 years of service", MONUSCO News, 25 June 2024, at: https://bit.ly/4ckAJcW.
17 Email from UNMAS DRC, 30 April 2024.
18 "National Mine Action Work Plan 2023–32", CCLAM, March 2024, p. 5.
19 Email from Maître Sudi Alimasi Kimputu, CCLAM, 3 June 2019.
20 Email from Emmanuel Lokinu Omanga, CCLAM, 8 May 2024.
21 Email from UNMAS Headquarters, 24 July 2023.
22 Email from UNMAS DRC, 30 April 2024.

## ENVIRONMENTAL POLICIES AND ACTION

Among the Congolese Mine Action Standards issued by CCLAM in 2022 is one chapter titled: "Occupational Health and Safety and Environment Management", which is said to highlight measures to minimise the environmental harm of demining operations.[23]

## INFORMATION MANAGEMENT AND REPORTING

DR Congo last submitted a voluntary CCM Article 7 report in May 2022 covering January 2013 to December 2021.

CCLAM took over responsibility for information management from UNMAS in 2016 but despite capacity building by UNMAS over many years still lacks the capacity and resources (equipment and funding) to manage effectively the national Information Management System for Mine Action (IMSMA) database. Data are not considered up to date or reliable and the national database operates on IMSMA NG technology, which is accessible by only one user at a time.[24] The National Mine Action Work Plan 2023–32 identifies a need to build staff capacity, improve data collection, update the database on a regular basis, and provide data disaggregated by age and gender.[25] In early 2024, UNMAS conducted an information management (IM) capacity development assessment in Kinshasa for CCLAM. The CCLAM IM officer went to Switzerland for training in May 2024.[26]

In 2023, CCLAM hosted three national Mine Action Working Group meetings (in June, September, and December) to discuss the accreditation process, CCLAM decentralisation, and information management. In April 2024, CCLAM nominated a new focal point to resume its coordination role of the Mine Action Area of Responsibility (MA AoR) within the protection cluster approach.[27]

## PLANNING AND TASKING

In January 2022, DR Congo completed a "National Strategic Plan for the Fight Against Anti-Personnel Mines and Explosive Remnants of War", including cluster munitions, for 2023 to 2032. The plan sets out general objectives for the coming decade, including completing mine clearance by 2025 and CMR clearance by 2032. The strategy aims to ensure all mined areas are cleared, survey of areas affected by cluster munitions and other ERW is completed rapidly, and a decentralised explosive ordnance disposal (EOD) capacity is established to tackle residual contamination.[28] The 76-page strategy sets out a detailed budget for the 10 years of the plan whose total cost is estimated at US$91.3 million.[29] The National Work Plan 2023–32 operationalizes the strategic orientations adopted in the National Strategic Plan.[30]

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

DR Congo has 24 national standards (Normes nationales congolaises de la lutte antimines) developed with support from the Geneva International Centre for Humanitarian Demining (GICHD).[31] The current standards were last reviewed in January 2022.[32] DR Congo initiated a process to begin revising them in 2024. The CCLAM planned to submit them to the GICHD before the end of 2024 for amendment, organisation of a workshop and dissemination.[33]

23 Ibid.

24 Email from UNMAS DRC, 30 April 2024.

25 "National Mine Action Work Plan 2023–32", CCLAM, March 2024, pp. 21, 22, and 29.

26 Email from UNMAS DRC, 30 April 2024.

27 Ibid.

28 "Plan Stratégique National de Lutte Contre les Mines Antipersonnel et les Restes Explosifs de Guerre en République Démocratique du Congo 2023–2032", January 2022, p. 11.

29 Ibid., p. 12.

30 "National Mine Action Work Plan 2023–32", CCLAM, March 2024, p. 7.

31 Statement of DR Congo, APMBC Intersessional Meetings, 2 July 2020.

32 "National Mine Action Work Plan 2023–32", CCLAM, March 2024, p. 18.

33 Email from Laure Ngoie, Head of Information Management Department, CCLAM, 25 June 2024.

### OPERATORS AND OPERATIONAL TOOLS

Headquartered in Goma, North Kivu, UNMAS employed 42 staff (20 international, 17 national, and 5 in-kind contributions) as at the end of 2023, distributed across offices in Kinshasa, Beni (North Kivu), Bukavu (South Kivu), and Bunia (Ituri). UNMAS is mandated to provide EOD and IED disposal services in support of MONUSCO, for which it contracted three clearance operators: national operator AFRILAM and two international companies – G4S and The Development Initiative (TDI). UNMAS's activities in 2023 did not specifically address CMR. UNMAS also contracted several national organisations to conduct NTS and risk education.[34]

AFRILAM had 37 staff at the end of 2023, with four multi-task teams (MTT) totalling 32 personnel of whom six were women (one EOD Level 3 deminers, four EOD Level 2 investigators, and a medic). UNMAS contracted three MTTs in Goma, Bukavu and Beni for EOD spot tasks, BAC, and bulk demolition. The Swiss Foundation "Monde Sans Mines" funded another MTT based in Kalemie, Tanganyika province. In 2023, this latter team cleared 22,469m² in Kyomba zone over a four-month period, destroying in the process 21 PM-1 submunitions of Chilean manufacture.[35]

TDI has been contracted by UNMAS to provide capacity-building training and mentoring to three MTTs affiliated with the national NGO SYLAM. The teams have not dealt with CMR contamination so far, but TDI has one pending CMR task in South Kivu, which could not be tackled yet due to access constraints.[36]

In 2022, DCA's mine action operation employed 32 people, including 1 international staff member and 10 deminers. No update was available for 2023. DCA's country office is in Goma. DCA has tackled mine contamination in a project funded by the US State Department Bureau of Political-Military Affairs (PM/WRA).[37] In 2024, DCA cleared mined areas in the province of Kasai-Central, as well as BAC in Kiomba, Tanganyika province where they found and destroyed four unexploded submunitions (in March).[38]

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

### LAND RELEASE OUTPUTS IN 2023

The last CCM Article 7 report submitted voluntarily by DR Congo in May 2022 covered 2013–21. It declared release of a total of 57,857m² of cluster munition-contaminated area in five provinces (1,500m² in Equateur; 32,820m² in Maniema; 5,522m² in South Kivu; 15,000m² in Tanganyika; 3,015m² in Tshopo province), between 2017 and December 2020 with the destruction of 572 submunitions (Chilean PM-1 and MK118 cluster munitions from the United States). Some areas were partially cleared and are therefore still listed as open tasks.[39]

CMR were discovered by AFRILAM in Kyomba zone, Kalemie territory, in Tanganyika province.[40] In 2023, AFRILAM cleared an area of 22,469m² and neutralised and destroyed 21 PM1 submunitions of Chilean origin.[41] In the same zone, DCA destroyed four submunitions in March 2024. The ordnance was found during BAC.[42]

### PROGRESS TOWARDS COMPLETION

As a CCM signatory, DR Congo has still to ratify the convention. Progress towards this objective was being made in 2024 with a new draft implementation law planned to be discussed during a workshop with mine action stakeholders set for mid-July. The implementation law would then be submitted to the authorities enabling the ratification process to be completed.[43]

The National Mine Action Work Plan 2023–32 plans for surveys to determine the extent and location of CMR and other ERW contamination by the end of 2025. These surveys will be used to draw up an action plan for land release.[44]

### PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

The National Mine Action Work Plan 2023–32 aims to strengthen national ownership by setting up a Government Humanitarian Demining Service (GHDS, or Service Gouvernemental de Déminage Humanitaire, SGDH) to address residual contamination. The GHDS teams will consist mainly of experts from the DR Congo armed forces, the National Police, and civilians qualified in EOD.[45]

34 Email from UNMAS DRC, 30 April 2024.
35 Email from Germain Apanane Bawala, Project Manager, AFRILAM, 14 May 2024.
36 Emails from Howard Barnes, Project Manager, TDI, 15 June 2024; and UNMAS DRC, 30 April and 13 June 2024.
37 Email from Miroslav Skoumal, DCA, 26 April 2023.
38 Email from Jacob Payton, Operations Manager, DCA, 10 May 2024.
39 Voluntary CCM Article 7 Report (covering the period 1 January 2013 to 31 December 2021), Form F.
40 Email from Emmanuel Lokinu Omanga, CCLAM, 8 May 2024.
41 Email from Germain Apanane Bawala, Project Manager, AFRILAM, 14 May 2024.
42 Email from Jacob Payton, DCA, 10 May 2024.
43 Email from Laure Ngoie, CCLAM, 25 June 2024.
44 "National Mine Action Work Plan 2023–32", CCLAM, March 2024, p. 18.
45 Ibid., p. 7.

# NON-SIGNATORIES

# ARMENIA

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

## KEY DATA

### CLUSTER MUNITION CONTAMINATION:

PARTIAL NATIONAL ESTIMATE

**1.64KM²**

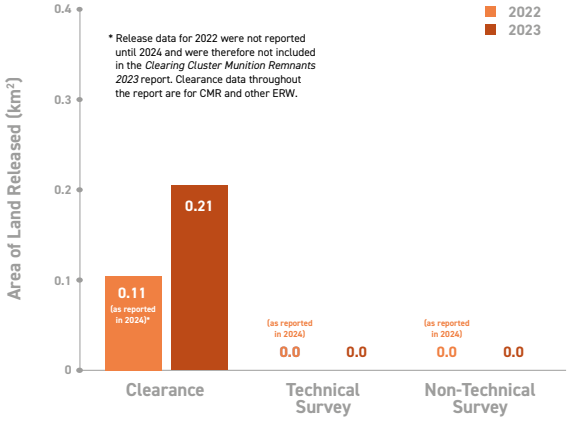
SUBMUNITION CLEARANCE IN 2023

**0.21 KM²**

SUBMUNITIONS DESTROYED IN 2023

**26**

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

The last reported use of cluster munitions in Armenia was during the so-called Forty-Four Day War between Armenia and Azerbaijan that broke out in September 2020. Armenia has established a partial estimate for cluster munition contamination but some affected areas remain under military control where survey is still to be conducted. Armenia's Center for Humanitarian Demining and Expertise (CHDE) cleared 0.21km² of battle area in 2023.

## RECOMMENDATIONS FOR ACTION

- **Armenia should commit to never again use cluster munitions and should accede to the Convention on Cluster Munitions (CCM) as a matter of priority. In the meantime, Armenia should comply with its obligations under international human rights law to clear 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 ensure it disaggregates CMR contamination and clearance from other explosive remnants of war (ERW) contamination and landmines.**

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Centre for Humanitarian Demining and Expertise (CHDE) State Non-Commercial Organisation (SNCO)

### NATIONAL OPERATORS

- In addition to serving as the national mine action authority, the CHDE also conducts survey and clearance

### INTERNATIONAL OPERATORS

- The HALO Trust (HALO)

### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Development Project (UNDP)

# UNDERSTANDING OF CMR CONTAMINATION

Armenia does not distinguish cluster munition-contaminated area from other battle area. Prior to the 2020 armed conflict with Azerbaijan, Armenia had just one confirmed hazardous area (CHA) containing CMR, in Kornidzor, Syunik province.[1] In the course of the armed conflict with Azerbaijan that broke out in September 2020, Azerbaijan as well as Armenia and/or allied Nagorno-Karabakh forces are reported to have used cluster munitions.[2] The conflict ended with Azerbaijan regaining control over most of its internationally recognised territories except for a part of Nagorno-Karabakh.[3] On 19 September 2023, Azerbaijan launched a 24-hour military offensive which resulted in it regaining control of the rest of Nagorno-Karabakh.[4] There were no reports of the use of cluster munitions during the 2023 conflict. Armenia has stated that it cannot accede to the CCM largely due to military and security issues.[5]

The CHDE reported direct evidence of new explosive ordnance (EO) contamination from the 2020 conflict,[6] including unexploded M095 submunitions, in Gegharkunik, Syunik, and Tavush provinces bordering Azerbaijan. According to the CHDE, artillery, including BM-21 rocket launchers, were used to bomb Armenian settlements bordering Azerbaijan.[7] In November 2020, Amnesty International reported a strike by Azerbaijan, possibly from a Grad rocket, which landed in the Armenian village of Davit Bek in Syunik province.[8]

Between April and September 2022 and with the support of the United Nations Development Programme (UNDP), the CHDE conducted non-technical survey (NTS) in the border provinces of Ararat, Gegharkunik, Syunik, Tavush, and Vayots Dzor in Armenia. Following further hostilities between Armenia and Azerbaijan in mid-September 2022, the CHDE conducted "refreshed" NTS in Syunik, Gegharkunik and Vayots Dzor provinces, again with UNDP support, to assess new contamination.[9] A baseline NTS launched in 2022 was expected to determine more precisely the extent of contamination before the year end,[10] and by the middle of 2022, the baseline had been completed in Syunik province.[11] The CHDE has confirmed that NTS was completed in the other provinces,[12] but in May 2024, the CHDE reported that survey was still needed in areas under military control and would only be undertaken with appropriate security guarantees.[13]

In 2023, Armenia prioritised the clearance of CMR and other ERW over mine clearance. As at the end of 2023, the CHDE reported 1.64km$^2$ of CMR battle area in Armenia. This comprised 1.32km$^2$ of CHA (0.36km$^2$ in two CHAs in Syunik province and 0.96km$^2$ in one CHA in Vayots Dzor province), and 0.33km$^2$ in five suspected hazardous areas (SHAs) in Syunik province.[14] This is an increase on the 0.65km$^2$ contamination recorded at the end of 2021, the last date for which contamination data was provided.[15] This included 0.34km$^2$ of CHA in Kornidzor that pre-dated the 2020 conflict, and 0.02km$^2$ of CHA and 0.29km$^2$ of SHA in Davit Bek, both areas within Syunik province.

During 2023, no previously unrecorded areas of CMR-contaminated area were discovered whereas in 2022, the CHDE identified two SHAs in Syunik province and two CHAs in Vayots Dzor, with a total surface area of 1.38km$^2$, which were added to the database. CHDE reports that resulting contamination in both was the responsibility of the Azerbaijani armed forces: the two SHAs in Syunik were from fighting during the Forty-Four Day War, and the two in CHAs in Vayots Dzor were from the hostilities in September 2022.[16]

**Table 1: Battle area by province (at end 2023)[17]**

| Province | CHAs | Area (m$^2$) | SHAs | Area (m$^2$) | Total CHAs/SHAs | Total area (m$^2$) |
|---|---|---|---|---|---|---|
| Syunik | 2 | 356,222 | 5 | 329,630 | 7 | 685,852 |
| Vayots Dzor | 1 | 958,798 | 0 | 0 | 1 | 958,798 |
| **Totals** | **3** | **1,315,020** | **5** | **329,630** | **8** | **1,644,650** |

1 Email from Margaret Lazyan, Head of Mine Risk Education and Victim Assistance, CHDE, 26 July 2021.
2 Amnesty International, "In the Line of Fire", 14 January 2021, at: https://bit.ly/4d09o40, pp. 7, 10-13, and 15; Human Rights Watch, "Technical Briefing Note: Cluster Munition Use in the Karabakh Conflict", July 2021 at: https://bit.ly/4cjc3By, pp. 1–3.
3 T. De Waal, "Unfinished Business in the Armenia-Azerbaijan Conflict", Carnegie Europe, 11 February 2021, at: https://bit.ly/3PFvARz.
4 "Azerbaijan halts Karabakh offensive after ceasefire deal with Armenian separatists", *BBC*, 21 September 2023, at: https://bbc.in/3rCVK0e.
5 Armenia National Mine Action Strategy, 2023–2027, p. 26.
6 Email from Vaghinak Sargsyan, Director, CHDE, 11 May 2022.
7 Emails from Margaret Lazyan, CHDE, 26 April and 26 July 2021.
8 Amnesty International, "In the Line of Fire", 2021, pp. 13 and 18–19.
9 Emails from Karinée Khojayan, Project Coordinator, UNDP, 15 March and 16 June 2023.
10 Email from Vaghinak Sargsyan, CHDE, 13 June 2022.
11 Ibid.; and emails from Karinée Khojayan, UNDP, 15 March and 16 June 2023.
12 CHDE, "Non-Technical Survey", accessed 20 May 2024 at: https://bit.ly/3QRwXPs.
13 Email from Vaghinak Sargsyan, CHDE, 10 May 2024.
14 Ibid.
15 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.
16 Email from Karine Shamiryan, CHDE, 27 June 2024.
17 Email from Vaghinak Sargsyan, CHDE, 10 May 2024.

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

In addition to other ERW, Armenia is contaminated with anti-personnel mines (see Mine Action Review's *Clearing the Mines* report on Armenia for further information).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The CHDE was established by the Armenian government in 2011 as a non-commercial State body responsible for conducting survey and clearance and identifying contaminated areas. In 2014, the CHDE was designated Armenia's national mine action authority (NMAA).[18] An Advisory Board oversees the CHDE at the Deputy Minister level, with representation from the ministries of defence; emergency situations; territorial administration and infrastructure; education, science, culture and sports; justice; and foreign affairs.[19] In 2013, in conformity with a government decree, the CHDE began developing national mine action legislation, but as at May 2024, the draft mine action law was still reported to be under development.[20]

Key decisions on mine action are taken centrally by the CHDE. In December 2022, however, other stakeholders were invited to a strategy workshop and to participate in future work.[21] In 2023, the CHDE received funding from the State budget, which also made an allocation for survey and clearance activities (amounts not disclosed).[22] The national authorities have not in the past provided direct funding to The HALO Trust, the only international clearance operator present in Armenia.[23] HALO is registered in Armenia where it maintains a small staff presence. It is working in partnership with the CHDE to seek funding for the sector.[24] HALO did not conduct CMR land release activities in Armenia in 2022 or 2023.[25]

UNDP provided a range of capacity development support to the CHDE in 2023. This included funding new equipment and explosive ordnance disposal (EOD) training among others.[26] UNDP and the Geneva International Centre for Humanitarian Demining (GICHD) have assisted the CHDE to install the Information Management System for Mine Action (IMSMA) Core and train staff on its use.[27] Furthermore, UNDP supported the CHDE in drafting the "Humanitarian Mine Action Strategy of the National Mine Action Authority of the Republic of Armenia (2023–2027)",[28] and GICHD was asked to provide feedback on the Strategy.[29] In addition, UNDP supported the CHDE with a review of the National Mine Action Standards (NMAS), and with establishing and running the National Mine Action Coordination Platform, which has separate technical working groups.[30]

In 2022, the GICHD and the CHDE conducted a baseline capacity assessment of the Armenia programme to determine the CHDE's strengths and possible areas for improvement. Recommendations ranged from developing a national mine action law and a mine action strategy, reviewing NMAS and standard operating procedures (SOPs), strengthening the quality management (QM) system, to updating equipment and improving information sharing. According to the GICHD, concrete results can already be identified in the development of the mine action strategy, the revision of NMAS and relevant SOPs in 2023 and 2024, the updated information management (IM) system, and enhanced QM system.[31]

CHDE personnel took a range of GICHD training in 2023, including the NMAS Development Course delivered in Armenia,[32] and NTS training in Switzerland, and in April 2024, a Mine Action Management course in Serbia run in cooperation with the Serbian Mine Action Centre.[33] The CHDE continues to improve its systems and implement recommendations from the baseline assessment, particularly in areas where capacity development activities are most likely to increase national capacity, enhance operational efficiency, and improve the use of resources.[34]

Under Armenia's five-year mine action strategy, mobilising resources from national and international donors is a priority.[35] It aims to expand cooperation with other international, foreign, and national actors, viewing this as a key way of supporting the implementation of the strategy. This is to include continued collaboration with UNDP Armenia, the GICHD, the European Delegation in Armenia, and the World Food Programme (WFP); expanding cooperation with the United Nations Mine Action Service (UNMAS);

18 Emails from Ruben Arakelyan, Director, CHDE, 8 June 2015; and Margaret Lazyan, CHDE, 10 August 2020.
19 Emails from Stanislav Damjanovic, GICHD, 13 July 2022; and Ani Zakaryan, Head of Information Management, CHDE, 21 July 2022.
20 Email from Vaghinak Sargsyan, CHDE, 10 May 2024.
21 Email from Fiona Kilpatrick-Cooper, Head of Region – Europe (South Caucasus), HALO, 16 March 2023.
22 Email from Vaghinak Sargsyan, CHDE, 10 May 2024.
23 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023; and interview with Tom Griffiths, Head of Region, HALO, in Geneva, 30 April 2024.
24 Email from Tom Griffiths, HALO, Geneva, 16 May 2024.
25 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023; and interview with Tom Griffiths, Head of Region, HALO, in Geneva, 30 April 2024.
26 Email from Vaghinak Sargsyan, CHDE, 10 May 2024.
27 Emails from Karinée Khojayan, UNDP, 15 March 2023; and Stanislav Damjanovic, GICHD, 25 May 2023.
28 Ibid.
29 Email from Stanislav Damjanovic, Country Focal Point, GICHD, 7 June 2024.
30 Email from Karinée Khojayan, UNDP, 5 July 2024.
31 Emails from Stanislav Damjanovic, GICHD, 25 May 2023 and 4 June 2024.
32 Email from Stanislav Damjanovic, GICHD, 7 June 2024.
33 Ibid.
34 Email from Stanislav Damjanovic, GICHD, 4 June 2024.
35 CHDE, National Mine Action Strategy, 2023–2027, p. 10.

cooperating with the demining centres in Cambodia, China, Iran, and Lebanon; possible joint clearance activities with the Iraqi Kurdistan Mine Action Agency (IKMAA); and clearance in Syria. The CHDE website indicates that it also cooperates with HALO, and the International Committee of the Red Cross (ICRC); and that it has signed memoranda of understanding (MoUs) with WFP, Action Against Hunger, the Iranian Mine Action Center, and IKMAA although it does not indicate what the MoUs cover.[36]

The CHDE has emphasised the importance that it gives to its "green label" approach, which places mine action within socio-economic development.[37] Under this approach, the CHDE has coordinated work with UN organisations (UNDP, WFP, and UNICEF), local organisations, and with local self-governing authorities, to translate the results of EO clearance into long-term socio-economic and environmental benefits.[38] The CHDE has implemented pilot projects since 2022, in cooperation with UN agencies, at settlements in the Davit Bets, Gegharkunik, Syunik, and Vayots Dzor provinces, involving clearance operations, economic projects (including the development of irrigation systems, greenhouse farming, and grassland restoration), explosive ordnance risk education (EORE), and targeted social programmes to support victims and their families.[39]

## GENDER AND DIVERSITY

The CHDE reports that gender and diversity have been mainstreamed in Armenia's national mine action strategy, and that the needs of women and children in communities affected by CMR are taken into account in the prioritisation, planning, and tasking of survey and clearance.[40] However, the strategy is not explicit about how gender and diversity are to be mainstreamed. While the CHDE has not confirmed whether it has a gender and diversity policy and implementation plan, it plans to establish a female demining team, and training was said to be in process in May 2024.[41] The CHDE reports that community liaison teams are inclusive and gender balanced and now include representatives from minority groups, ensuring participation by all sections of the population,[42] but has not provided details. The CHDE has also confirmed that mine action data are disaggregated by sex and age.[43]

**Table 2: Current gender composition of the CHDE[44]**

| Total staff employed | Women employed | Managerial or supervisory staff | Women in managerial or supervisory positions | Total operational staff | Women in operational positions |
|---|---|---|---|---|---|
| 51 | 14 (27%) | 17 | 4 (24%) | 14 | 2 (14%) |

The CHDE reports that it offers equal employment opportunities to both men and women. In May 2024, 14 of 51 CHDE employees were women (27%, down from 32% in 2021), while women held 4 of 17 managerial positions and 2 of 14 operational positions.[45]

## ENVIRONMENTAL POLICIES AND ACTION

The CHDE indicates that it has developed an environmental management policy, that its NMAS on environmental management in mine action is in line with International Mine Action Standard (IMAS) 7.13, that it conducts environmental assessments to support the planning and delivery of survey and clearance tasks, and that it implements measures to prevent and minimise environmental harm.[46] When planning and prioritising survey and clearance, the CHDE says it takes into account climate-related and extreme-weather risks.[47]

36 Ibid., p. 26; and CHDE, "International Cooperation", accessed 20 May 2024, at: https://bit.ly/3V7VVwE.

37 Interview with Vaghinak Sargsyan, CHDE, Geneva, 28 April 2024; and CHDE website, "Greening Mine Action in Armenia as a component of sustainable development in the economy of the country", 21 May 2024, at: https://bit.ly/3REVuHX.

38 CHDE, "Greening Mine Action in Armenia as a component of sustainable development in the economy of the country", 21 May 2024.

39 Ibid.

40 Email from Vaghinak Sargsyan, CHDE, 10 May 2024.

41 Ibid.

42 Ibid.

43 Ibid.

44 Ibid.

45 Ibid.

46 Ibid.

47 Email from Karine Shamiryan, CHDE, 21 June 2024.

The national mine action strategy lists 14 "environment protection priorities", including the "green label" approach outlined above. The first of these stipulates that: "During mine action activities, the NMAA implements environmental protection activities, ensuring the minimal impact of mine action on the environment and the intended use of these lands after clearance, land clearance (land release) "green label" rank that guarantees each person's right of both present and future generations to live in a dignified environment conducive to health and well-being".[48] The CHDE has previously reported that it deploys methods and tools to avoid damaging the environment where possible.[49]

## INFORMATION MANAGEMENT AND REPORTING

The CHDE manages the national IMSMA database[50] and has established an information management and analytical department.[51] The CHDE states that it disaggregates different types of contamination, although CMR contamination is not disaggregated from other ERW, and CMR clearance is not disaggregated from general battle area clearance (BAC).[52] In 2023, with UNDP and GICHD support, IMSMA Core was installed on CHDE servers, and the transfer and implementation of the system continued in 2024.[53] Basic IMSMA CORE training was provided to CHDE staff in the summer of 2022, and two CHDE staff members attended the GICHD's IMSMA Core training in Spiez, Switzerland, in May 2023. A five-day regional Operational Data Analyst was held Switzerland at the end of June 2023 under GICHD's Eastern Europe, Caucasus, and Central Asia Regional Cooperation Programme.[54]

## PLANNING AND TASKING

The national mine action strategy and operational plans were finalised and adopted by the CHDE Board in June 2023.[55] Among its 15 strategic objectives, the strategy lists implementation of Armenia's international obligations in demining; clearance of all mines and ERW; and support for environmental protection issues.[56] Urgent humanitarian demining and improving the coordination, regulatory, and management role of the CHDE are two key priorities.[57]

The strategy outlines EO contamination in the four provinces of Gegharkunik, Syunik, Tavush, and Vayots Dzor,[58] but the document does not clearly or consistently disaggregate mines from other EO, and does not disaggregate CMR from other ERW. Under the strategy, the Jermuk and Kechut areas in the Vayots Dzor province and Davit Bek in Syunik province were assessed as priorities for the clearance of mines and ERW in 2023–2027, but the total area to be cleared (1.35km$^2$) does not disaggregate mine clearance from ERW,[59] and clearance targets are not provided for different areas annually.

The strategy does, however, indicate that in 2023, the CHDE planned to clear 50,000m$^2$ of mined and ERW-contaminated area using State funding and, if funds allow, in each subsequent year to add another 25,000m$^2$ of clearance to the target until the end of the strategy in 2027. A total of 214,192m$^2$ of battle area was cleared in 2023,[60] and the CHDE has confirmed plans to clear 75,000m$^2$ of battle area in 2024.[61] In addition, the strategy indicates that the CHDE plans to reduce or cancel 30,000m$^2$ through survey, releasing additional area if funding permits.[62] Other targets listed in the strategy include deploying additional professional demining groups and, as indicated above, expanding collaboration with national and international operators.[63]

48 Armenia National Mine Action Strategy, 2023–2027, p. 23.
49 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.
50 Email from Ruben Arakelyan, CHDE, 19 March 2014.
51 Email from Vaghinak Sargsyan, CHDE, 10 May 2024.
52 Email from Karine Shamiryan, CHDE, 21 June 2024.
53 Emails from Stanislav Damjanovic, GICHD, 7 June 2024; and Karine Shamiryan, CHDE, 21 June 2024.
54 GICHD, "NMAS Development Course for Armenia", accessed 17 May 2024, at https://bit.ly/4bn6OAn.
55 Email from Karinée Khojayan, UNDP, 5 July 2024.
56 Armenia National Mine Action Strategy, 2023–2027, p. 9.
57 Ibid., p. 10.
58 Ibid., pp. 11–14.
59 Ibid., p. 21.
60 Emails from Vaghinak Sargsyan, CHDE, 10 May 2024; and Karine Shamiryan, CHDE, 21 June 2024.
61 Email from Karine Shamiryan, CHDE, 21 June 2024.
62 Armenia National Mine Action Strategy, 2023–2027, p. 20.
63 Ibid., p. 21.

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

The CHDE developed the Armenian NMAS, which were approved by the government in 2014.[64] The CHDE says these have been reviewed to ensure consistency with IMAS[65] and in 2022 and 2023, UNDP supported a review of the NMAS.[66] The overall quality of the NMAS on land release are said to vary, with some chapters overly prescriptive more akin to SOPs. There are sections on "All Reasonable Effort" (ARE), evidence of criteria, liability, and residual risk. Some are taken from IMAS although the text has been adapted to the local context.[67] The CHDE initiated a further review of the NMAS in 2023, which was ongoing as at May 2024. It intends to develop an NMAS on accreditation.[68]

The CHDE has been developing SOPs for several years.[69] SOPs on manual mine clearance, BAC, marking of hazardous areas, and medical support were all elaborated by 2018.[70] In 2020, the CHDE prepared SOPs on IM, NTS, technical survey (TS), EOD, and QM.[71] The CHDE reviews its SOPs regularly as necessary, updating them in 2023 and again in 2024, when additions were made to QM, marking, and BAC.[72]

## OPERATORS AND OPERATIONAL TOOLS

The CHDE was the only operator in Armenia in 2023[73] deploying two NTS teams with a total of twelve staff, and two clearance teams, with a total of fourteen deminers.[74] In 2024, the CHDE planned to increase its operational teams by one.[75]

**Table 3: CHDE operational capacities deployed in 2023[76]**

| Activity | No. of teams | No. of personnel |
|---|---|---|
| NTS | 2 | 12 |
| Clearance | 2 | 14 |
| **Totals** | **4** | **26** |

In 2022, the CHDE reported there were two clearance teams (each with a team leader and four deminers), two NTS teams (one team leader and three "surveyors"), and one TS team (one team leader and seven "searchers").[77] This was in line with its previously stated aim to add two clearance teams to its operational capacity in 2022.[78] HALO had deployed two NTS teams in 2022 with a total of eight personnel that worked on tasks in nine villages previously assigned by the CHDE.[79]

QM is conducted in accordance with IMAS and the NMAS. Quality assurance is conducted by dedicated officers who make regular field visits to inspect cleared land.[80] Quality control is conducted once clearance of the land has been completed but prior to handover.[81]

There were no demining accidents in 2023.[82]

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2023

A total of 214,192m$^2$ of battle area was released in 2023, all through clearance, with the destruction of 26 submunitions and 8 other items of unexploded ordnance.[83] No previously unrecorded areas of CMR-contaminated area were discovered in 2023. In 2022, however, the CHDE identified two CHAs in Syunik province and two SHAs in Vayots Dzor, with a total area of 1,375,753m$^2$, which were added to the database.

64 Email from Margaret Lazyan, CHDE, 19 April 2019.
65 Emails from Margaret Lazyan, CHDE, 19 April 2019 and 26 April 2021.
66 Emails from Karinée Khojayan, UNDP, 15 March 2023 and 5 July 2024.
67 Email from Stanislav Damjanovic, GICHD, 25 May 2023.
68 Emails from Stanislav Damjanovic, GICHD, 25 May and 23 June 2023; and from Vaghinak Sargsyan, CHDE, 10 May 2024.
69 Email from Varsine Miskaryan, Operations Manager, CHDE, 8 August 2016.
70 Email from Margaret Lazyan, CHDE, 8 August 2018.
71 Email from Margaret Lazyan, CHDE, 26 April 2021.
72 Email from Vaghinak Sargsyan, CHDE, 10 May 2024.
73 Ibid.
74 Ibid.
75 Ibid.
76 Ibid.
77 Emails from Karine Shamiryan, CHDE, 21 and 27 June 2024.
78 Email from Vaghinak Sargsyan, CHDE, 11 May 2022.
79 Emails from Fiona Kilpatrick-Cooper, HALO, 16 March 2023; and David Crawford, HALO, 19 June 2023.
80 Email from Ruben Arakelyan, CHDE, 8 June 2015.
81 Email from Margaret Lazyan, CHDE, 8 August 2018.
82 Email from Vaghinak Sargsyan, CHDE, 10 May 2024.
83 Ibid.

## SURVEY IN 2023

No land was reduced through TS or cancelled through NTS in 2023 or in 2022.[84]

## CLEARANCE IN 2023

The CHDE cleared 214,192m$^2$ of battle area in 2023, completely clearing one CHA in Vayots Dzor, partially clearing another, and destroying 26 submunitions and 8 other items of UXO. All CMR clearance was sub-surface in 2023. Overall, the area cleared was an increase on the 111,616m$^2$ that the CHDE has confirmed that it cleared in 2022, when it destroyed 16 submunitions. This was a partial clearance of a hazardous area in Syunik province. Of the area cleared in 2022, 100,563m$^2$ was surface clearance and 11,053m$^2$ was sub-surface clearance.[85]

## PROGRESS TOWARDS COMPLETION

The CHDE says it plans to complete clearance of CMRs in five to eight years if donor support is forthcoming.[86] Further survey in military-controlled areas is still needed to determine the full extent of CMR and EO contamination, which will affect the date that completion can be achieved.

**Table 4: Five-year summary of CMR clearance**

| Year | Area cleared (m$^2$) |
|---|---|
| 2023 | 214,192 |
| 2022 | 111,616 |
| 2021 | 50,999 |
| 2020 | 3,850 |
| 2019 | 0 |
| **Total** | **380,657** |

84 Ibid.

85 Emails from Vaghinak Sargsyan, CHDE, 10 May 2024; and Karine Shamiryan, CHDE, 21 June 2024.

86 Ibid.

# AZERBAIJAN

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

## KEY DATA

**CLUSTER MUNITION CONTAMINATION:** MEDIUM

MINE ACTION REVIEW ESTIMATE

SUBMUNITION CLEARANCE IN 2023

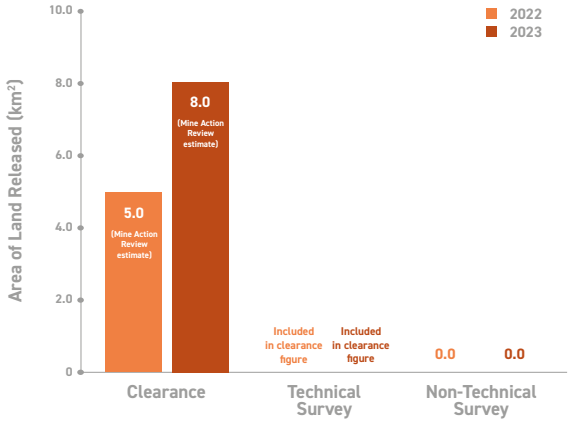
**8KM²**

(MINE ACTION REVIEW ESTIMATE)

SUBMUNITIONS DESTROYED IN 2023

**1,818**

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

Following a 24-hour large-scale military offensive by Azerbaijan on 19 September 2023, Azerbaijan regained full control of the Nagorno-Karabakh region, referred to as the Karabakh Economic Region, adding to existing cluster munition contamination already under Azerbaijan's jurisdiction and control. There was no reported use of cluster munitions during the September 2023 offensive unlike during the conflict in 2020, when both parties to the conflict used cluster munitions. Azerbaijan continues to scale up a massive clearance effort of mines and explosive remnants of war (ERW), including cluster munition remnants (CMR).

In 2023, the Mine Action Agency of the Republic of Azerbaijan (ANAMA, formerly the Azerbaijan National Agency for Mine Action) reported releasing 452.6km² of cluster munition-contaminated area through clearance and technical survey (TS), with the destruction of 1,818 submunitions.[1] These figures, however, are based on the total size of area for task polygons in which submunitions were found during land release as ANAMA does not currently disaggregate cluster munition tasks from other battle area clearance (BAC) tasks or from mine clearance. In order to avoid inflating CMR clearance data, Mine Action Review has estimated that the amount of land actually containing CMR, released through clearance in 2023, was 8km².

## RECOMMENDATIONS FOR ACTION

- **Azerbaijan should commit to never again use cluster munitions and should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.**
- **ANAMA should work to establish a nationwide baseline of CMR-contaminated area using evidence-based non-technical survey (NTS) and TS.**
- **ANAMA should ensure that survey, clearance, and contamination data related to CMR are disaggregated from data relating to other ERW and mines.**
- **Azerbaijan should adopt the revised National Mine Action Standards (NMAS) without delay to allow cancellation of areas through NTS, where appropriate, which is not permitted under the existing standards.**

1 Emails from Ramil Azizov, Head of Risk Education, International and Public Relations Department, ANAMA, 20 May 2024 and 24 July 2024.

- **ANAMA should elaborate a separate methodology for clearing CMR, distinct from BAC, ensuring that the footprint of a cluster strike is identified and that clearance is conducted to fade-out.**
- **ANAMA should finalise and adopt the new draft mine action strategy, to replace the one that expired in 2018, reflecting the significant increase in explosive ordnance (EO) contamination now under Azerbaijan's control.**

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Mine Action Agency of the Republic of Azerbaijan (ANAMA, formerly the Azerbaijan National Agency for Mine Action)

### NATIONAL OPERATORS

- ANAMA
- The Demining Battalion of the Ministry of Defence
- Ministry of Emergency Situations
- Ministry of Internal Affairs
- The State Border Service
- Four national commercial demining companies, each with an international commercial sub-contractor:
  - Qaya Safety Solutions partnering with Safelane Global
  - Safe Point partnering with RPS (a Tetra Tech company)
  - Alpha Demining partnering with Altay Group
  - Azerbaijan Demining Company partnering with Piper
- International Eurasia Press Fund (IEPF, a non-governmental organisation (NGO) based in Azerbaijan)

### INTERNATIONAL OPERATORS

- Turkish Armed Forces

### OTHER ACTORS

- APOPO
- Geneva International Centre for Humanitarian Demining (GICHD)
- International Committee of the Red Cross (ICRC)
- Marshall Legacy Institute (MLI)
- Mines Advisory Group (MAG)
- United Nations Development Programme (UNDP)

## UNDERSTANDING OF CMR CONTAMINATION

Azerbaijan has not established a national baseline of areas suspected or confirmed as cluster munition contaminated. CMR only make up a small proportion of total explosive ordnance (EO) contamination, and while the precise extent of CMR contamination in Azerbaijan is significant, it is not believed to be heavy. ANAMA does not disaggregate clearance of CMR from clearance of other types of ERW or of mines, in the area it reports as released through TS and clearance. It does, however, record the number of CMR identified and destroyed by district, and separately by operator.[2] In 2022, ANAMA identified 44.1km$^2$ of cluster munition-contaminated-area through TS and NTS survey in the territory over which it regained control in 2020.[3] This was, however, based on the total size of task polygons in which submunitions were found and therefore the size of actual CMR contamination is likely to have been far smaller. ANAMA had not, as of writing, provided an equivalent figure for 2023, but submunitions were discovered during TS and clearance of polygons totalling 452.6km$^2$ which were released the same year.[4] Only a small proportion of this overall area will have actually contained CMR.

ANAMA has indicated an interest in establishing a national baseline of EO contamination through NTS, but the survey will not disaggregate cluster munition-contaminated areas from those containing other ERW.[5] As at May 2024, the only actors conducting NTS were ANAMA and International Eurasia Press Fund (IEPF), an NGO undertaking NTS with support from the United Nations Development Programme (UNDP). ANAMA performs NTS of all polygons prior to tasking operators on clearance.[6]

CMR contamination resulted first from the 1988–94 conflict between Azerbaijan and Armenia and ammunition abandoned by the Soviet army in 1991. Following the cease-fire in 1994, tensions flared up in April 2016 when fighting broke out briefly along the then line of contact (LOC) and saw renewed use of cluster munitions. In July 2020, fighting broke out on the international borders between Armenia and Azerbaijan, and on 27 September 2020, Azerbaijan launched a major military assault.[7] Fierce fighting was brought to an end by a Russian-brokered ceasefire agreement, which came into effect on 10 November 2020. Under the agreement, Azerbaijan regained full control in the seven districts adjacent to Nagorno-Karabakh: Aghdam, Fuzuli, Jabrayil, Kalbajar, Lachin, Qubadli, and Zangilan.[8]

2 Ibid.

3 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 9.

4 Email from Ramil Azizov , ANAMA, 25 July 2024.

5 Email from Samir Poladov, ANAMA, 6 June 2022.

6 Email from Ramil Azizov, ANAMA, 22 July 2024.

7 W. Landgraf and N. Seferian "A Frozen Conflict Boils Over: Nagorno-Karabakh in 2023 and Future Implications", Report, Foreign Policy Research Institute, Euroasia Program, January 2024, at: https://bit.ly/3wWwsgj, p. 12.

8 See, e.g., International Crisis Group (ICG), "The Nagorno-Karabakh Conflict: A Visual Explainer", Last updated 7 May 2021, at: https://bit.ly/3ui0ou2; on 7 July 2021 the President of Azerbaijan, Ilham Aliyev, signed a decree increasing the number of economic regions in Azerbaijan from 11 to 14. The capital, Baku, became its own separate economic region, and two new regions were created: Karabakh (encompassing Khankendi city, as well as the regions of Aghjabadi, Aghdam, Barda, Fuzuli, Khojali, Khojavand, Shusha, and Tartar), and East Zangazur (encompassing Jabrayil, Kalbajar, Gubadli, Lachin, and Zangilan).

Both Armenia and Azerbaijan used cluster munitions in the course of the six-week conflict in 2020. Human Rights Watch documented repeated use of LAR-160 cluster munition rockets and M095 dual-purpose submunitions by Azerbaijan in a civilian neighbourhood in Hadrut and Stepanakert (called Khankendi in Azerbaijan).[9] Another Human Rights Watch report described cluster munition use by Armenia in Barda, Goranboy, and Tartar districts, including Smerch rockets containing 9N235 submunitions.[10] Amnesty International documented four cluster munition strikes resulting in civilian casualties by Armenian forces in towns and villages in Azerbaijan in October 2020. These consisted of three strikes in Barda dispersing dozens of 9N235 submunitions and a fourth in Qarayusufli.[11]

In addition to the cluster munitions reported by the media and humanitarian organisations, the Azerbaijan Campaign to Ban Landmines (AZCBL) reported that the following types of cluster munitions were found in areas regained by Azerbaijan since the 2020 conflict: 9N-210, AO-2.5PTM, PTAB-1M, and ShOAB-05. Submunitions were found in the districts of Fuzuli, Aghdam, Tartar, and Yevlakh.[12]

### THE KARABAKH ECONOMIC REGION (FORMERLY REFERRED TO AS NAGORNO-KARABAKH)

After the so-called Forty-Four Day War ended in November 2020, the territory not regained by Azerbaijan continued to be governed by the *de facto* Nagorno-Karabakh authorities and was patrolled by Russian peacekeeping forces, until Azerbaijan's 24-hour offensive of 19 September 2023 when it regained the remainder of the territory.[13] In 2022, the HALO Trust (HALO), the main organisation conducting land release in the territory, had completed a new baseline survey of CMR and other unexploded ordnance (UXO) in villages in three contaminated districts of Askeran, Martakert (known as Aghdere in Azerbaijan), and Martuni (known as Khojavend in Azerbaijan and now part of the Karabakh Economic Region). Survey then began in uninhabited areas in these districts where HALO confirmed an additional 3.7km$^2$ of cluster munition-contaminated through survey and resurvey, including 0.4km$^2$ from the 2020 conflict discovered during resurvey in Martuni district which was partially cleared. HALO also cancelled a total of 272,779m$^2$ of hazardous area in 2022 and destroyed a total of 388 submunitions, most through spot tasks.[14] At the end of 2022, Mine Action Review estimated that there was 2km$^2$ of CMR contamination in Nagorno-Karabakh.[15]

HALO reported that in the vast majority of its operations, it conducted additional clearance to achieve a 50 metre fade-out from each evidence point, so that most tasks cleared were significantly larger than the original confirmed hazardous area (CHA) – often double the size.[16] In March 2023, HALO was planning to continue work on priority areas in Askeran, Martakert, and Martuni regions. However, in response to an Azeri blockade of the Lachin Corridor in December 2022, HALO decreased its areas of operation with survey, clearance, and EOD teams deployed close to Stepanakert (known as Khankendi in Azerbaijan) in order to reduce fuel usage.[17] Following Azerbaijan's offensive on 19 September 2023, HALO ceased all operations in Nagorno-Karabakh and all staff left the region four days later.[18]

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Many areas, including those formerly occupied by Armenia, are confirmed or suspected to contain ERW, both UXO and abandoned explosive ordnance (AXO). These include former military testing areas and a former shooting range.[19] Azerbaijan is also contaminated with anti-personnel (AP) and anti-vehicle (AV) landmines, the precise extent of which is unknown, but is believed to be massive (see Mine Action Review's *Clearing the Mines* report on Azerbaijan for further information).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

ANAMA was established by Presidential Decree 854 in 1998. It initiated demining operations in 2000. In February 2021, again by Presidential decree, ANAMA was restructured and given the status of a public legal entity as the Mine Action Agency of the Republic of Azerbaijan.[20] The rebranded ANAMA has the mandate to plan, coordinate, and oversee demining by national and international operators.[21] ANAMA has a national headquarters in Baku, two regional offices in

9 Human Rights Watch, "Azerbaijan: Cluster Munitions Used in Nagorno-Karabakh", 23 October 2020, at: https://bit.ly/3bT3QXE.

10 Human Rights Watch, "Armenia: Cluster Munitions Kill Civilians in Azerbaijan", 30 October 2020, at: https://bit.ly/3wv4UIT; and "Armenia: Cluster Munitions Used in Multiple Attacks on Azerbaijan", 15 December 2020, at: https://bit.ly/3vhYQ6v.

11 Amnesty International, "In the Line of Fire", Report, 2021, at: https://bit.ly/3zHXp3H, pp. 10–11.

12 AZCBL, "Landmines and Unexploded Ordnance Problem in The Liberated Territories of Azerbaijan", Report, November 2022, pp. 1 and 3.

13 ICG, "The Nagorno-Karabakh Conflict: A Visual Explainer", Last updated 16 September 2023, at: https://bit.ly/3uiOou2; and "Azerbaijan halts Karabakh offensive after ceasefire deal with Armenian separatists", BBC, 21 September 2023, at: https://bbc.in/3rCVK0e.

14 Email from Fiona Kilpatrick-Cooper, then Head of Region – Europe (South Caucasus), HALO, 16 March 2023.

15 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

16 Email from David Crawford, Programme Manager, HALO Nagorno-Karabakh and Armenia, 3 May 2023.

17 Email from Fiona Kilpatrick-Cooper, HALO, 16 March 2023.

18 Email from David Crawford, HALO, 17 May 2024.

19 ANAMA, "Azerbaijan National Agency for Mine Action 2018", p. 17.

20 "Azerbaijan establishes Mine Action Agency", APA news, 15 January 2021, at: https://bit.ly/35MhtEu.

21 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 7.

Horadiz and Goygol, and mobile base camps operating in all regions.[22] In 2021, a national mine action law was drafted with the support of UNDP. As at May 2024, approval was still pending, with the possibility that it might be formally adopted by the year's end.[23]

Prior to the 2020 conflict, ANAMA had been conducting demining operations with two contracted national operators: Dayag-Relief Azerbaijan (RA) and the IEPF. In March 2020, RA's field personnel were incorporated within ANAMA while RA as an organisation continued to provide logistical support to ANAMA.[24] Since the end of the 2020 conflict, both ANAMA and clearance operations have been rapidly scaled up to address the significant mine and ERW contamination newly under Azerbaijan's control. An interministerial mine action working group, chaired by ANAMA, continued to meet regularly in 2023 (meeting a total of 19 times) and included Azerbaijan's most significant ministries, including defence, interior, and emergency situations, as well as the State Border Service.[25] The working group has overall responsibility for coordination of mine action, while ANAMA coordinates mine action operators.[26]

Mine action is considered a national priority by the government of Azerbaijan.[27] It is integrated into the Azerbaijan Socio-Economic Development plan 2019–2023 and is considered a key contributor to meeting the 2030 Sustainable Development Goals (SDGs).[28] Azerbaijan has adopted national SDG 18 for mine action for safe return, settlement, recovery, prosperity and peace,[29] and is proposing a dedicated global SDG as part of the Agenda 2030 process.[30]

The Azerbaijani government has funded most of ANAMA's running costs along with survey and clearance of hazardous areas. In 2023, it was reported that the government was funding over 90%[31] of the mine action programme's operating costs.[32] Similarly, in 2024, ANAMA reported that mine action, including survey and clearance efforts, is predominantly government-funded, except for a small amount of funding (less than 5%) from international donors such as the European Union (EU), UNDP, the UN Children's Fund (UNICEF), the Office of the UN High Commissioner for Refugees (UNHCR), and the International Committee of the Red Cross (ICRC).[33] The Marshall Legacy Institute (MLI) has provided 81 mine detection dogs (MDDs) to ANAMA since 2005, providing 16 dogs in 2023, and will provide another 12 dogs in 2024,[34] and the International Trust Fund for Demining and Mine Victims Assistance (ITF) donated two MDDs.[35] UNHCR and UNICEF have also funded explosive ordnance risk education (EORE) to support the safe return of internally displaced persons (IDPs).[36]

ANAMA welcomes potential donors and organisations interested in contributing to mine action in Azerbaijan,[37] and has held various conferences to attract interest and share good practice.[38] In May 2024, it held its third international conference together with UNDP, on "Mitigating the Environmental Impact of Landmines: Resource Mobilisation for a Safe and Green Future", a forerunner to Azerbaijan hosting of the UN Climate Change Conference (COP29) in November 2024.[39]

ANAMA has updated its key priorities for international assistance seeking especially direct funding. Other key areas identified for support include: technical surveys and feasibility studies, data management and technological innovations (including geo-spatial methodologies), developing female demining teams, upgrading mechanical demining capabilities, mine detection dog training, demarcation and fencing, and risk education.[40] Remote Aerial Minefield Survey (RAMS) capacity was used in 2023, but the project has since ended.[41]

UNDP provides strategic and technical capacity development to ANAMA[42] and has supported the creation of an enabling mine action environment, including by drafting the national mine action law, and a generic mine action strategy for ANAMA's consideration, and revising the NMAS. UNDP also elaborated a gender needs assessment, leading to the adoption of a gender policy and strategy and a workshop on gender in March 2023. UNDP continued to provide support

22 UNDP, assessment report, "Gender Organisational Assessment of Mine Action Agency of the Republic of Azerbaijan (ANAMA)", February 2023, p. 12; and email from Ramil Azizov, ANAMA, 22 July 2024.

23 Email from Ramil Azizov, ANAMA, 20 May 2024.

24 Email from Nijat Karimov, ANAMA, 28 July 2020.

25 Emails from Ramil Azizov, ANAMA, 17 May 2023 and 20 May 2024; interview with Vugar Suleymanov, Chairman of the Board, ANAMA; and Samir Poladov, ANAMA, Baku, 29 March 2022; and presentation by ANAMA, International Conference on Humanitarian Mine Action and the Sustainable Development Goals, Baku, 31 March–1 April 2022.

26 Email from Ramil Azizov, ANAMA, 20 May 2024.

27 ANAMA, quarterly report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 3.

28 UNDP, assessment report, "Gender Organisational Assessment of ANAMA", February 2023, p. 10.

29 Presentation by Huseyn Huseynov, Head of Department for Sustainable Development and Social Policy, Ministry of Economy of the Republic of Azerbaijan, Aghdam, 24 May 2023.

30 ANAMA, Quarterly Update, "Mine Action in Azerbaijan: Priorities and Needs", October–December 2023, undated, p. 14.

31 Email from Ramil Azizov, ANAMA, 22 July 2024.

32 Emails from Samir Poladov, ANAMA, 6 June and 7 July 2022.

33 Email from Ramil Azizov, ANAMA, 20 May 2024.

34 Email from Indre Sabaliunaite, Program Director, MLI, 30 May 2024.

35 Email from Ramil Azizov, ANAMA, 20 May 2024.

36 Ibid.

37 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 12; and ANAMA, Quarterly Update, "Mine Action in Azerbaijan: Priorities and Needs", October–December 2023, undated, pp. 11 and 15.

38 Email from Ramil Azizov, ANAMA, 20 May 2024.

39 Ibid.

40 ANAMA, Quarterly Update, "Mine Action in Azerbaijan: Priorities and Needs", October–December 2023, undated, pp. 15–16; and email from Ramil Azizov, ANAMA, 22 July 2024.

41 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 2; and email from Ramil Azizov, ANAMA, 20 May 2024.

42 Email from Ramil Azizov, ANAMA, 17 May 2023.

on technical matters relating to land release.[43] In 2024, UNDP developed a concept document on landmine impact on the environment while the Geneva International Centre for Humanitarian Demining (GICHD) was developing a report on climate change considerations and priority setting in mine action.[44] On the sidelines of its third international conference on 30 May 2024, UNDP and ANAMA signed a statement of intent to establish an ANAMA-UNDP International Centre of Excellence in Training for Mine Action in the Republic of Azerbaijan, to provide national, regional, and international training and capacity building in mine action; and to promote research and innovation to develop the latest technologies and methodologies in humanitarian demining.[45]

In another development, on 7 February 2024, UNDP and ANAMA launched a new demining project with €4.25 million of EU funds, covering 20 villages. The project will enhance the capacity of local institutions, fostering partnerships between local and international NGOs. It aims to strengthen ANAMA's information management (IM) systems and apply innovative solutions in demining operations. Furthermore, UNDP will support ANAMA with training, equipping, and deploying emergency response teams to detect and destroy mines and UXO; develop maps for mine detection; and help procure special equipment, including personal protective equipment.[46] Further EU support for demining was announced on 3 May 2024 with the launch of the "Team Europe Initiative on Mine Action in Azerbaijan", with the EU and its Member States likely to increase funding to around €13 million in 2024. Funding is to support capacity-building and institutional strengthening of ANAMA, risk education, and victim assistance.[47] Additional international funding was pledged at the end of 2023 for demining: $3 million from Saudi Arabia and €1.5 million from Italy via UNDP.[48]

Mines Advisory Group (MAG) has provided a range of capacity building support to Azerbaijan in recent years. This has included providing a 10-month technical and practical supervisory training which 16 ANAMA trainees successfully completed and a separate two-week course for 19 ANAMA supervisors.[49] In 2023, MAG coordinated the training of women deminers, and the international NGO APOPO supported ANAMA on the use of mine detection rats (MDRs). GICHD provided the Information Management System for Mine Action (IMSMA) Core to ANAMA in 2022 and continued its support, including training, in 2023 and 2024.[50] In April 2024, ANAMA staff participated in a mine action management course in Serbia, which the GICHD organised in cooperation with the Serbian Mine Action Centre.[51]

ANAMA has also received capacity development support from the EU, France, the United Kingdom (UK), the United States (US) Department of State, and the ICRC.[52] The ICRC provides training for ANAMA site paramedics[53] and conducts EORE and other activities.[54] The Counter Explosive Defence Engagement office of UK Ministry of Defence provided technical support on EOD to ANAMA in 2023.[55]

ANAMA continued to coordinate mine action activities in regained areas through mobile camps in Fuzuli, Jabrayil, Zangilan, Aghdam, Tartar, and Hadrut, and in Khojavend and Shusha city, and established new camps in Qubadly, Lachin, and Khankendi by May 2024. Operations in Aghdere city and Kalbadjar region are coordinated through the Tartar base camp while Goygol Regional Training Centre is the main demining training centre.[56]

Türkiye reported training the Azerbaijan armed forces in 2023 in mine clearance and improvised explosive device (IED) demolition techniques. In addition, four Turkish military demining teams conducted mine clearance in Azerbaijan.[57] It was unclear whether this included clearance of CMR.

43 Emails from Mark Buswell, UNDP, 20 March 2023; and Ramil Azizov, ANAMA, 20 May 2024.

44 Emails from Ramil Azizov, ANAMA, 20 May 2023 and 25 June 2024.

45 "ANAMA, UNDP to set up Center of Excellence for combating mine threats", News.Az, 30 May 2024, accessed 3 June 2024, at: https://bit.ly/4b1tepX; and email from Ramil Azizov, ANAMA, 22 July 2024.

46 "Azerbaijan faces huge de-mining challenge with little help from West", Azernews, 20 March 2024, at: https://bit.ly/4aCxs7c.

47 EU, "Launch of Team Europe Initiative on Mine Action in Azerbaijan", 3 May 2024, at: https://bit.ly/3R2QEUE.

48 ANAMA, Quarterly Update, "Mine Action in Azerbaijan: Priorities and Needs", October–December 2023, undated, p. 12.

49 Email from Jeanette Dijkstra, Programme Manager, MAG, 16 May 2023.

50 Email from Tinatin Maurer-Shengelia, Programme Officer, GICHD, 11 June 2024.

51 Ibid.

52 Email from Samir Poladov, ANAMA, 6 June 2022.

53 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 8.

54 ICRC, "Azerbaijan: Activity highlights for 2022", February 2023, at: https://bit.ly/3PmEO7w.

55 Presentation by Bert Appleton, Head of the Counter Explosive Defence Engagement office of UK MoD, on "Building capacity through Government to Government (G2G) Initiatives", 25 May 2023.

56 Email from Ramil Azizov, ANAMA, 20 May 2024.

57 Türkiye Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report (covering 2023), Forms D and I.

## GENDER AND DIVERSITY

The Azerbaijani Labour Code denounces any type of discrimination in labour relations, including between men and women. It does, however, include so-called "protective measures" which legally prohibit women from being hired into a wide array of jobs. Traditional norms and gender stereotyping also lead to women and men not being equally included at different organisational levels. UNDP's assessment underlines the fact that concerns over women's reproductive health (for example, regarding pregnancy) are deeply rooted in cultural norms intended to protect women rather than exclude them. However, these norms, despite being well-intentioned, still create barriers to women's participation in the labour force.[58]

In the mine action sector, a Gender Policy and Strategy, developed by UNDP since 2022 with UK Foreign, Commonwealth & Development Office (FCDO) funding, had been accepted by ANAMA and was being implemented as at May 2024.[59] According to ANAMA, gender and diversity are integrated into mine action in Azerbaijan, and ANAMA is keen to increase female demining team capacity, training in the regions, and to employ injured people and people with disabilities.[60]

As at May 2024, women made up less than 7% of ANAMA's total workforce and held less than 3% of managerial or supervisory positions.[61] There were, however, 24 women in operational positions in 2024 (including IEPF team members) and a further six field paramedics. While this is still less than 2% of all operational staff, it is nonetheless a considerable improvement on the situation in 2022, when no women were trained in demining in Azerbaijan.[62] Women have historically been concentrated in administrative roles at ANAMA's Baku headquarters.

**Table 1: Gender composition of ANAMA (in May 2024)[63]**

| Total staff employed | Women employed | Managerial or supervisory staff | Women in managerial or supervisory positions | Operational staff | Women in operational positions* |
|---|---|---|---|---|---|
| 2,414 | 167 (7%) | 275 | 7 (3%) | 1,425 (including IEPF female team) | 24 (2%) |

* Another six women work as paramedics in field support teams.

Through the EU-UNDP funded project, in 2023, MAG, in partnership with IEPF, began supporting ANAMA in deploying two fully equipped women-only multi-task teams conducting clearance, BAC, TS, animal detection systems (ADS), EORE, and NTS. Two demining teams comprising a total of 24 people, including 18 female deminers were accredited under the project in November 2023.[64] MAG and IEPF were also to establish two gender balanced/mixed teams using 12-month US Department of State Bureau of Political-Military Affairs (PM/WRA) funding. As at July 2024 one of the two teams was already in place.[65] APOPO will develop the MDD capacity of the four teams.[66]

According to ANAMA, survey and community liaison personnel are mostly from affected communities, there are no restrictions on the basis of ethnic groups or religious affiliation. ANAMA has highlighted that EORE teams are particularly inclusive and mixed-gender, to facilitate access and participation by all groups in the community.[67] Risk education teams create a network of affected communities, which include women and children. The government's reconstruction and rehabilitation programme is aimed at returning IDPs, including women and children, and ensuring sustainable development of repatriated communities in a safe environment.[68] Operations data are disaggregated by sex, and disaggregation by age has been implemented in EORE reporting.[69]

58 UNDP, "Gender Organisational Assessment of ANAMA", Report, February 2023, p. 4.

59 Emails from Ramil Azizov, ANAMA, 17 May 2023 and 20 May 2024.

60 Email from Ramil Azizov, ANAMA, 20 May 2024.

61 Ibid.

62 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 11; and interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

63 Email from Ramil Azizov, ANAMA, 20 May 2024.

64 "I have no regrets: the Azerbaijani women trained to clear mines", EU Neighbours East, 18 March 2024, at: https://bit.ly/3UY0Lv8.

65 Email from Ramil Azizov, ANAMA, 22 July 2024.

66 Emails from Ramil Azizov, ANAMA, 17 May 2023; Jeanette Dijkstra, MAG, 16 May and 3 July 2023; online interview with Greg Crowther, Director of Programmes, MAG, 26 July 2023; and UNDP, "Gender Organisational Assessment of Mine Action Agency of ANAMA", Report, February 2023, p. 11.

67 Email from Ramil Azizov, ANAMA, 20 May 2024.

68 Email from Samir Poladov, ANAMA, 6 June 2022.

69 Email from Ramil Azizov, ANAMA, 20 May 2024.

## ENVIRONMENTAL POLICIES AND ACTION

ANAMA has stated that it recognises the paramount importance of environmental management in demining.[70] By 2022, Azerbaijan had revised its national standards (ANMAR) to cover all demining activities with a dedicated chapter on environmental protection.[71] As at May 2024, however, the ANMAR were still under review[72] and had yet to be formally adopted. ANAMA said it plans to develop an environmental management policy.[73]

According to the draft ANMAR, "it is the intent of the National Mine Action Programme (MAP) of the Republic of Azerbaijan that these requirements shall be complied with to ensure that the environment is not degraded by mine action work and land is returned in a state that is similar to, or where possible better than, before mine action operations commenced, and that permits its intended use." The environmental protection chapter includes information on Azerbaijan's mine action environmental management system and requirements for the identification, assessment, and mitigation of environmental aspects. These include waste disposal, water supplies, burning and removal of vegetation, animals, open burning and demolition, environmental aspects of mechanical demining, and completion and remediation.

ANAMA has developed a standard operating procedure (SOP) incorporating guidelines from the relevant International Mine Action Standard (IMAS 07.13), which reflect its environmental commitments.[74] During TS and clearance, demining experts consider the specific risks associated with EO, collaborating with environmental specialists to assess environmental impact operations and minimise harm.[75] ANAMA's approach combines environmental risk assessment, training, technology, waste management, monitoring, community engagement, and rehabilitation, to prevent and minimize environmental damage.[76] According to ANAMA, demining experts consider the specific risks associated with EO during TS and clearance operations, and collaborate with environmental specialists to assess the environmental impact of demining operations and develop strategies to minimise harm, including by filling in excavated areas.[77]

The Government of Azerbaijan can also require the conduct of a formal environmental impact assessment (EIA) in relation to large or publicly significant mine action projects, or those that will take place in areas of known environmental vulnerability.[78]

As noted above, ANAMA's third international conference, held at the end of May 2024, focused on the environmental impact of landmines and resource mobilisation.[79]

## INFORMATION MANAGEMENT AND REPORTING

Azerbaijan's newly revised, but as yet unadopted, national mine action standards include establishing a single, unified, IM system, which ANAMA is implementing.[80] In 2022, UNDP and the GICHD began supporting ANAMA's IM efforts. By May 2023, an IMSMA charter on mine action procedures had been signed by the Prime Minister, and ANAMA was subcontracting a local company to house its IMSMA database. As at May 2024, ANAMA was still working with the company regarding technical support. However, the transition to IMSMA Core was almost complete, with the system deployed on the ArcGIS Enterprise platform and configuration almost finalised. Most Survey123 forms, various web applications, Geocortex reports, dashboards and the mobile field maps application were ready to use, the system was being used in test mode, and ANAMA field staff were undergoing training.[81]

Other efforts to improve data quality are ongoing.[82] Verification occurs initially at the regional level and then at headquarters, and ANAMA plans to generate daily progress reports once it has migrated to IMSMA Core.[83] All data on clearance operations, including those of the military, are reported centrally to ANAMA.[84] But despite improvements being made in IM, ANAMA does not yet fully disaggregate survey, clearance, and contamination data related to CMR, from battle area data related to other types of ERW or from landmine-related data.

70 Ibid.
71 Email from Samir Poladov, ANAMA, 6 June 2022.
72 Email from Ramil Azizov, ANAMA, 20 May 2024.
73 Ibid.
74 Ibid.
75 Ibid.
76 Ibid.
77 Ibid.
78 Azerbaijan National Mine Action Requirements (ANMAR), Section IV Management Systems, Chapter 9 Environmental Protection.
79 ANAMA "3rd International Mine Action Conference", accessed 22 May 2024 at: https://bit.ly/4auWcxR.
80 Presentation by ANAMA, International Conference on Humanitarian Mine Action and the Sustainable Development Goals, Baku, 31 March–1 April 2022.
81 Email from Ramil Azizov, ANAMA, 20 May 2024.
82 Emails from Ramil Azizov, ANAMA, 17 May 2023 and 20 May 2024.
83 Email from Samir Poladov, ANAMA, 6 June 2022.
84 Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.

## PLANNING AND TASKING

ANAMA is guided by the following key documents, issued at cabinet level, which together influence clearance and EORE priorities: "The Great Return Program"; "Azerbaijan–2030: National Priorities for Socio-Economic Development"; and "The Socio-Economic Development Strategy of the Republic of Azerbaijan 2022–2026".[85] The last mine action strategy was for 2013–18. Its main aims were to continue mine and ERW clearance in support of government development projects and to provide safe conditions for the local population in affected regions.[86] In March 2023, UNDP informed Mine Action Review that it had developed and submitted to ANAMA a new mine action strategy, though it was reported at the time that ANAMA was working on a second strategy with the government.[87] As at writing, ANAMA reported that it was developing a strategy, but did not specify when it expected to finalise and launch it.[88]

In January 2023, ANAMA reported that area cleared of landmines and ERW had reached around 6.9% of the overall high, medium, and low threat areas. The work plan for 2023 foresaw a massive (and highly improbable) release of 500km$^2$ through "clearance" while the draft strategy was to further increase clearance capacity to achieve annual clearance output of 650km$^2$.[89] This included all forms of EO clearance, as well as visual search of battle areas. According to ANAMA, all tasks are subject to technical survey, during which a certain percentage is physically cleared. If no evidence of landmines is found, the remaining area of the polygon is systematically searched using magnetometers.[90] ANAMA predicted that, over the long term, this level of output would not be maintained once high-priority areas had been cleared and only low threat/priority areas remained.[91] ANAMA said that it met its target of releasing more than 500km$^2$ of explosive ordnance contamination in 2023. In line with its annual work plans and strategy – with its focus on residential, agricultural and ecological sites, and on roads and other infrastructure – ANAMA planned to release more than 605km$^2$ of hazardous area in 2024 and was aiming to release 650km$^2$ annually in the future.[92]

ANAMA coordinates the activities of several State implementing agencies, NGOs, and commercial contractors to implement its work plans.[93] ANAMA performs NTS of each project area / polygon prior to tasking operators on TS and clearance.[94] As part of the NTS process, ANAMA collates information through interviews with locals and with the personnel of construction companies, although generally limited data can be obtained from members of newly resettled communities. ANAMA also works in close collaboration with the military and consults minefield records, survey and clearance data, and incident data when available.[95] While the results of NTS do inform decisions on clearance methodologies for each task, NTS is not typically used to prioritise the tasking of polygons for TS and clearance. Instead, polygons are mostly selected and prioritised by the Cabinet of Ministers based on rehabilitation and reconstruction plans. NTS capacity was increased from only one IEPF team (supported by UNDP), being tasked by ANAMA to conduct NTS and generate hazardous area polygons in 2022,[96] to three IEPF teams by July 2024.[97]

The Cabinet of Ministers, the highest level executive body in the country, determines which polygons are cleared with priorities set in accordance with rehabilitation and reconstruction plans in the regained territories.[98] According to ANAMA'S quarterly report on progress from January 2023, in accordance with its policy of ensuring the return of IDPs, the government prioritises demining of areas of high importance such as main access roads, key infrastructure (highways, railroads, and electricity lines), agriculture, and planned residential areas.[99] Thus, highly contaminated areas do not necessarily equate to areas that are a high priority for clearance. According to ANAMA, much of the former LOC with Armenian forces will not be cleared for years, with the exception of areas where construction of roads, railway lines, and power lines or other infrastructure are required.[100]

85 Email from Ramil Azizov, ANAMA, 20 May 2024.

86 Email from Sabina Sarkarova, ANAMA 2 May 2018.

87 Email from Mark Buswell, UNDP, 20 March 2023.

88 Email from Ramil Azizov, ANAMA, 25 July 2024.

89 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 10.

90 Email from Ramil Azizov, ANAMA, 22 July 2024.

91 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 10; and interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

92 Emails from Ramil Azizov, ANAMA, 20 May and 24 June 2024; and presentation by ANAMA, National Achievements in Mine Action: Inclusive Approach and SDGs, 27th International Meeting of Mine Action National Directors and UN Advisers, Geneva, 30 April 2024.

93 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 9.

94 Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023; and email from Ramil Azizov, ANAMA, 22 July 2024.

95 Email from Ramil Azizov, ANAMA, 22 July 2024.

96 Interview with UNDP, Baku, 24 May 2023.

97 Email from Ramil Azizov, ANAMA, 22 July 2024.

98 Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023; presentation by ANAMA, International Conference on Humanitarian Mine Action and the Sustainable Development Goals, Baku, 31 March–1 April 2022; and emails from Samir Poladov, ANAMA, 6 June 2022; and Ramil Azizov, ANAMA, 17 May 2023.

99 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, pp. 3, 5, and 8.

100 Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

In 2021, all chapters of the ANMAR were fully revised in line with IMAS.[101] However, while the revised ANMAR had been provided to all operators,[102] as at May 2024 they were still under review[103] and had yet to be formally adopted. It is important that the revised standards are formally adopted as the existing standards do not allow for cancellation of uncontaminated areas through NTS.

One of the challenges of conducting NTS in the regained territories is that many of the areas are unpopulated and therefore there are no local communities who can be asked about contamination.[104] Before the former Nagorno-Karabakh fully returned to Azeri control in September 2023, there were already reports that approximately 800km$^2$ of land not formally cleared was already being used for agriculture. According to ANAMA, all incidents (including those involving military personnel) are plotted in maps, which can serve as evidence points. ANAMA said that the demand for clearance is so high, however, that it is not always possible to conduct TS each time there is an accident involving a munition.[105]

ANAMA takes into account planned land use in its prioritisation and tasking, and all clearance is conducted to three metres depth in the plots where foundations will be laid for construction.[106] In its January 2023 report, ANAMA referenced an Organization for Security and Co-operation in Europe (OSCE) Technical Assessment Visit Report that indicated that in order to speed up clearance and reduce the risk to individual deminers, "a mix of mine-resistant heavy plant (bulldozers, backhoe loaders, and similar protected earth moving machinery)" was needed.[107]

Clearance is not conducted to full fade-out for CMR clearance, so if contamination extends beyond the polygon boundary tasked to the operator, it is not addressed. This means there is a risk of losing valuable information on the exact location and footprint of cluster munition strikes, as the full footprint is not cleared at the time; although ANAMA asserts that the coordinates of all CMR discovered are carefully recorded and plotted on a map, and saved for future reference.[108] At the time of writing, only hazard signs were placed at the edge of each polygon and fencing was not consistently used, even when EO contamination is known to continue beyond the edge of cleared polygons.[109] Around 70% of injuries and fatalities take place in areas outside the line of contact, including in cemeteries, agricultural areas, buildings, forests, and around water sources, so preventive actions are also being considered in these areas.[110]

UNDP considered that the ANMAR revised in 2023, but yet to be formally adopted, were in line with IMAS and suitable to the context. However, more work is required for implementing NTS and to disaggregate data.[111] Together with ANAMA and UNDP, MAG was supporting the evaluation and revision of 29 mine action SOPs for the revised national standards. As at May 2023, 10 of the 30 SOPs had been updated, and ANAMA subsequently reported that the SOPs were revised under the technical adaptation process.[112] In 2023, ANAMA organised training sessions on 22 different topics for mine clearance personnel of all agencies as planned.[113]

ANAMA still does not disaggregate cluster munition tasks from other BAC prior to tasking polygons for clearance. Land release data for 2023 reported by ANAMA was therefore still based on the polygons in which submunitions were found,[114] rather than TS and clearance of areas suspected or confirmed to contain CMR.

## OPERATORS AND OPERATIONAL TOOLS

CMR survey and clearance are covered in ANAMA's overall training programme and ANAMA does not have personnel dedicated to CMR operations. ANAMA significantly invested in capacity building again in 2023. ANAMA met its target of 630 new recruits taking basic demining and BAC courses.[115] As at May, 807 new recruits had taken basic demining and BAC courses in 2024, while 421 staff members attended in-service training at the ANAMA Goygol Training Centre.[116]

101 Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.
102 Email from Samir Poladov, ANAMA, 6 June 2022.
103 Email from Ramil Azizov, ANAMA, 20 May 2024.
104 Email from Samir Poladov, ANAMA, 6 June 2022.
105 Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.
106 Ibid.; and email from Ramil Azizov, ANAMA, 19 July 2023.
107 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 7.
108 Email from Ramil Azizov, ANAMA, 22 July 2024.
109 Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.
110 Email from Ramil Azizov, ANAMA, 20 May 2024.
111 Email from Mark Buswell, UNDP, 20 March 2023.
112 Email from Jeanette Dijkstra, MAG, 16 May 2023; and Ramil Azizov, ANAMA, 25 June 2024; and interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.
113 Email from Ramil Azizov, ANAMA, 20 May 2024.
114 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 12; and email from Ramil Azizov, ANAMA, 20 May 2024.
115 Emails from Ramil Azizov, ANAMA, 17 May 2023 and 20 May 2024; and ANAMA, quarterly report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 8.
116 Email from Ramil Azizov, ANAMA, 20 May 2024.

The number of deminers continued its upward trajectory in 2023. At the end of the year, Azerbaijan's total operational capacity for addressing all EO consisted of 2,281 deminers, 151 MDDs, and 70 mine clearance machines (see Table 3),[117] another sharp increase from the 1,672 deminers, 59 MDDs, and 55 demining machines at the start of the year.[118] In addition, at the end of 2023, there were 12 NTS and 402 TS operational staff (see Table 2).[119] ANAMA planned to increase NTS capacity further in 2024, using national operators. It also planned to increase TS capacity.[120]

**Table 2: Operational NTS and TS capacities deployed for all explosive ordnance in 2023[121]**

| Operator | No. of NTS teams | Total NTS personnel | No. of TS teams | Total TS personnel |
|---|---|---|---|---|
| ANAMA* | 0 | 0 | 36 | 267 |
| IEPF | 3 | 12 | 2 | 15 |
| Qaya Safety Solutions | 0 | 0 | 2 | 8 |
| Azerbaijan Demining Company | 0 | 0 | 7 | 40 |
| Alpha Demining | 0 | 0 | 2 | 15 |
| Safe Point | 0 | 0 | 3 | 57 |
| **Totals** | **3** | **12** | **52** | **402** |

*ANAMA states that NTS is conducted in each project area.

ANAMA is responsible for accrediting and monitoring all mine action operators, including State actors involved in demining.[122] As at December 2023, there were two national commercial demining companies each working with an international commercial sub-contractor, to assist with operational planning and help build capacity. These were: Qaya Safety Solutions, partnering with SafeLane Global, and the Azerbaijan Demining Company, partnering with Piper.[123] One national NGO, IEPF, conducted NTS in 2023.[124]

All actors are accredited and trained by ANAMA and all data are reported and entered into ANAMA's IMSMA database. ANAMA conducts monitoring and quality assurance (QA) for operators and issues hand-over certificates after QC.[125]

**Table 3: Operational clearance capacities deployed for all explosive ordnance (at end 2023)[126]**

| Operator | Operational staff | MDDs | Machines |
|---|---|---|---|
| ANAMA | 1,591 | 91 | 36 |
| Ministry of Defence | 250 | 4 | 20 |
| Ministry of Emergency Situations | 50 | 10 | 4 |
| State Border Service | 45 | 0 | 0 |
| Alpha Demining | 80 | 20 | 2 |
| Qaya Safety Solutions | 80 | 6 | 3 |
| Safe Point | 136 | 10 | 2 |
| Azerbaijan Demining Company | 49 | 10 | 3 |
| **Totals** | **2,281** | **151** | **70** |

The Turkish Armed Forces have conducted mine and ERW clearance in Azerbaijan since December 2020. As indicated above, four military demining teams conducted demining operations in 2023.[127] In 2021, Türkiye sent Azerbaijan six demining machines (MEMATT-I) and was planning to bring this to a total of 20 MEMATT-II machines to Azerbaijan in coming years.[128]

117 Ibid.
118 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 7.
119 Email from Ramil Azizov, ANAMA, 20 May 2024.
120 Ibid.
121 Ibid; and email from Ramil Azizov, ANAMA, 22 July 2024.
122 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 7.
123 Ibid; and interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.
124 Emails from Ramil Azizov, ANAMA, 20 May and 22 July 2024.
125 Email from Samir Poladov, ANAMA, 7 July 2022.
126 Email from Ramil Azizov, ANAMA, 20 May 2024.
127 Statement by Turkey to the 8th International Pledging Conference to the APMBC, 24 March 2023; and Türkiye APMBC Article 7 Report (covering 2023), Forms D and I.
128 Turkey APMBC Article 7 Report (covering 2021), Forms D and I.

Azerbaijan continued using RAMS in 2022 to identify suspected areas as part of establishing a baseline survey,[129] collecting information on mines and ERW, and other information, such as the location of trenches and military positions.[130] As at May 2023, there were two RAMS teams which could cover approximately 300km$^2$ per year. ANAMA was planning to increase RAMS capacity, though the technology is of limited use in areas with thick vegetation.[131] However, in May 2024, ANAMA reported that there were no RAMS teams operating in Azerbaijan as the project had ended.[132]

ANAMA had established a quality management (QM) division by 2023 and QM capacity has since been increased by around 300%, reflecting the significant upscaling of clearance operations in the reclaimed territories of Azerbaijan. Previously, quality control (QC) was conducted on 10% of land, but this has been reduced to 5%, while frequent QA site visits have been maintained.[133] UNDP supported efforts to enhance ANAMA's QM system by conducting a QM evaluation and organising a workshop on QM for ANAMA staff in 2022.[134] In 2023, ANAMA had 63 external monitoring QM and QC staff: seven worked at headquarters (with three also conducting monitoring missions in the regions), four monitored mine action organisations, and the remainder conducted post-clearance inspections. ANAMA has reported that it conducted inspections of 6.13% of released minefields and battle areas in 2023.[135]

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2023

ANAMA reported a total of 452.6km$^2$ of area where CMR were found and land released through technical survey and clearance in 2023, with the destruction of 1,818 submunitions.[136] ANAMA did not provide disaggregated data for land released through technical survey and land released through clearance for 2023.[137] No cluster munition-contaminated area was cancelled through NTS in 2023.[138] The reported 452.6km$^2$ of CMR-contaminated area released in 2023 was approximately 85% of the total 530.8km$^2$ of all contaminated polygons (containing all types of EO, including mines and ERW other than CMR) identified and released in 2023, during which a reported combined total of 31,578 items of explosive ordnance were destroyed.[139]

However, the CMR-contaminated area released in 2023 corresponds to the total size of tasks (polygons) in which submunitions were found. Therefore, the size of the actual cluster munition contamination (i.e. the contaminated area resulting from cluster munition strikes) addressed, is far smaller. To avoid inflating CMR clearance output, Mine Action Review has estimated that 8km$^2$ was clearance of actual cluster munition-contaminated area.

ANAMA did not report any previously unrecorded CMR-contaminated area that was added to the database in 2023 but did state that after it regained control of the remainder of the former Nagorno-Karabakh following the September 2023 offensive, it found a large number of submunitions along with IEDs, mines, and UXO in the reclaimed territory.[140]

Survey and clearance data for Nagorno-Karabakh in 2023, prior to Azerbaijan regaining control of the territory in September 2023, was not available.

## SURVEY IN 2023

While ANAMA did conduct TS in 2023, it did not disaggregate land released through TS from land released through clearance in 2023.[141] In 2022, almost 4.4km$^2$ of land with CMR was addressed through TS.[142] The land addressed through TS in 2022 was located in areas previously under the control of Armenia or the *de facto* Nagorno-Karabakh authorities, and inaccessible to Azerbaijan, until it regained control of territory following the Forty-Four Day War in 2020.[143] This TS comprises the lanes through polygons in which CMR were subsequently discovered.

No cluster munition-contaminated area was cancelled through NTS in 2023 or 2022 in Azerbaijan.

129 Email from Ramil Azizov, ANAMA, 17 May 2023.
130 Ibid.; and interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.
131 Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.
132 Emails from Ramil Azizov, ANAMA, 20 May and 22 July 2024.
133 Interview with Vugar Suleymanov and Samir Poladov, ANAMA, Baku, 29 March 2022.
134 Email from Mark Buswell, UNDP, 20 March 2023.
135 Emails from Ramil Azizov, ANAMA, 20 May and 25 June 2024.
136 Email from Ramil Azizov, ANAMA, 24 July 2024.
137 Emails from Ramil Azizov, ANAMA, 24 July and 25 July 2024.
138 Email from Ramil Azizov, ANAMA, 20 May 2024.
139 Ibid.; and email from Ramil Azizov, ANAMA, 24 July 2024.
140 Email from Ramil Azizov, ANAMA, 20 May 2024.
141 Email from Ramil Azizov, ANAMA, 25 July 2024.
142 Email from Ramil Azizov, ANAMA, 17 May 2023.
143 Ibid.

**The Karabakh Economic Region (formerly referred to as Nagorno-Karabakh)**

Survey data for Nagorno-Karabakh in 2023, prior to Azerbaijan regaining control of the territory in September 2023, was not available.

In 2022, in areas under the control of the *de facto* authorities of Nagorno-Karabakh, 272,779m$^2$ of hazardous area was cancelled: 99,978m$^2$ through NTS in Askeran district, and another 172,801m$^2$ in Martuni district (known as Khojavend in Azerbaijan).[144]

## CLEARANCE IN 2023

ANAMA reported that a total of just over 452.6km$^2$ was released through combined clearance and TS in 2023, with the destruction of 1,818 submunitions.[145] In 2022, 39.73km$^2$ was reported by ANAMA as cleared, along with 738 submunitions.[146]

The land addressed through TS and clearance in 2023 was located in areas previously under the control of Armenia or the *de facto* Nagorno-Karabakh authorities, other than Goranboy, and was inaccessible to Azerbaijan until it regained control of territory following the Forty-Four Day War in 2020.

The total 452.6km$^2$ reported as released through TS and clearance in 2023 (with 1,818 submunition destroyed),[147] was a significant increase on 2022 when 44.13km$^2$ was reported as released (39.73km$^2$ through clearance and 4.4km$^2$ through TS), with 738 submunitions destroyed.[148]

As already noted, reported land release through clearance and TS in both years was based on the total size of task polygons in which submunitions were found during land release, as ANAMA does not currently disaggregate cluster munition tasks from other BAC tasks. Therefore, to avoid inflating clearance output, Mine Action Review has estimated that 8km$^2$ was clearance of actual cluster munition-contaminated area. Table 4 summarises reported 2023 land release of CMR-contaminated area through clearance and TS combined, disaggregated by district.

**Table 4: Reported land release through clearance and TS of polygons containing CMR in 2023[149]**

| District | Area cleared (m$^2$) | Submunitions destroyed |
|---|---|---|
| Aghdam | 79,561,6432 | 194 |
| Fuzuli | 59,515,782 | 707 |
| Goranboy | 12,430 | 1 |
| Lachin | 14,543,346 | 1 |
| Qubadli | 70,070,484 | 2 |
| Jabrayil | 143,257,872 | 723 |
| Khankendi | 1,619,740 | 21 |
| Khojavend | 44,113,307 | 113 |
| Khojaly | 1,659,897 | 28 |
| Shusha | 5,938,261 | 27 |
| Zangilan | 32,320,038 | 1 |
| **Totals** | **452,612,800** | **1,818** |

**The Karabakh Economic Region (formerly referred to as Nagorno-Karabakh)**

Clearance data for Nagorno-Karabakh in 2023, prior to Azerbaijan regaining control in September 2023, was not available.

In 2022, in areas under the control of the *de facto* authorities of Nagorno-Karabakh, 2.85km$^2$ of hazardous area was reported cleared: 1.24km$^2$ in Askeran District, 0.41km$^2$ in Martakert district (known as Aghdere in Azerbaijan), and 1.2km$^2$ in Martuni district (known as Khovajend in Azerbaijan). A total of 388 submunitions were reported as destroyed in 2022, most (339) through spot tasks.[150]

144 Email from Fiona Kilpatrick-Cooper, then Head of Region – Europe (South Caucasus), HALO, 16 March 2023.
145 Emails from Ramil Azizov, ANAMA, 24 and 25 July 2024.
146 Email from Ramil Azizov, ANAMA,19 July 2023.
147 Emails from Ramil Azizov, ANAMA, 24 and 25 July 2024.
148 Email from Ramil Azizov, ANAMA, 19 July 2023.
149 Emails from Ramil Azizov, ANAMA, 24 and 25 July 2024.
150 Email from Fiona Kilpatrick-Cooper, then Head of Region – Europe (South Caucasus), HALO, 16 March 2023.

## DEMINER SAFETY

There were three demining accidents in 2023 in which three staff from demining companies were injured. One involved a fuze explosion while the other two related to AP mine explosions. An ANAMA joint commission investigated the accidents and operators were informed. The Labour Protection Agency then investigated the cases.[151] The outcome of the investigations is not known.

## PROGRESS TOWARDS COMPLETION

Azerbaijan has yet to join the CCM. It should do as a matter of priority. In May 2019, Azerbaijan had stated that it would only accede to the Convention once all of its territories are liberated from occupation by Armenia and all IDPs and refugees return to their lands.[152] In 2024, Armenia and Azerbaijan initiated joint demining operations along a section of the border between the two States, following the signing of an agreement on 19 April that started the process of border delimitation.[153] It is not known whether this includes clearance of CMR. The remaining districts of Nagorno-Karabakh were, as indicated above, returned to Azerbaijan's control, following its September 2023 offensive.

No target date has been set for the completion of CMR clearance in Azerbaijan, as the extent of CMR contamination remains unknown.[154] In order to plan and address CMR contamination effectively, ANAMA must first quantify the problem. NTS is proceeding slowly, as the main focus is on clearing land to enable the return of IDPs to the regained territories. The establishment of an accurate baseline of CMR contamination is, therefore, still a long way off and there is currently no prioritisation of clearance tasks based on the type of contamination (e.g. prioritising CMR clearance, over clearance of other types of ERW). In addition, ANAMA struggles to disaggregate CMR from other types of ERW, in both data on the extent of contamination and data on the amount of land released. This is something that ANAMA has said that it will seek to improve as it strengthens its IM system and reporting.[155]

ANAMA continues to make impressive progress in rapidly scaling up clearance efforts, and the process is nationally led, drawing on international expertise, such as UNDP and MAG, for capacity development. Systems to support the huge upscaling of the mine action programme in Azerbaijan, such as the elaboration of revised national mine action standards (albeit yet to be formally approved), are being put in place. And applying efficient, evidence-based survey and clearance methodology, supported by strong national standards and a good IM and QM system, will be pivotal for the success of demining efforts in Azerbaijan. ANAMA is also seeking to increase demining capacity by adding new national demining NGOs. ANAMA believes they could play a vital role in managing a residual risk to support the safe return of IDPs.[156]

151 Email from Ramil Azizov, ANAMA, 24 July 2024.

152 Email from Sabina Sarkarova, ANAMA, 21 May 2019.

153 "Armenia completes demining of Azerbaijan-boundary village", *Trend News Agency*, 30 April 2024, at: https://bit.ly/3zAjXYz; and "Azerbaijan, Armenia continue joint border demining efforts", *News.Az*,10 May 2024, at: https://bit.ly/3L3Ervw.

154 Email from Samir Poladov, ANAMA, 6 June 2022.

155 Interview with Samir Poladov and Ramil Azizov, ANAMA, Baku, 24 May 2023.

156 ANAMA, Quarterly Report "Mine Action in Azerbaijan: Priorities and Needs", January 2023, p. 10.

# CAMBODIA

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

## KEY DATA

### CLUSTER MUNITION CONTAMINATION: HEAVY

NATIONAL ESTIMATE

**731 KM²**

SUBMUNITION CLEARANCE IN 2023

**38.24KM²**

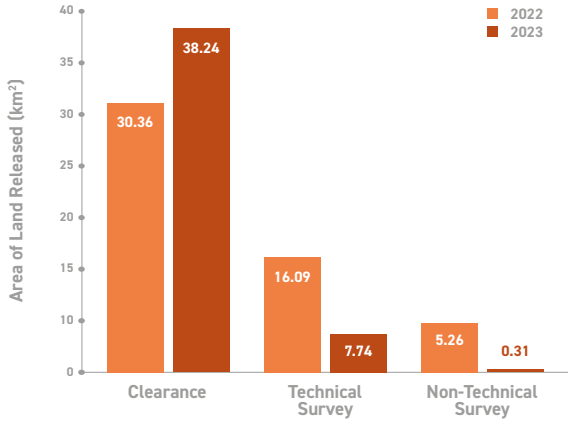
(OPERATOR DATA)

SUBMUNITIONS DESTROYED IN 2023

**7,800**

(INCLUDING 507 DESTROYED IN SPOT TASKS) (OPERATOR DATA)

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

Cambodia released 27.5km² of area affected by cluster munition remnants (CMR) in 2023 according to official data. This represented a drop of almost half compared to the previous year, largely resulting from the priority Cambodia gave to trying to meet its clearance deadline under the Anti-Personnel Mine Ban Convention. The official figure, as has typically been the case, significantly understates the results reported by operators, pointing to delays in quality assurance of tasks and final approval of land release reports, which hold back the uploading of results into the database.

In 2023, the Cambodia Mine Action and Victim Assistance Authority (CMAA) added 25.6km² of previously unidentified CMR hazardous areas to the database which included small areas in three provinces that were not previously identified as affected by CMR. The Cambodian Mine Action Centre (CMAC) started a new survey of all air-dropped ordnance, including cluster munitions, in April 2024. It expected the survey to take 18 months.

## 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 CMR on territory under its jurisdiction or control as soon as possible.**
- **The CMAA should elaborate a dedicated strategy for CMR survey and clearance in consultation with operators, with realistic annual targets for land release and an accompanying resource mobilisation plan.**
- **The CMAA should strengthen information management and ensure timely release of comprehensive mine action data.**

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Cambodian Mine Action Authority (CMAA)

### NATIONAL OPERATORS

- Cambodian Mine Action Centre (CMAC)
- Cambodia Self Help Demining (CSHD)

### INTERNATIONAL OPERATORS

- APOPO
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)

### OTHER ACTORS

- United Nations Development Programme (UNDP)

## UNDERSTANDING OF CMR CONTAMINATION

Cambodia has extensive CMR contamination but is still working to determine the extent. At the end of 2023, it reported 2,497 confirmed and suspected hazardous areas in 21 of Cambodia's 24 provinces covering nearly 731km$^2$ (see Table 1).[1] The total represented only a marginal increase (0.2%) on the previous year but the CMAA added 25.6km$^2$ of previously unidentified hazardous areas to the database which included small areas in three provinces that were not previously identified as affected by CMR.[2]

Cambodia's CMR contamination results mainly from intensive bombing by the United States (US) during the Vietnam War which was concentrated in north-eastern provinces along the borders with the Lao People's Democratic Republic and Vietnam. The US Air Force dropped at least 26 million explosive submunitions, between 1.9 million and 5.8 million of which are estimated to have not exploded on landing.[3] Assessment of the resulting contamination, however, remains a work in progress.[4]

Pinpointing the size of Cambodia's CMR contamination is complicated by the evolution of CMR survey methodologies. Close to 80% of the total CMR contamination data identified at the end of 2023 consisted of suspected hazardous areas (SHAs) identified in a baseline survey of explosive ordnance conducted between 2009 and 2020. That survey used a mine survey methodology ill-suited to CMR hazards, producing inflated polygons which included large amounts of land with no CMR while missing areas that do contain CMR.

From 2015, Cambodia adopted cluster munition remnants survey (CMRS) and cluster munition technical survey (TS) identifying confirmed hazardous areas (CHAs). Continuing survey and resurvey of some Baseline Survey (BLS) polygons through TS is producing more accurate, evidence-based data.[5] CHAs made up 21% of the overall contamination estimate at the end of 2023, compared with 13% three years earlier.[6] The Cambodian Mine Action Centre (CMAC) started a new survey of all air-dropped ordnance, including cluster munitions, in April 2024. It expected the survey to take 18 months.[7]

All confirmed areas of CMR contamination were found in eight eastern provinces at the end of 2022 when they also accounted for 479km$^2$ (68%) of the total but two provinces with no recorded CHAs (Kampong Tom and Prey Vihear) added another 208km$^2$ of SHA.

**Table 1: CMR contamination by province or region (at end 2023)[8]**

| Province or Region | CHAs | Area (m$^2$) | SHAs | Area (m$^2$) | Total area (m$^2$) |
|---|---|---|---|---|---|
| Battambang | 0 | 0 | 3 | 124,551 | 124,551 |
| Banteay Meanchey | 0 | 0 | 2 | 2,713 | 2,713 |
| Kampong Cham | 125 | 23,119,939 | 83 | 18,034,675 | 41,154,614 |
| Kampong Chhnang | 0 | 0 | 15 | 2,016,698 | 2,016,698 |
| Kampong Speu | 0 | 0 | 85 | 12,366,578 | 12,366,578 |
| Kampong Thom | 1 | 81,860 | 349 | 65,261,209 | 65,343,069 |
| Kampot | 0 | 0 | 2 | 103,392 | 103,392 |
| Kandal | 0 | 0 | 65 | 6,688,547 | 6,688,547 |
| Kratie | 95 | 26,105,885 | 116 | 37,966,464 | 64,072,349 |
| Mondul Kiri | 0 | 0 | 80 | 27,449,223 | 27,449,223 |
| Oddar Meanchey | 0 | 0 | 1 | 26,326 | 26,326 |
| Phnom Penh | 0 | 0 | 18 | 1,720,486 | 1,720,486 |
| Preah Sihanouk | 0 | 0 | 14 | 2,984,350 | 2,984,350 |

1 Email from Hean Kimsin, Director, Social and Economic Planning Department, CMAA, 15 June 2024.

2 The three provinces were Banteay Meanchey, Oddar Meanchey, and Pursat.

3 South East Asia Air Sortie Database, cited in D. McCracken, "National Explosive Remnants of War Study, Cambodia", NPA in collaboration with CMAA, Phnom Penh, March 2006, p. 15; Human Rights Watch, "Cluster Munitions in the Asia-Pacific Region", April 2008; and Handicap International (HI), *Fatal Footprint: The Global Human Impact of Cluster Munitions*, HI, Brussels, November 2006, p. 11.

4 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022.

5 Email from Portia Stratton, Programme Manager, Norwegian People's Aid (NPA), 19 April 2022, and online interview, 13 May 2022; email from Alexey Kruk, Country Manager, Mines Advisory Group (MAG), 6 May 2022; and online interview with Tony Fernandes, Technical Operations Manager, MAG, 16 May 2022.

6 Emails from Tep Kallyan, Deputy Secretary General, CMAA, 9 May 2023; and Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.

7 Interview with Heng Ratana, Director General, CMAC, in Phnom Penh, 27 May 2024.

8 Email from Hean Kimsin, CMAA, 15 June 2024.

**Table 1 Continued**

| Province or Region | CHAs | Area ($m^2$) | SHAs | Area ($m^2$) | Total area ($m^2$) |
|---|---|---|---|---|---|
| Preah Vihear | 0 | 0 | 109 | 175,593,910 | 175,593,910 |
| Prey Veng | 121 | 20,230,103 | 104 | 44,217,008 | 64,447,111 |
| Pursat | 0 | 0 | 6 | 1,203,341 | 1,203,341 |
| Ratanak Kiri | 235 | 33,109,451 | 303 | 40,720,337 | 73,829,788 |
| Stung Treng | 18 | 3,642,396 | 122 | 108,572,956 | 112,215,352 |
| Svay Rieng | 140 | 27,948,823 | 72 | 16,225,269 | 44,174,092 |
| Takeo | 0 | 0 | 9 | 1,675,366 | 1,675,366 |
| Tboung Khmum | 93 | 16,322,608 | 111 | 17,884,695 | 34,207,303 |
| **Totals** | **828** | **150,561,065** | **1,669** | **580,838,094** | **731,399,159** |

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Cambodia has extensive contamination by other explosive remnants of war (ERW). This consists mainly of anti-personnel (AP) and anti-vehicle (AV) mined areas estimated to cover 563$km^2$ at the end of 2022[9] and unexploded ordnance (UXO) reported in 2022 to amount to 333$km^2$ (see Mine Action Review's *Clearing the Mines* report on Cambodia for further information).[10] Deep-buried AV mines pose a particular threat to rural communities.[11]

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The CMAA was established by royal decree in 2000 with the mandate to regulate, monitor, and coordinate the mine action sector in Cambodia. The CMAA has Prime Minister Hun Manet as its President and a government minister, Ly Thuch, as first vice president. Its Secretary General, Ly Panharith, who was appointed in January 2023, manages CMAA's planning and operations.[12] CMAC had previously been responsible for regulating and coordinating the sector in addition to undertaking clearance. Since 2000, CMAC has concentrated on conducting demining, risk education, and training.[13] CMAC, which conducts both humanitarian and commercial survey and clearance, is Cambodia's largest mine action operator.[14]

Since 2004, Cambodia has established Provincial Mine Action Committees (PMACs) and Mine Action Planning Units (MAPUs) in mine- and CMR-affected areas tasked with establishing clearance priorities in consultation with affected communities to ensure that clearance addresses their housing, agricultural, and infrastructure needs.[15] MAPUs meet regularly with all mine action operators to plan annual mine action activities.[16]

The Cambodian government established a Technical Working Group on Mine Action (TWG-MA) as a consultative mechanism facilitating coordination between the government and implementing partners.[17] 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.[18] In 2022, the TRG for CMR survey and clearance agreed on a number of amendments to national standards to expedite and accelerate land release.[19]

The operating environment for mine action in Cambodia is permissive, with the government open to the presence of international operators and supportive in administrative actions such as the granting of visas, approval of Memoranda of Understanding (MoUs), tax exemptions on demining equipment, and facilitating the importation of equipment.[20] The CMAA is open to the trialling and use of innovative survey and clearance methods and tools to improve efficiency.[21]

9 Email from Tep Kallyan, CMAA, 29 April 2023.
10 Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report (covering 2021), Annex B.
11 Interview with Heng Ratana, CMAC, 27 May 2024.
12 CMAA, "Legal framework and mandate", at: http://bit.ly/2W7r3dJ.
13 CMAC, "20 Years' Achievement in Mine Action 1998-2018 and Path Ahead", 2018.
14 Interview with Heng Rattana, CMAC, Phnom Penh, 25 April 2019.
15 Geneva International Centre for Humanitarian Demining (GICHD), "Landmines and Land Rights in Cambodia", December 2010, pp. 9 and 13.
16 Email from Zlatko Vezilic, Programme Manager, NPA, 5 May 2020.
17 CMAA, National Mine Action Strategy 2018–2025, p. 24; and email from Tong Try, National Mine Action Adviser, UNDP, 18 June 2019.
18 CMAA, National Mine Action Strategy 2018–2025, p. 24; and emails from Tong Try, UNDP, 18 June 2019 and 27 July 2021.
19 Email from Sron Samrithea, Deputy Programme Manager, NPA, 6 May 2023.
20 Emails from Prum Sophakmonkol, CMAA, 11 September 2019; Rebecca Letven, MAG, 7 April 2020; and Lasha Lomidze, Programme Manager, HALO, 15 May 2020.
21 Emails from Zlatko Vezilic, NPA, 4 April 2019; Rebecca Letven, MAG, 9 May and 28 June 2019; and Damian O'Brien, HALO, 10 April 2019.

The CMAA receives technical support from a range of international organisations. The Geneva International Centre for Humanitarian Demining (GICHD) has supported the upgrade of the CMAA's information management system, gender mainstreaming, and the development of Cambodian national mine action standards (CMAS).[22] Norwegian People's Aid (NPA), with funding from the Norwegian Ministry of Foreign Affairs, provided financial and technical support for the CMAA database unit, including paying the salaries of seven employees, and supported the CMAA's quality management (QM) department, providing refresher training after the pandemic and funding one of the CMAA's QM teams.[23]

The Cambodian government contributes funding for management of the mine action sector,[24] which has included covering some of the expenses of the CMAA, and supporting a range of activities including planning and prioritisation, quality assurance/quality control (QA/QC), information management, the Cambodia mine/ERW victim information system (CMVIS), and risk education.[25] The cost of the database unit is, however, shared by NPA and UNDP.[26] Cambodia has estimated it will need almost $119 million for CMR clearance in 2020–25.[27]

## GENDER AND DIVERSITY

The CMAA established a Gender Mainstreaming Team (GMT) in 2019 to coordinate with the Technical Reference Group on Gender (TRG-G). The TRG-G, which met in December 2023[28] is composed of representatives from UNDP, the Ministry of Women's Affairs (MoWA), the Ministry of Social Affairs, Veterans and Youth Rehabilitation (MoSVY), MAPUs, operators, and organisations working in risk education and victim assistance.[29]

The CMAA is implementing a Gender Mainstreaming in Mine Action Plan (GMMAP) in line with the objectives of the National Mine Action Strategy 2018–2025. Two earlier GMMAPs covered 2013–15 and 2018–22. The latest version, covering 2021–25, was approved at the end of 2021 and launched by CMAA First Vice-President Ly Thuch in March 2022.[30] It proposes the implementation of GMMAP guidelines through monitoring and evaluation of the performance of MAPUs and operators; capacity building of CMAA gender teams, MAPUs, and operators, and collecting data on the mine action needs of women; more inclusive participation in mine action, including through collecting sex, age and disability disaggregated data (SADDD); a CMAS on gender mainstreaming; and advocacy for more women in decision-making positions.[31]

Women represented a quarter of the CMAA's 100 office employees at the end of 2023, up from 20% two years earlier, and 19% of the CMAA's 74 management staff.[32] But in MAPUs women held only 11% of the positions.[33] Among operators, CMAC, the biggest in terms of capacity, reportedly employed two women among 38 management staff (5%) and 204 women among its 1,072 field staff, a relatively low ratio of 16%.[34] One-third of APOPO's total staff of 99 were women. Nearly a quarter of MAG's 526 staff are female while women made up 41% of its 418 operations personnel. It conducted a staff capacity building needs assessment in 2023 and after a competitive recruitment process hired two Cambodian female staff for senior technical positions in the field.[35] NPA's management are predominantly male but women made up almost half its 50 operations staff.[36]

**Table 2: Gender composition of operators in 2023**

| Operator | Total staff | Women staff | Total managerial or supervisory staff | Women in managerial or supervisory positions | Total operational staff | Women in operational positions |
|---|---|---|---|---|---|---|
| CMAA | 157 | 27 (25%) | 74 | 14 (19%) | 57 | 4 (7%) |
| CMAC[37] | 1,432 | 291 (20%) | 38 | 2 (5%) | 1,072 | 204 (19%) |
| APOPO | 99 | 32 (32%) | 5 | 1 (20%) | 94 | 28 (30%) |

22 Email from the GICHD, 1 July 2020.
23 Email from Sron Samrithea, NPA, 6 May 2023.
24 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 12.
25 Email from Prum Sophakmonkol, CMAA, 1 July 2020.
26 Emails from Rune Dale-Andresen, NPA, 26 September 2020; and Portia Stratton, NPA, 21 June 2021.
27 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 55.
28 Clearing for Results IV, 2023 Annual Project Progress Report, UNDP, p. 19.
29 CMAA, National Mine Action Strategy 2018–2025, p. 22; and email from Tong Try, UNDP, 27 July 2021.
30 V. Dara, "CMAA lauds female deminers", Phnom Penh Post, 10 March 2022.
31 Mine Action Plan 2021–25, December 2021, pp. 6–7.
32 Email from Hean Kimsin, CMAA, 15 June 2024.
33 UNDP, Clearing for Results IV, 2023 Annual Project Progress Report, p. 14.
34 Ibid.
35 Email from Alexey Kruk, MAG, 11 April 2024.
36 Email from Sron Samrithea, NPA, 15 May 2024.
37 UNDP, Clearing for Results IV, 2023 Annual Project Progress Report, p. 14. CMAC reported it employed a total of 2,100 permanent staff in 2023.

**Table 2 Continued**

| Operator | Total staff | Women staff | Total managerial or supervisory staff | Women in managerial or supervisory positions | Total operational staff | Women in operational positions |
|---|---|---|---|---|---|---|
| MAG | 526 | 202 (38%) | 62 | 14 (23%) | 418 | 172 (41%) |
| NPA | 68 | 35 (51%) | 7 | 2 (29%) | 50 | 24 (48%) |
| **Totals** | **2,282** | **587 (26%)** | **186** | **33 (18%)** | **1,691** | **432 (26%)** |

## ENVIRONMENTAL POLICIES AND ACTION

The CMAA issued a national Cambodian standard, CMAS 20, on "Environmental Management in Mine Action" in 2022. This requires operators to minimise the adverse impact of their operations on the environment, identify steps necessary to mitigate harm, and ensure that land is left in a suitable condition for its intended use. Operators are required to take account of erosion or soil degradation; possible pollution of air, water, or soil; and damage to infrastructure, wildlife, and vegetation, while also dealing with litter, debris, and other waste as well as damage to heritage sites or objects.[38]

Operators say compliance with CMAS 20 is not stringently monitored and they already apply their own environmental standard operating procedures (SOPs). The international NGO APOPO reviewed its environmental management SOPs in 2023 and by 2025 plans to adapt the syntropic farming practices it used in Tanzania to Cambodia.[39] MAG rolled out its Global Technical Standards in 2022, which included a chapter on environment that set out an IMAS-compliant, minimum baseline for all programmes to update their SOPs.[40] NPA has supported the development of standards for environmental management, including protection of forestry and pollution controls, and in 2024 was in the process of developing SOPs on environmental management.[41]

## INFORMATION MANAGEMENT AND REPORTING

The CMAA's database unit (DBU), with a staff of 14, is responsible for collecting, storing, analysing, and disseminating data in support of planning and prioritisation.[42] The DBU previously used the Information Management System for Mine Action New Generation (IMSMA NG) but has installed IMSMA Core and in 2023 was migrating data across to the new platform. [43] The database unit retains IMSMA NG as a platform to receive data from CMAC before transferring it to Core. CMAC and the armed forces (RCAF) report in hard copy but international operators report digitally. The DBU receives financial and technical support from Norway through NPA, which pays the salaries of seven of the DBU's sixteen staff, and from UNDP, which pays the salaries of another six.[44] The CMAA did not convene the Technical Reference Group on information management in 2023 but said that it consulted operators bilaterally instead.[45]

## PLANNING AND TASKING

Cambodia's National Mine Action Strategy 2018–2025, officially launched in May 2018, sets eight goals for the mine action sector, including clearance of mines, CMR, and other ERW. The second of these goals calls for release of prioritised cluster munition-contaminated areas by 2025. The strategy set a target of releasing 80% of known CMR contamination or 499km$^2$ by 2025.[46] The strategy expressed confidence that 30% of estimated CMR contamination would be released through land reclamation and cancellation. The strategy concluded that the remaining 70% of contamination would require TS and full clearance, calling for release of 44km$^2$ a year by these means to achieve the strategy's targets.[47]

The CMAA compiles the annual national clearance work plan for mines and CMR, which comprises all the provincial clearance work plans. The MAPUs use the provincial work plan to monitor clearance performance and report progress to the PMAC and the CMAA.[48] The current planning and

38 Email from Tep Kallyan, CMAA, 9 May 2023; and CMAS 20.
39 Interview with Mick Raine and Michael Heiman, APOPO, in Siem Reap, 28 May 2024.
40 Emails from Tony Fernandes, MAG, 31 March 2023.
41 Email from Sron Samrithea, NPA, 15 May 2024.
42 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 10 May 2022: and Hean Kimsin, CMAA, 15 June 2024.
43 Email from Tep Kallyan, CMAA, 9 May 2023.
44 Email from Sron Samrithea, NPA, 6 May 2023; UNDP, Clearing for Results IV, 2023 Annual Project Progress Report, p. 17.
45 Email from Hean Kimsin, CMAA, 15 June 2024.
46 CMAA, National Mine Action Strategy 2018–2025, p. 9.
47 Ibid., p. 10.
48 APMBC Article 5 deadline Extension Request, 27 March 2019, p. 5.

prioritisation practices in Cambodia follow a combination of top-down and bottom-up approaches. The top-down approach involves CMAA establishing a list of priority villages based on agreed criteria. The bottom-up approach involves MAPUs developing their work plans in accordance with the planning and prioritisation guidelines and in consultation with operators and local authorities.[49] The PMACs approve the MAPU's work plans, which are then endorsed by the CMAA.

The prioritisation process for the selection of CMR tasks is not as well established as the process for releasing mined areas, largely due to the absence of comprehensive, verifiable CMR data.[50] 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.[51]

## STANDARDS AND LAND RELEASE EFFICIENCY

Mine action is conducted according to the CMAS, which are broadly consistent with the International Mine Action Standards (IMAS).[52] The CMAA approved the CMRS methodology in principle in 2017 and signed a national mine action standard for CMRS (CMAS 16) in 2018, which is being implemented by operators.[53] CMAS 16 is largely based on the experience of other programmes in the region implementing the CMRS method, which combines non-technical survey (NTS) and TS.[54] However, the CMAA and operators continued to debate criteria for releasing areas of BLS polygons not confirmed as hazardous by TS so as to accelerate land release.[55]

## OPERATORS AND OPERATIONAL TOOLS

Survey and clearance of CMR in 2023 was conducted by two national operators CMAC and CSHD, and three international operators, APOPO, MAG, and NPA.

**Table 3: Operational clearance capacities deployed in 2023[56]**

| Operator | Manual clearance teams | Total deminers* | Animal detection capacity (dogs and handlers) | Mechanical assets/ machines** | Comments |
|---|---|---|---|---|---|
| APOPO (in partnership with MAG) | | 4 | APOPO, in partnership with MAG, had 1 TSD team with 4 dogs and 4 handlers using Garmin trackers for CMTS in Rattanakiri province. | 0 | |
| CMAC | NR | NR | NR | NR | |
| MAG | 10 BAC teams | 85 | 0 | 4 drones | MAG also deployed 3 CMTS teams with 30 staff who do not release land.<br>Drones are used for mapping. |
| NPA | 2 | 8 | 3 teams totalling 6 dogs and 6 dog handlers | | |
| **Totals** | **12** | **97** | **10 dogs** | **4 drones** | |

* Excluding team leaders, medics, and drivers. ** Excluding vegetation cutters and sifters.
EOD = Explosive ordnance disposal NR = Not reported

APOPO employed one TS dog teams with four handlers and four dogs working in a joint project with MAG in Ratanak Kiri province. The dogs work on a long (27-metre) lease and are trained to search through thick vegetation avoiding the need for brush cutting and ground preparation. They also carry Garmin electronic track-and-trace systems that allow remote monitoring and generate IMSMA-compatible data. Two of the handlers, including the team leader, are APOPO staff and two from CMAC.[57]

49 Ibid.; and interview with Prum Sophakmonkol, CMAA, Geneva, 11 February 2020.
50 Emails from Rebecca Letven, MAG, 7 April and 4 September 2020.
51 Email from Zlatko Vezilic, NPA, 4 April 2019.
52 Emails from Rebecca Letven, MAG, 7 April 2020; and Zlatko Vezilic, NPA, 19 March 2020.
53 Emails from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 6 September 2020; and Portia Stratton, NPA, 4 September 2020.
54 Email from Ros Sophal, on behalf of Prum Sophakmonkol, CMAA, 14 May 2021.
55 Online interview with Tony Fernandes, Technical Operations Manager, MAG, 16 May 2022; and email from Sron Samrithea, NPA, 5 July 2022.
56 Emails from Mick Raine, APOPO, 24 May 2024; Alexey Kuk, MAG, 11 April 2024 and Sron Samrithea, NPA, 15 May 2024.
57 Email from Mick Raine, APOPO, 24 May 2024 and interview in Siem Reap, 28 May 2024.

CMAC, employing 2,100 permanent staff in 2023[58] is the biggest demining operator in Cambodia. CMAC did not report details of capacity deployed for survey and clearance of CMR in 2023.

MAG's CMR survey and clearance operations focused on Ratana Kiri province where two of its 10 BAC teams are working with Scorpion detectors and a third team are equipped with VMX-10 detectors, all provided by the US Department of Defense's Humanitarian Demining Research & Development Programme. It also deploys two CMR TS teams and a third APOPO dog team. MAG's capacity includes four mechanical teams and drones used for mapping.[59]

NPA has expanded since 2022 when reduced funding reduced its capacity to one clearance team and four NTS teams. In 2023, NPA deployed two clearance teams, four NTS teams, and one TS team. In 2024, it has expanded further to a total of eight multi-task teams—six focused on clearance and two on TS—with another six teams conducting NTS.[60]

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2023

Cambodia released a total of 27,498,072m$^2$ through survey and clearance in 2023, according to official data,[61] which is little more than half the area officially released in 2022. The CMAA attributed the downturn primarily to the high priority Cambodia gave to accelerating mine survey and clearance with a view to achieving its 2025 deadline for completion. Official results also show a sharp drop in the number of submunitions destroyed to 2,649 in 2023 – half the 5,254 items destroyed in 2022.[62] The official figure, as has typically been the case, significantly understates the results reported by operators, pointing to delays in quality assurance of tasks and final approval of land release reports, which hold back the uploading of results into the database.

## SURVEY IN 2023

A sharp reduction in the area released through survey contributed to the overall downturn in CMR land release in 2023. NPA cancelled only 0.3km$^2$ in the course of NTS in 2023 compared with 5.3km$^2$ the previous year when it surveyed a lot of old tasks allowing a lot of cancellation.[63]

**Table 4: CMR areas cancelled through NTS in 2023[64]**

| Operator | Province | Area cancelled (m$^2$) |
|---|---|---|
| NPA | Ratanak Kiri | 313,756 |
| **Total** | | **313,756** |

The area reduced through TS also sharply contracted to 7.7km$^2$ in 2023, less than half the 16km$^2$ released through TS in 2022. NPA reduced only 0.07km$^2$ of Ratanak Kiri province in 2023 compared with 6km$^2$ in 2022 and CMAC, which worked in seven other provinces reduced 7.7km$^2$, down from nearly 10km$^2$ in 2022.[65]

**Table 5: CMR area reduced through TS in 2023[66]**

| Operator | Province | Area reduced (m$^2$) |
|---|---|---|
| CMAC | Kampong Cham, Kampong Thom, Kratie, Mondul Kiri, Prey Veng, Stung Treng, Svay Rieng | 7,674,630 |
| NPA[67] | Ratanak Kiri | 67,500 |
| **Total** | | **7,742,130** |

## CLEARANCE IN 2023

Official results show CMR-affected areas released through clearance fell to 19.4km$^2$ in 2023, one-third less than the previous year (see Table 6).[68] But more reliable operator data suggests this was only half the amount of land cleared (see Table 7) and that operators overall increased the amount of land they cleared by 24% in 2023.

58 Interview with Heng Ratana, CMAC, 27 May 2024.
59 Email from Alexey Kruk, MAG, 11 April 2024.
60 Email from Sron Samrithea, NPA, 15 May 2024.
61 Email from Hean Kimsin, CMAA, 15 June 2024.
62 Emails from Hean Kimsin, CMAA, 15 June 2024; and Tep Kallyan, CMAA, 9 May 2023.
63 Email from Rune Andresen, Country Director, NPA, 29 May 2024.
64 Emails from Hean Kimsin, CMAA, 15 June 2024; and Rune Andresen, NPA, 29 May 2024.
65 Email from Hean Kimsin, CMAA, 15 June 2024.
66 Ibid.
67 NPA reported that it reduced 68,566m$^2$ through TS in 2023. Email from Rune Andresen, NPA, 29 May 2024.
68 Email from Hean Kimsin, CMAA, 15 June 2024.

**Table 6: CMR clearance in 2023 (official data)[69]**

| Operator | Area of operation | Area cleared ($m^2$) | Submunitions destroyed | Submunitions destroyed in spot tasks | UXO destroyed |
|---|---|---|---|---|---|
| CMAC | Kampong Cham, Kampong Thom, Kratie, Mondul Kiri, Prey Vihear, Prey Veng, Stung Treng, Svay Rieng, Tboung Khmum | 16,582,235 | 2,196 | 106 | 2,100 |
| MAG | Ratanak Kiri | 1,748,690 | 23 | 207 | 403 |
| NPA | Ratanak Kiri | 1,111,261 | 117 | 0 | 55 |
| **Totals** | | **19,442,186** | **2,336** | **313** | **2,558** |

CMAC alone cleared more than 29$km^2$, about the same amount as in 2022, according to results provided by NPA, which monitors CMAC's Demining Unit 5 on behalf the unit's donor, the US Department of State's Bureau of Political-Military Affairs (PM/WRA).[70] MAG, which had recorded clearing 5.6$km^2$ in 2022 and operated with the same capacity, said it cleared 7.5$km^2$ in 2023, attributing the increase to easier topographical conditions allowing higher productivity.[71]

Operator data also suggest that CMAC, MAG, and NPA destroyed a total of at least 7,800 submunitions in 2023, almost three times the official total. This comprised 7,293 destroyed by operators during clearance and 507 destroyed by MAG and NPA during spot task EOD.[72] The number of CMR destroyed by CMAC in EOD operations was not immediately available.

**Table 7: CMR clearance in 2023 (operator data)[73]**

| Operator | Province | Area cleared ($m^2$) | Submunitions destroyed | Other UXO destroyed |
|---|---|---|---|---|
| CMAC | Kampong Cham, Kampong Thom, Kratie, Mondul Kiri, Prey Vihear, Prey Veng, Stung Treng, Svay Rieng, Tboung Khmum | 29,658,546 | 6,282 | N/R |
| MAG[74] | Ratanak Kiri | 7,466,993 | 831 | 5 |
| NPA[75] | Ratanak Kiri | 1,112,421 | 180 | 8 |
| **Totals** | | **38,237,960** | **7,293** | **13** |

## PROGRESS TOWARDS COMPLETION

Cambodia's National Mine Action Strategy 2018–2025 focused on trying to complete mine clearance though it also set a target of releasing 80% of known CMR contamination by 2025. The remaining 20% would be considered as residual. At the time, it estimated CMR contamination at 645$km^2$ and aimed to release 499$km^2$ by 2025. Cambodia believed 30% could be released through cancellation or land reclamation and called for release of 44$km^2$ a year through TS or clearance in order to release the rest. However, Cambodia has never reached that level of land release and continues to identify previously unrecorded CMR hazardous areas that raise the estimate of total contamination. It has recognised it will not achieve that goal and still needs to define more precisely the extent of CMR contamination.

**Table 8: Five-year summary of CMR clearance**

| Year | Area cleared ($km^2$) |
|---|---|
| 2023 | 38.24 |
| 2022 | 30.36 |
| 2021 | 20.58 |
| 2020 | 30.99 |
| 2019 | 25.23 |
| **Total** | **145.40** |

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Goal Seven of Cambodia's National Mine Action Strategy 2018–2025 is to establish a sustainable national capacity to address residual threats after 2025. Reference to the issue is also included in the foreword to the Strategy signed by the Cambodian Prime Minister and noted throughout the document. The CMAA worked with the GICHD in 2022 drafting a paper on the legal and institutional framework required for a comprehensive response to residual contamination identified after completion.[76]

69 Ibid.
70 Email from Rune Andresen, NPA, 29 May 2024.
71 Email from Alexey Kruk, MAG, 11 April 2024.
72 Emails from Alexey Kruk, MAG, 11 April 2024; and Rune Andresen, NPA, 29 May 2024.
73 Ibid.
74 Email from Alexey Kruk, MAG, 11 April 2024.
75 Email from Rune Andresen, NPA, 29 May 2024.
76 UNDP Clearing for Results IV, *Annual Project Progress Report 2022*, p. 18.

# IRAN



## KEY DATA

### CLUSTER MUNITION CONTAMINATION:

NOT REPORTED

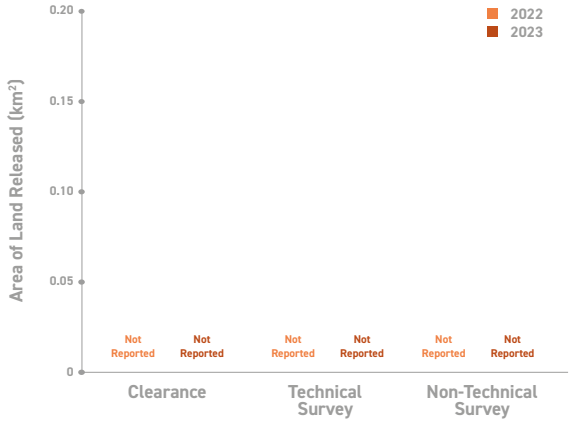
SUBMUNITION CLEARANCE IN 2023

NOT REPORTED

SUBMUNITIONS DESTROYED IN 2023

NOT REPORTED

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

Available data on contamination and land release of cluster munition-affected areas in Iran continue to be extremely limited. There is no publicly available evidence to suggest that survey or clearance of cluster munition-contaminated areas took place in 2023.

## RECOMMENDATIONS FOR ACTION

- **Iran should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.**
- **Iran should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.**
- **Iran should report publicly on the extent and location of CMR and prepare a plan for their clearance and destruction.**

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Iran Mine Action Centre (IRMAC)

### NATIONAL OPERATORS*

- IRMAC
- Iranian Army
- Iranian Revolutionary Guard Corps
- Commercial operators

### INTERNATIONAL OPERATORS

- None

### OTHER ACTORS

- International Committee of the Red Cross (ICRC)

* This is based on information from earlier years. It is not known if the information remains accurate.

## UNDERSTANDING OF CMR CONTAMINATION

The areas of Iran most significantly affected by weapons contamination, including mines and explosive remnants of war (ERW), are believed to be in the five western provinces of West Azerbaijan, Ilam, Kurdistan, Kermanshah, and Khuzestan.[1] However, the extent of contamination from cluster munition remnants (CMR) is not known.

Some contamination is believed to remain from the Iran-Iraq war in 1980–88,[2] 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.[3] Air Force explosive ordnance disposal (EOD) teams cleared many unexploded submunitions after attacks but, as at 2014, contamination remained around Mah-Shahr and the port of Bandar Imam Khomeini, according to a retired Iranian Air Force colonel.[4] In 2020, 18 submunitions were discovered during ERW clearance of some 7km$^2$ in a commercial clearance project in Khuzestan province in the south-west of Iran.[5]

The extent to which Iran is undertaking or planning survey to establish a baseline of CMR contamination is not known. It is also not known to what extent Iran disaggregates areas identified as contaminated by weapon type, for example unexploded submunitions from other ERW.

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Iran also has areas containing anti-personnel mines (see Mine Action Review's *Clearing the Mines* report on Iran for further information).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Iran Mine Action Centre (IRMAC) was established as the national mine action centre in 2005, taking the place of a mine action committee within the Ministry of Defence. In 2014, IRMAC reported that it was responsible for planning, data, managing survey, procurement, and the accreditation of demining operators. It was also tasked with setting standards, providing training for clearance operators, concluding contracts with demining operators, and ensuring quality assurance (QA) and quality control (QC) of their operations. IRMAC also coordinated mine action with the General Staff of the Armed Forces, the Ministry of Interior, the Management and Planning Organisation of Iran, and other relevant ministries and organisations, while also managing international relations.[6] At the time of writing, Mine Action Review had not been able to establish if this description of IRMAC's role and responsibilities remained up to date.

The amount of national resources Iran contributes to support the cost of IRMAC or the survey and clearance of CMR-contaminated areas is not known. However, Iran is believed to have dedicated significant resources and effort to clearing areas on its territory contaminated by other ERW and mines.[7] The results of survey and clearance have not been made publicly available.

## GENDER AND DIVERSITY

The extent to which gender and diversity are mainstreamed into mine action in Iran is not known.

## ENVIRONMENTAL POLICIES AND ACTION

It is not known whether Iran has a national mine action standard (NMAS) on environmental management and/or a policy on environmental management. It has been reported, however, that Iran's Ministry for the Environment does regulate environmental practices in mine action to some extent.[8]

1 International Committee of the Red Cross (ICRC), "Weapon Contamination", accessed 29 May 2024 at: https://bit.ly/3OTC55t.

2 Statement by Gholamhossein Dehghani, Ministry of Foreign Affairs of Iran, Convention on Cluster Munitions (CCM), Second Meeting of States Parties, Beirut, 13 September 2011.

3 Landmine and Cluster Munition Monitor, "Iran Cluster Munition Ban Policy", 4 September 2020, at: http://bit.ly/3uRJDbQ.

4 Interview with Air Force Colonel (ret.) Ali Alizadeh, Tehran, 8 February 2014.

5 Information provided by Reza Amaninasab, Ambassadors for Development Without Borders, August 2020.

6 IRMAC PowerPoint Presentation, Tehran, 9 February 2014; and IRMAC, "Presentation of IRMAC".

7 ICRC, "Experts from over 15 nations attend round-table on humanitarian mine action", Press release, 15 March 2019, at: https://bit.ly/3N7Ca4e; and ICRC, "Weapon Contamination".

8 Email from Narges Jahanparast, Ambassadors for Development Without Borders, 26 April 2023.

## INFORMATION MANAGEMENT AND REPORTING

It is not known to what extent IRMAC is able to disaggregate CMR contamination and clearance output from that of other explosive ordnance. It has been reported that IRMAC's database is comprehensive and accurate and that operators provide regular activity reports to IRMAC on both humanitarian and commercial mine action projects.[9] However, Mine Action Review has not been able to obtain further information on this from IRMAC.

In 2020, IRMAC reported that it had a geographic information system (GIS), web-based, integrated information management system, which integrates information on quality, safety, and the environment.[10] In 2022, IRMAC launched an application for smartphones, which is reported to contain all data from historical and current clearance operations and intended to provide mine action organisations with a comprehensive view of contaminated and cleared areas identified by IRMAC. The application is also said to contain information about explosive incidents and is updated on a regular basis. The application is available to operators and interested parties upon request.[11] At the time of writing, it had not been possible to ascertain whether it includes data on cluster munition-affected areas.

## PLANNING AND TASKING

It is not known whether Iran has a national mine action strategy or an annual work plan for the survey and clearance of CMR or agreed and specified criteria for the prioritisation of tasks.

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Iran reportedly has national mine action standards in place.[12] No information was available on quality management (QM) procedures for clearance in Iran, although it was reported in 2023 that a subsidiary of IRMAC performs quality assurance (QA) and quality control (QC) of commercial demining.[13]

### OPERATORS AND OPERATIONAL TOOLS

No up-to-date information was available on Iran's national survey and clearance capacity. In 2023, it was reported that IRMAC continued to undertake humanitarian demining,[14] although it was not clear what capacity, if any, was being deployed to survey or clear cluster munition-contaminated areas.

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 the west and south-west of the country, close to the border with Iraq.[15]

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

No information was available on land release activities in Iran in 2023. It is not known if any cluster munition-contaminated areas were released through survey or clearance in 2023 or whether any newly discovered areas of CMR contamination were added to the national database.

It was, however, reported in 2023 that commercial clearance in the west of the country had resulted in the destruction of 13 submunitions as well as 188 landmines and 1,690 items of unexploded ordnance (UXO), although most of these items were cleared in 2022.[16]

9 Email from Reza Amaninasab, Director, Ambassadors for Development Without Borders, 23 March 2023.

10 IRMAC PowerPoint presentation, available at: http://bit.ly/38ALojt; and presentation by Mr Pourbagher, Deputy Director of IRMAC, 23rd International Meeting of Mine Action National Directors and UN Advisers, 11–14 February 2020, Geneva.

11 Emails from Reza Amaninasab, Ambassadors for Development Without Borders, 23 March 2023; and Narges Jahanparast, Ambassadors for Development Without Borders, 26 April and 6 May 2023.

12 Email from Narges Jahanparast, Ambassadors for Development Without Borders, 6 June 2023.

13 Email from Narges Jahanparast, Ambassadors for Development Without Borders, 26 April 2023.

14 Ibid.

15 Email from Narges Jahanparast, Ambassadors for Development Without Borders, 6 June 2023.

16 Emails from Narges Jahanparast, Ambassadors for Development Without Borders, 26 April, 6 May, and 6 June 2023.

## PROGRESS TOWARDS COMPLETION

As the extent of CMR contamination in Iran remains unknown and little information is available on the overall effectiveness of Iran's national mine action programme, it is not possible to comment on the extent to which Iran is making reasonable progress towards release of CMR-affected areas.

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

It is not known to what extent Iran is making provision for a sustainable capacity to address previously unknown CMR-contaminated areas following completion of large-scale clearance.

# LIBYA

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

## KEY DATA

### CLUSTER MUNITION CONTAMINATION:

LIBMAC DATA

**18,092M²**

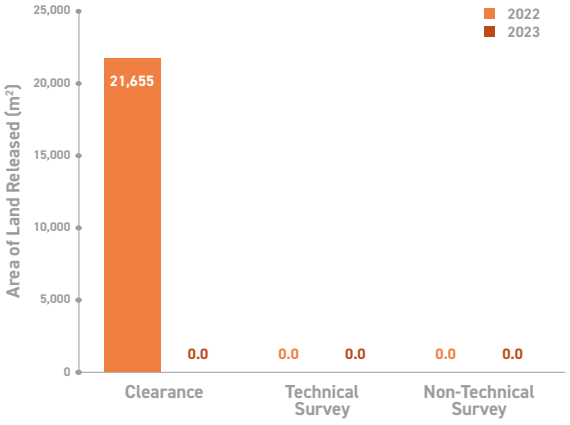
SUBMUNITION CLEARANCE IN 2023

**0M²**

SUBMUNITIONS DESTROYED IN 2023

**0**

### LAND RELEASE OUTPUT




## RECOMMENDATIONS FOR ACTION

- **Libya should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.**
- **The "Libyan National Army" (LNA) should allow mine action operators to operate in the east and return all equipment and vehicles that has been seized from them.**
- **Libya should conduct a baseline survey to identify the extent of cluster munition remnants (CMR) contamination and begin systematic clearance based primarily on humanitarian priorities.**
- **Libya should draft and adopt a national mine action strategy.**

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- The Libyan Mine Action Centre (LibMAC)

### NATIONAL OPERATORS

- Free Fields Foundation (3F)
- The Safe Trust Non-governmental organisation (NGO), (Al-Thiqa al-Amena, accredited and supported by DCA)
- The Communication NGO (Al-Tawasol)
- Libyan Peace Organisation (accredited, and supported by DRC)

### INTERNATIONAL OPERATORS

- DanChurchAid (DCA)
- Danish Refugee Council Humanitarian Disarmament and Peacebuilding sector (formally known as Danish Demining Group (DDG). Hereafter referred to as DRC
- The HALO Trust (HALO)
- Humanity and Inclusion (HI)

### OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

## UNDERSTANDING OF CMR CONTAMINATION

CMR contamination in Libya is largely the consequence of use in the armed conflicts in 2011 and renewed conflict since 2014. As of April 2024, the Libyan Mine Action Centre (LibMAC) had identified 18,092m$^2$ of area contaminated by CMR.[1]

In 2011, armed forces used at least three types of cluster munition: MAT-120 mortar projectiles, RBK-250 PTAB-2.5M cluster bombs, and Dual-Purpose Improved Conventional Munitions (DPICMs), which were delivered by rocket.[2] In early 2015, fighting between Libya's rival armed groups saw reported new use of cluster munitions, including RBK-250 PTAB-2.5M bombs, in attacks on Bin Jawad near the port of Es-Sidr in February, and in the vicinity of Sirte in March. The Libyan Air Force, controlled by the internationally recognised government of the time, had bombed both locations, though it denied using cluster munitions.[3]

In July 2019, LibMAC reported the use of RBK-250-275 cluster bombs in three areas: Al-Hira Bridge (Al-Sawani), the Bir al-Ghanam area south-west of Tripoli (Nafusa Mountains), and Aziziya (south of Tripoli).[4] The same year, Humanity and Inclusion (HI) reported three areas containing CMR on the basis of its own operations. One cluster munition-contaminated area was confirmed in 2017 through non-technical survey (NTS) in the Nafusa mountains region, near the town of Kikla, in north-west Libya. In 2018–19, HI found further cluster munition strikes in Tawargha and Al Karareem.[5]

In May 2019, the LNA, led by commander Khalifa Haftar was accused of using cluster bombs in attacks in and around Tripoli.[6] On 15 and 16 August 2019, aircraft of forces affiliated with the LNA dropped cluster munitions on Zuwarah International Airport according to the United Nations (UN) Panel of Experts.[7] Human Rights Watch has stated that forces aligned to Haftar also used cluster munitions in an airstrike in a residential area in Tripoli on or around 2 December 2019. The organisation visited the site on 17 December 2019 and found remnants of two RBK-250 PTAB-2.5M cluster bombs. The area was not known to be contaminated by cluster munitions before the attack.[8]

The HALO Trust (HALO) reports that cluster munitions were kicked out from ammunition storage areas in Misrata and Mizdah (north). In Sirte (north centre), there is minimal evidence of presence of CMR, although 22 DPICMs were found by HALO in 2021 and 28 submunitions in 2022.[9] None of the international operators present in Libya reported discovering CMR in 2023.

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Libya is also contaminated by UXO other than unexploded submunitions as well as by anti-personnel mines, including those of an improvised nature (see Mine Action Review's *Clearing the Mines* report on Libya for further information), and by other improvised explosive devices (IEDs).[10]

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Mine action exists in a fragmented and occasionally violent political context. Following years of armed conflict, a new UN-backed "unity" government, the Government of National Accord (GNA), was formally installed in Tripoli in early 2016. It has faced armed opposition from the LNA and a host of militia forces. The warring parties reached a ceasefire agreement to halt hostilities in October 2020, which culminated in the election of an interim government with a roadmap leading to national elections in December 2021. Since then, Libya's progress towards elections have stalled and national elections were never held. A national reconciliation conference due to take place in April 2024 was not held.[11]

LibMAC was mandated by the Minister of Defence to coordinate mine action in December 2011.[12] Operating under the UN-backed GNA, LibMAC has its headquarters in Tripoli, with sub-offices in Misrata and Benghazi.[13] ITF Enhancing Human Security (ITF), which started its capacity-building project in Libya in January 2014, pays the salary of 27 LibMAC employees and covers other overhead costs.[14]

In August 2023, the LNA ordered the suspension of three national and international mine action organisations operating in Benghazi and Sirt (DanChurchAid (DCA), Danish Refugee Council (DRC), and Free Fields Foundation (3F)), and seized vehicles and demining equipment, leading DRC and

1 Presentation by the Libyan Mine Action Centre (LibMAC), 27th International Meeting of Mine Action National Directors and UN Advisors, Geneva, 9–11 April 2024.
2 Cluster Munition Monitor, "Libya: Cluster Munition Ban Policy", Last updated 27 July 2019.
3 Human Rights Watch, "Libya: Evidence of new cluster bomb use", 15 March 2015.
4 Email from Col. Adel Elatwi, Chief of Operations, on behalf of Brig. Turjoman, LibMAC, 4 July 2019.
5 Email from Catherine Smith, Head of Mission, HI, 12 March 2019.
6 Cluster Munition Monitor, "Libya: Cluster Munition Ban Policy", Last updated 27 July 2019; and "Tripoli forces claim successes and accuse Haftar of using cluster bombs and internationally banned phosphorus bombs", *Libya Herald*, 20 June 2019.
7 Human Rights Watch, "Libya: Banned Cluster Munitions Used in Tripoli", 13 February 2020, at: http://bit.ly/3gAfq9G.
8 Human Rights Watch, "Libya: Banned Cluster Munitions Used in Tripoli", 13 February 2020.
9 Emails from Zita Andrassy, Programme Officer Libya, HALO, 27 February 2022; and Charles Fowle, HALO, 5 May 2024.
10 "Lives and Limbs Shattered by Libya Mines", Asharq Al-Awsat, 5 April 2018, at: https://bit.ly/3URCR5q.
11 "As another UN envoy resigns, what next for Libya's frozen conflict?", The New Arab, 25 April 2024, at: https://bit.ly/3URCR5q; and World Organisation Against Torture (OMCT), "Will 2024 finally see elections in Libya?", Blog, 13 March 2024, at: https://bit.ly/4bfFFiD.
12 LibMAC website, accessed 9 May 2024, at: http://bit.ly/2JqVr0S.
13 Presentation of LibMAC, 27th NDM, Geneva, 9–11 April 2024.
14 ITF, *Annual Report 2023*, p. 103.

other organisations to halt all operations and close their office.[15] LibMAC said they were engaging in a dialogue with the concerned authorities to enable operations to resume.[16] The meeting of implementing partners, which was jointly chaired by UNMAS and LibMAC, discussed removing the suspension.[17]

UNMAS, which is part of the UN Support Mission In Libya (UNSMIL), has maintained a permanent presence since October 2020. UNMAS helped LibMAC develop the information Management System for Mine Action (IMSMA) Core, and, in collaboration with the Geneva International Centre for Humanitarian Demining (GICHD) supported the migration of the database. UNMAS also supported the accreditation of two teams of a mine action organisation in 2023. UNMAS provided a three-week training to 16 LibMAC officers on "Operations and Quality Assurance".[18]

UNMAS and LibMAC chair monthly virtual and quarterly in-person implementing partners meetings, which are attended by key mine action stakeholders.[19]

Following an eight month-long visa blockade that had taken a heavy toll on operations in 2022, the issuance of visa and accreditation have significantly improved by the end of 2023. DCA and HALO confirmed that their staff managed to obtain visas on regular basis.[20] DRC staff acquired single-entry visa at the end of 2023, followed by multiple-entry visa at the beginning of 2024. At the beginning of 2024, DRC struggled to import explosive ordnance disposal (EOD) equipment into Libya.[21] HALO has not attempted to import equipment since November 2023, but has faced challenges moving assets from west to east Libya since the second half of 2023.[22]

In its Article 7 report for the Anti-Personnel Mine Ban Convention (APMBC), Türkiye said it provided training on mine clearance, counter improvised explosive devices (IEDs), and EOD in 2023.[23]

## GENDER AND DIVERSITY

LibMAC does not have a gender and diversity policy for mine action in place. LibMAC disaggregates mine action data by sex and age.[24]

DCA's Libya programme has an active policy of employing women into programme roles to increase their financial independence and teach them transferable skills that they may use beyond their current employment with DCA.[25] Women constituted 17% of all DCA employees in 2023. Of managerial and operational positions, 57% and 29% were occupied by women, respectively.[26]

DRC takes into consideration gender and age factors when collecting information on how contamination impacts different groups. DRC employed mixed gender teams in the field in 2023, and continues where possible.[27] In 2023, 22% of DRC's staff were female. Women occupied 43% of managerial and 63% of operational positions.[28]

HALO's community liaison officers in Libya are all women. Data collected are disaggregated by gender and age. HALO, however, reported difficulty in hiring women for operational demining roles.[29] Of a total of 25 HALO staff in 2023, 20% were women. In terms of managerial/supervisory positions, 40% were filled by women. Women did not occupy any operational positions in 2023.[30]

## ENVIRONMENTAL POLICIES AND ACTION

Libya does not have a national mine action standard (NMAS) or a policy on environmental management.[31]

DCA has an environmental management system and standard operational procedures (SOPs) in place. It takes into account the impacts of the destruction of explosive remnants of war (ERW) prior to any battle area clearance (BAC) or EOD spot task, and puts in place mitigation measures. DCA has a policy of non-use of explosives in favour of thermite to stop more nitrates from contaminating topsoil when operating in farmland. No open burning takes place and sandbags are made from hemp instead of plastic. DCA conducts environmental assessments to support the planning and delivery of tasks and mitigate any environmental damage.

15 Emails from Wajdi AlKhatib, DRC, 19 April 2024; and Tess Bresnan, UNMAS, 7 June 2024.
16 Ibid.
17 Emails from Tess Bresnan, UNMAS, 3 May and 7 June 2024.
18 Ibid.; and emails from Sharmeela Aminath, UNMAS, 16 March 2023; and Samir Becirovic, UNMAS, 2 March 2022.
19 Emails from Sharmeela Aminath, UNMAS, 16 March 2023; Samir Becirovic, UNMAS, 10 June 2022, and Tess Bresnan, UNMAS, 3 May 2024.
20 Emails from Graeme Ogilvie, Country Director, DCA, 16 April 2024; and Josh Ridley, HALO, 16 May 2024.
21 Email from Wajdi AlKhatib, DRC, 19 April 2024.
22 Email from Josh Ridley, HALO, 16 May 2024.
23 2023 Article 7 report of Türkiye to the Anti-Personnel Mine Ban Convention (APMBC).
24 Email from Col. Adel Elatwi, LibMAC, 22 April 2021.
25 Email from Graeme Ogilvie, DCA, 20 April 2021.
26 Emails from Graeme Ogilvie, DCA, 17 March 2023 and 16 April 2024.
27 Emails from Alessandro Di Giusto, DRC, 7 March 2022; and Anna Salvari, DRC, 26 June 2023.
28 Email from Wajdi Alkhatib, DRC, 19 April 2024.
29 Email from Zita Andrassy, HALO, 27 February 2022.
30 Email from Josh Ridley, HALO, 16 May 2024.
31 Emails from Graeme Ogilvie, DCA, 1 April 2022; Alessandro Di Giusto, DRC, 7 March 2022; and Zita Andrassy, HALO, 27 February 2022.

Factors taken into consideration include soil integrity, land used for local food production, water supply, animal, and plant life. DCA also takes into account climate related or extreme weather risks, particularly with the increasing violent whether patterns and increasing floods in the areas of operation.[32]

DRC does not have an environmental management system. It takes into account "do-not-harm" elements in consideration of environmental impact and policy when planning its operations. A new global climate and environment team has been established to support the development and roll-out of the key priority areas set forward in DRC's 2025 strategy and climate and environment framework.[33]

HALO has an environment policy in place. In 2023, HALO Libya developed its rubble recycling capabilities and secured funding for a rubble recycling pilot project as rubble can be crushed and repurposed for various concrete and road building applications. A key objective of rubble recycling is to reduce emissions from concrete production. Rubble recycling also reduces natural resource extraction in addition to thousands of tonnes of rubble occupying space at a landfill site.[34]

## INFORMATION MANAGEMENT AND REPORTING

LibMAC receives technical support in information management from the GICHD and UNMAS. LibMAC successfully completed the upgrade of IMSMA database from New Generation (NG) version to IMSMA Core in 2023.[35] The information in the database is extensive but is focused on major cities. Further NTS is required in the north and there are anecdotal reports of more explosive contamination in the south of the country. In some instances, polygons are very large, over 10km$^2$, and the length of time since the original survey indicates a need to resurvey.[36]

The use of Survey123 for data collection in the field has enabled LibMAC to encourage organisations to accelerate the submission process and enhance the visibility of reporting issues.[37]

## PLANNING AND TASKING

There is no national mine action strategy for Libya.[38] In April 2024, LibMAC said it planned to draft a mine action strategy with the support of GICHD and UNMAS. The GICHD was carrying out a general assessment to the Libya mine action programme in the second half of 2024. LibMAC does not appear to prioritise survey or clearance of CMR, but has been prioritising clearance of other explosive ordnance around of essential infrastructure and public facilities, such as Tripoli airport, main roads, power lines, and residential areas.[39] In April 2024, LibMAC issued a clear direction for mine action operators to prioritise BAC.[40]

LibMAC is responsible for issuing task orders. But owing to the small number of clearance teams 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 an immediate threat to life.[41]

## 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 2017. The LibMAS are available on the LibMAC website.[42] According to international clearance operators, the LibMAS are sufficient and aligned to the International Mine Action Standards (IMAS).[43] But the national standards have not been updated since being approved in 2017.[44]

32 Emails from Graeme Ogilvie 1 April 2022 and 16 April 2024.
33 Emails from Alessandro Di Giusto, DRC, 7 March 2022, and Wajdi AlKhatib, DRC, 19 April 2024.
34 Email from Josh Ridley, HALO, 16 May 2024.
35 Email from Tess Bresnan, UNMAS, 3 May 2024.
36 Email from Josh Ridley, HALO, 16 May 2024.
37 Ibid.
38 Email from Col. Adel Elatwi, LibMAC, 22 April 2021.
39 Presentation of LibMAC, 27th NDM meeting, Geneva, 9–11 April 2024.
40 Emails from Josh Ridley, HALO, 16 May 2024; and Tess Bresnan, UNMAS, 6 June 2024.
41 Emails from Graeme Ogilvie, DCA, 20 April 2021 and 17 March 2023.
42 LibMAC website, accessed 20 May 2022 at: https://bit.ly/3ldhvx2. Report of the Secretary-General on UNSMIL, UN doc. S/2018/140, 12 February 2018, p. 12; and UNMAS, "Programmes: Libya", accessed 14 May 2022 at: http://bit.ly/31tU1tB.
43 Emails from Catherine Smith, HI, 12 March 2019; Nicholas Torbet, HALO, 14 April 2020, and Charles Fowle, HALO, 5 May 2023.
44 Email from Wajdi AlKhatib, DRC, 19 April 2024.

## OPERATORS AND OPERATIONAL TOOLS

Mine action operations have been conducted by government entities, in particular LibMAC as a leader in mine action response, but also the National Safety Authority (NSA), which is mandated to conduct EOD in civilian areas.[45] These institutions liaise with LibMAC but are not tasked or accredited by them, nor do they provide clearance reports to the Centre.[46]

**Table 1: Operational survey capacities deployed in 2023[47]**

| Operator | NTS teams | Total NTS personnel | TS teams | Total TS personnel | Comment |
|---|---|---|---|---|---|
| 3F[48] | 2 | 6 | 0 | 0 | |
| DCA | 2 | 16 | 0 | 0 | |
| DRC | 1 | 4 | 0 | 0 | |
| HALO | 1 | 4 | 0 | 0 | NTS team was made redundant in mid 2023 |
| Libya Peace Organisation[49] | 2 | 6 | 0 | 0 | |
| **Totals** | **8** | **36** | **0** | **0** | |

TS = Technical survey

**Table 2: Operational clearance capacities deployed in 2023[50]**

| Operator | Manual clearance teams | Total deminers | Dog teams (dogs and handlers) | Mechanical assets/ machines |
|---|---|---|---|---|
| DCA | 6 | 54 | 0 | 0 |
| HALO | 0 | 0 | 0 | 4 (3 excavators + 1 bobcat skidsteer). Two tipper trucks are also involved in clearance. |
| **Totals** | **6** | **54** | **0** | **4** |

Four national operators are currently active in Libya: 3F, The Safe Trust (Al-Thiqa Al-Amena), Communication (Al-Tawasol), and Libya Peace Organisation.[51] Libya Peace Organisation, which partners with DRC, is accredited by LibMAC to conduct NTS, EOD, and risk education.[52]

Now in its fourteenth year of working in Libya, DCA has offices in Benghazi, Misrata, Sirte, and Tripoli, and is accredited to conduct clearance and EOD tasks.[53] DCA's capacity did not see significant changes in 2023, but was expected to decrease in 2024 due to budget reductions.[54]

DRC has been set up in Libya since 2011 and DRC had three offices in Libya: in 2013–21 in Sabha (southern region); in 2018–23 in Benghazi (eastern region); and since 2011 in Tripoli. DRC Tripoli office has a capacity of one EOD team, one NTS team, two risk education teams, and a capacity-building project with the partner Libya Peace Organisation. DRC intended to establish a new NTS team to operate in Tripoli in 2024.[55]

HALO has been present in Libya since November 2018, and has offices in Misrata, Sirte, and Tripoli. HALO's main operation focused on mechanical clearance in Sirte in the Jeeza Navy area and at a Misrata ammunition storage area where it found CMR in 2022. HALO accredited one EOD team in 2021, which was deployed to support the clearance activities in Misrata in 2022.[56] HALO made redundant one NTS team, one mechanical clearance team, and one manual clearance team in 2023 due to funding cuts. In March 2024, HALO recruited an additional mechanical clearance team, and cross-trained an EOD team in NTS.[57]

45 Interview with Brig. Turjoman, LibMAC, in Geneva, 10 January 2017; and email from Tess Bresnan, UNMAS, 3 May 2024.
46 Email from Col. Adel Elatwi, LibMAC, 22 April 2021.
47 Emails from Col. Adel Elatwi, LibMAC, 22 April 2021; Graeme Ogilvie, DCA, 16 April 2024; Wajdi AlKhatib, DRC, 19 April 2024; and Josh Ridley, HALO, 16 May 2024.
48 This information was last updated in April 2021.
49 Ibid.
50 Emails from Graeme Ogilvie, DCA, 16 April 2024; and Josh Ridley, HALO, 16 May 2024.
51 Presentation of LibMAC to the 27th NDM meeting, Geneva, 9–11 April 2024.
52 Free Fields Foundations (3F) website, accessed on 20 May 2024, at: https://bit.ly/4bnui8h; and email from Wajdi Alkhatib, DRC, 10 June 2024.
53 Emails from Graeme Ogilvie, DCA, 1 April 2022 and 17 March 2023.
54 Emails from Graeme Ogilvie, DCA, 16 April 2024.
55 Emails from Wajdi AlKhatib, DRC, 19 April and 10 June 2024.
56 Emails from Zita Andrassy, HALO, 27 February 2022; and Charles Fowle, HALO, 5 May 2023.
57 Email from Josh Ridley, HALO, 16 May 2024.

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2023

None of the international operators found CMR in Libya in 2023. Survey or clearance by national operators was not reported to Mine Action Review.

## SURVEY IN 2023

None of the international operators reported CMR survey in Libya in 2023.

## CLEARANCE IN 2023

None of the international operators found CMR in Libya in 2023.

## PROGRESS TOWARDS COMPLETION

A baseline survey is badly needed, but is not practicable in the current political and security context. The strengthening of LibMAC as a mine action coordination entity in Libya continues to be a priority.

# MYANMAR



## UNDERSTANDING OF CMR CONTAMINATION

Myanmar is heavily affected by explosive ordnance as a result of decades-old conflicts between the Tatmadaw (army) and numerous non-state armed groups (NSAGs) affiliated with ethnic minorities. Since the military coup in February 2021 violence has sharply escalated in geographic scope and intensity accompanied by extensive government air strikes and including some use of cluster munitions. The extent of contamination from cluster munition remnants (CMR) is not known but is not thought to be substantial.

Among specific incidents, human rights and news organisations documented Myanmar Air Force use of cluster munitions in attacks on Mindat township in the western Chin State in July 2022[1] and a year later in July 2023.[2] Amnesty International also documented an attack on Namkham township in northern Shan state in December 2023 using bombs that it said were most likely cluster munitions. Photographs of the device's remnants matched those of cluster munitions used in previous Myanmar air force attacks.[3]

UNICEF expressed concern in 2019 about reports of killing of children in Rakhine State as a result of targeting and crossfire, including casualties from cluster munitions, but provided no details.[4] Myanmar Air Force attacks employing cluster munitions have been documented since 2022 in Chin, Karenni (Kayah), Karen (Kayin), and Shan states.[5] The United Nations Special Rapporteur on the situation of human rights in Myanmar said photographic and video evidence suggested continued use of cluster munitions in areas inhabited by civilians.[6]

Mines Advisory Group (MAG) said it had received extensive reports of use of cluster munitions in the central Sagaing region and Chin State but access constraints had prevented a clear determination of the device types employed. Analysis of available photographic evidence suggested Myanmar air force had used an improvised cluster munition dispenser made in Myanmar with steel from Thailand that released 12 submunitions.[7]

### ADDITIONAL INFORMATION

It is not known whether any CMR were destroyed during survey or clearance operations in Myanmar in 2023.

Due to the ongoing conflict and current situation in Myanmar, the information available on the other aspects of the national mine action programme is extremely limited.

1 Amnesty International, "Deadly Cargo", 22 November 2022.
2 "Air strikes by Military Council with bombs and cluster munitions", Burma News International (BNI), 11 July 2023.
3 Amnesty International, "Myanmar military should be investigated for war crimes in response to 'Operation 1027'", 21 December 2023.
4 "UNICEF Myanmar calls for the urgent protection of children in Rakhine State as schools reopen soon", UNICEF website, 28 May 2019.
5 Landmine & Cluster Munition Monitor Briefing Paper, "Cluster Munition Production & Use in Myanmar/Burma", August 2023.
6 Report to the UN Human Rights Council of the Special Rapporteur on the situation of human rights in Myanmar, Thomas H. Andrews, 14 March 2024.
7 Email from Camille Marie-Regnault, Country Director, Mines Advisory Group, 14 May 2024.

# SERBIA

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

## KEY DATA

### CLUSTER MUNITION CONTAMINATION: LIGHT

(LESS THAN 1KM² IN AREAS UNDER CIVILIAN CONTROL, BUT EXTENT OF CONTAMINATION IN AREAS UNDER MILITARY CONTROL NOT REPORTED)

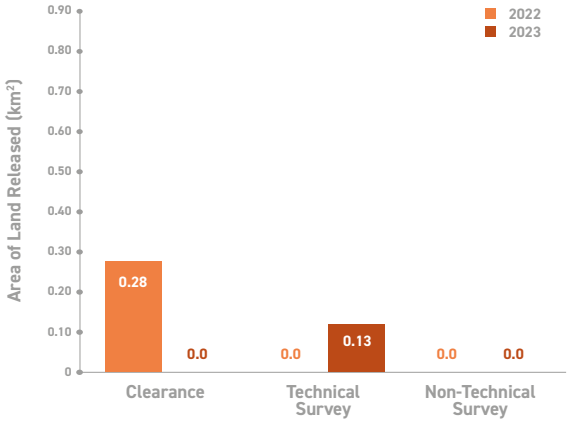
SUBMUNITION CLEARANCE IN 2023

**0KM²**

SUBMUNITIONS DESTROYED IN 2023

**16**

### LAND RELEASE OUTPUT




## RECOMMENDATIONS FOR ACTION

- **Serbia should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.**
- **Serbia should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.**
- **Serbia should consider using its armed forces to conduct clearance of CMR as they are already clearing other unexploded ordnance (UXO).**
- **The Serbian Mine Action Centre (SMAC) should conduct non-technical and technical survey, rather than full clearance where survey is the most efficient means to achieve land release.**

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- The Sector for Emergency Management, Ministry of Interior
- The Serbian Mine Action Centre (SMAC)

### NATIONAL AND INTERNATIONAL OPERATORS

- In 2023, 11 companies/organisations were accredited for demining, but only one conducted technical survey of CMR: Stop Mines

### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- Norwegian People's Aid (NPA)

## UNDERSTANDING OF CMR CONTAMINATION

At the end of 2023, Serbia had a total of just over 0.61km² of cluster munition-contaminated area: one area confirmed to contain CMR covering almost 0.03m² and a second area suspected to contain CMR over 0.58m² (see Table 1).[1] This is

1 Email from Slađana Košutić, Senior Advisor for Planning, International Cooperation and European Integrations, Serbian Mine Action Centre (SMAC), 7 May 2024.

a slight decrease compared to the total of just over 0.74km$^2$ of cluster munition-contaminated area as at the end of 2022, which is the result of release of one suspected hazardous area (SHA) through technical survey (TS).[2]

SMAC does not possess data on explosive ordnance contamination in any areas under the Ministry of Defence (MoD)'s responsibility in Serbia, including former military sites bombed in 1999.[3]

**Table 1: Cluster munition-contaminated area by municipality (at end 2023)[4]**

| Municipality | Village | CHAs | Area (m$^2$) | SHAs | Area (m$^2$) |
|---|---|---|---|---|---|
| Bujanovac | Borovac | 1 | 25,570 | 0 | 0 |
| Užice | Bioska | 0 | 0 | 1 | 584,567 |
| **Totals** | | **1** | **25,570** | **1** | **584,567** |

CHAs = confirmed hazardous areas SHAs = suspected hazardous areas

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] Only two municipalities are considered to still contain contamination today.

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Serbia is also contaminated by other explosive remnants of war (ERW), including unexploded aircraft bombs, both on land and in its internal waterways, as well as by anti-personnel mines[6] (see Mine Action Review's *Clearing the Mines* report on Serbia for further information on the mine threat).

## 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).[7] The NMAA is responsible for developing standard operating procedures (SOPs), accrediting demining operators, and supervising the work of SMAC.[8]

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.[9] Since 1 January 2014, in accordance with the Government Decree on Protection against Unexploded Ordnance, the Sector for Emergency Management under the Ministry of Interior has been responsible for accrediting demining operators. Previously, SMAC was responsible for doing so.[10]

The current director of SMAC was appointed by the Serbian government in July 2019.[11] As at May 2024, fifteen people were employed at SMAC: the Director, two assistant directors, and twelve other employees.[12]

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 2023, Serbia reported that around €450,000 per annum was allocated from the national State budget for the work of SMAC, an increase from €320,000 in 2022.[13] The UXO disposal work of the Sector for Emergency Situations of the Ministry of Interior is also State-funded.[14]

National funding for survey and clearance operations remained at €260,000 in 2023,[15] a level that was expected to be maintained through to 2025. Support was matched with

2 Ibid.
3 Email from Slađana Košutić, SMAC, 11 April 2023.
4 Email from Slađana Košutić, SMAC, 7 May 2024.
5 SMAC, "Mine Situation", accessed 21 April 2023, at: http://bit.ly/1Nom1V7.
6 Ibid.
7 Official Gazette of the Republic of Serbia, No. 70/13.
8 Emails from Darvin Lisica, Regional Programme Manager, Norwegian People's Aid (NPA), 6 May and 12 June 2016.
9 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 Anti-Personnel Mine Ban Convention (APMBC) 2022 Article 5 deadline Extension Request, p. 19.
10 APMBC 2022 Article 5 deadline Extension Request, p. 20.
11 Email from Slađana Košutić, SMAC, 23 April 2020.
12 Email from Slađana Košutić, SMAC, 11 April 2023.
13 Email from Slađana Košutić, SMAC, 7 May 2024 and 11 April 2023.
14 SMAC, "Mine situation", 21 April 2023.
15 Email from Slađana Košutić, SMAC, 7 May 2024.

donor funds through ITF Enhancing Human Security.[16] In 2023, funding was split between one anti-personnel mine TS task and one CMR clearance task, which was due to start in the course of 2024.[17]

The Geneva International Centre for Humanitarian Demining (GICHD) is supporting SMAC to set up the Information Management System for Mine Action (IMSMA) Core.[18]

As part of Norwegian People's Aid (NPA)'s project on enhancing quality management systems of national mine action authorities and centres in the Western Balkans, a consultant was hired to conduct a detailed capacity assessment of SMAC in 2023, identify priorities, and develop national mine action standards (NMAS) chapters as prioritised by SMAC.[19]

## 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. SMAC also reports that it ensures ethnic or minority groups are consulted.[20] Serbia claims that qualified women have equal access to men in survey and clearance positions.[21]

At SMAC, seven of the fifteen employees (47%) are women, who hold two of the three managerial/supervisory level positions (67%) and three of the eleven operations positions (27%).[22]

## ENVIRONMENTAL POLICIES AND ACTION

SMAC is committed to taking environmental aspects into account in its work and to minimising environmental harm from demining activities. For each survey or clearance task the contractor (i.e. the demining operator) is required to include in its execution plan an environmental protection and a fire protection plan, together with a plan for health and safety at work. Illustrative examples on environmental protection during CMR clearance include clearance in Kopaonik National Park, which demanded a special regime to protect certain trees and plants.[23] SMAC reported to Mine Action Review in 2024 that it was planning to develop an NMAS on environmental management in mine action.[24]

## INFORMATION MANAGEMENT AND REPORTING

SMAC had its own information management system until SMAC decided to solicit GICHD support to implement IMSMA Core.[25] In February 2024, the GICHD and SMAC began working on a first version of the new database.[26] The GICHD and SMAC collaborated on building and testing with a focus on data migration and cleaning.[27]

## PLANNING AND TASKING

The Government of Serbia adopts SMAC's annual work plans.[28] SMAC's 2023 work plan included four CMR clearance tasks in Užice, totalling 584,567m$^2$, and one clearance task totalling 25,570m$^2$ in Bujanovac and one TS task in Tutin, totalling 131,900m$^2$. The project was funded via ITF Enhancing Human Security.[29] SMAC did not manage to meet its planned outputs in 2023 but has stated that in 2024 the new work plan included four CMR clearance tasks in Užice totalling 584,567m$^2$ and one clearance task totalling 25,570m$^2$ in Bujanovac. Again, this will be funded via the ITF.[30]

16 Statement of Serbia on Clearance, APMBC Nineteenth Meeting of States Parties (virtual meeting), 15–19 November 2021; and 2022 Article 5 deadline Extension Request, pp. 8 and 34.
17 Email from Slađana Košutić, SMAC, 7 May 2024.
18 Ibid.; and SMAC, "GICHD Workshop on IMSMA Core for Mine Action Actors in the Republic of Serbia", 27 March 2023, at: https://bit.ly/42PgTC7.
19 Email from Slađana Košutić, SMAC, 11 April 2023.
20 Emails from Slađana Košutić, SMAC, 23 April 2020, 26 March 2021, and 11 April 2023.
21 Emails from Slađana Košutić, SMAC, 23 April 2020 and 11 April 2023.
22 Email from Slađana Košutić, SMAC, 7 May 2024.
23 Ibid.
24 Ibid.
25 Emails from Slađana Košutić, SMAC, 11 April 2023; and GICHD, 26 May 2023.
26 Email from Slađana Košutić, SMAC, 7 May 2024.
27 Email from Kinda Samra, GICHD, 27 June 2024.
28 APMBC 2022 Article 5 deadline Extension Request, pp. 18 and 21.
29 Email from Slađana Košutić, SMAC, 11 April 2023.
30 Email from Slađana Košutić, SMAC, 7 May 2024.

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

According to SMAC, and despite problems with land release methodology, survey and clearance are conducted in accordance with the International Mine Action Standards (IMAS).[31] In 2023, in cooperation with a consultant from NPA, SMAC developed three new NMAS on the glossary of terms, land release, and quality management. SMAC reported to Mine Action Review that subject to funding, further NMAS would be developed in 2024 starting with an NMAS on information management.[32]

Serbia is planning to issue a new decree on protection against ERW. The draft decree, developed by SMAC and the Ministry of Interior, will include a definition of land release, which was not defined in the former decree, and supports the development of NMAS. As at May 2024, the decree was still in the final stages of being adopted by the government.[33]

Under new directorship in late 2015, SMAC reassessed its land release methodology to prioritise full clearance over technical survey of hazardous areas.[34] This does not correspond to international best practice and is an inefficient use of scarce clearance assets. In February 2016, SMAC reported to Mine Action Review that while SMAC supports the use of high-quality non-technical survey (NTS) to identify areas suspected of containing CMR, it will fully clear these areas rather than using TS to identify the boundaries of contamination more accurately.[35] While SMAC's position on land release remains the same, there is a willingness to conduct technical survey in a form "adjusted to the context of Serbia", in response to the stated preference of international donors for TS over clearance as and where appropriate.[36]

## OPERATORS AND OPERATIONAL TOOLS

SMAC does not itself conduct clearance or employ clearance personnel but does conduct survey of areas suspected to contain mines, CMR, or other ERW and also performs QA and QC on clearance tasks. Clearance is conducted by commercial companies and NGOs, which are selected through public tender procedures executed by ITF, supported by international funding.[37]

The Ministry of Interior issues accreditation to mine action operators that is valid for one year. In 2023, 11 companies/organisations were accredited for demining, but only one conducted TS of CMR (see Table 2).[38]

**Table 2: Operational TS capacities deployed in 2023[39]**

| Operator | TS teams | TS personnel |
|---|---|---|
| Stop Mines | 1 | 12 |
| **Totals** | **1** | **12** |

Table 2 represents a decrease in capacity in 2023 compared to the previous year, when a total of 31 deminers were deployed.[40] In 2024, SMAC expected survey and clearance capacity to increase as more projects were being implemented.[41]

An explosive ordnance disposal (EOD) department within the Sector for Emergency Management in the Ministry of Interior responds to call-outs for individual items of ERW. It is also responsible for demolition of items found by SMAC survey teams and by contractors/operators during clearance.[42]

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2023

A total of just over 0.13km² of CMR-contaminated area was released through TS in 2023 during which 16 submunitions were destroyed. No CMR-contaminated area was released through clearance or NTS in 2023.[43]

31 SMAC, "Mine Situation", 21 April 2023; and APMBC Article 7 Report (covering 2019), Section 4.
32 Email from Slađana Košutić, SMAC, 7 May 2024.
33 Email from Slađana Košutić, SMAC, 7 May 2024.
34 Interview with Jovica Simonović, SMAC, in Geneva, 18 February 2016.
35 Ibid.
36 APMBC 2018 Article 5 deadline Extension Request, p. 30; and email from Slađana Košutić, SMAC, 7 May 2024.
37 APMBC Article 5 deadline Extension Request (2018), p. 18; and email from Kinda Samra, GICHD, 27 June 2024.
38 Email from Slađana Košutić, SMAC, 11 April 2023 and 7 May 2024.
39 Email from Slađana Košutić, SMAC, 7 May 2024.
40 Email from Slađana Košutić, SMAC, 11 April 2023.
41 Email from Slađana Košutić, SMAC, 7 May 2024.
42 Interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017; APMBC Article 5 deadline Extension Request (2018), p. 18; and email from Slađana Košutić, SMAC, 3 June 2022.
43 Email from Slađana Košutić, SMAC, 7 May 2024.

## SURVEY IN 2023

No CMR-contaminated area was cancelled through NTS in 2023[44] or in 2022.[45] A total of 131,900m² was reduced through TS in 2023 in the course of which 16 submunitions were destroyed.[46] No land was reduced through TS in 2022.

**Table 3: Reduction through technical survey by municipality in 2023[47]**

| Municipality | Village | Operator | Area reduced (m²) | Submunitions destroyed | Area (m²) |
|---|---|---|---|---|---|
| Tutin | Istočni Mojstir | Stop Mines | 131,900 | 16 | 0 |
| **Totals** | | | **131,900** | **16** | **584,567** |

## CLEARANCE IN 2023

No CMR-contaminated area was cleared in 2023. This is a reduction from the 281,169m² of CMR-contaminated area cleared in 2022, during which two submunitions and fourteen items of other UXO were destroyed.[48]

SMAC did not have available data on the number or type of submunitions destroyed by the EOD Department during spot tasks in 2023.[49] SMAC also does not possess data on explosive ordnance contamination of military areas in Serbia.[50]

In 2023, SMAC implemented several ERW clearance projects, enabling safe construction of highways, a bridge, residential buildings, a gas pipeline, and railway modernisation. They cleared 2,162,663.18m², finding and destroying 182 items of UXO using funding from relevant ministries and public companies.[51]

## PROGRESS TOWARDS COMPLETION

A total of 1.6km² has been cleared in the last five years (see Table 4).

**Table 4: Five-year summary of CMR clearance**

| Year | Area cleared (m²) |
|---|---|
| 2023 | 0 |
| 2022 | 0.28 |
| 2021 | 0.88 |
| 2020 | *0.30 |
| 2019 | **0.14 |
| **Total** | **1.60** |

* Previously reported as 0.28km², but subsequently revised upwards, as the earlier figure excluded a 12,805m² clearance task that had been completed, but not reported.
** Previously reported as 0.12km², but subsequently revised upwards, as it excluded a 22,280m² clearance task that had been completed but not reported.

In its most recent APMBC Article 5 deadline extension request, dated 31 March 2022, Serbia included a work plan for completion of all ERW clearance by 2025, at a predicted total cost of €20 million. CMR were not disaggregated from other ERW.[52] Serbia had planned to complete clearance of all known cluster munition-contaminated areas under civilian control, excluding military areas in 2023.[53] However, Serbia was only able to complete one TS task and has reported to Mine Action Review it will complete the remaining five CMR clearance tasks in 2024, with one task in Užice, totalling 152,600m², completed in April 2024.[54] Serbia should be able to meet this target, provided sufficient capacity is made available, resources are allocated efficiently, and that it releases land found not to be contaminated with CMR through survey rather than conducting full clearance on SHAs.

SMAC has received a request from the MoD to clear former military compounds bombed during the NATO strikes, that are intended for civilian use and which are not currently in SMAC's database.[55] The compounds were targeted during the NATO strikes,[56] and so a number of these compounds may contain CMR which may delay Serbia's completion of CMR clearance.[57]

In its 2022 APMBC Article 5 extension request Serbia stated that: "In the territory of the Autonomous Province of Kosovo and Metohija, there are mined areas, as well as areas contaminated with cluster bombs remaining after the armed conflicts. Pursuant to Resolution 1244 of the United Nations Security Council (Annex II, item 6), it is envisaged that after

44 Ibid.
45 Email from Slađana Košutić, SMAC, 11 April 2023.
46 Email from Slađana Košutić, SMAC, 7 May 2024.
47 Email from Slađana Košutić, SMAC, 11 April 2023.
48 Ibid.
49 Email from Slađana Košutić, SMAC, 7 May 2024.
50 Email from Slađana Košutić, SMAC, 11 April 2023.
51 Email from Slađana Košutić, SMAC, 7 May 2024.
52 APMBC 2022 Article 5 deadline Extension Request, pp. 37–38.
53 Email from Slađana Košutić, SMAC, 11 April 2023.
54 Email from Slađana Košutić, SMAC, 7 May 2024.
55 Emails from Slađana Košutić, SMAC, 25 March 2022 and 11 April 2023.
56 Email from Slađana Košutić, SMAC, 3 June 2022.
57 Email from Slađana Košutić, SMAC, 7 May 2024.

the withdrawal, an agreed number of the Republic of Serbia personnel will be allowed to return to perform certain functions, including marking and clearing minefields. As this provision of Annex II has not been implemented, this issue is still within the competence of UNMIK in accordance with Resolution 1244."[58]

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

SMAC expects to need both national and international capacity to deal with any residual contamination that may be discovered following completion of planned CMR clearance.[59]

58 APMBC Article 5 deadline Extension Request (2022), p. 9.

59 Email from Slađana Košutić, SMAC, 7 May 2024.

# SUDAN

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

## KEY DATA

### CLUSTER MUNITION CONTAMINATION:

NOT KNOWN

(0.14KM² ACCORDING TO A PARTIAL ESTIMATE IN 2021)

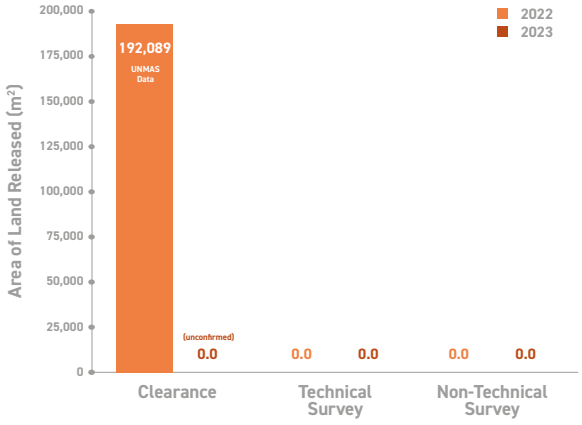
SUBMUNITION CLEARANCE IN 2023

**0M²**

SUBMUNITIONS DESTROYED IN 2023

**0**

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

The conflict that started in Khartoum on 15 April 2023 between the Sudan Armed Forces (SAF) and the Rapid Support Forces (RSF) continued into 2024, escalating into a brutal civil war and drawing in other actors.[1] Both sides have used explosive weapons delivered by tanks, artillery, and rockets, and the SAF has deployed air-delivered munitions.[2] As at May 2024, however, there were no indications that this included any use of cluster munitions. The functioning of the National Mine Action Centre (NMAC) and the United Nations Mine Action Service (UNMAS) was interrupted by the conflict. Both have since established offices in government-controlled Port Sudan. There were no reports of any release of cluster munition-contaminated area in 2023, including in the first quarter of the year before the outbreak of hostilities.

## 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 disaggregating submunitions from other unexploded ordnance (UXO) and reporting 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 reassess its timeline for addressing CMR and other UXO as soon as reasonably possible, and should elaborate a work plan on how this will be achieved.**
- **Sudan should develop a resource mobilisation strategy increasing its international advocacy to attract new and former donors as soon as reasonably possible.**

1 ACLED, "One Year of War in Sudan", 14 April 2024, at: https://bit.ly/3V1QJZU.

2 Human Rights Watch, "Sudan: Explosive Weapons Harming Civilians", 4 May 2023.

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY*

### MANAGEMENT

- Sudanese National Mine Action Authority (NMAA)
- Sudan National Mine Action Centre (NMAC)

### NATIONAL OPERATORS

- Global Aid Hand (GAH)
- JASMAR for Human Security
- National Units for Mine Action and Development (NUMAD)

### INTERNATIONAL OPERATORS

- Danish Refugee Council (DRC)
- SafeLane Global (SLG)

### OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

* Information provided for the end of 2021; no updated information was available for 2022 or 2023, other than for DRC, which conducted limited non-technical survey.

# UNDERSTANDING OF CMR CONTAMINATION

The most recent comprehensive data on cluster munition contamination dates from the end of 2021. Sudan had five hazardous areas covering an estimated 0.14km$^2$. Two were very small confirmed hazardous areas (CHAs) and three were suspected hazardous areas (SHAs) covering most of the total area (see Table 1).[3] Two of the hazardous areas in Blue Nile state (totalling 5,820m$^2$) only became accessible in 2021, and were added to the national information management database.[4] No updated data on cluster munition contamination was reported for 2022 or 2023.

Available data at the end of 2021 only provided a partial picture of contamination across the country, as two other SHAs believed to contain unexploded submunitions—in South Kordofan and West Kordofan states—were in areas not under government control and were therefore inaccessible.[5] Between December 2020 and late January 2021, SafeLane Global (SLG) surveyed a battle area at Ulu airstrip in Blue Nile state and cleared approximately 70,000m$^2$, partially clearing a cluster munition strike.[6] Full clearance did not take place before SLG's contract ended. Discovery of CHAs and SHAs and clearance in Blue Nile state continued in 2022[7] when 192,089m$^2$ of hazardous area was reportedly cleared.[8]

**Table 1: Cluster munition-contaminated area by state (at end 2021*)[9]**

| State | CHAs | Area (m$^2$) | SHAs | Area (m$^2$) | Total SHA/CHA | Total area (m$^2$) |
|---|---|---|---|---|---|---|
| Blue Nile** | 2 | 5,820 | 1 | 136,580 | 3 | 142,400 |
| South Kordofan | 0 | 0 | 1 | N/K | 1 | N/K |
| West Kordofan | 0 | 0 | 1 | N/K | 1 | N/K |
| **Totals** | **2** | **5,820** | **3** | **136,580** | **5** | **142,400** |

N/K = Not known * No updated contamination data was available for 2022 or 2023. ** UNMAS reported that 192,089m$^2$ of cluster munition-contaminated area was cleared in Blue Nile state in 2022, which is not taken into account in Table 1.

In 2017, NMAC, which took over the mine action responsibilities of the United Nations Mine Action Organisation (UNMAO) in June 2011, reported that of the nine open areas reported by UNMAO in 2011, seven were cleared in 2011–13.[10] In March 2018, NMAC informed Mine Action Review that the size of the seven areas cleared during this period totalled 15,318m$^2$ and that 13 PM-1 submunitions had been destroyed during clearance.[11] 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 in Lagawa locality, which it later reported was cancelled as no evidence of the presence of CMR was found.[12]

3 Email from Hatim Khamis Rahama, Technical Advisor, NMAC, 12 May 2022.
4 Ibid.
5 Email from Hatim Khamis Rahama, NMAC, 1 May 2019; and interview in Geneva, 24 May 2019.
6 Email from Aimal Safi, Senior Operations and QM Advisor, UNMAS, 19 June 2021.
7 Email from Hatim Khamis Rahama, NMAC, 23 June 2022.
8 Email from Robert Thompson, Head of Project Unit/Chief of Operations, UNMAS, UN Integrated Transition Assistance Mission in Sudan (UNITAMS), 10 July 2023.
9 Email from Hatim Khamis Rahama, NMAC, 23 June 2022.
10 Emails from Hatim Khamis Rahama, NMAC, 14 June 2017; and Ali Abd Allatif Ibrahim, NMAC, 18 May 2017.
11 Email from Hatim Khamis Rahama, NMAC, 3 March 2018.
12 Emails from Hatim Khamis Rahama, NMAC, 3 March 2018, 1 May 2019 and 14 June 2018.

In the 1990s, Sudanese government forces are believed to have sporadically air dropped cluster munitions in its armed conflict with the Sudan People's Liberation Movement/Army (SPLM/A). Government forces were reported as having used several types of cluster munitions, including Spanish-manufactured HESPIN 21; US-manufactured M42 and Mk118 (Rockeye), and a Brazilian copy; Chinese Type-81 dual-purpose improved conventional munitions (DPICM); Chilean-made PM-1s; and Soviet-manufactured PTAB-1.5 and AO1-SCh submunitions. In 2012 and 2015, use of cluster munitions was recorded in five separate attacks on villages in South Kordofan state. Each attack involved air-dropped RBK-500 cluster munitions containing AO-2.5RT submunitions.[13]

In April 2017, the African Union-UN Mission in Darfur (UNAMID) reported finding two AO-1Sch submunitions in North Darfur (at Al Mengara village in Al Liet locality). Villagers stated that the bombs were dropped in 2008, had been identified by UNAMID at that time, and that the military had promised to dispose of the items.[14] SAF Engineers destroyed the items in February 2018 and no further CMR were reported or identified.[15]

There have been no new reports or allegations of cluster munition use in Sudan since 2015. There is no evidence that Sudan has produced or exported cluster munitions, although it has imported them and possesses stocks.[16]

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Sudan also has a significant problem with anti-personnel mines (AP mines), anti-vehicle mines (AV mines), and UXO, primarily as a result of the more than 20 years of civil war that led to the Comprehensive Peace Agreement in 2005 and South Sudan's independence in July 2011 (see Mine Action Review's *Clearing the Mines* report on Sudan for further information). The 2023 conflict is expected to add considerable quantities of explosive remnants of war (ERW) to the extent of the problem, mainly in Khartoum and other urban areas.[17]

Since South Sudan's independence, new conflicts in the disputed area of Abyei, which straddles the border between Sudan and South Sudan, and in Blue Nile and South Kordofan states have resulted in increased UXO contamination in Sudan.[18] 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.[19]

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Sudanese National Mine Action Authority (NMAA) and NMAC manage Sudan's mine action programme. The NMAC assumed the lead role for mine action in Sudan from UNMAS in 2013.[20] It has responsibility for coordinating and supervising the implementation of all mine action, including quality assurance (QA), accreditation, and certification of clearance operators. Sudan has national mine action legislation, the 2010 Mine Action Act, which comprises 29 articles across four chapters.[21]

Having initiated an emergency programme in 2002, UNMAS re-established itself in an advisory and support capacity in Sudan in 2015 following a request from the Sudanese government.[22] Between January 2021 and its closure in February 2024, UNMAS supported the United Nations Integrated Transition Assistance Mission in Sudan (UNITAMS) which was established in June 2020, providing mine action services as part of the mission's mandate. UNMAS has provided organisational and individual capacity development to NMAC, including training.[23] With the closure of the African Union-United Nations Hybrid Operation in Darfur (UNAMID) in 2020, UNMAS also took on responsibility for the ERW response in Darfur from UNAMID's Ordnance Disposal Office (ODO).[24]

The April 2023 conflict scattered NMAC staff and its Khartoum offices were looted, but by April 2024, NMAC had set up an office in Port Sudan.[25] UNMAS, which had been based in the same building as NMAC in Khartoum, withdrew its international staff from Sudan in April 2023, but subsequently set up an office in Port Sudan in July 2023.[26] All operations were suspended, although UNMAS sub-offices in Damazin in Blue Nile state, and in Kadugli in South Kordofan state, remained open throughout.[27] Neither NMAC or UNMAS had access to the mine action database for a year, until April 2024, when access was restored albeit with the possibility that some data had been lost.[28] Mine action survey and

13 See Cluster Munition Monitor, "Country Profile: Sudan: Cluster Munition Ban Policy", updated 23 August 2014.

14 Email from Dandan Xu, Associate Programme Management Officer, UNMAS, 12 July 2017.

15 Email from Colin Williams, Deputy Programme Manager, Ordnance Disposal Office (ODO), UNAMID, 1 June 2018.

16 Landmine and Cluster Munition Monitor, "Sudan", accessed 29 May 2024 at: https://bit.ly/4bDHWo2.

17 Email from UNMAS Headquarters, 24 July 2023.

18 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.

19 UNMAS, "2019 Portfolio of Mine Action Projects, Sudan".

20 UNMAS webpage on Sudan, accessed 9 June 2023, at: https://bit.ly/43ShIdk.

21 GICHD, "Transitioning Mine Action Programmes to National Ownership: Sudan", March 2012; and Anti-Personnel Mine Ban Convention (APMBC) Article 7 2022 Report (covering 2019), Form A.

22 UNMAS, "Sudan (excluding Darfur)", Updated March 2019, at: http://bit.ly/2Y3IDUg.

23 Email from Aimal Safi, UNMAS, 31 May 2020.

24 UNMAS webpage on Sudan, accessed 9 June 2023; and UNITAMS home page, accessed 29 May 2024, at: https://bit.ly/3yMaAoe.

25 Interview with Khalid Hamdan Adam, Director General, NMAC, in Geneva, 30 April 2024.

26 Emails from Robert Thompson, UNMAS; and from Matt Williams, Senior Programme Officer, UNMAS Sudan, 10 June 2024.

27 Email from Matt Williams, UNMAS Sudan, 10 June 2024.

28 Emails from Robert Thompson, UNITAMS, 5 and 18 May 2023; and interview (as UNMAS Sudan), in Geneva, 1 May 2024; and email from Khalid Hamdan Adam, NMAC, 14 May 2024.

clearance operations all but ceased in April 2023, except for some limited activities undertaken during the year, mainly non-technical survey (NTS) conducted by Danish Refugee Council (DRC) – see the section below, Operators and Operational Tools, for further details).[29]

NMAC, operating from Port Sudan since April 2024, lacks personnel, equipment, office space and an operating budget to operate at its pre-conflict capacity. NMAC is supporting accreditation and will need support to reorient efforts to expand the humanitarian mine action response given the large-scale increase scale and scope of explosive ordnance contamination.[30]

The Geneva International Centre for Humanitarian Demining (GICHD) has provided capacity building support to the NMAC in the past, including training, and provided remote support with the implementation of the Information Management System for Mine Action (IMSMA) Core in 2021.[31] The GICHD lost contact with NMAC after the conflict broke out in April 2023, and IMSMA Core implementation has been on stand-by since then.[32] The UNMAS and NMAC office was reported to have been damaged and looted early in the conflict and all the equipment was taken or destroyed.[33] Partners have also lost equipment through looting.[34]

Until the outbreak of the conflict in 2023, the Government of Sudan had maintained a consistent level of national funding for mine action in local currency for several years, but due to the devaluation of the local currency against the US dollar, this had fallen from $2 million worth of funding in 2019 and 2020 to only $500,000 in 2021 and 2022.[35] The current conflict has forestalled further support. Sudan had calculated that it required $32.6 million for all land release activities (not just CMR) from 2022 to 2027, though there was no reported fully-fledged resource mobilisation strategy.[36] As a result of the 2023 conflict, all plans and costings will have to be revisited when it is possible to do so.

The annual meeting of the Mine Action Support Group (MASG) was held on 14 March 2023 in Khartoum, chaired by the Special Representative of the Secretary-General for Sudan and Head of UNITAMS, the Ambassador of Italy (the Global MASG Chair for 2023), and the Secretary-General of the Ministry of Defence. Key stakeholders, including donors, discussed the status, risks, challenges, and opportunities of Sudan's mine action efforts,[37] but the events of 15 April 2023 overtook any potential progress made.

## GENDER AND DIVERSITY

NMAC reported that in 2021 a new gender and diversity policy was developed and endorsed and that gender was mainstreamed in the national mine action strategic plan for 2019–23 (the strategic plan was to be issued in February 2023[38] but was never formally approved due to the outbreak of the conflict[39]) and in the National Mine Action Standards (NMAS) for survey, clearance, risk education, and victim assistance.[40] All survey and community liaison teams were to be gender balanced and women and children were to be consulted during survey and community liaison activities. Gender was also considered in the prioritisation, planning, and tasking of survey and clearance, in line with the NMAS and the new standardised IMSMA forms.[41]

NMAC has previously reported that mine action data are disaggregated by sex and age.[42] In 2020 UNMAS reported working with NMAC and implementing partners to improve this aspect of mine action reporting and information management, and new reporting tools were added to the system.[43]

Before the 2023 conflict, NMAC reported that ethnic minority groups in affected communities were consulted during survey and considered during the planning of mine action activities. Survey teams were structured to address all affected groups within a community, including ethnic minorities.[44] In 2021, 21 ex-combatants from one of the Sudan People's Liberation Movement-North (SPLM-N) factions, Malik Agar from the Bau/Ulu and the Ingasana mountains, completed training in IMAS Explosive Ordnance Disposal (EOD) Level 1, and were integrated into mine action operations in the Ulu same areas, which were heavily contaminated with landmines and ERW including CMR.[45]

NMAC has stated that it always encourages women to apply for employment in the national programme, whether at the office level or in the field. In 2021, 30% of NMAC staff employed at the managerial or supervisory levels were women, as were 20% of staff in operational positions.[46] The first female deminer was employed in late 2019,[47] and in

29 Email from Matt Williams, UNMAS Sudan, 10 June 2024.
30 Email from Robert Thompson, UNMAS, 4 June 2024.
31 Emails from Henrik Rydberg, Country Focal Point, GICHD, 13 April, 3 June, and 10 August 2022.
32 Email from Henrik Rydberg, GICHD, 8 August 2023.
33 Interview with Khalid Hamdan Adam, NMAC, in Geneva, 30 April 2024; and email from Robert Thompson, UNMAS, 4 June 2024.
34 Email from Robert Thompson, UNMAS, 4 June 2024.
35 APMBC 2022 Article 5 deadline Extension Request, p. 4.
36 Ibid., pp. 8 and 30.
37 Email from Robert Thompson, UNMAS, 4 June 2024.
38 2022 Article 5 deadline Extension Request, p. 19.
39 Email from Matt Williams, UNMAS Sudan, 10 June 2024.
40 Email from Aimal Safi, UNMAS, 27 March 2022.
41 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.
42 Email from Hatim Khamis Rahama, NMAC, 9 April 2020.
43 Emails from Aimal Safi, UNMAS, 31 May and 22 July 2020.
44 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.
45 2022 Article 5 deadline Extension Request, p. 22.
46 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.
47 Email from Aimal Safi, UNMAS, 12 April 2021.

2021, a group of 28 women from different states and ethnic groups completed basic demining training. They were due to begin working within the different mine action operators in 2022 and 2023,[48] but it is not known whether this occurred. The NMAC created a dedicated Gender Focal Point (GFP) who connected with other GFPs from the region to share experiences and good practice.[49]

As at May 2024, UNMAS had 14 staff members working on its Sudan operation: ten men and four women.[50] This compares with the first quarter of 2022, when UNMAS Sudan had 16 staff members, of whom four programme officers and one of the support service staff were women. In addition, in 2022, within the national operators contracted by UNMAS there were women working in managerial positions, and the medics and community liaison officers in most of the field teams were female. UNMAS reported that, as at March 2022, around 50% of NTS teams were female.

## ENVIRONMENTAL POLICIES AND ACTION

Sudan reported in 2022 having a policy on environmental management, which included information on how mine action operators should minimise potential harm from demining activities.[51] A dedicated NMAS on environmental management and an environmental impact assessment were due to be implemented in 2022,[52] although at the time of writing it was not known whether they had taken effect.

## INFORMATION MANAGEMENT AND REPORTING

Neither NMAC nor UNMAS had access to the mine action database following the ransacking of their offices (co-located in Khartoum) between April 2023 and April 2024. In May 2024, UNMAS, NMAC, and GICHD (which hosts NMAC's data) were working to retrieve the data, though some data may be lost.[53]

## PLANNING AND TASKING

In March 2022, NMAC reported that the new national mine action strategic plan for 2019–23 had been finalised but was still awaiting approval.[54] In its last Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request, Sudan predicted that a revised mine action strategy would be approved and issued in February 2023.[55] However, the strategy was never formally approved as the conflict broke out while feedback was awaited from relevant government departments.[56] A final version of the strategy was, though, shared with stakeholders.[57] In its 2022 revised APMBC Article 5 deadline extension request, Sudan outlined a two-phase work plan, providing annual land release targets for all explosive ordnance to 2027.[58] This plan has been blown off course by the 2023 conflict.

In 2021, a systematic prioritisation system was introduced as part of the new NMAS and linked with IMSMA with each SHA and CHA classified as high, medium, or low impact and prioritised accordingly.[59] There were agreed impact criteria at the national level while in the field, the sequence of addressing priority hazardous areas were decided in consultation with local stakeholders and communities, taking into account gender and diversity, and engaging the humanitarian and development sectors and local authorities. All previously identified hazardous areas were to be resurveyed through NTS, then TS and clearance as required.[60] It is not known whether Sudan will continue with the same system in the aftermath of the 2023 conflict.

48 2022 Article 5 deadline Extension Request, pp. 65–66.

49 Email from the GICHD, 29 June 2021.

50 Email from Matt Williams, UNMAS Sudan, 10 June 2024.

51 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

52 Email from Aimal Safi, UNMAS, 27 March 2022.

53 Emails from Robert Thompson, UNMAS, 5 and 18 May 2023; and interview in Geneva, 1 May 2024; emails from Thomas Xavier, Information Management Officer, UNMAS Sudan, 13 May 2024; and Khalid Hamdan Adam, NMAC, 14 May 2024.

54 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

55 2022 Article 5 deadline Extension Request, p. 19.

56 Email from Matt Williams, UNMAS Sudan, 10 June 2024.

57 Email from UNMAS Headquarters, 24 July 2023.

58 Revised Article 5 deadline Extension Request, August 2022, pp. 48–58.

59 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

60 Revised Article 5 deadline Extension Request, August 2022, pp. 34 and 36; and draft APMBC Article 7 report (covering 2022), Form F, pp. 16-17, received by email from Badreldin Elguaifri, Ambassador, Permanent Mission of Sudan to the UN in Geneva, 22 June 2023, but as at May 2024, it had not been published on the UN Office for Disarmament Affairs (UNODA) website.

In June 2024, UNMAS announced plans, in response to the April 2023 conflict, to expand risk education for local populations and for humanitarian workers, to support NMAC in setting up a hotline to receive reports of contamination and incidents, and expand technical analysis and mapping of explosive hazards to facilitate humanitarian access.

Technical support will include UNMAS joining humanitarian assessment missions to survey high-priority areas. As at June 2024, UNMAS reported that no humanitarian clearance was underway despite the acute need, but it was hoped that, pending funding and access, clearance would resume and expand from 2024.[61]

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

In May 2021, NMAC reported that a review of Sudan's NMAS had been completed and the revised standards had been endorsed.[62] UNMAS was working with NMAC and national operators to develop their standard operating procedures (SOPs) to ensure they were compliant with the new NMAS.[63] No further developments have been reported.

## OPERATORS AND OPERATIONAL TOOLS

National operators that conducted demining in Sudan in the past are JASMAR for Human Security (JASMAR), the National Units for Mine Action and Development (NUMAD), and Global Aid Hand (GAH).[64] There are two international operators: SLG, which became operational in December 2020; and DRC, which was granted operational accreditation in January 2023.[65]

In the first three months of 2023, JASMAR maintained clearance capacity of four teams comprising 32 deminers and four NTS teams comprising eight personnel (though they did not work specifically on CMR clearance). After the outbreak of the conflict in mid-April 2023, there was no operational clearance capacity in Sudan for the remainder of the year,[66] though UNMAS sub-offices in Damazin in Blue Nile state and in Kadugli in South Kordofan state remained open, as noted above.[67]

In February 2023, a DRC NTS team (comprising a male team leader, and one female and one male operator) were deployed to the Kadugli locality in a government-controlled area of South Kordofan state.[68] At the beginning of June, DRC's mine action teams (two risk education teams, including one from its partner GAH, and one NTS team) continued to work in Kadugli with the approval of the local Humanitarian Aid Commission (the governmental body that manages and organises humanitarian work in Sudan) and NMAC offices. By mid-June, however, the NMAC office in Kadugli had instructed DRC to suspend these operations due to insecurity.[69] Activities did, though, resume in August.

In the two months to April 2023, the DRC NTS team registered areas surveyed, but after the conflict started, NTS focused on spot tasks. The team surveyed a total of 338,573m$^2$, identifying 40 hazards, between February 2023 and December 2023. No CMR or AP mines were discovered.[70]

As indicated above, in July 2023, UNMAS opened an office in Port Sudan, and the UNMAS Chief of Mine Action and the Head of Project Unit/Chief of Operations were deployed there, along with a small number of national staff. UNMAS set up a temporary office in Nairobi in early 2024 to support the Sudan operation remotely, and more UNMAS operational staff were to deploy to Port Sudan in May and June 2024 to support humanitarian operations.[71] UNMAS hopes that the number of mine action personnel will increase further in 2024, given the need to respond to what is likely to substantial explosive ordnance contamination from the ongoing the conflict, and to legacy contamination.[72] In June 2024, DRC reported it had been allocated United Nations Office for Project Services (UNOPS) funding until early January 2025 to work with national partner, JASMAR, to deploy six risk education teams in northern and eastern states of Sudan (Northern, River Nile, Red Sea, Kassala, and Gedaref). The project was to be managed from Port Sudan.[73]

61 Email from Matt Williams, UNMAS Sudan, 10 June 2024.
62 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.
63 Email from Aimal Safi, UNMAS, 12 April 2021.
64 Ibid.
65 2022 Article 5 deadline Extension Request, p. 45.
66 Emails from Robert Thompson, UNMAS, 4 June 2024; and Matt Williams, UNMAS Sudan, 10 June 2024.
67 Email from Matt Williams, UNMAS Sudan, 10 June 2024.
68 Email from Johannes de Jager, DRC, 28 February 2023.
69 Emails from Johannes de Jager, DRC, 12 June and 26 June 2023.
70 Email from Johannes de Jager, DRC, 9 May 2024.
71 Email from Matt Williams, UNMAS Sudan, 10 June 2024.
72 Emails from Robert Thompson, UNMAS, 4 June 2024; and Matt Williams, UNMAS Sudan, 20 June 2024.
73 Email from Johannes de Jager, DRC, 14 June 2024.

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2023

It is unlikely that any CMR survey or clearance took place in 2023. In 2022, almost 0.2km$^2$ of cluster munition-contaminated area was cleared.

## SURVEY IN 2023

In 2023, as in 2022, no hazardous area was reported as released through NTS or TS.[74]

## CLEARANCE IN 2023

No clearance of CMR was reported in 2023.[75] In 2022, 192,089m$^2$ of cluster munition-contaminated area was cleared by JASMAR in Blue Nile state with 444 submunitions destroyed (440 as individual spot tasks).[76]

## 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 March 2022, the NMAC stated that there had been no developments in 2021 with regard to Sudan's accession to the CCM,[77] and the outbreak of conflict in April 2023 will have delayed progress towards becoming a State Party.

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Sudan had a plan in place to deal with residual risk and liability post-completion.[78] As at March 2022, NMAC was dealing with any residual contamination in the eastern states with government funding.[79] It was planned that ultimately Sudan would establish a national capacity within the military or police.[80]

74 Email from Robert Thompson, UNMAS, 10 July 2023; and interviews with Mohammad Sediq Rashid, UNMAS, in Geneva, 29 April 2024; and Robert Thompson, UNMAS, in Geneva, 1 May 2024.

75 Interviews with Mohammad Sediq Rashid, UNMAS, in Geneva, 29 April 2024; and Robert Thompson, UNMAS, in Geneva, 1 May 2024.

76 Email from Robert Thompson, UNMAS, 10 July 2023.

77 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

78 Email from Hatim Khamis Rahama, NMAC, 9 April 2020.

79 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

80 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

# SYRIA

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

## KEY DATA

### CLUSTER MUNITION CONTAMINATION:

UNKNOWN, BUT EXTENSIVE

SUBMUNITION CLEARANCE IN 2023

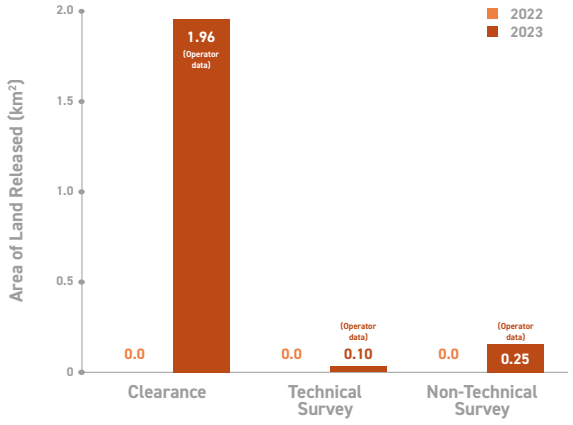
**1.96KM²**

SUBMUNITIONS DESTROYED IN 2023

**705**

(INCLUDING 483 DESTROYED DURING SPOT TASKS)

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

Cluster munition remnants (CMR) contamination in Syria is extensive though their extent remains unquantified. In October 2023, Syrian forces reportedly used cluster munitions in an attack on Termanin, northern Idlib, killing two civilians and injuring nine others. While there is no comprehensive survey of CMR contamination across Syria, sub-regional efforts to map contamination are ongoing. The February 2023 earthquake in northern Syria likely displaced explosive ordnance, including CMR, into previously cleared or unaffected areas, and led operators in the north-west of the country to temporarily suspend mine action activities to support recovery efforts. Despite these challenges, three international operators conducted CMR survey and/or clearance of in 2023, with Norwegian People's Aid (NPA) deploying teams for the first time. However, operators continued to face severe funding shortages, significantly impacting their capacity.

## RECOMMENDATIONS FOR ACTION

- **Syria should immediately cease the use of cluster munitions.**
- **Syria should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.**
- **Syria should, as soon as possible, ensure that a baseline of CMR contamination is established.**

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Interministerial Mine Action Coordination Committee

### NATIONAL OPERATORS

- Syrian Red Crescent (SARC), operating in government-controlled areas
- Syria Civil Defence (SCD) (also called the White Helmets), operating in the north-west
- Roj Mine Control Organization (RMCO), operating in the north-east

### INTERNATIONAL OPERATORS

- The Armenian Centre for Humanitarian Demining and Expertise (ACHDE), operating in government-controlled areas
- Norwegian People's Aid (NPA), operating in government-controlled areas
- International Committee of the Red Cross (ICRC), operating in government-controlled areas
- The HALO Trust (HALO), operating in the north-west
- DanChurchAid (DCA), operating in the north-east
- Mines Advisory Group (MAG), operating in the north-east
- Enhancing Human Security (ITF), operating in the north-east
- Humanity and Inclusion (HI), operating in the north-east

### OTHER ACTORS

- Information Management and Mine Action Programs (iMMAP)
- United Nations Mine Action Service (UNMAS)

# UNDERSTANDING OF CMR CONTAMINATION

The extent of CMR contamination in Syria is unknown but widespread due to the repeated use of cluster munitions during the decade-long conflict. No comprehensive countrywide survey of contamination has been conducted, but sub-regional surveys and impact assessments are ongoing. The 2024 Humanitarian Needs Overview estimated that a third of communities across Syria were affected by some form of explosive contamination, with the highest percentages in Quneitra, As-Sweida, Rural Damascus, Aleppo, Idleb, Ar-Raqqa, Deir-ez-Zor, and Dar'a governorates and Damascus Governorate neighbourhoods.[1]

Thirteen of Syria's fourteen governorates (all except Tartus) have experienced cluster munition use since 2012.[2] Between 2020 and 2022, cluster munition attacks were recorded in Aleppo, Hama, and Idlib governorates. On 6 October 2023, Syrian forces reportedly used cluster munitions in an attack on Termanin in northern Idlib, killing two civilians and injuring nine others. The next day, a 9-year-old boy picked up an unexploded submunition which detonated, injuring him and two others.[3]

The Syrian Network for Human Rights (SNHR) recorded at least 496 cluster munition attacks in Syria between July 2012 and January 2023 attributing them to the Syrian forces, Russian forces, or the alliance of the two.[4] Cluster munition attacks have reportedly resulted in the deaths of 1,053 civilians, including 394 children, and 219 women. In addition, at least 382 civilians, including 124 children and 31 women, were killed due to the explosion of submunitions left by earlier attacks.[5] A range of Russian-made cluster munitions have been used in the conflict.[6]

The International Committee of the Red Cross (ICRC) and the Syrian Arab Red Crescent (SARC) conducted a joint mine risk needs assessment of 573 communities in Al-Hassakeh, Aleppo, Daraa, Deir Ezzor, Hama, Homs, Idlib, Quneitra, and Sweida governorates. According to the assessment, 530 (92%) of the assessed communities reported the presence of explosive remnants of war (ERW). Of the assessed communities, 57% reported presence of anti-personnel mines; 46% CMR; and 25% improvised explosive devices (IEDs).[7]

**Government-controlled areas**

In 2023, NPA conducted non-technical survey (NTS) in the Nashebiyah sub-district of Riv Damascus and discovered nine areas of previously unrecorded CMR contamination totalling 2,154,059m$^2$.[8]

**North-west**

The HALO Trust (HALO) conducted a community impact assessment of contamination in north-west Syria (in Idlib and Aleppo governorates) in 2018–2020. The assessment confirmed contamination in more than 400 communities (41% of those assessed).[9] Unexploded submunitions were the most frequent type of ordnance encountered, accounting for 36% of total recorded contamination.[10] Other contamination was from landmines and IEDs (4% combined), and a mixture of other unexploded ordnance (UXO).[11] Submunitions had caused

1 Syria 2024 Humanitarian Needs Overview, February 2024, OCHA, at: https://bit.ly/4erk3St.
2 Landmine and Cluster Munition Monitor, Syria Cluster Munition Ban Policy, last updated end 2022, at: https://bit.ly/3KOdtbb.
3 Human Rights Watch, "Northwest Syria: Government Uses Cluster Munitions", 5 November 2023, at: https://bit.ly/3VtltTW.
4 SNHR, "Cluster Munitions Remnants are an Open-Ended Threat to the Lives of Syria's Future Generations", Report, 30 January 2023, at: https://bit.ly/40NicQ0, p. 10.
5 SNHR, "Cluster Munitions Remnants are an Open-Ended Threat to the Lives of Syria's Future Generations", Report, 30 January 2023.
6 Ibid., pp. 11–20.
7 ICRC and SARC, Mine Risk Needs Assessment and Education, PowerPoint presentation to the 24th National Director's Meeting, Geneva, 25 May 2021.
8 Email from Chris Tierney, Deputy Country Director, NPA, 17 June 2024.
9 HALO, "Syria, A Hidden Emergency", Report, at: https://bit.ly/3fD4w4x, p. 3.
10 Ibid, p. 7.
11 Ibid.

42% of recorded casualties.[12] Another rapid assessment survey conducted by HALO in 2021 identified 91 suspected cluster munition strike zones (50 in Idlib and 41 in Aleppo).[13] In 2023, HALO added 22,900m$^2$ of previously unknown CMR contamination to the database.[14]

The Syria Civil Defence (SCD), also known as the White Helmets, conducted NTS in Aleppo, Hama, and Idlib governorates in 2021 and recorded explosive ordnance (EO) contamination in 145 of 385 surveyed communities (37.6%). Of the 426 EO items recorded, 177 (41.5%) were submunitions. In 2022, EO contamination was recorded in 73 of 335 communities surveyed (21.7%), and 42.7% of the total of 194 items of explosive ordnance found were submunitions. SCD and other operators report encountering mainly Russian-made cluster munitions, including SHOAB-0.5, AO-2.5RT, 9N235, AO1-SCH, M77-HEAT, SPBE-HEAT, and PTAB-1M and 2.5M submunitions.[15]

**North-east**

The organisation Information Management and Mine Action Programs (iMMAP) estimates that almost 29km$^2$ of north-east Syria is EO-contaminated because of the armed conflict against Islamic State, with continuing violence in and around Turkish-controlled areas. Al-Hassakeh, Raqqa, and Tell Abiad governorates are the most affected. EO contamination includes widespread use of IEDs, especially around the homes and various critical infrastructures in both rural and urban areas.[16] In 2023, IMMAP, in collaboration with DanChurchAid (DCA), Humanity and Inclusion (HI), Mines Advisory Group (MAG), and the ITF (ITF Enhancing Human Security), initiated an NTS project to improve prioritisation in the north-east.[17] DCA's NTS team identified direct evidence of cluster munitions at two locations around Tabqa airfield in Ar-Raqqa governorate in 2023. The total size of the CHA was 2,699,992m$^2$.[18]

MAG has been conducting surveys across several governorates in the north-east of Syria since 2016. In 2022, MAG recorded 97,365m$^2$ of CMR contamination. MAG has also received reports of CMR in Deir Ezzor governorate, but in areas that it could not access.[19] In 2023, MAG conducted NTS in new areas and discovered more CMR contamination, particularly in Raqqa. A total of 734,472m$^2$ of CMR contamination and anti-personnel mined area was added to the database.[20]

**Syria Earthquake**

On 6 February 2023, Syria was struck by a devastating 7.8 magnitude earthquake followed by a series of more than 14,000 aftershocks. The tremors severely affected the north-west of Syria, most notably, the governorates of Idlib, Aleppo, and to a lesser extent, Lattakia and Hama in the north-west and Raqqa and Al-Hassakeh in the north-east. In a rapid assessment conducted by the United Nations High Commissioner for Refugees (UNHCR) one month after the earthquake, mines and ERW have been found in 13% of the locations assessed across Syria.[21]

In the north-west of the country, HALO conducted a rapid protection assessment in February– March 2023 which identified EO in 42 earthquake-affected communities, affecting 730,000 people.[22] According to HI, it is extremely likely that many of the explosive ordnance that littered buildings, streets and waterways have been moved because of the earthquake.[23] Weapons and ammunition stored in houses are now buried under the rubble. Returnees expose themselves to danger by returning to their destroyed homes to gather belongings, or by starting to remove the rubble to try and rebuild their homes.[24] MAG received information from the protection working group that the earthquake impact was lighter in the north-east than in the north-west.[25]

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

The continued use of cluster munitions adds to the existing CMR problem in addition to dense contamination from other explosive ordnance, in particular landmines, including those of an improvised nature (see Mine Action Review's *Clearing the Mines* report on Syria for further information).

Working from the Syrian capital, Damascus, UNMAS completed in June 2022 an explosive ordnance assessment team (EOAT) survey in Rural Damascus (South) that it had started in August 2020. The EOAT survey assessed more than 4,200 residential buildings in Daraya (Rural Damascus) and Yarmouk neighbourhood (Damascus), confirming EO presence in 142 buildings, identifying 774 buildings as suspected to be hazardous, with the possible presence of explosives and need for future mechanical clearance. In addition, more than 2km$^2$ of mostly agricultural lands were assessed in Daraya (Rural Damascus), of which around 71% was confirmed hazardous.[26]

12 Ibid, p. 11.
13 Emails from Mairi Cunningham, then Programme Manager, HALO, 7 June 2021; and Damian O'Brien, HALO, 1 March 2022.
14 Email from Damian O'Brien, Programme Manager, HALO, 27 May 2024.
15 Emails from Michael Edwards, SCD, 11 May 2021 and 15 June 2022.
16 iMMAP, "Northeast Syria: Progress, Challenges, and Forecast of Humanitarian Mine Action", October 2022 – March 2023, at: https://bit.ly/4b9YMde, pp. 6–7.
17 Email from Kevin Straker, DCA, 28 June 2023.
18 Email from Adesh Singh, Acting HMA OM, DCA, 16 May 2024.
19 Email from Fabrice Martin, Country Director, MAG, 9 March 2022.
20 Email from Riaan Boshoff, MAG, 21 May 2024.
21 OCHA, Data Friendly Space, and DEEP, "Syria Earthquake March 2023", 10 March 2023, at: https://bit.ly/3Mj2DtS, p. 3.
22 Email from Damian O'Brien, HALO, 10 April 2023.
23 Humanity and Inclusion (HI), "Earthquakes may have moved explosive weapons contamination", accessed on 21 May 2023, at: https://bit.ly/41UA9ww.
24 HI, "Safety messages in the wake of the earthquake", accessed on 3 July 2023, at: https://bit.ly/3pwzO5R.
25 Email from Najat al Hamri, MAG, 3 July 2023.
26 Emails from UNMAS, 30 June 2021; and Francesca Chiaudani, UNMAS, 31 March 2022 and 30 April 2023.

In 2023, DCA conducted NTS though its local partner Roj Mine Control Organization (RMCO) in the northern and western area of Deir-ez-Zor governorate. The survey team identified and documented areas contaminated with ERW, but no contamination from anti-personnel mines and cluster munitions remnants was found. In 2024, DCA conducted a needs assessment survey in the rural west of Deir-ez-Zor governorate covering seven towns and villages. The survey team identified sites contaminated with UXO.[27]

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

There is no national mine action authority or mine action centre in Syria. Mine action in Syria is coordinated by three response mechanisms which organise regular coordination meetings with stakeholders:[28]

- Damascus-based Mine Action Sub-Sector (MASS) coordinated by UNMAS;
- The north-west MASC coordinated by The HALO Trust; and
- The north-east Mine Action Working Group (MAWG), which sits under the protection working group in the non-governmental organisation (NGO) forum-led response coordinated by iMMAP.[29]

**Government-controlled areas**

In government-controlled areas, an Interministerial National Mine Action Coordination Committee formed by presidential decree in 2019 is chaired by the Minister of Foreign Affairs and Expatriates (MoFA). MoFA assigned a focal point for liaison with UNMAS for all mine action. UNMAS has been told that the committee meets on an ad-hoc basis as needed.[30]

Given the lack of critical national mine action structures, UNMAS liaises with the National Mine Action Coordination Committee and accredits clearance operators on a de-facto basis. UNMAS does not provide capacity-building support to the national authorities, but in 2020, UNMAS drafted national technical standards and guidelines for mine action and provided them to the government for its consideration.[31]

The UNMAS-coordinated, Damascus-based MASS convenes monthly, bringing together a diverse group of mine action partners, including UN agencies, INGOs, NGOs, and commercial companies, to discuss key issues.[32] UNMAS sought US$26 million for its mine action programme in Syria for 2024.[33] As at June, it had secured 15% (US$4 million) of the funds it said it needed.[34]

**North-west**

In the north-west, mine action was coordinated by the MASC cross-border response from Amman, with discussions chaired by HALO.[35] Some 15 partners participate in the meetings, with SCD attending as observers.[36] In early 2024, the MASC transitioned to a Working Group that includes all organisations working in mine action in the north-west. SCD became an active member of this group and was chosen as chair for a year. The group sits under the umbrella of the UN Office of Coordination of Humanitarian Affairs (OCHA) Protection Cluster.[37]

HALO and its partners work with the approval of the Syrian Salvation Government in Idlib and from the local Turkish authorities for its work across the border with Türkiye.[38] HALO reported generally good coordination with the local authorities when it comes to access and security, but the range of mine action activities has been limited due to the complexities of the operating context.[39] For example, the Turkish authorities do not permit the export of some explosive ordnance disposal (EOD) materials such as T-jets, nor do they allow operators to conduct NTS or EOD in northern Aleppo.[40] Funding remains a key challenges for operators.[41]

**North-east**

The local authorities of the north-east of Syria established a north-east Syria Mine Action Office (NESMAO, now called NESMAC) in 2021, although as a newly formed office its functioning capacity is limited.[42] MAG is providing capacity-building support to NESMAC, and in 2023, representatives from NESMAC attended its technical courses.[43] According to MAG, efficient mine action in the north-east faced significant challenges during the year. In May, a brief border closure, even for emergency evacuations, forced expatriate staff to leave the country, suspending

27 Email from Adesh Singh, DCA, 16 May 2024.

28 iMMAP, Coordination Support to Humanitarian Mine Action, 2020, at: https://bit.ly/3yGh9nQ; and emails from Mairi Cunningham, HALO, 7 and 17 June 2021; and UNMAS, 30 June 2021.

29 Emails from UNMAS, 30 June 2021; and Francesca Chiaudani, UNMAS, 31 March 2022 and 30 April 2023.

30 Ibid. According to Syria's statement to the APMBC 20MSP, "a National Committee on Demining was established in June [of 2022] under the chairmanship of the Minister of Foreign Affairs and Expatriates". Mine Action Review believes that the committee Syria refers to is the same Interministerial Committee that was established in 2019, and that Syria's statement has incorrectly indicated the formation date of the committee.

31 Email from UNMAS, 30 June 2021.

32 Email from Hassana Mardam Bey, Programme Management Specialist, UNMAS, 19 June 2024.

33 UNMAS website, Syria programme, accessed on 19 May 2023, at: https://bit.ly/3uCibON.

34 Email from Hassana Mardam Bey, UNMAS, 19 June 2024.

35 Email from Damian O'Brien, HALO, 10 April 2023.

36 Email from Francesca Chiaudani, UNMAS, 30 April 2023.

37 Email from Damian O'Brien, HALO, 27 May 2024; and Sami Mohammad, SCD, 24 May 2004.

38 Emails from Mairi Cunningham, HALO, 7 and 17 June 2021; and Damian O'Brien, HALO, 1 March 2022 and 27 May 2024.

39 Emails from Damian O'Brien, HALO, 1 March 2022 and 10 April 2023.

40 Email from Damian O'Brien, HALO, 10 April 2023.

41 Emails from Damian O'Brien, HALO, 27 May 2024; and Sami Mohammad, Mine Action Program Coordinator, SCD, 24 May 2024.

42 iMMAP, "Northeast Syria: Progress, Challenges, and Forecast of Humanitarian Mine Action", October 2022 – March 2023, p. 15.

43 Email from Riaan Boshoff, MAG, 21 May 2024.

operations. Sporadic security incidents intermittently halted activities. Funding constraints further complicated efforts for humanitarian mine action actors in the region.[44]

In 2023 and early 2024, DCA faced several challenges to efficient mine action in north-east Syria. Heightened security concerns, including tribal disputes in Deir-ez-Zor, restricted access to various target communities, hindering the movement of survey teams. In May 2023, the closure of the NES/KRI border crossing forced DCA to temporarily relocate all international staff to Erbil, where they supported national staff remotely. Additionally, DCA encountered issues with ERW storage facilities, relying on a temporary storage unit at their secured Forward Operating Base (FOB) in Ar-Raqqa. When this facility neared capacity, explosive ordnance was transported to DCA's local partner RMCO in Al-Hassakeh, which has a larger, purpose-built storage facility.[45]

iMMAP reported that as of March 2023, no mine action operators in the north-east had met their required levels of funding and that funding levels were critical.[46]

## GENDER AND DIVERSITY

There is no national gender and diversity policy for the mine action programme.

**Table 1: Gender composition of operators in 2023[47]**

| Operator | Total staff | Women staff | Total managerial or supervisory staff | Women in managerial or supervisory positions | Total operational staff | Women in operational positions |
|---|---|---|---|---|---|---|
| UNMAS | 16 | 7 (44%) | 4 | 2 (50%) | 3 | 2 (67%) |
| NPA | 56 | 23 (41%) | 6 | 1 (17%) | 38 | 16 (42%) |
| HALO | 55 | 19 (35%) | 15 | 4 (27%) | 34 | 10 (29%) |
| SCD | 3,246 | 419 (13%) | 630 | 88 (14%) | 2,616 | 331 (13%) |
| MAG | 229 | 44 (19%) | 40 | 6 (15%) | *144 | *36 (25%) |
| DCA | 65 | 12 (18%) | 7 | 1 (14%) | 58 | 11 (19%) |
| **Totals** | **3,667** | **524 (14%)** | **702** | **102 (15%)** | **2,893** | **406 (14%)** |

* Managerial employees included

**Government-controlled areas**

UNMAS has a gender and diversity strategy, and gender and diversity considerations are addressed in implementation of activities.[48] Its clearance contractor, the Armenian Centre for Humanitarian Demining and Expertise (ACHDE), has integrated gender and diversity elements in its work. A diverse set of indicators, including sex and age of victims and beneficiaries, are used to evaluate prioritisation.[49] In 2023, women made up 44% of all UNMAS Syria staff, with 42% of operational and 16% of managerial positions.[50]

UNMAS's context analysis appeared to indicate that ethnic/minority groups are not affected by explosive ordnance contamination differently, but rather that all population groups are vulnerable regardless of ethnicity.[51] But Mine Action Review believes that minority groups loyal to the Syrian government are significantly less affected by CMR contamination by virtue of their lesser exposure to the attacks carried out by the Syrian and Russian armed forces.

NPA has a gender and diversity policy and implementation plan in place. Women made up 41% of the total NPA Syria programme workforce in 2023.[52]

**North-west**

HALO's field teams typically include at least two women, including in EOD, where two female staff are certified to International Mine Action Standards (IMAS) Level 1. HALO's employment policy promotes non-discrimination, gender equality, and diversity. Female staff have access to female-friendly spaces in HALO's office, as per local cultural norms. HALO provides women with opportunities for training in technical field roles to recognised international standards,

44 Ibid.

45 Email from Adesh Singh, DCA, 16 May 2024.

46 iMMAP, "Northeast Syria: Progress, Challenges, and Forecast of Humanitarian Mine Action", October 2022 – March 2023, p. 15.

47 Emails from Chris Tierney, NPA, 17 June 2024; Damian O'Brien, HALO, 27 May 2024; Adesh Singh, DCA, 16 May 2024; Riaan Boshoff, MAG, 21 May 2024; Hassana Mardam Bey, UNMAS, 19 June 2024; and Sami Mohammad, SCD, 24 May 2024.

48 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

49 Email from Francesca Chiaudani, UNMAS, 30 April 2023.

50 Email from Hassana Mardam Bey, UNMAS, 19 June 2024.

51 Email from Francesca Chiaudani, UNMAS, 31 March 2022.

52 Email from Chris Tierney, NPA, 17 June 2024.

offering transferable skills and enhancing their earning potential. In 2023, about 35% of HALO's total employees were female, and 29% of managerial and operational positions were filled by women.[53]

SCD has a gender and a diversity strategy and policies are in place to prevent discrimination based on ethnicity, religion, or sex.[54] In 2023, SCD trained and deployed six female clearance operators who were deployed in three of SCD's six clearance teams in 2024.[55] SCD recruits volunteers from the communities they serve, reflecting local ethnic and minority groups. In 2023, about 13% of SCD's total employees were female while 14% of managerial and operational positions were filled by women.[56]

**North-east**

DCA has a country-specific gender and diversity policy and implementation plan in addition to its global gender and diversity policy. All national staff recruitment is done through candidate lists put forward by NESMAC as specified in the memorandum of understanding (MoU). Although DCA asks for gender-balanced candidate lists for all positions, such conditions are seldom met. Despite challenges in finding female candidates, DCA has maintained gender diversity in operational positions, including having the first female Explosive Hazard Search Team Leader and female Assistant Team Leader, and all its Explosive Hazard Search teams are mixed gender. Support staff also include an equal number of female employees in roles such as GIS officer and interpreters. DCA's commitment to broader diversity ensures its teams come from various ethnic backgrounds, reflecting the communities they serve and enhancing the effectiveness of its humanitarian efforts. In 2022, 18% of DCA's employees were women, with 19% and 14% of operational positions and managerial positions filled by women, respectively.[57]

MAG has an institutional gender and diversity policy and implementation plan.[58] MAG consults separately with women, children, ethnic, and minority groups to identify diverse needs.[59] In 2023, MAG conducted gender and diversity workshops and formed a committee to lead these initiatives. In 2023, 19% of its employees were women including 15% of operational positions and 25% of managerial positions.[60]

## ENVIRONMENTAL POLICIES AND ACTION

**Government-controlled areas**

UNMAS's partnerships with implementing partners follow guidelines that include environmental requirements. UNMAS applies the IMAS 10.70 on environmental management, and the "do no harm" principle. UNMAS also considers the environmental impacts of assessing and removing explosive ordnance, such as the necessary removal of vegetation for operations.[61]

NPA has a country-specific environmental management policy for Syria launched in February 2024, with environmental assessment to support survey and clearance commencing at the same time.[62] To minimise environmental harm, NPA uses a Green Office tool and will soon implement a Green Field tool to measure carbon footprints and encourage waste reduction and recycling. Climate-related and extreme weather risks are considered in planning, with priority given to areas prone to water inundation, such as hazard areas (HAs), for clearance during the dry season.[63]

**North-west**

The HALO Trust has an environmental management policy and standard operating procedure (SOP) that applies to all country programs. Environmental considerations are integrated into the planning and delivery of survey and clearance tasks as per the SOP. Measures to minimise environmental harm including generating all of the minefield electricity needed from solar power and replacing all excavated soil after processing.[64]

SCD is developing an environmentally focused management strategy, initiated through donor-funded training. SCD plans to conduct environmental assessments to support the planning and execution of survey and clearance under the new strategy. Measures to minimise environmental harm include the proper disposal of UXO and other hazardous materials. Future measures will also include training deminers on environmental risks and waste management.[65]

**North-east**

DCA has an SOP for environmental protection in mine action operations. It conducts environmental assessments as part of their land release process to identify and mitigate potential environmental impacts, ensuring that its operations do not disturb local ecosystems. Measures to minimise harm during clearance operations include using fuel-efficient vehicles and optimising travel routes to reduce greenhouse gas emissions; implementing waste management practices, including recycling non-explosive metal scraps at an iron smelting factory; and safely disposing of EO at designated locations to prevent soil and water pollution.[66]

53 Email from Damian O'Brien, HALO, 27 May 2024.
54 Emails from Michael Edwards, SCD, 5 March and 15 June 2022.
55 Email from Sami Mohammad, SCD, 24 May 2024.
56 Email from Michael Edwards, SCD, 27 March 2023.
57 Email from Adesh Singh, DCA, 16 May 2024.
58 Email from MAG, 24 May 2021.
59 Email from Fabrice Martin, MAG, 9 March 2022.
60 Email from Riaan Boshoff, MAG, 21 May 2024.
61 Email from Hassana Mardam Bey, UNMAS, 19 June 2024.
62 Emails from Chris Tierney, NPA, 21 and 24 June 2024.
63 Email from Chris Tierney, NPA, 17 June 2024.
64 Email from Damian O'Brien, HALO, 27 May 2024.
65 Email from Sami Mohammad, SCD, 24 May 2024.
66 Email from Adesh Singh, DCA, 16 May 2024.

MAG has an SOP for environmental management and reports that environmental assessments are conducted to support the planning and delivery of survey and clearance. MAG ensures that previously hazardous areas are suitable for their intended use and that non-hazardous areas are left in a similar condition to before demining. Clearance seeks to avoid environmental pollution or degradation, particularly concerning surface and groundwater quality, sensitive areas, wildlife and their habitats, vegetation, soil conservation, erosion control, and archaeological and cultural resources.[67]

## INFORMATION MANAGEMENT AND REPORTING

**Government-controlled areas**

In 2021, UNMAS completed the installation of IMSMA Core as the national mine action information management (IM) system in Damascus, although it continues to have another IMSMA database outside of Damascus for reasons of data confidentiality.[68] UNMAS manages the database, collating explosive ordnance data from partners across Syria in a central database. UNMAS also collects mine action data through the OCHA-led humanitarian response tracking (5Ws).[69] It is believed, however, that clearance by Syrian and Russian forces largely goes unreported. In 2023, the UNMAS IM team began a comprehensive overhaul of the database to ensure better data accuracy.[70]

**North-west**

HALO uses IMSMA data collection forms and regularly reports to the northwest MASC and the UNHCR-led Gaziantep coordination response. HALO uses Kobo to collect NTS data and pre- and post-clearance surveys to measure the impact of mechanical clearance. HALO's Syria IM staff and the global MEAL team regularly review data collection tools. At the MASC level, HALO collects data from operators using forward planning and the 5Ws tool to include detailed locations, activities, and sub-activities.[71]

SCD uses Survey123 for data collection and IMSMA Core for data keeping and management. SCD continues to employ a multi-tier validation process for all mine action activities, with each report checked by three individuals, at increasing levels of seniority. Furthermore, at the end of each month, the data for all tasks are compiled and a final check carried out to ensure data accuracy.[72]

**North-east**

Since 2017, iMMAP has provided mine action coordination support and information management services in the north-east.[73] Operators report all survey and clearance data to iMMAP, which consolidates the information and develops contamination maps for the sub-region.[74]

MAG established its global Operational Management Information System (OMIS) in 2022. Field data are collected via Survey123 using IMSMA forms, verified by technical managers through OMIS, linked to Aeronautical Reconnaissance Coverage Geographic Information (ArcGis) maps, and validated by the IM department.[75] OMIS was upgraded to OMIS 2 in 2023 and began incorporating satellite imagery for more accurate coordinates of hazardous areas. MAG shares its data with iMMAP monthly and its operations plans and road maps with NESMAC weekly. Quality Management has also been added to the upgraded OMIS 2 system.[76]

DCA employs an IM GIS coordinator and an officer, using ArcGis, Environmental Systems Research Institutions (ESRI), and Survey123 for its information management. Survey and clearance data are collected using IMSMA data collection forms and shared monthly with iMMAP. The ongoing iMMAP NTS project is expected to improve the accuracy of EO contamination data, enabling better prioritisation of clearance.[77]

## 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.

**Government-controlled areas**

In 2023, UNMAS continued to focus on high priority areas in Rural Damascus, identified by OCHA as one of the most contaminated governorates, and based on the list of priority locations discussed with partners and agreed with the government. UNMAS supported a debris-removal joint project by the United Nations Development Programme (UNDP) and UN-Habitat to address the impact of the earthquake on Aleppo City. UNMAS deployed an NTS team, a multitask EOD team, and two banksmen (crane driver's helpers) in support of the project, which started in November 2023.[78] Tasks are prioritised based on criteria such as humanitarian need, the presence of humanitarian partners,

67 Email from Riaan Boshoff, MAG, 21 May 2024.
68 Email from Francesca Chiaudani, UNMAS, 31 March 2022.
69 Email from Francesca Chiaudani, UNMAS, 30 April 2023.
70 Email from Hassana Mardam Bey, UNMAS, 19 June 2024.
71 Email from Damian O'Brien, HALO, 10 April 2023.
72 Emails from Michael Edwards, SCD, 5 March 2022 and 27 March 2023.
73 iMMAP, "Northeast Syria: Progress, Challenges, and Forecast of Humanitarian Mine Action", September 2021–April 2022, p. 4.
74 Email from Riaan Boshoff, MAG, 21 May 2024.
75 Emails from Akram Alsaeedi, MAG, 24 March 2023; and Najat El Hamri, MAG, 3 July 2023.
76 Email from Riaan Boshoff, MAG, 21 May 2024.
77 Emails from Kevin Straker, DCA, 15 March and 28 June 2023; and Adesh Singh, DCA, 16 May 2024.
78 Email from Hassana Mardam Bey, UNMAS, 19 June 2024.

delivery of humanitarian activities, internally displaced person (IDP) flows, and historic data on explosive incidents.[79]

In 2023, NPA prioritised CMR clearance of agricultural areas in the Nashebiyah sub-district. Clearance efforts are contingent on receiving approval from national authorities to conduct survey and clearance in designated villages and locations.[80]

**North-west**

The north-west of Syria has no central tasking or prioritisation body. HALO uses data collected from its previous community assessments and NTS to identify high-priority communities for EOD and clearance, focusing on removing contamination from agricultural areas to support economic activities and livelihoods and to mitigate food insecurity. Incident data show that a large percentage of detonations affect adult men and that two of the most at-risk occupations are farming and herding. HALO engages with communities where it conducts EOD to obtain their informed consent and considers requests from the local authorities for future interventions.[81]

SCD prioritises tasks based upon several factors which ultimately determine the level of risk to the community. These factors include the type of item, its location (whether close to inhabited buildings or blocking vital infrastructure), the number of items, as well as logistical information, such as the location of the task relative to the clearance team, and whether there are multiple tasks within the same area. Following an assessment of these factors, tasks that are deemed to pose the highest risk to the community are prioritised. At present, the number of tasks identified through survey does not yet exceed the operational capacity of the clearance teams, meaning that once items are identified they are cleared within one or two days, thus reducing the need to prioritise.[82]

**North-east**

In the north-east of Syria, there is neither a central tasking and prioritisation body to issue tasks nor a strategic mine action plan, but operators have their own plans.[83] In 2023, DCA prioritised survey and clearance in Ar-Raqqa governorate. NTS was conducted in Deir-ez-Zor, though heightened security sometimes impeded operations. Prioritisation is based on needs and impact, focusing first on areas where populations live among explosive hazards, followed by unoccupied areas expected to see IDP returns once cleared. Tasks are reported to NESMAC before clearance. In urban areas particularly, extensive conflict damage has left explosive hazards in public spaces and densely populated areas. Prioritising clearance of battle-damaged rubble is crucial. The cleared rubble is then repurposed for infrastructure construction. DCA also integrates programming by rehabilitating cleared spaces and key infrastructure, working with the community to prioritise projects.[84]

In 2022, following capacity building provided by MAG, NESMAC started to follow MAG's prioritisation criteria. These are: persons or animals injured or killed by landmines or UXO spots during the past 24 months; IEDs, landmines or UXO spots found; blocked irrigated agricultural fields, pasture lands, non-agricultural areas, housing, roads, or infrastructure; the number of the population using the land; and the presence of persons with disabilities among the population who use the land.[85] In 2023, MAG prioritised survey and clearance in Hasekah and Raqqa governates.[86]

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

**Government-controlled areas**

There are no formal national mine action standards (NMAS) in Syria, but in 2020, UNMAS drafted NMAS and associated guidelines and submitted them to the Syrian government for its review and approval. Despite having received informal positive feedback, no official response had been given on the proposed NMAS as at June 2024.[87] In its statement as an observer to the Anti-Personnel Mine Ban Convention (APMBC) Twentieth Meeting of States Parties (20MSP) in 2022, Syria stated that: "Technical standards and guidelines have been developed that will define the operational framework for all mine action activities in Syria, in line with the International Mine Action Standards."[88]

**North-west and north-east**

In the non-government-controlled north-east and north-west of Syria, local authorities do not endorse the Damascus-developed NMAS. As a result, most of the operators work to their own SOPs.[89] In the absence of a formal land release policy, a signing of a handover land-release certificate happens between DCA, the landowner, and NESMAC. This process was introduced to NESMAC by DCA.[90]

79 Emails from Francesca Chiaudani, UNMAS, 31 March 2022 and 30 April 2023.
80 Email from Chris Tierney, NPA, 17 June 2024.
81 Emails from Mairi Cunningham, HALO, 7 June 2021; and Damian O'Brien, HALO, 1 March 2022 and 10 April 2023.
82 Emails from Michael Edwards, SCD, 5 March 2022 and 27 March 2023.
83 Emails from Akram Alsaeedi, MAG, 24 March 2023; and Kevin Straker, DCA, 15 March 2023.
84 Email from Adesh Singh, DCA, 16 May 2024.
85 Email from Akram Alsaeedi, MAG, 24 March 2023.
86 Email from Riaan Boshoff, MAG, 21 May 2024.
87 Emails from Francesca Chiaudani, UNMAS, 31 March 2022 and 30 April 2023; and Hassana Mardam Bey, UNMAS, 19 June 2024.
88 Statement of Syria, APMBC 20MSP, Geneva, 21–25 November 2022.
89 Email from Lene Rasmussen, DCA, 13 April 2021.
90 Email from Kevin Straker, DCA, 15 March 2023.

MAG Syria continues to work to its own established SOPs in the north-east. MAG started a capacity-building plan on NMAS development for NESMAC and plans to elaborate NMAS in the long-term.[91] As at May 2024, a technical advisor has been appointed by iMMAP to advise and support this, but no NMAS has been produced yet.[92]

## 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.

**Table 2: Operational clearance capacities deployed in 2023[93]**

| Operator | Clearance teams | Total deminers* | Mechanical assets/machines | Comments |
|---|---|---|---|---|
| UNMAS | 3 | 22 | 0 | Two teams worked (each 16-strong) Jan–April. One team (6 strong) worked Aug–Dec. |
| NPA | 4 | 16 | 0 | Technical survey (TS) and clearance |
| HALO | 3 | 12 | 1 | Two four-person EOD teams and one four-person mechanical clearance team deployed on AP mined area |
| SCD | 6 | 54 | 0 | |
| MAG | 10 (6 MAT, 4 MTT) | 80 | 10 | Teams reduced to 8 (5 MAT, 3 MTT) by end 2023 due to reduced funding |
| DCA | 4 | 27 | 8 | TS and clearance |
| **Totals** | **30** | **211** | **19** | |

**Government-controlled areas**

UNMAS signed an MoU with the Syrian government in 2018. The following year, UNMAS reported the government had agreed to the involvement of international demining organisations which would be registered by the government and coordinated by UNMAS.[94] In 2023, four organisations received accreditation to conduct mine action in government-controlled areas: SHIELD, NPA, Global Clearance Solutions, and Safety Solutions. In 2024, this changed to SHIELD, NPA, DRC, and Safety Solutions.[95] To date, however, in areas under government control most survey and clearance has been conducted by Russian and Syrian military engineers and civil defence organisations.[96]

UNMAS deployed two NTS teams totalling six personnel from 30 August 2023 with three clearance teams deployed over the course of the year. UNMAS was planning to sustain its capacity in 2024 if sufficient funding was secured. In response to the earthquake in 2023, a multi-tasking team was deployed to support the UN rapid assessment in Aleppo. Since November 2023, UNMAS has supported the UNDP and UN-Habitat debris removal project in Aleppo and Lattakia. UNMAS deployed an NTS team to assess the level of contamination in the worksites. An EOD team was then deployed to remove EO, with two banksmen ensuring worker safety during debris removal.[97]

Following the signature of an MoU with the Syrian government in December 2021,[98] NPA received accreditation and completed its inception phase in 2022. The inception phase included the recruitment of national staff and the setting up of NPA's office in Damascus. The operational training took place in Damascus and Rural Damascus governorates.[99] In 2023, NPA deployed four NTS teams totalling eight personnel and four multi-task teams which conducted both technical survey (TS) and clearance in Nashebiyah sub-district, Rural Damascus. Dependent on funding availability NPA plans to increase its number of teams in 2024.[100]

SARC deployed 13 NTS teams in 2023 with ICRC providing QA. In 2024, 16 personnel were deployed to Aleppo and 12 to Damascus to conduct battle area clearance (BAC) and EOD spot tasks.[101]

The Syrian army also continues to conduct clearance in government-controlled areas, on a limited scale, including clearing CMR and other EO.[102]

91 Emails from Fabrice Martin, MAG, 9 March 2022; and Akram Alsaeedi, MAG, 24 March 2023.

92 Email from Riaan Boshoff, MAG, 21 May 2024.

93 Emails from Chris Tierney, NPA, 17 June 2024; Damian O'Brien, HALO, 27 May 2024; Adesh Singh, DCA, 16 May 2024; Riaan Boshoff, MAG, 21 May 2024; Hassana Mardam Bey, UNMAS, 19 June 2024; Sami Mohammad, SCD, 24 May 2024; and Kim Feldewerth, HALO, 17 July 2024.

94 Statement by Agnes Marcaillou, Director, UNMAS, to the UN Security Council, 24 October 2019.

95 Email from Hassana Mardam Bey, UNMAS, 19 June 2024.

96 "Russian military boosts qualified Syrian sappers to demine war-ravaged country", Tass, 9 January 2018.

97 Email from Hassana Mardam Bey, UNMAS, 19 June 2024.

98 NPA, New Humanitarian Mine Action in Syria, at: https://bit.ly/3MHNXTF.

99 Email from Claus Nielsen, Programme Manager, NPA, 12 April 2023.

100 Email from Chris Tierney, NPA, 17 June 2024.

101 Interview with Ben Lark, Weapon Contamination Coordinator, ICRC Syria, Geneva, 29 April 2024.

102 Email from Chris Tierney, NPA, 17 June 2024.

**North-west**

In the north-west, HALO carried out NTS, EOD call-outs, and clearance of hazardous areas while SCD conducted NTS and EOD call-outs.[103]

HALO, which has been present in Syria since 2016, conducts NTS, clearance, EOD, and explosive ordnance risk education (EORE) in the north-west in the opposition-controlled territories of Idlib and in countryside in the western Aleppo. In 2023, HALO's EOD teams received authorisation to use explosives for demolitions. This was a major step forward in operational capacity as previously HALO had to rely on burning techniques, which limited the types and quantity of devices suitable for disposal.[104] HALO created its first mechanical clearance team using an excavator, which was deployed to clear anti-personnel mines. HALO deployed two NTS teams totalling 10 persons which also conducted EOD call-outs. In 2024, a second mechanical clearance team was deployed, expanding the team size to five members each. Now, HALO operates with two teams, two machines (an excavator and a front loader), and a total of ten personnel.[105]

SCD was operational in 33 sub-districts of Idlib, Aleppo, and Hama governorates providing NTS and single item disposal via remote-controlled open burning. In 2023, SCD deployed six NTS teams totalling thirty personnel along with six clearance teams.[106]

HALO and SCD mine action activities were temporarily suspended in the aftermath of the earthquake and teams assisted in supporting the earthquake response. SCD resumed operations in February 2024.[107] HALO resumed EOD operations in February and other operations were fully resumed in April 2024.[108]

**North-east**

DCA has been present in Syria since 2015.[109] In 2023, DCA primarily focused on survey and clearance, EOD spot tasks, and risk education in Ar-Raqqa governorate. In Deir-ez-Zor Governorate, NTS was carried out by DCA's local partner, RMCO. DCA deployed three NTS teams with ten personnel each from RMCO and four clearance teams totalling forty-five personnel. Clearance teams also conducted TS. DCA increased its capacity from 2022 to 2023 due to new funding but expected severe reductions in NTS and clearance personnel in 2024 due to critical funding gaps.[110]

A local organisation, RMCO, established in 2016, was conducting clearance in the north-east but sustained heavy casualties among its deminers attempting clearance of improvised devices.[111] In 2023, RMCO partnered with DCA for NTS in hard-to-reach areas.[112]

ITF has been conducting NTS in 2023 as part of the iMMAP project and is on phase III of its explosive hazards clearance which began in 2021. It focuses on former agricultural land or infrastructure on areas liberated from Islamic State. ITF is also providing capacity-building support for a local mine action NGO, Reachout.[113]

MAG has been operational in the north-east of Syria since 2016.[114] In 2023, MAG operated in Al-Hassakeh (north-east) and Raqqa governorates, conducting TS, clearance, EORE, contamination baseline assessments, community focal points training, training of trainers for school teachers, and NTS. MAG deployed ten community liaison teams totalling 20 personnel who also conduct NTS and 10 clearance teams. MAG's capacity decreased in 2023 due to a lack of funding and MAG expects this capacity to remain unchanged in 2024.[115]

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## CLEARANCE IN 2023

Syria's continuing instability prevented progress towards a coordinated national programme of mine action. Comprehensive information on outcomes of survey and clearance in any area was unavailable, but Table 3 below summarises the data for clearance in 2023.

**Table 3: CMR clearance in 2023[116]**

| Region | Operator | Areas cleared | Area cleared (m²) | Submunitions destroyed |
|---|---|---|---|---|
| Government-controlled areas | NPA | 2 | 288,352 | 27 |
| North-east | MAG | 5 | 384,836 | 128 |

103 Email from Damian O'Brien, HALO, 27 May 2024.
104 Emails from Damian O'Brien, HALO, 1 March 2022 and 10 April 2023.
105 Email from Damian O'Brien, HALO, 27 May 2024.
106 Email from Sami Mohammad, SCD, 24 May 2024.
107 Ibid.
108 Emails from Damian O'Brien, HALO, 27 May 2024; and Kim Feldewerth, HALO, 17 July 2024.
109 Email from Lene Rasmussen, DCA, 13 April 2021.
110 Emails from Adesh Singh, DCA, 16 May and 30 June 2024.
111 S. Kajjo, "Landmine removal crucial in post-IS Syria", Voice of America, 3 April 2019; and interview with operators, Erbil, Iraq, May 2019.
112 Emails from Kevin Straker, DCA, 15 March and 28 June 2023.
113 ITF, "Annual Report 2023", at: https://bit.ly/3zjmWEB, pp. 93–94.
114 Email from MAG, 24 May 2021.
115 Email from Riaan Boshoff, MAG, 21 May 2024.
116 Emails from Chris Tierney, NPA, 17 June 2024; Riaan Boshoff, MAG, 21 May 2024; and Adesh Singh, DCA, 16 May 2024.

**Table 3 Continued**

| Region | Operator | Areas cleared | Area cleared (m²) | Submunitions destroyed |
|---|---|---|---|---|
| North-east | DCA | 4 | 1,291,056 | 67 |
| **Totals** | | **11** | **1,964,244** | **222** |

A further 483 submunitions were discovered during EOD spot tasks in 2023: 55 by UNMAS in government-controlled areas; 127 by HALO and 325 by SCD in north-west Syria; and 28 by MAG and 2 by DCA in north-east Syria.

**Government-controlled areas**

UNMAS found 55 submunitions during EOD spot tasks in 2023 but they were unsafe to move and authorisation to conduct in situ demolition is still pending with the Syrian authorities.[117] NPA reduced two CMR contaminated areas through TS in 2023 totalling 97,157m² and cleared two CMR-contaminated areas totalling 288,352m² with 27 submunitions found and destroyed.[118]

**North-west**

HALO conducted 127 EOD call-outs in 2023 and destroyed 33 submunitions in Idlib and disposed of 187 items of other UXO. Its outputs were expected to double in 2024.[119]

SCD destroyed a total of 325 submunitions in Aleppo, Hama and Idlib governates in north-west Syria during EOD call-outs. In addition, SCD destroyed 757 items of other UXO.[120]

**North-east**

MAG cleared five CMR-contaminated areas in Raqqa in 2023 totalling 384,836m² and destroyed 128 submunitions. In addition, MAG destroyed 68 submunitions during EOD call outs.[121]

DCA cancelled 249,800m² of CMR contaminated area through NTS in 2023 in Ar-Raqqa and cleared 1,291,056m² across four hazardous areas with 67 submunitions found and destroyed as well as 1,002 items of other UXO. In addition, DCA destroyed two submunitions during spot tasks.[122]

From 15 August to 31 December 2023, as part of its clearance of contaminated agricultural lands, ITF deployed two clearance teams, one NTS team, and one EORE team and released 101,697m² of land contaminated with explosive ordnance through TS and clearance.[123] It is not clear how many EO items, if any, were CMR.

According to iMMAP, between October 2022 and March 2023, operators removed/destroyed 2,289 items, and cleared or cancelled through NTS 1,791,987m² in the districts of Al-Hassakeh, Deir-ez-Zor, Ath-Thawrah, and Ar-Raqqa with landmines and submunitions recorded in all districts, although iMMAP does not disaggregate data by munition.[124]

In its statement to the 20MSP in 2022, Syria stated that its armed forces removed more than 50,000 explosive devices, 84,000 unexploded shells, and 45,000 mines from more than 550km² of land. Syria called on an "immediate and unconditional lifting of western unilateral coercive measures imposed on Syria, and for supporting efforts to cleanse its entire territory of the evils of mines".[125] Syria is not yet a State Party to the CCM, nonetheless, it has obligations under international human rights law to clear CMR as soon as possible. NPA reported that the question of acceding the CCM and APMBC was raised with the Director of the National Committee for Mine Action in several meetings in 2023. However, the government representatives, citing the ongoing conflict, indicated that the country is not currently in a position to accede to these conventions.[126]

Operators reported that the main obstacles to CMR clearance were ongoing insecurity reducing access to contaminated areas, a lack of a comprehensive understanding of contamination at regional or national level, and reduced funding which is on the decline for 2024 and has led to reduced capacity for mine action activities.

117 Email from Hassana Mardam Bey, UNMAS, 19 June 2024.
118 Email from Chris Tierney, NPA, 17 June 2024.
119 Email from Damian O'Brien, HALO, 27 May 2024.
120 Email from Sami Mohammad, SCD, 24 May 2024.
121 Email from Riaan Boshoff, MAG, 21 May 2024.
122 Email from Adesh Singh, DCA, 16 May 2024.
123 ITF, "Annual Report 2023", p. 94.
124 iMMAP, "Northeast Syria: Progress, Challenges, and Forecast of Humanitarian Mine Action", October 2022 – March 2023, p. 9.
125 Statement of Syria, APMBC Twentieth Meeting of States Parties, Geneva, 21–25 November 2022.
126 Email from Chris Tierney, NPA, 17 June 2024.

# TAJIKISTAN

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

## KEY DATA

**CLUSTER MUNITION CONTAMINATION:** LIGHT

NATIONAL AUTHORITY ESTIMATE

**3.74KM²**

SUBMUNITION CLEARANCE IN 2023

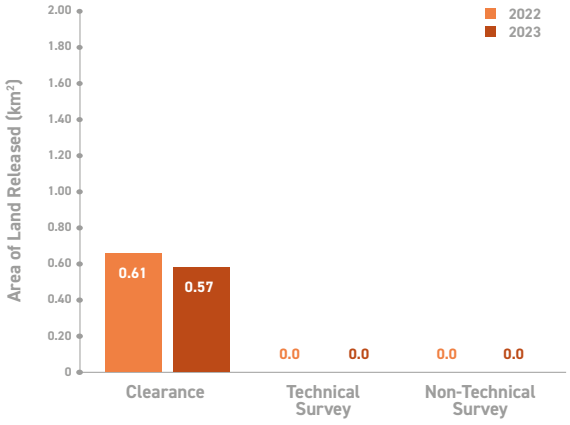
**0.57KM²**

SUBMUNITIONS DESTROYED IN 2023

**511**

(INCLUDING 5 DESTROYED DURING EOD SPOT TASKS)

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

Tajikistan's clearance output decreased slightly in 2023 compared to the previous year. The national authority estimate of total contamination from cluster munition remnants (CMR) decreased slightly to 3.74km² from the 4.04km² estimated at the end of 2022. Tajikistan plans to complete all necessary survey to finally establish a baseline of CMR contamination by the end of 2025.

## RECOMMENDATIONS FOR ACTION

- **Tajikistan should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.**
- **Tajikistan should comply with its obligations under international human rights law to clear CMR on territory under its jurisdiction or control as soon as possible.**
- **The Tajikistan National Mine Action Center (TNMAC) should seek to confirm the extent of remaining CMR contamination and ensure timely clearance and release of the contaminated areas.**

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Commission for the Implementation of International Humanitarian Law (CIIHL)
- Tajikistan National Mine Action Center (TNMAC)

### NATIONAL OPERATORS

- Union of Sappers Tajikistan (UST)
- Ministry of Defence – Humanitarian Demining Company (HDC)
- Border Guard Forces of Tajikistan

### INTERNATIONAL OPERATORS

- Norwegian People's Aid (NPA)
- Swiss Foundation for Mine Action (FSD)

### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- Organization for Security and Co-operation in Europe (OSCE)

# UNDERSTANDING OF CMR CONTAMINATION

Tajikistan has a CMR problem that TNMAC estimates is in 16 confirmed hazardous areas (CHAs) covering a total of 3.74km$^2$ (see Table 1).[1] Tajikistan reports no suspected hazardous areas (SHAs). TNMAC's current estimate of contamination is a decrease on the 4.03km$^2$ reported for the end of 2022[2] but still significantly higher than the 1.86km$^2$ identified by TNMAC at the end of 2021.[3] The significant increase in 2022 was the result of nine battle areas being confirmed as containing CMR, adding a total area of 2.67km$^2$ to the national database in 2022.[4] A total of 0.22km$^2$ of previously unrecorded CMR contamination was added to the database in 2023.[5]

Tajikistan's CMR contamination is largely concentrated in central areas of the country,[6] spread across two of Tajikistan's four regions. The largest concentrations (almost 40% and 38%, respectively) are in Rasht in the Districts of Republican Subordination (DRS) region and in the mountainous district of Darvoz in the Gorno-Badakhshan Autonomous (GBAO) region (also sometimes referred to a VKMB). The remainder (almost 23%) is in Vahdat, also in the DRS region.[7] Tajikistan plans to finish surveying all explosive ordnance contamination by the end of 2025 in the districts of Darvoz, Rasht, and Vahdat where cluster munition-contaminated areas have continued to be identified.[8]

Contamination data are disaggregated by weapon type in the national database, with CMR disaggregated from other explosive remnants of war (ERW).[9]

**Table 1: Cluster munition-contaminated area (at end 2023) (National Authority estimate)[10]**

| Region | District | CHAs | Area (m$^2$) |
|---|---|---|---|
| GBAO | Darvoz | 5 | 1,404,463 |
| DRS | Rasht | 6 | 1,479,900 |
| DRS | Vahdat | 5 | 856,133 |
| **Totals** | | **16** | **3,740,496** |

Tajikistan traces its CMR contamination back to the civil war of 1992–97 but has not clarified who was responsible for using cluster munitions.[11] Most submunitions being cleared are Soviet-era AO 2.5RT/RTM type.[12] SHOAB-0.5 submunitions have also been found.[13]

Tajikistan faces several challenges in determining an accurate baseline of CMR contamination. Owing to a lack of nationwide survey, Tajikistan has no recorded SHAs and continues to discover areas of contamination for which no previous information exists.[14] As the Union of Sappers Tajikistan (UST) notes that cluster munitions were used without documentation. As such, non-technical survey (NTS) teams are investing effort into finding former military personnel and other informants who were involved in the civil war and can help survey teams build a picture of likely contamination. Information about previously unknown areas of contamination also comes from explosive accidents, such as the one in 2021 involving two civilians and the explosion of a SHOAB-0.5 cluster bomb in the Romit Gorge in Vahdat district. This prompted survey and eventually led to confirmation of a previously unrecorded total of 1.74km$^2$ of cluster munition-contaminated area.[15] Tajikistan's terrain can present a challenge to determining an accurate baseline of contamination in a given area. Mudslides, landslides, avalanches, and rockfalls can cause submunitions to move or become more deeply buried.[16]

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Tajikistan is also contaminated with anti-personnel mines. See Mine Action Review's *Clearing the Mines* reports on Tajikistan for further information.

1 Emails from Muhabbat Ibrohimzoda, Director, TNMAC, 15 April and 23 July 2024.
2 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.
3 Email from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.
4 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.
5 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024; and Faiz Mohammad Paktian, Country Director, Norwegian People's Aid (NPA), 6 May 2024.
6 "Tajikistan's Mine Action Programme: Overview of Remaining Challenges and Needs", Presentation at Individualised Approach Meeting, Twenty-First Meeting of States Parties to the Anti-Personnel Mine Ban Convention (APMBC) (21MSP), Geneva, 21 November 2023.
7 Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.
8 Ibid.
9 Email from Muhabbat Ibrohimzoda, TNMAC, 16 June 2023.
10 Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.
11 Statement of Tajikistan, APMBC Fourteenth Meeting of States Parties, Geneva, 1 December 2015.
12 Email from Melissa Andersson, Country Director, NPA, 29 April 2020.
13 Email from Saynurridin Kalandarov, Director, Union of Sappers Tajikistan (UST), 14 April 2023.
14 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.
15 Email from Saynurridin Kalandarov, UST, 14 April 2023.
16 Presentation by Muhabbat Ibrohimzoda, TNMAC, APMBC Intersessional Meetings, Geneva, 22 June 2022; and email from Saynurridin Kalandarov, UST, 14 April 2023.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Commission for the Implementation of International Humanitarian Law (CIIHL), chaired by the First Deputy Prime Minister, and comprising senior representatives from relevant line ministries, acts as Tajikistan's national mine action authority, responsible for mainstreaming mine action in the government's socio-economic development policies.[17]

TNMAC is the executive arm of CIIHL and the body coordinating mine action, responsible for accreditation, risk management, issuing task orders, information management, quality assurance (QA), and quality control (QC).[18] It was set up by government decree in 2014, replacing the Tajikistan Mine Action Centre and assuming responsibility for the transition to a fully nationally-owed programme.[19] Tajikistan's Parliament adopted a Law on Humanitarian Mine Action in 2016.[20] The Ministry of Defence (MoD) plays a significant role in the mine actor sector through the Humanitarian Demining Company (HDC), the biggest national operator, which is funded by the United States (US)[21] and the Organization for Security and Co-operation in Europe (OSCE).[22]

The Government of Tajikistan and TNMAC are enabling and highly supportive of mine action activities in the country. This includes the granting of visas, concluding memoranda of understanding with operators, facilitating imports, granting access to border-detached areas that require special permissions and involving operators in decisions as and when needed.[23]

National funding has remained modest but consistent in recent years. In 2023, the Tajik government provided modest funding for mine action, including US$480,000 for "technical and non-technical assistance" (the same level of funding provided in 2022) to facilitate the implementation of the Tajikistan's obligations under the Anti-Personnel Mine Ban Convention (APMBC). A further US$56,710 (the same amount as in 2022), was allocated to support operational mine action.[24] TNMAC reports that, as Tajikistan has not yet adhered to the CCM, no separate funding was allocated specifically for survey and clearance of cluster munition-contaminated area in Tajikistan in 2023, as has been the case in previous years.[25] It has been suggested that, given that the Tajikistan's mine action programme has only a few donors, more effective efforts are needed to engage donors.[26]

TNMAC regularly receives support on topics such as information management and implementation of Anti-Personnel Mine Ban Convention (APBMC) Article 5 from the Geneva International Centre for Humanitarian Demining (GICHD).[27] In 2023, the OSCE continued to provide capacity development support to the national authorities, including capacity building for the MoD Officers of the Regional Explosive Hazards Training Centre.[28] US Central Command also delivered training in the International Mine Action Standards (IMAS) to the Centre.[29]

Norwegian People's Aid (NPA) does not have a formal capacity development agreement with TNMAC but assists informally with activities upon request.[30] In February 2023, NPA provided medical training for staff from NPA and other demining organisations in Tajikistan.[31] Also in 2023, NPA was engaged with TNMAC on work to improve operational efficiency, for example, increasing the use of targeted technical survey (TTS) as well as improving national standards and standard operating procedures (SOPs).[32]

Monthly technical co-ordination meetings continued in 2023.[33] Issues discussed include technical matters and challenges and support needs.[34] An annual meeting also takes place, under the auspices of the CIIHL, that focuses on TNMAC reporting on progress in and challenges to implementation of Tajikistan's commitments under the APMBC.[35] The last annual meeting at the time of writing took place in December 2023. It has been suggested that more discussion on funding at these meetings would be beneficial given the small number of donors to Tajikistan's mine action programme.[36]

17 2019 APMBC Article 5 deadline Extension Request, p. 20.

18 Ibid., pp. 20–21; and "Tajikistan Mine Action Programme General Land Release Operational Plan for October 2023 to December 2025", p. 9.

19 2019 APMBC Article 5 deadline Extension Request, p. 1.

20 Ibid., pp. 20–21.

21 Ibid., p. 23.

22 Email from Saodat Asadova, National Programme Officer, OSCE, 10 June 2024.

23 Emails from Faiz Mohammad Paktian, NPA, 6 May 2024; Saodat Asadova, OSCE, 9 April 2024; and Nickhwah Din Mohammed, Country Director, FSD, 24 March 2023.

24 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023 and 15 April 2024.

25 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.

26 Email from Faiz Mohammad Paktian, NPA, 6 May 2024.

27 Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.

28 Email from Saodat Asadova, OSCE, 9 April 2024.

29 "To Walk the Earth in Safety, 23rd Edition, Fiscal Year 2023, Documenting the U.S. Commitment to Conventional Weapons Destruction", Bureau of Political-Military Affairs, US Department of State, at: https://bit.ly/3wVINkT, p. 58.

30 Emails from Melissa Andersson, NPA, 21 May 2022 and 29 March 2023.

31 Email from Melissa Andersson, NPA, 29 March 2023.

32 Email from Faiz Mohammad Paktian, NPA, 6 May 2024.

33 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024; Saodat Asadova, OSCE, 9 April 2024; Nickhwah Din Mohammed, FSD, 15 April 2024; Faiz Mohammad Paktian, NPA, 6 May 2024; and Saynurridin Kalandarov, UST, 7 May 2024.

34 Email from Saodat Asadova, OSCE, 9 April 2024.

35 Ibid.

36 Email from Faiz Mohammad Paktian, NPA, 6 May 2024.

## GENDER AND DIVERSITY

TNMAC adopted a gender programme in October 2018 that was prepared by the GICHD Gender and Mine Action Programme (GMAP) and is said to be committed to improving the situation of women in the mine action sector.[37] With the assistance of the GICHD, gender and diversity issues were integrated into Tajikistan's national mine action strategy, updated to cover the period from 2021 to 2030, with annual plans also addressing the issues.[38] Tajikistan claims that gender is mainstreamed in all aspects of their mine action programme,[39] which is underpinned by Tajikistan's legislation on gender equality, its National Development Strategy to 2030, and other key national programme and strategy documents.[40] NPA and TNMAC revived meetings of a gender working group in 2020, which met twice annually in 2021 and 2022.[41] Although it did not meet in 2023, NPA has persuaded TNMAC to reinstate them, with technical support from NPA as needed.[42] Relevant mine action data continue to be disaggregated by sex and age.[43]

TNMAC asserts that both men and women with relevant work experience and qualifications in demining have equal access to employment in the sector in Tajikistan.[44] However, TNMAC also acknowledges that it is challenging to achieve gender balance in view of the predominance of men in the military, where service is compulsory for men and voluntary for women.[45] In 2023, only 27% of TNMAC's staff were women although 30% of managerial or supervisory positions were occupied by women. This is a decrease on the 38% of managerial or supervisory positions occupied by women in 2022, though the actual number of women in such positions remained the same. As in 2022, no women were employed in operational positions in TNMAC in 2023.[46] No women were employed by MoD's HDC in either operational or managerial/supervisory positions in 2023 or in the two years before.[47]

**Table 2: Gender composition of operators in 2023[48]**

| Organisation | Total staff | Total women staff | Total managerial or supervisory staff | Total women in managerial or supervisory positions | Total operational staff | Total women in operational positions |
|---|---|---|---|---|---|---|
| TNMAC | 26 | 7 (27%) | 10 | 3 (30%) | 14 | 0 (0%) |
| NPA | 81 | 12 (15%) | 12 | 6 (50%) | 60 | 12 (20%) |
| FSD | 16 | 4 (25%) | 2 | 1 (50%) | 9 | 3 (33%) |
| UST | 54 | 0 (0%) | 5 | 0 (0%) | 54 | 0 (0%) |
| MoD HDC | 117 | 0 (0%) | 15 | 0 (0%) | 84 | 0 (0%) |
| **Totals** | **294** | **23 (8%)** | **42** | **10 (24%)** | **221** | **15 (7%)** |

The OSCE emphasises the importance of gender mainstreaming and balance throughout project implementation and had a Gender Strategy and Action Plan in place for 2021–23[49] and an updated one to cover 2024–26 was in development at the time of writing.[50] The OSCE also insists that a module on gender and human rights be included in all pre-season basic training of demining teams, in accordance with International Mine Action Standards (IMAS).[51]

NPA has integrated a gender and diversity policy into its Tajikistan operations[52] and had a gender equality implementation plan in place for 2024.[53] The total number of women employed by NPA fell slightly in 2023 compared to 2022, from 20% to 15%, and the proportion of operational positions filled by women from 20% to 13%. However, in management or supervisory positions the proportion increased significantly: from 29% to 50%.[54] In 2023, NPA adopted an initiative with local women's associations to

37 Email from Muhabbat Ibrohimzoda, TNMAC, 14 June 2019.
38 Emails from Melissa Andersson, NPA, 21 May 2022; and Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.
39 APMBC Committee on the Implementation of Article 5, Preliminary Observations on Tajikistan, Intersessional meetings, Geneva, 20–22 June 2022.
40 Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.
41 Emails from Melissa Andersson, NPA, 21 April and 4 July 2021, 21 May 2022, and 29 March 2023; and Muhabbat Ibrohimzoda, TNMAC, 19 June 2022 and 31 March 2023.
42 Email from Faiz Mohammad Paktian, NPA, 6 May 2024.
43 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.
44 Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.
45 2019 APMBC Article 5 deadline Extension Request, Additional Information received 3 August 2019.
46 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023 and 15 April 2024.
47 Emails from Saodat Asadova, OSCE, 3 June 2022; and Muhabbat Ibrohimzoda, TNMAC, 16 June 2023 and 23 July 2024.
48 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April and 23 July 2024; Nickhwah Din Mohammed, FSD, 15 April 2024; Saynurridin Kalandarov, UST, 7 May 2024; and Faiz Mohammad Paktian, NPA, 6 May 2024.
49 Email from Saodat Asadova, OSCE, 9 April 2024.
50 Email from Saodat Asadova, OSCE, 29 May 2024.
51 Emails from Saodat Asadova, OSCE, 9 April 2024; and interview with Saodat Asadova, OSCE, 24 June 2022, Geneva.
52 Email from Melissa Andersson, NPA, 21 April 2020.
53 Email from Faiz Mohammad Paktian, NPA, 6 May 2024.
54 Emails from Melissa Andersson, NPA, 29 March, 4 May, and 23 May 2023; and Faiz Mohammad Paktian, NPA, 6 May 2024.

attract female deminers, the first time such an initiative has been undertaken in Tajikistan. Outcomes were positive and NPA believes that the initiative could serve as a good example for adoption by other mine action partners in Tajikistan.

While focused on CMR clearance in 2023, when NPA does conduct survey and impact assessment activities, it uses gender-mixed teams to help ensure sure that community liaison activities are gender inclusive.[55] NPA has stated that while ethnic groupings are not as pronounced in Tajikistan as they are in some other contexts, to the extent it is relevant community liaison teams take this into consideration when conducting their work.[56] Its programme introduced a new gender and diversity focal point into the team in 2023.[57]

FSD employs a diverse workforce in Tajikistan in line with its Gender, Diversity and Inclusion policy. In 2023, one quarter of FSD's staff in Tajikistan were women (the same proportion as in 2022), although the proportion of both management or supervisory positions and operational positions occupied by women increased slightly.[58] FSD ensures its NTS teams visiting mine-affected communities consult with all groups, including women, children and ethnic minorities, to ensure their needs are taken into account in FSD's survey and clearance. FSD disaggregates relevant mine action data by sex and age.[59]

UST has a gender and diversity policy and says it supports equal access to employment for qualified women and men in UST survey and clearance teams in Tajikistan, including for managerial/supervisory positions, but does not yet employ any women among its 54 staff. Although survey teams are not yet mixed gender, UST does consult all groups during survey and community liaison activities, including women and children, the elderly, and representatives from ethnic or minority groups. Survey data are disaggregated by sex and age.[60]

## ENVIRONMENTAL POLICIES AND ACTION

Environmental concerns and climate resilience are becoming increasingly pertinent for mine action in Tajikistan, as changes to weather patterns, including both extreme heat and early snow, and heavy rainfall, continue to negatively impact the nine-month window for demining operations.[61] TNMAC states that environmental issues are taken into consideration during survey and clearance to ensure that operations are conducted without negative environmental impact and that hazardous areas released and handed over to communities in a state suitable for intended use.[62] Environmental assessments are said to be conducted to support the planning and implementation of survey and clearance.[63]

Clearance is undertaken according to Tajikistan's national mine action standards (NMAS), which contain a chapter on the environment, health, and safety. This chapter covers issues such as safeguarding of the environment during the establishment and removal of worksites and accommodation, waste disposal, air quality, water supply, as well as the recording and reporting of environmental "incidents".[64] Based on the NMAS, TNMAC continuously monitors the demining activities of all operators to assess environmental implications and environmental protection requirements. In any cases of violations or poor practice, corrective and preventive measures are undertaken.[65] Tajikistan does not have an environmental management policy for mine action but a 2011 law on environmental protection and other regulatory documents define the legal basis for all state policy on the environment.[66]

In October 2023, a one-day workshop on environmental protection and climate change resilience was held, led by NPA and with 50 participants from mine action partners, including the OSCE, the United Nations Development Programme (UNDP), and the Committee for Environmental Protection under the Government of Tajikistan. Action points were agreed and NPA committed to follow up on these with TNMAC and other mine action stakeholders during 2024.[67] Such action points included the establishment of an environmental working group, revision of the NMAS in light of the updated IMAS 07.13 on Environmental Management in Mine Action, revision of monitoring SOPs to integrate IMAS and NMAS requirements on environmental protection, increased inclusion of environmental issues in planning and prioritisation, the establishment of a waste management and recycling system, greenhouse gas reduction measures, and various energy, water and resource saving measures.[68]

55 Email from Faiz Mohammad Paktian, NPA, 6 May 2024.
56 Emails from Melissa Andersson, NPA, 21 May 2022 and 29 March 2023.
57 Email from Faiz Mohammad Paktian, NPA, 6 May 2024.
58 Emails from Nickhwah Din Mohammed, FSD, 24 March and 23 April 2023 and 15 April 2024.
59 Email from Nickhwah Din Mohammed, FSD, 15 April 2024.
60 Emails from Saynurridin Kalandarov, UST, 14 April 2023 and 7 May 2024.
61 Interview with Faiz Mohammad Paktian, Tajikistan, NPA, 21 November 2023. Geneva.
62 Email from Muhabbat Ibrohimzoda, TNMAC 19 June 2022.
63 Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.
64 Emails from Saodat Asadova, OSCE, 3 and 9 June 2022; and Muhabbat Ibrohimzoda, TNMAC, 19 June 2022; and NMAS Chapter 20: "Environment, Health and Safety".
65 Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.
66 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023 and 15 April 2024.
67 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024; and Faiz Mohammad Paktian, NPA, 6 May 2024.
68 Email from Faiz Mohammad Paktian, NPA, 29 May 2024.

NPA has an environmental SOP and an annual action plan linked to its environmental policy.[69] In 2023, NPA Tajikistan conducted a baseline assessment of its environmental footprint using the NPA Green Office Tool, aligned with NPA's global environmental policy. Consequently, NPA Tajikistan revised its environmental policy and produced an environmental plan for 2024. Environmental actions undertaken in 2023 included tree-planting, reducing vehicle use, and staff training and awareness raising.[70] While NPA does not yet conduct environmental assessments to support the planning and delivery of survey and clearance tasks, NPA does consider climate-related and extreme weather risks when planning and prioritising survey and clearance. This includes assessing the potential impact of the increased risk of flooding, which could cause operations to stand down or potentially displace landmines or people into contaminated areas.[71]

FSD has an environmental policy and SOP at its headquarters and was due to begin the ISO 14001 accreditation process in 2023.[72] As at May 2024, this process was ongoing and FSD had updated its environmental policy in line with requirements and prepared the first draft of the complete FSD Environmental Management System.[73] Refresher training on the SOP and FSD's organisational level commitments to sound environmental practices takes place each year with all management and operational staff, following the winter stand-down period. FSD conducts environmental assessments to support the planning and delivery of survey and clearance tasks and considers climate-related or extreme weather risks when planning and prioritising activities.[74] Alongside its demining activities, FSD is undertaking a separate project to remediate polluted soil in areas contaminated by Soviet-era toxic pesticides (persistent organic pollutants, or POPs).[75]

UST has an SOP on environmental protection based on Tajikistan's NMAS, which has been approved by TNMAC.[76] After leaving field camps or completing operations, UST buries waste, excluding metal and plastic materials.[77]

## INFORMATION MANAGEMENT AND REPORTING

TNMAC uses the Information Management System for Mine Action (IMSMA) Core to maintain its national database.[78] The system is based on ArcGIS technology for real-time monitoring of the progress, prioritisation, and efficiency of all humanitarian mine action interventions.[79] Data are disaggregated by weapon type and method of land release in the national database.[80] NPA confirms that the data collection forms introduced and updated by TNMAC in 2020–21 are consistent and enable efficient collection of data.[81]

Both the database and the information management activities of TNMAC are operating well, with progress and other reports from the field received daily, as well as cross-checking by TNMAC of the data.[82] Tajikistan's General Land Release Operations Plan sets out clear guidelines for operators on the required content and timelines for all types of operational reports to be sent to TNMAC on a daily, weekly, monthly and as-needed basis.[83] TNMAC regularly receives support on information management through online consultations with the GICHD. In 2024, TNMAC planned to use the Survey123 software programme to introduce a new form for monitoring ordnance destruction and warehouse storage of explosives.[84]

## PLANNING AND TASKING

TNMAC has submitted an evidence-based, costed, and time-bound mine action strategy for 2021–30 and an action plan for its implementation, both of which have been approved by the government.[85] However, as Tajikistan has not yet adhered to the CCM, the problem of cluster munitions is not integrated into its national mine action strategy. TNMAC does, however include instructions regarding CMR when tasking demining operators with survey and clearance.[86]

TNMAC does not have an annual work plan specifically for the survey and clearance of cluster munition-contaminated

69 Email from Melissa Andersson, NPA, 21 May 2022.
70 Emails from Faiz Mohammad Paktian, NPA, 6 and 29 May 2024.
71 Ibid.
72 Email from Nickhwah Din Mohammed, FSD, 24 March 2023.
73 Email from Nickhwah Din Mohammed, FSD, 29 May 2024.
74 Email from Nickhwah Din Mohammed, FSD, 24 March 2023.
75 "Tajikistan", FSD website, accessed 25 March 2024 at: https://bit.ly/3Ozn7hh.
76 Email from Saynurridin Kalandarov, UST, 14 April 2023.
77 Email from Saynurridin Kalandarov, UST, 7 May 2024.
78 Email from Muhabbat Ibrohimzoda, TNMAC, 28 May 2020; and APMBC Committee on the Implementation of Article 5, Preliminary Observations on Tajikistan, Intersessional meetings, Geneva, 20–22 June 2022.
79 "Tajikistan's Mine Action Programme: Overview of Remaining Challenges and Needs", Individualised Approach Meeting, 21MSP, Geneva, 21 November 2023.
80 Email from Muhabbat Ibrohimzoda, Director, TNMAC, 16 June 2023.
81 Emails from Melissa Andersson, NPA, 21 May 2022 and 29 March 2023.
82 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024; and Saynurridin Kalandarov, UST, 7 May 2024.
83 Tajikistan Mine Action Programme General Land Release Operational Plan for October 2023 to December 2025, pp. 4–5.
84 Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.
85 Emails from Muhabbat Ibrohimzoda, TNMAC, 22 April 2021 and 7 July 2022.
86 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023 and 15 April 2024.

areas. However, Tajikistan's General Land Release Operations Plan for 2023 does outline the list of remaining confirmed battle areas, including those containing CMR.[87] TNMAC states that, once planned surveys are completed by the end of 2025, a plan will be put in place for the phased clearance of CMR and specific deadlines for land release will be set.[88]

Currently, land release tasks, including cluster munition-contaminated areas, are prioritised by TNMAC through application of Tajikistan's SOP 1.2 (Planning and Tasking of Mine Action Operations), taking into consideration the following criteria:

- Government and local authority requests
- Donor requirements
- The area's status in relation to the district-by-district approach
- Distance of the task site from populated areas
- The need to complete any previously suspended areas
- Altitude of the task site
- The local security situation (permission from the Border Forces).[89]

Operators report that task dossiers are issued in a timely matter by TNMAC.[90] NPA is tasked by TNMAC after discussions that take into account humanitarian impact, national planning priorities, and seasonal access constraints.[91] CMR-contaminated sites tasked to NPA in 2023 were in areas that attract many tourists from Dushanbe. No CMR tasks have been assigned to NPA for 2024 owing to a decision by TNMAC to prioritise mine clearance.[92]

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

Tajikistan's revised NMAS were approved in April 2017. The standards, which have been translated into Russian and English,[93] are reviewed annually. SOPs are reviewed in accordance with the designated accreditation period. In 2023, Tajikistan updated the NMAS in the chapters on Marking, Medical Support, Land Release, Battle Area Clearance (BAC), Safety, and quality management (QM). In addition, all implementing partners updated their SOPs, according to the NMAS.[94] TNMAC states that when any updates to the NMAS or SOPs are made, this is undertaken in consultation with clearance operators.[95]

Operators report that Tajikistan's NMAS are appropriately adapted to the local threat and enable effective, efficient, and safe survey and clearance work.[96] In 2023, FSD suggested a minor improvement would be to increase provision for casualty evacuation and medical evacuation when teams are working at high altitude in remote areas.[97] TNMAC has subsequently reassured operators that, should it ever be necessary, personnel would be evacuated to Dushanbe by military helicopter, with fuel costs to be met by the operator.[98]

NPA updated its SOPs relating to its marking systems and excavation in 2023. The updates were made in consultation with other operators, to ensure alignment with best practice and the sector standards.[99]

## OPERATORS AND OPERATIONAL TOOLS

All teams deployed for CMR in Tajikistan in 2023 were multi-task teams (MTTs), capable of survey and clearance but deployed only for clearance and, in the cases of FSD and NPA, EOD also (see Table 3). There were no significant changes in the number of personnel deployed by national operators for CMR in 2023, nor were any significant changes expected for 2024.[100]

NPA remains the only international operator undertaking CMR clearance in Tajikistan, with MTTs capable of conducting both mine and BAC and engaged in conducting CMR clearance at some point during the year in conjunction with other mine clearance tasks.[101] NPA maintained the same operational capacity in 2023 as it had deployed in 2022, but expected a decrease from five teams to four in 2024, due to a funding shortfall. However, NPA has established an EOD quick

87 Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.

88 Ibid.

89 Tajikistan Mine Action Programme General Land Release Operational Plan for October 2023 to December 2025, pp. 6–7; and email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.

90 Emails from Faiz Mohammad Paktian, NPA, 6 May 2024; Nickhwah Din Mohammed, FSD, 15 April 2024; and Saynurridin Kalandarov, UST, 7 May 2024.

91 Email from Melissa Andersson, NPA, 29 March 2023.

92 Email from Faiz Mohammad Paktian, NPA, 6 May 2024.

93 Email from Muhabbat Ibrohimzoda, TNMAC, 22 May 2017; and Second APMBC Article 5 deadline Extension Request (draft), 31 March 2019, p. 21.

94 Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.

95 Email from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022; and APMBC Committee on the Implementation of Article 5, Preliminary Observations on Tajikistan, Intersessional meetings, Geneva, 20–22 June 2022.

96 Emails from Melissa Andersson, NPA, 29 March 2023; and Dr Nickhwah Din Mohammed, FSD, 24 March 2023.

97 Email from Nickhwah Din Mohammed, FSD, 21 April 2023.

98 Email from Nickhwah Din Mohammed, FSD, 15 April 2024.

99 Email from Faiz Mohammad Paktian, NPA, 6 May 2024.

100 Ibid.

101 Emails from Melissa Andersson, NPA, 21 May and 23 June 2022; and interview with Muhabbat Ibrohimzoda, TNMAC, 24 June 2022.

response team within these four MTTs to support TNMAC and other national bodies in EOD spot tasks in 2024.[102] NPA continues to cooperate with Tajikistan's Border Guard Forces, annually seconding personnel who are typically trained in both demining and BAC into NPA's MTTs.[103]

National operator UST conducted CMR clearance in 2023.[104] However, UST is in the process of obtaining a licence for the use of explosive materials and devices from the relevant authorities.[105] As such, all submunitions discovered by UST in 2023 were destroyed by NPA and FSD.[106] UST teams report directly to TNMAC, which funds UST's survey and clearance operations.[107] UST deployed the same capacity in 2023 as it had done in 2022 and does not expect any major changes to the number of survey or clearance personnel in 2024.[108]

Until the end of July 2023, FSD's Weapons and Ammunition Disposal (WAD) team in Tajikistan were deployed, as previously, for EOD spot tasks, including CMR. However, as planned, FSD transitioned from WAD to demining in 2023, with a team recruited and trained in August to September. However, this team was deployed for TS and clearance of anti-personnel mines, not CMR. FSD's number of demining personnel remained approximately the same between 2022 and 2023 and it expected no major change in 2024.[109]

HDC MoD has a Mini-MineWolf, which was available for use also by NPA.[110] However, this was not deployed for CMR clearance in 2023.[111]

**Table 3: Operational clearance capacities deployed in Tajikistan 2023[112]**

| Operator | MTTs | Total deminers | Mechanical assets/ machines | Comments |
|---|---|---|---|---|
| FSD | 1 | 8 | 2 x MV-4 machines (available but not in use) | Deployed for EOD spot tasks and to destroy submunitions found during clearance by UST until 31 July 2023, then converted to MTTs and deployed for anti-personnel mine clearance. |
| UST | 2 | 18 | | Also capable NTS & TS. |
| NPA | 5 | 42 | | Also capable of survey. |
| HDC MoD | 7 | 63 | MoD has 1 Mini-MineWolf machine, also available for use by NPA. | Also capable of TS and battle area clearance (BAC). |
| **Totals** | **15** | **131** | **3** | |

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2023

A total of 0.57km$^2$ of cluster munition-contaminated area was released in 2023, all of which was cleared. Thus, no areas were reduced through TS or cancelled through NTS.[113] A total of 511 submunitions were destroyed in 2023, including 107 discovered during clearance by UST but destroyed by other operators (102 by NPA and 5 by FSD),[114] and five submunitions destroyed by NPA during survey of a BAC task in Romit, DRS region.[115] A total of 0.22km$^2$ of previously unrecorded CMR contamination was added to the database in 2023.[116]

102 Email from Faiz Mohammad Paktian, NPA, 6 May 2024.
103 Email from Melissa Andersson, NPA, 23 May 2023.
104 Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.
105 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023; and Saynurridin Kalandarov, UST, 14 April 2023 and 7 May 2024.
106 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024; and Nickhwah Din Mohammed, FSD, 15 April 2024.
107 Email from Saynurridin Kalandarov, UST, 16 May 2023 and 7 May 2024.
108 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023 and 15 April 2024.
109 Emails from Nickhwah Din Mohammed, FSD, 24 March 2023 and 15 April 2024.
110 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023; and Melissa Andersson, NPA, 23 May 2023.
111 Email from Faiz Mohammad Paktian, NPA, 29 May 2024.
112 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024; Nickhwah Din Mohammed, FSD, 15 April 2024; and Faiz Mohammad Paktian, NPA, 6 May 2024.
113 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024; Faiz Mohammad Paktian, NPA, 6 May 2024; and Saynurridin Kalandarov, UST, 7 May 2024.
114 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024; Faiz Mohammad Paktian, NPA, 6 May 2024; and Nickhwah Din Mohammed, FSD, 15 April 2024.
115 Email from Faiz Mohammad Paktian, NPA, 29 May 2024.
116 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024; and Faiz Mohammad Paktian, NPA, 6 May 2024.

## SURVEY IN 2023

As was the case in 2022 and 2021, no areas were released through survey in Tajikistan in 2023.[117] One previously unrecorded CMR-contaminated area, measuring 221,100m² was discovered by NPA and added to the national database.[118] This is significantly lower than the 2.67km² added in 2022, due to the discovery of nine battle areas.[119]

## CLEARANCE IN 2023

A total of 572,426m² of cluster munition-contaminated area was cleared in 2023, of which HDC MoD cleared 171,500 m² in the Rasht district of DRS, UST cleared 121,318m² in the Vahdat district of DRS, and NPA cleared 279,608m², also in Vahdat district (see Table 4).[120] Of the CMR clearance in 2023, 21,911m² was surface clearance only.[121] 2023 clearance represents a minor decrease on the 612,168m² of cluster munition-contaminated area cleared in 2022.[122] NPA experienced a minor decrease of 0.12km² in clearance output as it only had one cluster munition task in 2023.[123]

A total of 511 submunitions were destroyed in 2023, including 107 discovered during clearance by UST, but destroyed by other operators,[124] and five during survey of a BAC task in Romit, DRS, by NPA.[125] As at May 2024, UST was awaiting its licence from the national authority to use explosives, as it had also been a year earlier.[126] All cluster munition-contaminated areas cleared in Tajikistan in 2023 were found to contain CMR.[127]

**Table 4: CMR clearance in 2023[128]**

| Operator | Region/ District | Areas released | Area cleared (m²) | Submunitions destroyed | Submunitions destroyed during spot tasks | Other UXO destroyed |
|---|---|---|---|---|---|---|
| HDC MOD | DRS/Rasht | 1 | *171,500 | 24 | 0 | 2 |
| UST | DRS/Vahdat | 2 | *121,318 | **107 | 0 | **32 |
| NPA | DRS/Vahdat | 1 | 279,608 | 375 | ***5 | 0 |
| **Totals** | | **4** | **572,426** | **506** | **5** | **34** |

* Clearance of these areas was not complete as at the end of 2023: Rasht task suspended and on one of two tasks in Vahdat suspended. ** Submunitions and UXO discovered during clearance of these areas by UST were destroyed by FSD (5 submunitions and 26 items of UXO) and NPA (102 submunitions and 6 items of UXO). ***Submunitions found during survey of BAC task in Romit in DRS region.

## PROGRESS TOWARDS COMPLETION

TNMAC stated in May 2020 that Tajikistan hoped to complete CMR clearance by 2023,[129] although it made clear that progress towards achieving that target depended on the availability of funding.[130] TNMAC has also highlighted the challenge of setting a date, given that previously unknown areas of contamination have continued to be added to the national database in recent years: 2km² in 2020,' 2.85km² in 2021,[131] 2.67km² in 2022,[132] and 0.22km² in 2023.[133] TNMAC now states that, with contaminated areas still being found, Tajikistan does not have a target date for the completion of CMR clearance.[134]

117 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023 and 15 April 2024.

118 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024; and Faiz Mohammad Paktian, NPA, 6 May 2024.

119 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.

120 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024; Faiz Mohammad Paktian, NPA, 6 May 2024; and Saynurridin Kalandarov, UST, 7 May 2024.

121 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April and 23 July 2024.

122 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March and 16 June 2023, and 23 July 2024; Melissa Andersson, NPA, 29 March and 8 May 2023; and Saynurridin Kalandarov, UST, 14 April 2023. TNMAC notes that clearance of CMR-contaminated areas increased slightly (by 32,268 m²) in 2023 compared to 2022. Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024. However, this is based on TNMAC's 2022 CMR clearance total of 540,158m². Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March and 16 June 2023. This differs from Mine Action Review's figure for CMR clearance in 2022 of 612,618m², as this total includes task areas suspended as at the end of 2022. See Mine Action Review's Clearing Cluster Munition Remnants 2023.

123 Email from Faiz Mohammad Paktian, NPA, 6 May 2024.

124 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024; Faiz Mohammad Paktian, NPA, 6 May 2024; and Nickhwah Din Mohammed, FSD, 15 April 2024.

125 Emails from Faiz Mohammad Paktian, NPA, 6 and 29 May 2024.

126 Emails from Saynurridin Kalandarov, UST, 14 April 2023 and 7 May 2024.

127 Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.

128 Emails from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024; Faiz Mohammad Paktian, NPA, 6 and 29 May 2024; Saynurridin Kalandarov, UST, 7 May 2024; and Nickhwah Din Mohammed, FSD, 15 April 2024.

129 Emails from Muhabbat Ibrohimzoda, TNMAC, 28 May 2020 and 19 June 2022.

130 Email from Muhabbat Ibrohimzoda, TNMAC, 4 May 2021.

131 Email from Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

132 Email from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023.

133 Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.

134 Emails from Muhabbat Ibrohimzoda, TNMAC, 31 March 2023 and 15 April 2024.

Tajikistan has a well-functioning mine action programme with strong national ownership and effective collaboration between stakeholders.[135] But the authorities detail ongoing challenges for mine action that include difficult terrain, harsh weather, and natural disasters, such as rockfalls, avalanches, and landslides.[136] The rate of progress towards completion will be heavily determined by available resources. Furthermore, while TNMAC does task operators with CMR clearance where possible and Tajikistan's General Land Release Plan does include details of known battle areas contaminated with CMR, progress towards completion will also be influenced by the extent to which Tajikistan directs its finite resources towards resourcing its commitment to clear landmines as a State Party to the APMBC.

**Table 5: Five-year summary of CMR clearance**

| Year | Area cleared (km$^2$) |
|---|---|
| 2023 | 0.57 |
| 2022 | 0.61 |
| 2021 | 1.87 |
| 2020 | 0.08 |
| 2019 | 0.52 |
| **Total** | **3.65** |

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Tajikistan has begun preparing for the management of residual risk upon completion. Including the appointment of an adviser for residual risk management in 2022[137] and the production of a technical manual on residual risk management.[138] TNMAC also highlights that issues related to residual risk management are discussed during monthly technical meetings with implementing partners, and that residual risk reduction recommendations are reflected in the annual General Land Release Operations Plans. Furthermore, TNMAC is developing the operational capacity of UST and plans that UST will deal with residual risk of unexploded submunitions upon completion of area clearance.[139]

135 "To Walk the Earth in Safety, 23rd Edition, Fiscal Year 2023, Documenting the U.S. Commitment to Conventional Weapons Destruction", U.S. Department of State (US DoS), Bureau of Political-Military Affairs, at: https://bit.ly/3wVINkT, p. 52.

136 Presentation by Muhabbat Ibrohimzoda, TNMAC, APMBC Intersessional Meetings, Geneva, 22 June 2022.

137 Emails from Saodat Asadova, OSCE, 3 June 2022; and Muhabbat Ibrohimzoda, TNMAC, 19 June 2022.

138 Emails from Saodat Asadova, OSCE, 30 March 2023 and Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.

139 Email from Muhabbat Ibrohimzoda, TNMAC, 15 April 2024.

# UKRAINE

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

## KEY DATA

**CLUSTER MUNITION CONTAMINATION:**

UNKNOWN, BUT VERY LARGE

SUBMUNITION CLEARANCE IN 2023

**87,066M²**

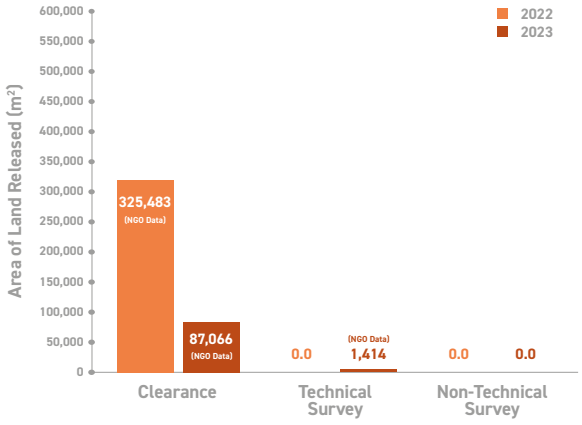
(NGO DATA)

SUBMUNITIONS DESTROYED IN 2023

UNKNOWN

TWO SUBMUNITIONS IDENTIFIED AND MARKED FOR DISPOSAL.

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

Extensive use of cluster munitions by Russian forces continued in 2023 along with widespread use by Ukraine, with the United States (US) announcing a fourth transfer of cluster munitions to Ukraine in March 2023. Limited clearance of cluster munition remnants (CMR) was reported for 2023, although capacity continued to expand, with more than 40 national and international mine action operators accredited as at July 2024. Three international demining NGOs were accredited during 2023 with at least one more seeking accreditation at the time of writing, some of whom would conduct CMR clearance. Ukraine has stated its intention to survey all accessible areas for contamination by the end of 2026; it was uncertain if CMR would be disaggregated from other explosive ordnance.

## RECOMMENDATIONS FOR ACTION

- **Ukraine should immediately halt all use of cluster munitions and accede to the Convention on Cluster Munitions (CCM) as a matter of priority.**
- **Ukraine should ensure that survey, clearance, and contamination data disaggregate CMR from other explosive remnants of war (ERW) and mines.**
- **Ukraine should facilitate and expedite its processes for permission to operators to use explosives in clearance and destruction operations as well as subsequent accreditation to conduct explosive ordnance disposal (EOD).**

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT*

- Sectoral Working Group on Humanitarian Demining (SWG, under the Ministry of Economy)
- Centre of Humanitarian Demining (CHD, under the Economic and Financial Department of the Secretariat of the Cabinet of Ministers)
- National Mine Action Authority (NMAA, under the Ministry of Defence (MoD))
- Mine Action Centre (MAC, under MoD, at Chernihiv)
- Interregional Centre for Humanitarian Demining and Rapid Response of the State Emergency Service Of Ukraine (SESU) (at Merefa)
- Demining Center of Military Unit A2641 (at Kaminiets Podilsky)
- Social-Humanitarian Response Centre (under the Ministry for Reintegration of the Temporarily Occupied Territories)
- State Special Transport Service (SSTS)
- Military Engineering School

### NATIONAL OPERATORS*

- State Emergency Services of Ukraine (SESU)
- Armed Forces of Ukraine
- National Police
- State Special Transport Service (SSTS)
- State Border Service
- Demining Solutions
- GK Group
- The Demining Team of Ukraine
- Ukrainian Deminers Association (UDA)
- Safe Path Group

### INTERNATIONAL OPERATORS*

- DanChurchAid (DCA) – accredited in 2023
- Danish Refugee Council (DRC)
- FSD
- The HALO Trust (HALO)
- Humanity and Inclusion (HI) – seeking accreditation
- Mines Advisory Group (MAG) – accredited in 2023
- Norwegian People's Aid (NPA) – accredited in 2023

### OTHER ACTORS*

- Chemonics
- East Europe Foundation
- Enhancing Human Security (ITF)
- Geneva International Centre for Humanitarian Demining (GICHD)
- Organization for Security and Co-operation in Europe (OSCE)
- Mine Action Sub-cluster chaired by the United Nations Development Programme (UNDP)
- Tetra Tech
- UN Food and Agriculture Organisation (FAO)
- UN World Food Programme (WFP)

* Information based on data available at the time of writing. Due to the rapidly expanding mine action programme in Ukraine, there may be actors not included in this table.

# UNDERSTANDING OF CMR CONTAMINATION

The extent of contamination from CMR in Ukraine is not known but is expected to be very large due to the widespread use of cluster munitions in the course of the Russian assault on Ukraine. As at the end of April 2024, over one third of Ukraine's territory had been affected by the current conflict with Russia but there is no reliable estimate for the amount of cluster munition-contaminated area. However, in terms of potentially contaminated agricultural land, Ukraine has estimated that just under half of hazardous areas are contaminated with submunitions.[1] Explosive ordnance (EO), including submunitions, are most highly concentrated in the east and south of Ukraine.[2] In 2023, The HALO Trust (HALO) conducted initial survey in 1,234 settlements, of which 710 were recorded as contaminated by some form of EO. Follow-up non-technical survey (NTS) was completed in 128 settlements, the results of which included the identification of ten previously unrecorded confirmed hazardous areas (CHAs) contaminated with CMR.[3]

Access by international operators to perform survey or clearance within 20km of the front lines of conflict and State borders was prohibited in 2023 and remained so at the time of writing.[4] Outside this buffer zone international operators recorded areas of CMR contamination in 2023.[5] However, even in areas that are accessible, there are still barriers to accurate survey. Some operators caution that resurvey will be necessary in many areas, either due to recontamination or due to the displacement of people leaving few or no witnesses to sources of new contamination. As such, some polygons will require further refinement once more data becomes available.[6]

1 'Restoring Livelihoods and revitalising Rural Communities through Mine Action', Food and Agriculture Organisation of the UN and World Food Programme, Presentation at side event, UN National Directors Meeting, Geneva, 29 April 2024 (hereafter, FAO and WFP Presentation, NDM, 2024).

2 Geneva International Centre for Humanitarian Demining (GICHD), "Ukraine faces massive explosive contamination one year into the conflict", 23 February 2023, at: https://bit.ly/3KNEZVU.

3 Emails from Michael Brown, Deputy Head Operations (Support), HALO, 29 May and 6 June 2024.

4 The Work Plan for Humanitarian Demining of De-occupied Territories of Ukraine for 2024, submitted to the Chair of the Committee on Article 5 Implementation under the Anti-Personnel Mine Ban Convention (APMBC), 30 April 2024, Annex 1.

5 Emails from Michael Edwards, HMA Operations Manager, DanChurchAid (DCA), 3 May 2024; Sophie Breinholdt Nielsen, HMA Programme Specialist, Danish Refugee Council (DRC), 10 May 2024; and Vanja Sikirica, Country Director, Norwegian People's Aid (NPA), 21 April 2024.

6 Emails from Michael Edwards, DCA, 3 May 2024; and Julie Bouvier, Armed Violence Reduction (AVR) Specialist, Humanity & Inclusion (HI), 16 May 2024.

It has been reported that at least 10 types of cluster munition and 3 types of submunition have been used in Ukraine since Russia's invasion began in February 2022. All are ground-launched in missiles, rockets, and mortars with the exception of the air-dropped RBK series cluster bomb. Aside from one Israeli-designed cluster munition, all cluster munitions falling within the scope of the CCM used in Ukraine were manufactured either in the Soviet Union prior to 1991 or in Russia, some as recently as 2021,[7] or in the United States as outlined below.

From the outset of its attack against Ukraine that began in late February 2022, Russia's armed forces have used cluster munitions extensively against Ukrainian military objectives, as well as, in violation of international law, against the civilian population and civilian objects. The exact number of cluster munition attacks is unknown, but hundreds have been documented or reported, adding significantly to the existing contamination.[8] Cluster munition attacks have been reported in at least 10 of Ukraine's 24 regions (known as oblasts): Chernihiv, Dnipropetrovsk, Donetsk, Kharkiv, Kherson, Luhansk, Mykolaiv, Odesa, Sumy, and Zaporizhzhia,[9] with civilian casualties from Russian cluster munition attacks documented in Cherniv, Donetsk, Kharkiv, Kherson, and Mykolaiv.[10]

Ukraine's forces have also used cluster munitions in the current conflict. On 12 March 2024, the US Department of Defense announced security assistance for Ukraine with the provision of "artillery rounds, including High Explosive and Dual Purpose Improved Cluster Munitions (DPICM) rounds."[11] This is thought to be the fourth transfer of cluster munitions from the United States to Ukraine, following transfer of cluster munitions delivered by the Army Tactical Missile System (ATACMS) to Ukraine in October 2023 and transfer of cluster munitions delivered by 155mm artillery projectiles in July and September 2023.[12] Prior to July 2023, Ukrainian forces appear to have used cluster munitions at least three times in its fight against the Russian forces on Ukrainian territories.[13]

Supply of cluster munitions to Ukraine from countries other than the US was also reported in 2022 and 2023. Media sources reported that Turkey began sending cluster munitions to Ukraine, notably DPICMs, in late 2022,[14] though Türkiye and Ukraine have denied the transfer.[15] Several media outlets reported that Ukraine requested cluster munitions from Estonia and the US in 2022.[16] Israeli-made (or copied) M971 120mm cluster munition mortar projectiles were photographed in the possession of the Ukrainian Armed Forces in December 2022. Each projectile delivers 24 M87 DPICM submunitions. It is not known how or from whom Ukraine acquired it.[17]

In January 2023, Estonian state media reported that Estonia was considering providing Ukraine with German-made 155mm DM632 cluster munition projectiles. Such a transfer would require approval from the German government. In February 2023, Germany's Minister of Defence Boris Pistorius said that "Germany will not authorize the transfer of cluster bombs to Ukraine." Use of a German-manufactured SMArt 155 artillery shell by Ukraine against two Russian tanks has also been documented, with these munitions reportedly first sent to Ukraine by Germany in March 2023. This weapon uses a pair of 'smart' anti-armour mines in a howitzer shell that flies submunitions to a target.[18] It is believed to fall within the limited exception for sensor-fuzed weapons excluded from the prohibitions in the CCM under its Article 2(2)(c).[19] A March 2023 Russian press article reported that the remains of a SMArt 155 (DM702 A1) submunition had been found at the position of a Russian battalion near the city of Kremennaya in Luhansk. The possibility was noted, however, that this submunition could have reached Ukraine via a State other than Germany.[20]

In July 2023, Human Rights Watch reported that Ukrainian cluster munition rocket attacks on Russian-controlled areas in and around the city of Izium in eastern Ukraine during 2022 had caused many casualties among Ukrainian civilians.[21] Ukraine has stated that it will record the location of any cluster munition use by its own forces, as well as adhering to

7 Landmine and Cluster Munition Monitor, "Ukraine 2023" accessed 19 May 2024, at https://bit.ly/3wwcJUF.

8 Human Rights Watch (HRW), "Ukraine: Civilian Deaths from Cluster Munitions", 6 July 2023, at: https://bit.ly/3V7hU6T; Landmine and Cluster Munition Monitor, "Ukraine 2023" accessed 19 May 2024, at https://bit.ly/3wwcJUF.

9 HRW, "Growing Civilian Toll from Russian Cluster Munition Attacks", 25 August 2022, at: https://bit.ly/3mEdO7C; and *Cluster Munition Monitor 2022*, p. 14.

10 HRW, "Ukraine: Civilian Deaths from Cluster Munitions", 6 July 2023.

11 'Biden Administration Announces Urgent Security Assistance for Ukraine', US Department of Defense (US DoD), 12 March 2024, at https://bit.ly/4aC6E77.

12 'U.S. Cluster Munition Coalition Condemns Fourth Transfer of U.S. Cluster Munitions', Cluster Munition Coalition U.S., 13 March 2024, at https://bit.ly/3V15ygx.

13 "To Push Back Russians, Ukrainians Hit a Village With Cluster Munitions", *The New York Times*, 18 April 2022, at: https://bit.ly/41NMZgv; HRW, "End Cluster Munition Attacks in Ukraine", 11 May 2022, at: https://bit.ly/3lx3cTX; Office of the United Nations High Commissioner of Human Rights (OCHCR), "Situation of human rights in Ukraine in the context of the armed attack by the Russian Federation", Report, 29 June 2022, at: https://bit.ly/3AkenqJ, p. 12.

14 "Turkey Is Sending Cold War-Era Cluster Bombs to Ukraine", *Foreign Policy*, 10 January 2023, at: http://bit.ly/3KwekwG.

15 Landmine and Cluster Munition Monitor, "Ukraine 2023" accessed 19 May 2024, at https://bit.ly/3wwcJUF.

16 "Ukraine seeks US cluster bombs to adapt for drone use – lawmakers", Reuters, 7 March 2023, at: http://bit.ly/3GuBL8e; "Estonia weighing giving Ukraine cluster munitions", *Estonian Public Broadcasting*, 26 January 2023, at: http://bit.ly/3GrCpTW; "Exclusive: Biden administration weighs Ukrainian requests for access to US stockpile of controversial cluster munitions", CCN, 8 December 2022, at: https://bit.ly/3Ghwiv2.

17 Landmine and Cluster Munition Monitor, "Ukraine 2023" accessed 19 May 2024, at https://bit.ly/3wwcJUF.

18 "Cluster Munitions for Ukraine: Everything You Need to Know About Washington's Green Light Decision", Kyiv Post, 7 July 2023, at: https://bit.ly/3www4VL.

19 "A munition that, in order to avoid indiscriminate area effects and the risks posed by unexploded submunitions, has all of the following characteristics:
(i) Each munition contains fewer than ten explosive submunitions;
(ii) Each explosive submunition weighs more than four kilograms;
(iii) Each explosive submunition is designed to detect and engage a single target object;
(iv) Each explosive submunition is equipped with an electronic self-destruction mechanism;
(v) Each explosive submunition is equipped with an electronic self-deactivating feature".

20 "The remains of a German guided anti-tank submunition from a SMArt 155 projectile were found near Kremennaya", Top War, 5 March 2023, at: https://bit.ly/4bFWNyo.

21 HRW, "Ukraine: Civilian Deaths from Cluster Munitions", 6 July 2023.

certain other principles. Following the US announcement on 7 July 2023 that it would supply DPICMs to Ukraine, Ukraine's Minister of Defence Oleksii Reznikov presented five principles that he said the armed forces would respect upon receiving the cluster munitions:

- use them only in Ukraine;
- not use them in "urban areas (cities)" but only "in the fields where there is a concentration of Russian military";
- keep a strict record of where the munitions were used;
- conduct clearance activities after the de-occupation of the areas where the munitions were used; and
- report to partners on the use of the munitions and their efficiency.[22]

Wherever possible, State Emergency Services of Ukraine (SESU) personnel have cleared the contamination resulting from the use of EO, including CMR, immediately after use.[23] Ukraine asserts that it is continuing to clear CMR following de-occupation of areas[24] as well as undertaking rapid response to clear EO contamination in the buffer zone along the line of conflict.[25] Ukraine also has CMR contamination that predates the current conflict with Russia. Before 2022, Ukraine said that many unexploded submunitions contaminated the Donetsk and Luhansk regions,[26] with the most intensive use of cluster munitions said to have occurred in and around the city of Debalcevo in Donetsk region.[27]

A total of 7.5km$^2$ of CMR contamination was recorded by international operators in 2023.[28] All of the newly identified contamination in 2023 has occurred since the beginning of Russia's invasion of Ukraine.[29] Ukraine's national mine action strategy includes a target to complete "initial non-technical survey in 100 per cent of the territories controlled by Ukraine, where it is possible to carry out humanitarian demining" by the end of 2026.[30] It is not yet clear if the survey will disaggregate contamination by weapon type, including CMR.

### OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Ukraine is also contaminated by huge quantities of other ERW as well as by anti-personnel and anti-vehicle mines used during the different conflicts (see Mine Action Review's *Clearing the Mines* report on Ukraine for further information on the mine problem). It is also affected by unexploded ordnance (UXO) and abandoned explosive ordnance (AXO) remaining from the First and Second World Wars[31] and remnants of Soviet military training and abandoned stockpiles.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Since the invasion by Russia in February 2022, mine action has gained critical relevance in Ukraine's national plans for post-conflict recovery and development. This is illustrated by the inclusion of a dedicated session on humanitarian demining at the Ukraine Recovery Conference (URC) in June 2023, during which Ukraine's First Deputy Prime Minister and Minister of Economy declared Ukraine's intention to bring 80% of land potentially contaminated with EO back into productive use within ten years.[32] It is in this context that Ukraine's National Mine Action Strategy, which covers 2024–2033, was approved by the Cabinet of Ministers on 28 June 2024, having been developed by the Ministry of Economy (MoE) in cooperation with the Ministry of Defence (MoD), the Ministry of Internal Affairs (MoI), and other central executive authorities, and with the involvement of national and international experts.[33]

To help develop and steer a rapidly expanding national mine action programme with many national and international partners, the Sectoral Working Group on Humanitarian Demining (SWG) was introduced in September 2023. The SWG is an advisory body at the MoE, which "functions as a

22 Ibid.

23 "See how Kharkiv's bomb squad neutralizes cluster bombs in Ukraine", *National Public Radio (NPR)*, 24 April 2022, at: https://n.pr/3NqnQ47; and SESU Facebook page, 8 May 2022, at: https://bit.ly/3G04DDJ.

24 HRW, "Ukraine: Civilian Deaths from Cluster Munitions", 6 July 2023.

25 Interview with Colonel Ruslan Berehulia, Head of Secretariat of National Mine Action Authority, Ministry of Defence, Geneva, 1 May 2024.

26 National Security and Defence Council and SESU, "Humanitarian demining in Ukraine: current issues and challenges", APMBC Fourteenth Meeting of States Parties (14MSP), Side event, Geneva, 2 December 2015.

27 Interview with Lt.-Col. Yevhenii Zubarevskyi, Mine Action Department, Ministry of Defence, in Geneva, 20 May 2016.

28 Emails from Vanja Sikirica, NPA, 21 April 2024; Sophie Breinholdt Nielsen, DRC, 10 May 2024; Michael Edwards, DCA, 3 May 2024; and Michael Brown, HALO, 29 May 2024.

29 Emails from Roxana-Cristina Bobolicu, Head of Humanitarian Disarmament and Peacebuilding, Ukraine, DRC, 1 April 2023; and Denys Holovetskyi, HALO, 29 May 2023.

30 "Cabinet of Ministers of Ukraine order dated 28 June 2024, Order No. 616-p on approval of the National Mine Action Strategy for the period up to 2033 and approval of the operational action plan for its implementation in 2024–2026", section entitled "Strategic goals, objectives and expected results aimed at achieving the defined goals", at: https://bit.ly/4cKpA5j.

31 See, e.g., "During a Year in Kerch and Sevastopol neutralized 33,000 munitions", Forum, 4 December 2009.

32 "Our goal is to bring 80% of potentially contaminated land back into use in ten years: Yuliia Svyrydenko at the London conference", Ministry of Economy of Ukraine, 22 June 2023, at: https://bit.ly/4dMpGu3.

33 "Cabinet adopts changes to the Humanitarian Mine Action Architecture in Ukraine", Special issue of DRC Legal Alert, Issue 98, October 2023.

unified platform for coordinating and aligning cooperation efforts in the field of humanitarian demining between Ukrainian governmental authorities and development partners." The SWG held three meetings between September 2023 and May 2024. It is co-chaired by the Deputy Prime Minister (DPM), United Nations Resident Co-ordinator (UN RC), and the Ambassador of Japan.[34] The SWG makes major announcements on issues such as senior appointments or national strategy from the government to the international community. It has representation from several ministries, including the MoD and MoI, as well as other key national entities including the National Mine Action Authority (NMAA) Secretariat, the Mine Action Centre (MAC), the State Emergency Services of Ukraine (SESU), and the Centre of Humanitarian Demining (CHD).[35]

This latter body, the CHD, was established in April 2023 as a State institution under the Economic and Financial Department of the Secretariat of the Cabinet of Ministers.[36] The CHD functions as a secretariat and think-tank, collecting and analysing information on demining needs from the MoD, MoI, SESU, regional military administrations, partner countries, and international organisations, with the aim of improving coordination and mobilising resources.[37] It is reported to take a leading role on fundraising and cooperation with donors.[38]

There are nominally four national supervisory and management bodies in Ukraine: the MAC, located in Chernihiv, under the MoD (for operational matters, including co-ordination and tasking); the Interregional Center For Humanitarian Demining and Rapid Response of the SESU, located in Merefa (hereafter referred to as "the centre at Merefa"); the inter-ministerial NMAA, serviced by a secretariat; and, at the top of the hierarchy, an inter-ministerial committee on humanitarian demining.

Three bodies are responsible for certification of operators and processes:[39] the aforementioned centre at Merefa; the Demining Centre of Military Unit A2641, located in Kaminiets Podilsky; and the MAC in Chernihiv. These three bodies are also responsible for quality management (QM) tasks. Ukraine's National Mine Action Strategy acknowledges that the ability of these institutions to carry out QM responsibilities "does not meet the needs of today" and that quality control (QC) and external monitoring require attention as part of systems improvement. It also cites the need for a "unified procedure" for certification of operators and processes.[40]

The NMAA is the primary body responsible for developing and approving mid-term and long-term national plans for mine action, alongside operative plans,[41] with the Cabinet of Ministers issuing final approval for Ukraine's National Mine Action Strategy and implementation plan on 28 June 2024.[42] The secretariat of the NMAA has the responsibility of coordinating the work of the MAC and the centre at Merefa. These two Centres share the remits of information management (IM), quality assurance (QA), monitoring, planning, and certification of the operators.[43] The NMAA also coordinates the ministries, central and local state bodies, local government, and other organisations (including mine action operators). The NMAA approves and ensures State mine action policy; monitors and reports on State progress in fulfilling its obligations in mine action under international treaties; and coordinates the development and execution of mine action strategy, the national mine action programme, and action plans.[44] While the NMAA sits at a ministerial level, it is serviced by a secretariat that also has "some" managerial functions.[45]

A national mine action law was adopted by Ukraine's parliament in 2018,[46] although the government did not proceed with its implementation on the grounds it was inconsistent with a number of other legal acts.[47] Amended legislation was passed in December 2020. The amended law created the two National Mine Action Centres (NMACs) now operating at Cherniv and Merefa.[48] In November 2021, the Cabinet of Ministers issued a resolution to provide the framework for an NMAA.[49] The NMAA was reported to be fully operational in 2022.[50] The MAC is said to play a pivotal role in ensuring effective planning and organisation of mine

34 "The Sectoral Working Group", Demining Ukraine, 2 July 2024, at: https://bit.ly/3zUWlhA.

35 Email from the GICHD, 23 July 2024.

36 "Center for Humanitarian Demining established in Ukraine", *Interfax Ukraine*, 7 April 2023, at: https://bit.ly/3LDzj1g; and "Cabinet adopts changes to the Humanitarian Mine Action Architecture in Ukraine", Special issue of DRC Legal Alert, Issue 98, October 2023.

37 "Humanitarian demining center to be established in Ukraine: Prime Minister", Government Portal of Ukraine, 11 February 2023, at: https://bit.ly/3WguvUG.

38 "Ukraine: Strengthening national mine action capabilities", DRC, 9 February 2024, at: https://bit.ly/3Sjnb9y.

39 "Cabinet of Ministers of Ukraine Order dated 28 June 2024, No. 616-", section entitled "Analysis of the current state of affairs, trends and justifications for the need to solve the identified problems", at: https://bit.ly/4cKpA5j.

40 "Cabinet of Ministers of Ukraine Order dated 28 June 2024 No. 616-p", section entitled "Analysis of the current state of affairs, trends and justifications for the need to solve the identified problems", at: https://bit.ly/4cKpA5j. The document actually states that a fourth body is also responsible for quality management tasks, additionally naming the Humanitarian Demining Centre. However, it is not known if this is intentional, as the centre at Merefa (previously referred to as the HDC) is also listed.

41 "Ukraine: Strengthening national mine action capabilities", DRC, 9 February 2024, at: https://bit.ly/3JY8fce.

42 "Government approves National Mine Action Strategy and Operational Plan for its implementation for the first 3 years", Government of Ukraine, 28 June 2024, at: https://bit.ly/46iT1cj.

43 The Law of Ukraine on Mine Action, No. 2642-VIII, Chap. III, Art. 23; DRC-DDG Legal Alert Special, "Mine Action Law Amendment", Issue 56, September 2020; and interview with Miljenko Vahtarić, OSCE, 13 February 2020.

44 The Law of Ukraine on Mine Action, No. 2642-VIII, Chap. III, Art. 23; and DRC Special Legal Alert – "NMAA Framework 2022", Issue 73, January 2022.

45 The Law of Ukraine on Mine Action, No. 2642-VIII, Chap. III, Art. 23; and email from the GICHD, 17 June 2022.

46 OSCE, "Ukrainian parliament adopts legal framework for mine action, with OSCE advice provided", 10 December 2018, at: http://bit.ly/2QdTaqo; and interview with Miljenko Vahtarić, OSCE, 7 February 2019; and email, 13 June 2019.

47 DRC-DDG Legal Alert Special, "Mine Action Law Amendment", Issue 56, September 2020.

48 The Law of Ukraine on Mine Action, No. 2642-VIII, Chap. III, Art. 23; DRC-DDG Legal Alert Special, "Mine Action Law Amendment", Issue 56, September 2020; and interview with Miljenko Vahtarić, OSCE, 13 February 2020.

49 Resolution No. 1207 "On Establishment of National Mine Action Authority".

50 Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; and Denys Holovetskyi, HALO, 29 May 2023.

action, and, in the context of the current conflict, is the main coordination body for operations.[51] Reporting by mine action operators and their interaction with the NMAA is managed through the MAC and the NMAA Secretariat.[52]

Mine action stakeholders continued to meet regularly throughout 2023, with some meetings including discussion on progress, challenges, and support for survey and clearance of CMR contamination.[53] Several implementing partners describe the coordination challenge in Ukraine as significant, given the number of national and international actors involved.[54] Indeed, one of the pillars of the national mine action strategy is to refine institutional clarity as part of systems improvement.[55] It has been suggested, however, that coordination is improving, for example, with a recently implemented leading role for the Ministry of the Economy,[56] and the introduction of the SWG meetings.[57] The UN Mine Action Team claims improved coherence across the mine action sector as a key success of 2023, with all UN agencies now falling under one team. The Mine Action Area of Responsibility (AoR) was also re-launched in 2023, led by the United Nations Development Programme (UNDP)[58] and continued monthly mine action meetings. The NMAC also organised a few meetings of stakeholders on an ad hoc basis.[59]

Overall, operators have reported a positive environment for mine action and facilitation of the operators' work by the Ukrainian government (e.g. granting of visas and collaboration on security matters).[60] The HALO Trust (HALO), the largest international operator working in Ukraine, reports to have a close working relationship with national and local authorities, but also continues to advocate for greater involvement in strategic planning.[61] Ukrainian authorities are reportedly proactive when it comes to signing memoranda of understanding (MoUs) and facilitating cooperation with partners.[62] But importation legislation has proven restrictive, as many types of mine action equipment (e.g. machines, detectors) are considered "military", which involves additional constraints. Further importation rules and documentation have also been recently introduced, which apply to international NGOs,[63] though FSD notes that being registered as a "charitable fund" has removed these challenges with importing equipment, allowing FSD to, effectively, be treated as a national NGO.[64] Operators also note that visa restrictions can make it difficult for international staff from some countries to enter Ukraine.[65]

Ukraine requires that the destruction of any ordnance that is identified by international operators be carried out by the Armed Forces of Ukraine, the State Special Transport Service (SSTS), and SESU.[66] Operators continued to face difficulties in 2023 in acquiring necessary permission regarding explosives, as had been the case in 2022.[67] Operators must obtain permission to use, transport, and store explosives as a prerequisite for undergoing the EOD accreditation process. These are two separate processes involving different stakeholders. The process for acquiring permission to use, transport, and store explosives is the same whether an organisation wishes to undertake demining or another relevant activity such as quarrying, and involves the Ministries of Labour and of the Economy. EOD accreditation, on the other hand, is implemented by the mine action centres. It is reportedly the permissions process regarding explosives that has caused difficulties, rather than the EOD accreditation process.[68] Without the necessary accreditation, international clearance teams must await the availability of SESU, or very occasionally police EOD teams, to attend to a disposal task. In some cases, this can delay further work at a site until the hazard is cleared. Operators do report some positive progress on the issue, with one international operator (HALO, securing such permission in 2023,[69] and good cooperation with SESU and Ukrainian Armed Forces in the process of demolition of items found during clearance.[70] In 2024, FSD also began the application process for certification to conduct demolitions.[71]

HALO eventually gained EOD accreditation in December 2023, after a ten-month, multi-stage process. However, challenges remain with the efficient management, storage, and transportation of explosives. Additionally, the current permission and simplified accreditation are only valid under

51 "Ukraine: Strengthening national mine action capabilities", DRC, 9 February 2024; and interview with Yevhenni Zubarevskyi, Administrator, Information Management System for Mine Action, Ministry of Defence, in Geneva, 1 May 2024.

52 The Work Plan for Humanitarian Demining of De-occupied Territories of Ukraine for 2024, submitted to the Chair of the Committee on Article 5 Implementation, 30 April 2024, Annex 1.

53 Email from Michael Brown, HALO, 29 May 2024.

54 Emails from Vanja Sikirica, NPA, 21 April 2024; and Dino Šujak, Head of ITF Implementation Office – Ukraine, 16 May 2024.

55 Online interview with the GICHD, 13 May 2024.

56 Email from Vanja Sikirica, NPA, 21 April 2024.

57 Interview with Miljenko Vahtarić, OSCE, Geneva, 1 May 2024.

58 Presentation by Denise Brown, UN Resident Coordinator in Ukraine, and Paul Heslop, UNDP Senior Technical Advisor, NDM, Geneva, 29 April 2024.

59 Email from Michael Brown, HALO, 29 May 2024.

60 Emails from Almedina Musić, DRC, 7 February 2022; and Imogen Churchill, HALO, 23 March 2022.

61 Email from Michael Brown, HALO, 29 May 2024.

62 Email from Dino Šujak, ITF Ukraine, 16 May 2024.

63 Emails from Jon Cunliffe, Country Director, Ukraine, Mines Advisory Group (MAG), 26 April 2024; and Julie Bouvier, HI, 16 May 2024.

64 Email from Tony Connel, FSD, 25 June 2024.

65 Emails from Michael Edwards, DCA, 3 May 2024; Julie Bouvier, HI, 16 May 2024; and Tony Connel, FSD, 25 June 2024.

66 The Work Plan for Humanitarian Demining of De-occupied Territories of Ukraine for 2024, submitted to the Chair of the Committee on Article 5 Implementation, 30 April 2024, Annex 1.

67 Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; Denys Holovetskyi, HALO, 29 May 2023; Michael Brown, HALO, 29 May 2024; Vanja Sikirica, NPA, 21 April 2024; Jon Cunliffe, MAG, 26 April 2024; Sophie Breinholdt Nielsen, DRC, 10 May 2024; and Tony Connel, FSD, 25 June 2024.

68 Email from Emails Roxana-Cristina Bobolicu, DRC, 1 July 2024.

69 Emails from Sophie Breinholdt Nielsen, DRC, 10 May 2024; and Roxana-Cristina Bobolicu, DRC, 1 July 2024.

70 Email from Vanja Sikirica, NPA, 21 April 2024.

71 Email from Tony Connel, FSD, 25 June 2024.

martial law. Once martial law is lifted, all EOD operators will be required to meet the full list of accreditation requirements, which HALO states previously made it almost impossible to conduct EOD.[72]

In 2023, the Geneva International Centre for Humanitarian Demining (GICHD) supported the development of the National Mine Action Strategy and continued to support the development and maintenance of the Information System for Mine Action (IMSMA) Core database. The GICHD also co-chaired technical working groups to update specific chapters of the National Mine Action Standards (NMAS) and continued to deliver training courses on issues such as QM and NTS.[73] The Organisation for Security and Co-operation in Europe (OSCE) is engaged in mine action systems building.[74] In December 2023, UNDP announced a new initiative with SESU to bolster Ukraine's capacity to manage mine action operations and provide demining equipment.[75]

Danish Refugee Council's (DRC's) capacity building programme continued in 2023. Representatives from the NMAA, SESU, and MAC, underwent training in a range of activities, including EOD and NTS.[76] DRC also provided SESU and the MAC with various equipment including mine detection devices, EOD kits, and 14 vehicles.[77] DanChurchAid (DCA) is providing mentoring and feedback during EOD courses delivered by SESU staff.[78] Humanity & Inclusion (HI) has a land release innovation project in Ukraine named Odyssey 2025, through which it provides capacity building in the use of Unmanned Aerial Vehicles (UAVs).[79] In early 2024, Mines Advisory Group (MAG) provided quality management systems (QMS) training for SSTS.[80]

FSD did not conduct external capacity building with Ukrainian organisations in 2023. However, an internal capacity building programme was launched to bring selected national staff to a level of competency which will enable a reduction of supervisory international staff in 2024 and 2025.[81]

HALO delivered specialist training to several Ukraine state organisations, including training on NTS to SESU and SSTS, QM training to SESU and SSTS, deminer training to SSTS, and ordnance safety training to the National Police. HALO's donors also gifted a significant amount of equipment to SESU.[82]

APOPO is engaged in training and deployment of technical survey dog (TSD) teams in Ukraine, working in cooperation with MAG. APOPO established a training facility and launched training of the first group of all-female handlers in 2023. The goal of the initiative is to survey at least 5km$^2$ using TSDs by the end of 2025,[83] though it is not clear if this will include survey of CMR. Norwegian People's Aid (NPA) provided six mine detection dogs (MDDs) to SESU and trained dog handlers. SESU obtained MDD accreditation in the first week of October and started deployment. By the end of the 2023 demining season, the dogs had processed a total of 9,100m$^2$ and found 40 items of EO. NPA also fully equipped ten SESU EOD/demining teams with technical and safety equipment.[84]

## GENDER AND DIVERSITY

Ukraine's National Mine Action Strategy includes some references to gender and diversity, stating that "certain social categories and groups", including women, veterans, persons with disabilities, and victims of EO, are of particular interest to the State with respect to their professional involvement in mine action and the systemic and inclusive communication regarding mine action.[85] One of the tasks identified in the strategy's implementation plan in 2024–2026 is to increase the percentage that these previously stated social groups are "involved in mine action".[86] Women are said to comprise 30% of the sector in Ukraine, including in management and operational positions. Operator policies related to gender are reportedly given careful consideration before operators are accredited. The same considerations and recommendations

72 Email from Michael Brown, HALO, 29 May 2024.

73 Email from the GICHD, 23 July 2024.

74 "Support to Environmental Rehabilitation with Focus on Building National Humanitarian Mine Action Capacities of Ukraine", OSCE, accessed 15 April 2024, at: https://bit.ly/4dHLoze.

75 "UNDP and the Netherlands forge $10 million partnership for mine action in Ukraine", UNDP, 16 December 2023, at: https://bit.ly/44LLPoa.

76 Emails from Sophie Breinholdt Nielsen, DRC, 10 May 2024; and Roxana-Cristina Bobolic, DRC, 1 July 2024; and "Ukraine: Strengthening national mine action capabilities", DRC, 9 February 2024.

77 Email from Sophie Breinholdt Nielsen, DRC, 10 May 2024; and "Ukraine: Strengthening national mine action capabilities", DRC, 9 February 2024, at: https://bit.ly/3JY8fce.

78 Email from Michael Edwards, DCA, 3 May 2024.

79 Email from Julie Bouvier, HI, 16 May 2024.

80 Email from Jon Cunliffe, MAG, 26 April 2024.

81 Email from Tony Connel, FSD, 24 June 2024.

82 Email from Michael Brown, HALO, 29 May 2024.

83 Email from Nick Guest, Programme Manager, APOPO, 24 June 2024; and "Flanders Government Grants APOPO €1 Million For Landmine Clearance In Ukraine", APOPO, accessed 18 July 2024 at: https://bit.ly/4cLaZXm.

84 Email from Vanja Sikirica, NPA, 21 April 2024.

85 "Cabinet of Ministers of Ukraine Order dated 28 June 2024 No. 616-p", section entitled "Analysis of the current state of affairs, trends and justifications for the need to solve the identified problems".

86 Ibid., section entitled "Strategic goals, objectives and expected results aimed at achieving the defined goals".

for equality of opportunity are applied by the national authorities to groups with disabilities, and steps are taken to promote equal access to employment in mine action for these groups. National operator demining units, for example, are required to employ war veterans and civilian mine victims.[87] Data on the gender split of national operator personnel was requested from the national authorities but not provided. However, Ukraine has stated that, as it expands mine action operational capacity in the MoD up to an estimated 5,000 personnel, it expects female specialists to form up to 30% of the units, although no time frame for this has yet been given.[88]

In terms of taking steps to ensure that all sections of affected communities are consulted during survey and community liaison activities, Ukraine has recommendations on the use of gender-mixed teams for NTS and deploys some female-only teams where this is more likely to ensure access to affected sections of the community. Operators are required to provide gender and age-disaggregated beneficiary data.[89]

DCA is actively seeking to increase the number of female staff at all levels, for example, through a recruitment campaign featuring existing female staff as role models. DCA's NTS teams are gender-mixed and four of the six teams have female team leaders. DCA recruits staff from the local area to help encourage engagement with all segments of the community, including ethnic and minority groups, and women and children. All DCA beneficiary data are disaggregated by sex and age.[90]

DRC has a global gender and diversity policy, and a country-specific implementation plan.[91] DRC conducted a perception survey in 2023, assessing attitudes towards women working in demining and distributed among male and female personnel from various mine action NGOs. The survey highlighted prevalent misconceptions, such as the belief that prior military experience is necessary, and perceived limitations on the demining positions women can apply for. Using these insights, DRC intends to refine its strategies for the recruitment and retention of women. To date in 2024, DRC has also implemented AGD (age, gender, disability) inclusion training and gender-based violence (GBV) training for all field staff.[92] In 2023, the proportion of managerial or supervisory positions occupied by women in DRC more than doubled from 15% to 32%.[93] All DRC's mine action data are disaggregated by age, gender, and disability.[94]

FSD is committed to providing an equal opportunity working environment. NTS, battle area clearance (BAC), and explosive ordnance risk education (EORE) teams are gender-mixed. In 2023–24, similarly to the previous reporting period, 29% of FSD's national staff in Ukraine were female.[95]

Women, including four female national clearance team leaders, occupied 14% of national management positions,[96] a slight reduction on the 19% in 2022–23.[97] At the time of writing, people with disabilities made up 6% of personnel in FSD Ukraine.

HALO has a global equality and diversity policy, which it applies to its programme in Ukraine, with all programming to be delivered in a gender-inclusive manner and taking into account gender considerations. HALO has continued to expand the criteria for its childcare stipend programme for mothers and single fathers working in HALO, first introduced in 2021, and now also offers parental leave.[98] Having been the first operator in Ukraine to employ Ukrainian women as deminers in 2016, HALO planned to be the first operator to employ women as EOD team leaders and specialists, starting in 2024 and once its EOD certification was received. Over half (59%) of women employed are in supervisory positions and HALO is determined to continue efforts to achieve gender parity. In order to reach all sections of affected communities, HALO deploys mixed-gender, Ukrainian- and Russian-speaking NTS teams.

With regard to other aspects of diversity, HALO is an equal opportunities employer and recruits staff from conflict-affected communities, including many who have been displaced by the conflict. As of the end of 2023, HALO Ukraine employed nine persons with declared disabilities, though HALO states that, due to some level of stigma surrounding disability in Ukraine, the actual number of staff with disabilities may be higher.

HALO conducts pre- and post-clearance impact assessments in affected communities. The first post-clearance assessment was conducted in May 2023 and, as the data collected grows, HALO will use this to inform project design and planning. HALO disaggregates all data by sex and age and uses the Washington Group Short Set of questions to collect information about the number of beneficiaries with disabilities.[99]

MAG works according to its organisational gender, diversity and inclusion policy and strives to ensure equal access for female and male candidates to all its positions. Measures to encourage equal access to employment include the use of interview panellists external to the organisation.[100] In 2023, the proportion of all staff positions and operational positions filled by women fell somewhat, from 52% in both cases to 37% and 38% respectively.[101] MAG also prioritises access to employment opportunities for people with disabilities, aiming to reach the minimum target of 4% of the workforce, as set in Ukrainian labour law, and has created a task force with other humanitarian actors to pool vacancies and encourage

87 Interview with Yevhenni Zubarevskyi, Ministry of Defence, in Geneva, 1 May 2024.

88 Answers to additional questions of the Anti-Personnel Mine Ban Convention (APMBC) Committee on Article 5 Implementation on Ukraine's deadline extension request, 1 September 2023, p. 2.

89 Ibid.

90 Email from Michael Edwards, DCA, 3 May 2024.

91 Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; and Almedina Musić, DRC, 7 February and 13 June 2022.

92 Email from Sophie Breinholdt Nielsen, DRC, 10 May 2024.

93 Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; Almedina Musić, DRC, 7 February and 13 June 2022; and Sophie Breinholdt Nielsen, DRC, 10 May 2024.

94 Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; and Almedina Musić, DRC, 7 February and 13 June 2022.

95 Email from Tony Connel, FSD, 25 June 2024.

96 Ibid.

97 Email from Tony Connel, FSD, 26 June 2023.

98 Emails from Denys Holovetskyi, HALO, 29 May 2023; and Michael Brown, HALO, 29 May 2024.

99 Email from Michael Brown, HALO, 29 May 2024.

100 Email from Jon Cunliffe, MAG, 26 April 2024.

101 Emails from Nick Guest, MAG, 23 March 2023; and Jon Cunliffe, MAG, 26 April 2024.

and facilitate more applications from disabled people and war veterans.[102] All MAG community liaison teams are gender-mixed and disaggregates mine action data by sex and age.[103]

NPA Ukraine has a gender and diversity plan, is an equal opportunities employer, and disaggregates its mine action data by gender and age.[104] NPA continues to explore strategies to attract more women, aiming to create more gender-balanced teams, and successfully increased the proportion operational positions occupied by female staff from 13% in 2022 to 25% as at April 2024.[105] However, NPA says the recruitment of women, for both operational and management positions, has been challenging. It continues to work with local partner organisations to implement targeted recruitment campaigns to attract more women from local communities in its areas of operation, for example, proactively inviting women to apply for operational roles through visits of female deminers to Women and Girls Safe Spaces (WGSS).[106] Staff are recruited from target communities and NPA strives to have a balance of staff with diverse ethnic backgrounds.[107]

**Table 1: Gender composition of mine action operators in 2023[108]**

| Operator | Total staff | Total women employed | Managerial or supervisory staff | Women in managerial or supervisory positions | Operational staff | Women in operational positions |
|---|---|---|---|---|---|---|
| DCA | 112 | 37 (33%) | 35 | 13 (37%) | 65 | 17 (26%) |
| DRC | 274 | 75 (27%) | 19 | 6 (32%) | 192 | 39 (20%) |
| FSD | 249 | 72 (29%) | 68 | 35 (51%) | 179 | 72 (40%) |
| HALO | 1,165 | 341 (29%) | 180 | 83 (46%) | 985 | 258 (26%) |
| MAG | 186 | 69 (37%) | 37 | 12 (32%) | 129 | 49 (38%) |
| NPA | 231 | 62 (27%) | 56 | 12 (21%) | 194 | 48 (25%) |
| **Totals** | **2,217** | **656 (30%)** | **395** | **161 (41%)** | **1,744** | **483 (28%)** |

## ENVIRONMENTAL POLICIES AND ACTION

Ukrainian National Mine Action Standards (NMAS) include a chapter (11.2.9) on "Environmental regulations", and a section (12.6) on "Environment, occupational health and safety".[109] Some operator feedback suggests that this is in line with International Mine Action Standards (IMAS),[110] but that it needs to be updated.[111] At the time of writing it was not clear if Ukraine has an environmental management policy for mine action. It was also not clear if the national authorities conduct environmental assessments. The OSCE is helping build the operational capacities of the Mine Action Centre and Humanitarian Demining Centre to systematically conduct "environmentally safe" demining.[112]

A government High-Level Working Group on the Environmental Consequences of War published a report in February 2024, recommending that Ukraine's Mine Action Strategy, at that time under development, "should explicitly integrate environmental concerns" and incorporate the relevant guidance provided in the IMAS. The report also recommended that the Strategy should provide for close oversight of state and non-state operators involved in demining activities, with national legislation potentially needed to ensure that environmental protections are assured. Furthermore, the report recommended better coordination between demining actors and other organisations protecting the environment; the establishment of a national programme to address mine clearance in targeted forests, protected areas and other natural spaces; measures to encourage sustainable land use practices following clearance; and the embedding of climate change and climate-related hazards into decision-making on the prioritization of areas to be cleared.[113] The National Mine Action Strategy, approved in June 2024, does, indeed, acknowledge the need for systemic consideration of the

102 Email from Jon Cunliffe, MAG, 26 April 2024.

103 Email from Nick Guest, MAG, 23 March 2023.

104 Email from Amela Balic, Deputy Programme Manager, NPA, 29 June 2023.

105 Emails from Alberto Rinaldo Serra, NPA, 15 March 2023; and Vanja Sikirica, NPA, 21 April 2024.

106 Email from Vanja Sikirica, NPA, 21 April 2024.

107 Ibid.

108 Emails from Vanja Sikirica, 21 April 2024; Jon Cunliffe, MAG, 26 April 2024; Sophie Breinholdt Nielsen, DRC, 10 May 2024, Michael Edwards, DCA, 3 May 2024; Michael Brown, HALO, 29 May 2024; and Tony Connel, FSD, 25 June 2024.

109 Emails from Almedina Musić, DRC, 7 February 2022; and Imogen Churchill, HALO, 23 March 2022.

110 Email from Julie Bouvier, HI, 16 May 2024.

111 Email from Jon Cunliffe, MAG, 26 April 2024.

112 "Support to Environmental Rehabilitation with Focus on Building National Humanitarian Mine Action Capacities of Ukraine", OSCE, accessed 14 May 2024, at: https://bit.ly/4dHLoze.

113 "An Environmental Compact for Ukraine. A green future: recommendations for accountability and recovery", Andriy Yermak and Margot Wallström, Co-Chairs, High-level Working Group on the Environmental Consequences of War, Government of Ukraine, 9 February 2024, at: https://tinyurl.com/2kbpmrr6, p. 14.

environment in mine action and outlines tasks related to the environment under each of the strategy's three strategic goals. These tasks include reducing pollution caused by EO; consideration of the environment during task prioritisation; and application of "environmentally friendly demining methods", especially in protected and conservation areas.[114]

DCA has a Climate and Environment Policy and adopts a 'do-no-harm' approach to all its activities including when establishing and maintaining training centres, remote camps and task sites. DCA undertakes an initial environmental assessment prior to any technical survey (TS) or clearance, primarily to minimise the risk of adverse environmental impact from technological methods.[115] DRC has an environmental management system in place, which is stipulated in its standing operating procedure (SOP) (1.13) on health, safety and environmental management[116] and is in line with IMAS. DRC implements measures to prevent or minimise environmental harm, in accordance with its SOPs, and maintains contingency plans in case of unexpected weather or ground conditions.[117]

FSD has detailed SOPs on environmental management that are said to be in accordance with IMAS and with Ukrainian legal requirements[118] and maintains an environmental policy for mine action in Ukraine. FSD states that, like other operators, it works on a "do no harm" basis, although the use of heavy machinery to conduct ground preparation can make this challenging.[119]

The HALO Trust seeks to minimise its environmental footprint.[120] HALO has an environmental policy and SOPs that outline the potential negative environmental impacts that could result from large-scale demining and EO operations. The SOPs prescribe measures to eliminate the consequences of negative impacts, such as activities to ensure the regeneration of vegetation, re-planting trees, and returning cultivated soils to work sites (soil that was mechanically sieved), among others.[121] HALO is working on a framework to calculate and reduce greenhouse gas emissions from operations, although reducing travel distances to demining sites is not possible at present due to security risks. HALO has also begun to develop Ukraine-specific baseline environmental assessment procedures. It has implemented adaptation measures for climate-change related extreme weather, for example, equipping deminers appropriately for heat waves and heavy rain and having shorter working days during extremely high temperatures.[122]

MAG has an environmental SOP in place in Ukraine.[123] It also conducts post-clearance environmental assessments in line with its global standards. NPA has a Climate and Environmental Policy, as well as a Green Office tool, and is developing objectives and actions related to climate and the environment. NPA also has an environmental SOP that is said to comply with IMAS.[124]

## INFORMATION MANAGEMENT AND REPORTING

Ukraine is using IMSMA Core.[125] In 2022, the database was hosted on two separate servers, one owned by SESU and the other by the Ministry of Defence, but in 2023, IMSMA became cloud-based, with access rights and permissions to different datasets granted according to the requirements of the national authorities partners.[126] Mine action actors were invited early on to provide feedback on the database, and some operators note significant improvements, such as increased digitisation in the reporting process and minimal paperwork.[127] There are ongoing efforts to maintain and improve data quality through monthly or bi-monthly meetings between the NMAC and operators to discuss and improve potentially erroneous data.[128]

The IMSMA in Ukraine receives new information daily from operators that is shared across key partners[129] for use in their analysis and planning.[130] Ukraine states that access to Ukraine's IMSMA-Core portal is open to all certified operators "within the defined limits that do not contradict the privacy policy of sensitive data", as well as to executive authorities involved in mine action, local authorities, international organisations, and the public.[131]

114 "Cabinet of Ministers of Ukraine Order dated 28 June 2024 No. 616-p", section entitled "Strategic goals, objectives and expected results aimed at achieving the defined goals".
115 Michael Edwards, DCA, 3 May 2024.
116 Emails from Almedina Musić, DRC, 7 February and 13 June 2022.
117 Email from Sophie Breinholdt Nielsen, DRC, 10 May 2024.
118 Email from Tony Connell, FSD, 10 June 2022.
119 Email from Tony Connell, FSD, 25 June 2024.
120 Emails from Imogen Churchill, HALO, 23 March 2022; and Denys Holovetskyi, HALO, 29 May 2023.
121 Ibid.
122 Email from Michael Brown, HALO, 29 May 2024.
123 Email from Nick Guest, MAG, 23 March 2023.
124 Email from Vanja Sikirica, NPA, 21 April 2024.
125 Email from the GICHD, 26 May 2023.
126 Emails from the GICHD, 17 June 2022 and 26 May 2023.
127 Email from Sophie Breinholdt Nielsen, DRC, 10 May 2024.
128 Email from Michael Brown, HALO, 29 May 2024.
129 GICHD, "Ukraine faces massive explosive contamination one year into conflict", 24 February 2023.
130 Email from Michael Brown, HALO, 29 May 2024.
131 Answers to additional questions of the APMBC Committee on Article 5 Implementation on Ukraine's deadline extension request, 1 September 2023, p. 7.

Survey and clearance data that are entered into IMSMA are validated by the MAC.[132] Operators report that IMSMA Core functions effectively, and all operators have been trained in its use.[133] They also report that the national database is up to date in so far as is possible in the context of the ongoing conflict.[134] All accredited operators are required to regularly submit reports, including for NTS, TS, and clearance.[135] In 2023, the NMAA requested operators to submit only approved reports,[136] to be validated by the NMAC before being entered into the national database.[137] Following development by the IM working group and successful trials, as at April 2023, data collection forms were using the Survey123 platform, and were being used by all accredited operators.[138] Data collection forms are regularly discussed and agreed with operators.[139]

At the time of writing, however, it was not clear to what extent data in the information management system in Ukraine are disaggregated by type of contamination and method of land release. But the national authorities did state that data, disaggregated by weapon type, are being collected by national operators working within the buffer zone, but remains classified at present.[140]

## PLANNING AND TASKING

Ukraine has developed a National Mine Action Strategy for 2024–33 as well as an implementation plan for the first three years. The strategy was endorsed by the NMAA in February 2024[141] and both the strategy and implementation plan for the initial three years were adopted by Ukraine's Cabinet of Ministers on 28 June 2024.[142] A workshop with government ministries and operators was held in November 2023 to review the text. The implementation plan was drafted soon thereafter and a review of the draft undertaken.[143] The strategy focuses on three strategic goals: "land release, protection of the people, and system improvement". Ukraine plans to update the implementation plan every three years.[144] An operational plan for the period 2024–2026 is attached to the strategy, though this is available only in Ukrainian. The strategy does not specifically address CMR, but rather refers throughout to "explosive ordnance".[145]

With a view to the first goal—land release, a tripartite MoU was signed in April 2024 between Ukraine's Ministry of the Economy, the Food and Agriculture Organisation (FAO), and the World Food Programme (WFP). The initiative consists of three phases: identifying and prioritising households and land (Phase I: Prioritisation), surveying and clearing selected land (Phase II: Education and Mine Action); and restarting production (Phase III: Restoration).[146] The presence and fear of UXO is preventing many Ukrainian farmers from cultivating their land, with significant implications for rural livelihoods and global food security. As such, mine action and the restoration of agricultural livelihoods have become highly integrated in Ukraine, with close collaboration between Ukraine's Ministry of the Economy, the FAO, WFP, and mine action implementing partners.[147]

Broad priority areas for demining in Ukraine are listed as electricity infrastructure, water and heating infrastructure, residential areas, transport infrastructure, critical industries, and agricultural land. But no standardised criteria exist at national level for task prioritisation.[148] Ukraine has stated that it prioritises the clearance of critical infrastructure facilities and population centres, in order to ensure safe access of the population to their homes.[149]

An annual plan for demining in 2023 was approved in early January by the Ministry of Defence.[150] In March, Ukraine approved an action plan to survey and clear, by the end of 2024, more than 4,700km$^2$ of agricultural land in nine regions (Cherkasy, Chernihiv, Dnipropetrovsk, Kharkiv, Kherson, Kyiv, Mykolaiv, Sumy, and Zaporizhzhia). Of this land, 1,650km$^2$ was to be released by the end of 2023 and the remaining 3,050km$^2$ by the end of 2024.[151] Although CMR are not referred to specifically, this plan covers "demining

132 Emails from the GICHD, 19 April 2023; and Michael Brown, HALO, 29 May 2024.

133 Email from Sophie Breinholdt Nielsen, DRC, 10 May 2024.

134 Emails from Jon Cunliffe, MAG, 26 April 2024; Vanja Sikirica, NPA, 21 April 2024; Sophie Breinholdt Nielsen, DRC, 10 May 2024; and Michael Brown, HALO, 29 May 2024.

135 Emails from Michael Edwards, DCA, 3 May 2024; and Sophie Breinholdt Nielsen, DRC, 10 May 2024.

136 Email from Vanja Sikirica, NPA, 21 April 2024.

137 Michael Edwards, DCA, 3 May 2024.

138 Email from the GICHD, 19 April 2023.

139 Email from Michael Brown, HALO, 29 May 2024.

140 Interview with Yevhenni Zubarevskyi, Ministry of Defence, in Geneva, 1 May 2024.

141 Online interview with GICHD, 13 May 2024.

142 "Government approves National Mine Action Strategy and Operational Plan for its implementation for the first 3 years", Government of Ukraine, 28 June 2024, at: https://bit.ly/46iT1cj.

143 Email from Julie Bouvier, HI, 16 May 2024.

144 Presentation by Oleg Stoiev, Head Mine Action Office, Ministry of Economy, NDM, Geneva, 29 April 2024.

145 "Cabinet of Ministers of Ukraine Order dated 28 June 2024 No. 616-p".

146 FAO and WFP Presentation, NDM, 2024.

147 Presentation by Oleg Stoiev, NDM, Geneva, 1 May 2024.

148 Emails from Henry Leach, DDG Ukraine, 2 May 2019; Yuri Shahramanyan, HALO Ukraine, 16 May 2019; Almedina Musić, DRC, 7 February 2022; Julie Bouvier, HI, 16 May 2024; and Michael Brown, HALO, 29 May 2024.

149 Ukraine 2023 APMBC Article 5 deadline Extension Request, p. 3.

150 Email from Roxana-Cristina Bobolicu, DRC, 1 April 2023.

151 Ukraine's Ministry of Economy website, 30 May 2023, accessed on 22 June 2023, at: https://bit.ly/3NH0SbN; and Ukraine's Ministry of Agrarian Policy and Food website, 21 March 2023, at: https://bit.ly/3r0Iphu.

of agricultural territories contaminated by explosive objects".[152] Ukraine has submitted an annual work plan for 2024 to the Anti-Personnel Mine Ban Convention (APBMC), in accordance with the decision of the Twenty-First Meeting of States Parties in response to its Article 5 clearance deadline extension request. The plan's first stated aim is to reduce the risks posed by "explosive ordnance", though the list of remaining contaminated areas refers only to AP mines. CMR are specifically referred to once in the document, under the provision for "Marking Potentially Contaminated Territories /Contaminated Territories (PCT/CT)", which notes the mandatory marking requirements where there is "direct or indirect evidence of mines or CMR".[153]

Ukraine's National Mine Strategy identifies a need for improved planning and tasking as part of systems improvement, citing "the formation of a system of prioritisation of tasks for mine action and the centralised distribution of relevant tasks by the authorised body" as prerequisites to effective, centralised task distribution in the country.[154]

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

NMAS were finalised by the MoD in 2018.[155] The GICHD considered that these were in line with IMAS. Concerns, however, were raised by stakeholders that they did not contain sufficient detail in certain areas, and needed to be further refined and detailed. For example, the criteria for direct and indirect evidence needed to be tailored to the new operational context[156] and responsibilities for control and enforcement of marking systems remained inadequately defined.[157] In April 2023, Ukraine issued "improved" national standards covering NTS, TS, manual demining, clearance, mechanical demining, EO destruction, and EORE. These standards were developed with the involvement of the GICHD.[158] Co-led by the GICHD and the NMAA, a NMAS revision process was initiated in March 2023 during a stakeholder workshop.[159] Over the course of the rest of the year a technical working group (TWG), led by GICHD, focussed on land release (including clearance, reduction through TS, cancellation through NTS,[160] and the notions of "all reasonable effort" and "acceptable risk"[161]) and mechanical land release.[162] Certain revised NMAS were due to come into effect on 1 June 2024.[163] The two chapters developed by the TWG (land release and mechanical land release) were submitted in Q1 2024 and were going through the national standardisation process as at July 2024. Standards on QM and IM (including cancellation criteria) were submitted separately and have been approved by the government.[164]

## OPERATORS AND OPERATIONAL TOOLS

The number of mine action operators in Ukraine has grown significantly since February 2022. During 2023, it increased to 29, including six from among the units of the MoD and SESU.[165] In total, 45 operators had been certified as at July 2024, eight of which were international operators, according to the national operator database updated by the NMAA.[166] The US Department of State has said that Ukraine and its partners deployed 3,000 deminers in liberated areas as at September 2023.[167] As at June 2024, total demining capacity in Ukraine reportedly exceeded this figure but was changing regularly.[168] The MoD and several other ministries continue to deploy units that undertake clearance and destruction of mines and ERW. This includes the military engineering school, which has a licence to accredit operators; the National Guard of Ukraine; the Ministry of Interior, which conducts clearance through SESU and also has an engineering department that conducts EOD; the Security Service; the SSTS, which is responsible for demining national infrastructure; and the State Border Service, which conducts demining in areas under its control on land and in the sea.[169] The Armed Forces of Ukraine and police EOD teams are reportedly at the forefront of emergency response in

152 Answers to additional questions of the APMBC Committee on Article 5 Implementation on Ukraine's deadline extension request, 1 September 2023, p. 6.

153 The Work Plan for Humanitarian Demining of De-occupied Territories of Ukraine for 2024, submitted to the Chair of the Committee on Article 5 Implementation, 30 April 2024. CMR are referred to in annex 1, section 'h'. Remaining AP mined areas are given in Table 2.

154 "Cabinet of Ministers of Ukraine Order dated 28 June 2024 No. 616-p", section entitled "Analysis of the current state of affairs, trends and justifications for the need to solve the identified problems".

155 Emails from Gianluca Maspoli, GICHD, 25 September 2018; and Miljenko Vahtarić, OSCE, 25 September 2018; and interview, 7 February 2019.

156 Email from the GICHD, 19 April 2023.

157 Email from Michael Brown, HALO, 29 May 2024.

158 Answers to additional questions of the APMBC Committee on Article 5 Implementation on Ukraine's deadline extension request, 1 September 2023, p. 7.

159 Emails from the GICHD, 19 April 2023 and 23 July 2024.

160 Emails from Vanja Sikirica, NPA, 21 April 2024; and Michael Edwards, DCA, 3 May 2024.

161 Interview with Col. Ruslan Berehulia, Ministry of Defence, in Geneva, 1 May 2024.

162 Email from the GICHD, 23 July 2024.

163 Presentation by Col. Ruslan Berehulia, Ministry of Defence, NDM, Geneva, 29 April 2024.

164 Email from the GICHD, 23 July 2024.

165 "Cabinet of Ministers of Ukraine Order dated 28 June 2024 No. 616-p", section entitled "Analysis of the current state of affairs, trends and justifications for the need to solve the identified problems".

166 "List of Mine Certified Mine Action Operators", ArcGIS Web Application, accessed 23 July 2024, at: https://bit.ly/3y9J58e.

167 "To Walk the Earth in Safety, 23rd Edition, Fiscal Year 2023, Documenting the U.S. Commitment to Conventional Weapons Destruction", Bureau of Political-Military Affairs, US Department of State, at: https://bit.ly/3wVINkT, p. 32.

168 Email from Paul Heslop, UNDP, 7 June 2024.

169 Interview with Col. Oleksandr Shchebetiuk, Ukrainian Armed Forces, in Geneva, 26 June 2015; email from Anton Shevchenko, OSCE, 23 June 2015; "Mine Action in Ukraine", Side-event presentation by Lt.-Col. Yevhenii Zubarevskyi, Ministry of Defence, Geneva, 17 February 2016; APMBC Article 7 Report (covering 2018), Form F, and email from the GICHD, 17 June 2022.

disposing of ERW in newly accessible areas.[170] The OSCE and UNDP are engaged in a project to develop a unified national EOD training curriculum.[171]

Initial NTS of all types of ordnance in 2023 involved 103 teams of more than 350 personnel in total, although it was not stated which national or international operators this included. Clearance of all types of EO by government units in Ukraine in 2023 reportedly involved 384 teams of 1,503 personnel in total and 385 machines.[172] This is approximately in line with Ukraine's previously stated plan to expand from 200 demining teams of more than 1,000 personnel in December 2022, to 400 teams of 2,000 personnel in 2023;[173] nearly four times the capacity available in 2020.[174]

Multiple international demining organisations—including APOPO, DCA, DRC, FSD, HALO, MAG, and NPA—are operating in Ukraine, with DCA, MAG and NPA first receiving accreditation during 2023.[175]

HI, currently active in risk education, was undergoing accreditation for NTS as at May 2024.[176] National operator Demining Solutions received accreditation for NTS, TS, manual demining, clearance, and risk education in July 2023.[177] The NTS and TS project implemented by Ukrainian NGO, Safe Path Group (SPG) and supported by the ITF ended in August 2023.[178] While Mine Action Review made every effort to contact both international and national operators, due to the rapidly expanding nature of Ukraine's mine action programme in 2023, it has not been feasible to source and include information from all national operators who may have conducted survey and clearance of EO in 2023.

**Table 2: Operational survey capacities deployed in 2023*[179]**

| Operator | NTS teams | Total NTS/TS personnel* | Comments |
|---|---|---|---|
| DCA | 6 | 24 | |
| DRC | 12 | 36 | Deployed for NTS only. |
| FSD | 12 | 36 | |
| HALO | 40 | 79 | |
| MAG | 6 | 18 | Six teams at peak capacity, five at other times. |
| NPA | 16 | N/K | Deployed for NTS in Sumy, Mykolaiv, & Kherson regions. |
| SPG (partnered with ITF) | 2 | 10 | Deployed for NTS only. Completed project in August 2023. |
| **Totals** | **94** | **203** | |

*Information based on data available at time of writing. Full information not available on the capacity of national operators.

**Table 3: Operational clearance capacities deployed in 2023*[180]**

| Operator | Manual teams | Mechanical teams | Multi-task teams (MTTs) | Total deminers** | Dogs and handlers | Machines*** | Comments |
|---|---|---|---|---|---|---|---|
| DRC | N/R | 0 | 15 | 75 | 0 | | Deployed for TS, BAC, and MMC. |

170 "Ukraine: Strengthening national mine action capabilities", DRC, 9 February 2024.

171 Email from Miljenko Vahtarić, OSCE, 26 June 2024.

172 FAO and WFP Presentation, NDM, 2024.

173 US Department of State, "Demining Ukraine: A Pre-requisite for Recovery: Michael Tirre Remarks before the U.S. Helsinki Commission", 8 December 2022, at: https://bit.ly/3KFdXzJ.

174 APMBC Article 5 deadline Extension Request, 2020.

175 Emails from Vanja Sikirica, NPA, 21 April 2024; Michael Edwards, DCA, 3 May 2024; Dino Šujak, ITF Ukraine, 16 May 2024; Jon Cunliffe, MAG, 26 April 2024; Sophie Breinholdt Nielsen, DRC, 10 May 2024; and Michael Brown, HALO, 29 May 2024; and FSD, "Ukraine", accessed 10 April 2024, at: https://bit.ly/4bIMYPH.

176 Email from Julie Bouvier, HI, 16 May 2024.

177 "DS successfully passed the certification process", Demining Solutions, 17 July 2023, at: https://bit.ly/440NM37.

178 ITF, *Annual Report 2023*, at: https://bit.ly/3K3frUG, p. 63.

179 Emails from Vanja Sikirica, NPA, 21 April and 5 June 2024; Michael Edwards, DCA, 3 May 2024; Dino Šujak, ITF Ukraine, 16 May 2024; Jon Cunliffe, MAG, 26 April 2024; Sophie Breinholdt Nielsen, DRC, 10 May 2024; Tony Connel, FSD, 24 June 2024; and Michael Brown, HALO, 29 May 2024; and FSD, "Ukraine".

180 Emails from Jon Cunliffe, MAG, 26 April 2024; and Vanja Sikirica, NPA, 21 April and 24 June 2024; Michael Brown, HALO, 29 May and 6 June 2024; Denys Holovetskyi, Head of Operations, HALO, 27 June 2024; and FSD, "Ukraine" and "Our Mine Action Programme in Ukraine, April 2024', FSD, accessed 10 April 2024, at: https://bit.ly/3wsUdfS, p. 11; presentation by SESU, "Innovation in Mine Action: Ukraine", side event, NDM, Geneva, 1 May 2024; and Presentation by MAG, "Animal Detection Systems Incorporation into Mine Action Programmes: Considerations from the Field", side event, NDM, Geneva, 29 April 2024.

**Table 3 Continued**

| Operator | Manual teams | Mechanical teams | Multi-task teams (MTTs) | Total deminers** | Dogs and handlers | Machines*** | Comments |
|---|---|---|---|---|---|---|---|
| FSD | 12 | 2 | | 120 | 8 | 1 x MV 4<br>1 x MV 10 | |
| HALO | 74 | 13 | | 578 | | 3 x Traxx<br>10 x T800 (Robocuts)<br>16 x S300 (Robocuts)<br>1 x AMTRAC | Deployed for TS and clearance of CMR, and AP and AT mines. Accreditation for remote mechanical clearance received in December 2023. Machines used for ground preparation only in 2023. |
| MAG | 3 | | 1 | 44 | 14 | | MDDs also used widely in 2023 to prove areas were free from contamination (no evidence of mines). |
| NPA | 0 | 5 | 16 | 80 | 8 | 0 | Conducting TS and clearance of CMR and AP and AV mines in Mykolaiv region. MDDs supporting clearance. |
| SESU | N/K | N/K | 0 | ****1,700 | *****5 | 38 | Machines include 22 DOK-ING machine, 12 GCS machines 1 MineWolf, 1 Armtrak, 1 Revival P, and 1 digger. |
| **Totals** | **89** | **20** | **32** | **897** | **35** | **70** | |

N/K = not known. *Information based on data available at time of writing. Full information not available on the capacity of national operators.** Excluding team leaders, medics, and drivers unless otherwise stated. *** Excluding vegetation cutters and sifters. ****Ukraine's APBMC Article 7 report (covering 2023) states that SESU personnel increased to 1,700 in 2023 but does not state how many were deployed specifically to clear EO.***** SESU had six MDDs and handlers in 2023, of which five MDDs were certified and operational from September 2023.

HALO more than doubled its overall capacity, from 550 personnel in the final quarter of 2022 to 1,165 in the same period in 2023, and planned to increase the number of the operational staff from 1,000 to 1,300 by the end of 2024. This will impact the amount of CMR-contaminated area cleared if high priority tasks, as defined by HALO's prioritisation matrix, contain CMR.[181] NPA added one NTS team in 2024.[182] DCA expected to increase TS and clearance capacity during 2024, with a significant impact on CMR clearance, given that the majority of CHAs in its areas of operations are contaminated with submunitions.[183]

Ukraine has stated an intention to establish mine action operational capacity in the MoD with an estimated 5,000 personnel. As at September 2023, the MoD was forming ten battalions and three separate demining companies, which will consist of 4,750 people, as part of the SSTS and Support Forces Command, to be tasked exclusively with demining in accordance with NMAS and IMAS. The formation of two of these battalions was anticipated by the end of 2023, with operations to commence in 2024. It is not specified what level of this increased capacity will be available for the survey and clearance of CMR. However, the plan refers throughout to "mines and explosive remnants of war".[184]

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2023

No areas contaminated with CMR were released through NTS in 2023. A total of 1,414m$^2$ was released through TS and 87,066m$^2$ was released through clearance.[185] The total number of submunitions destroyed in Ukraine in 2023, either through clearance or spot tasks, is unknown. However, two submunitions were identified by HALO during clearance and marked for disposal by national operators.[186] A total of 51.2km$^2$ of previously unrecorded CMR contamination was recorded in the national database by international operators in 2023.[187] A total of 749,890 items of EO (not disaggregated by

181 Email from Michael Brown, HALO, 29 May 2024.

182 Email from Amela Balic, NPA, 5 June 2024.

183 Email from Michael Edwards, DCA, 3 May 2024.

184 Answers to additional questions of the APMBC Committee on Article 5 Implementation on Ukraine's deadline extension request, 1 September 2023, p. 2.

185 Email from Michael Brown, HALO, 29 May 2024.

186 Emails from Michael Brown, HALO, 29 May and 6 June 2024.

187 Emails from Vanja Sikirica, NPA, 21 April 2024; Amela Balic NPA, 5 June 2024; Sophie Breinholdt Nielsen, DRC, 10 and 29 May 2024; Michael Edwards, DCA, 3 May and 10 June 2024; Michael Brown, HALO, 29 May and 6 June 2024; and Tony Connell, FSD, 25 June 2024.

weapon type) were said to have been destroyed by Ukrainian government units, although it was unclear how many of these were destroyed in 2023.[188] Ukraine's most recent Convention on Conventional Weapons (CCW) Amended Protocol II report, covering 2023, on the other hand, states 703,017 items of EO have been destroyed since the beginning of Russia's invasion, though it was not specified whether this was by national or international operators or both.[189]

## SURVEY IN 2023

One international operator, HALO, reduced 1,414m$^2$ through TS[190] (see Table 4), the first time in five years where there has been reduction of CMR hazardous areas in Ukraine. None of the international operators released any cluster munition-contaminated area through NTS in 2023, the fifth year in a row without cancellation.[191] Reporting on cancellation was not accepted by the NMAA-MAC in 2023, as the draft NMAS for land release was still to be approved.[192] Release of cluster munition-contaminated area by Ukrainian national bodies was again not reported in 2023. Ukraine has reported only on survey of contamination broadly, with data not disaggregated by weapon type or by type of hazardous area (i.e. suspected hazardous area (SHA) or CHA).

A total of 51.2km$^2$ of previously unrecorded CMR contamination was recorded by international operators in the national database in 2023,[193] of which DCA recorded one SHA and ten CHAs with a total area of 1,100,567m$^2$,[194] DRC identified ten SHAs with a total area of 1,050,765m$^2$,[195] FSD identified 322 SHAs with a total area of 32,181,625m$^2$ and 135 CHAs with a total area of 11,494,637m$^2$.[196] HALO identified ten CHAs with a total area of 759,820m$^2$ [197] and NPA recorded 59 CHAs and two SHAs, with a total of 4,585,363m$^2$.[198] The 51.2km$^2$ of previously unrecorded CMR contamination recorded in 2023 is a significant increase on the 2.2km$^2$ of previously unrecorded CMR contamination was discovered and added to the IMSMA database in Ukraine in 2022.[199]

**Table 4: Reduction through technical survey in 2023[200]**

| Operator | District, Sub-district, locality | Oblast | Areas reduced | Area reduced (m$^2$) |
|---|---|---|---|---|
| HALO | Broverskyi, Baryshivska, Peremoha | Kyivska | 1 | 1,414 |
| **Totals** | | | **1** | **1,414** |

**Table 5: Previously unrecorded CMR contamination recorded in Ukraine in 2023[201]**

| Operator | SHAs recorded | Area of SHAs recorded (m$^2$) | CHAs recorded | Area of CHAs recorded (m$^2$) | Total size of area recorded (m$^2$) |
|---|---|---|---|---|---|
| DCA | 1 | 110,583 | 10 | 989,984 | 1,100,567 |
| DRC | 10 | 1,050,765 | 0 | 0 | 1,050,765 |
| FSD | 322 | 32,181,625 | 135 | 11,494,637 | 43,676,262 |
| HALO | 0 | 0 | 10 | 759,820 | 759,820 |
| NPA | 59 | 4,382,264 | 2 | 203,099 | 4,585,363 |
| **Totals** | **392** | **37,725,237** | **157** | **13,447,540** | **51,172,777** |

## CLEARANCE IN 2023

HALO released one area, measuring 87,066m$^2$, through clearance in 2023 (see Table 6). Two submunitions were identified and marked by HALO for disposal by the national authorities, as HALO did not have EOD teams at that time.[202] However, at the time

188 FAO and WFP Presentation, NDM, 2024.

189 CCW Amended Protocol II Report, (covering 2023), Form B.

190 Email from Michael Brown, HALO, 29 May 2024.

191 Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; Nick Guest, MAG, 23 March 2023; Alberto Rinaldo Serra, NPA, 15 March 2023, Tony Connell, FSD, 24 March 2023 and 24 March 2021; Almedina Musić, DRC, 7 February 2022 and 20 April 2021; Imogen Churchill, HALO, 23 March 2022; Ronan Shenhav, HALO, 20 April 2021; Michael Edwards, DCA, 3 May 2024; Sophie Breinholdt Nielsen, DRC, 10 May 2024; Vanja Sikirica, NPA, 21 April 2024; Jon Cunliffe, MAG, 26 April 2024; and Michael Brown, HALO, 29 May 2024.

192 Email from Vanja Sikirica, NPA, 21 April 2024.

193 Emails from Vanja Sikirica, NPA, 21 April 2024 and Amela Balic NPA, 5 June 2024; Sophie Breinholdt Nielsen, DRC, 10 and 29 May 2024; Michael Edwards, DCA, 3 May and 10 June 2024; Michael Brown, HALO, 29 May and 6 June 2024; and Tony Connell, FSD, 25 June 2024.

194 Emails from Michael Edwards, DCA, 3 May and 10 June 2024.

195 Emails from Sophie Breinholdt Nielsen, DRC, 10 and 29 May 2024.

196 Email from Tony Connell, FSD, 25 June 2024.

197 Emails from Michael Brown, HALO, 29 May and 6 June 2024.

198 Emails from Vanja Sikirica, NPA, 21 April 2024 and Amela Balic, NPA, 5 June 2024.

199 Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; and Denys Holovetskyi, HALO, 29 May 2023.

200 Email from Michael Brown, HALO, 29 May 2024.

201 Emails from Michael Edwards, DCA, 3 May and 10 June 2024; Sophie Breinholdt Nielsen, DRC, 10 and 29 May 2024; Vanja Sikirica, NPA, 21 April 2024; Amela Balic, NPA, 5 June 2024; Michael Brown, HALO, 29 May and 6 June 2024; and Tony Connell, FSD, 25 June 2024.

202 Emails from Michael Brown, HALO, 29 May and 6 June 2024.

of writing, Mine Action Review had requested but not received data on any submunitions destroyed by national operators during 2023. Aside from HALO, none of the other international operators released any cluster munition-contaminated area through clearance in 2023.[203] In 2022, international operators cleared a considerably higher amount of 0.49km$^2$ of cluster-munition contaminated area, destroying in the process 70 submunitions.[204] Clearance of cluster munition-contaminated area by Ukrainian national bodies was not reported for 2023 or for the previous year.

**Table 6: Clearance in 2023*[205]**

| Operator | District, Sub-district, locality | Oblast | Hazardous areas reduced | Area cleared (m$^2$) |
|---|---|---|---|---|
| HALO | Broverskyi, Baryshivska, Peremoha | Kyivska | 1 | 87,066 |
| **Totals** | | | **1** | **87,066** |

* Two submunitions were found during clearance and marked for disposal by the authorities. While it is believed that the submunitions were disposed of, this had not been confirmed at the time of writing.

HALO notes that the June 2023 explosion of the Kakhovska dam, which flooded territories and infrastructure in the south of Ukraine, hindered demining and had an adverse impact on land release output, as well as limiting the search for new areas of contamination, though overall HALO was able to increase capacity and expand its activities in six regions of Ukraine.[206]

## DEMINER SAFETY

On 22 May 2023, a local administration building, located within 20 metres of the edge of a HALO clearance task (Chkalovske-1 task) in Chuhuiv, Kharkiv, was hit by two air strikes from two Russian S300 ballistic missiles. The strikes took place during stand-down, so no HALO staff were injured, though one Ukrainian soldier was killed and five others were injured and hospitalised. Through dialogue with the village mayor, HALO ascertained that the likely target was the site of the village council, where a small group of Ukrainian soldiers previously lived.[207]

## PROGRESS TOWARDS COMPLETION

No target date has been set for the completion of CMR clearance in Ukraine, nor is it realistic to expect one for the foreseeable future given the ongoing hostilities. However, in June 2023 Ukraine's Ministry of Economy stated Ukraine's intention to bring 80% of all land potentially contaminated with ordnance back into productive use within ten years.[208] The current conflict, ongoing since February 2022, has certainly resulted in massive new contamination. While initial estimates project a timeline of anything between five and twenty years to complete the CMR clearance, these remain pure speculation until Ukraine has conducted a national survey to assess the scale and nature of its new contamination.[209]

Both Ukraine and Russia have obligations under international human rights law to clear CMR as soon as possible, in particular by virtue of their duties to protect the right to life of every person under their jurisdiction or effective control. Over the past five years, very few CMR-contaminated areas have been released through clearance or TS (and none through NTS) in Ukraine, nor has a baseline survey of contamination yet been undertaken. Land release efforts have of course been hugely impeded by the conflict with Russia. Hostilities are significantly adding to CMR contamination, with both sides using cluster munitions extensively. Against the incredibly challenging circumstances of war, Ukraine has been able to scale up operational capacity and technological innovation considerably and take significant steps towards improved national ownership and programme management, which had been lacking in the preceding years. The formal establishment of a National Mine Action Authority in 2022 was a significant step towards improved planning and coordination, as was the work undertaken in 2023 to finally develop a National Mine Action Strategy and implementation plan.

203 Emails from Roxana-Cristina Bobolicu, DRC, 1 April 2023; Nick Guest, MAG, 23 March 2023; Alberto Rinaldo Serra, NPA, 15 March 2023, Tony Connell, FSD, 24 March 2023 and 24 March 2021; Almedina Musić, DRC, 7 February 2022 and 20 April 2021; Imogen Churchill, HALO, 23 March 2022; and Ronan Shenhav, HALO, 20 April 2021.

204 Email from Denys Holovetskyi, HALO, 29 May 2023.

205 Email from Michael Brown, HALO, 29 May 2024.

206 Ibid.

207 Emails from Michael Brown, HALO, 29 May 2024; and Denys Holovetskyi, HALO, 27 June 2024.

208 "Our goal is to bring 80% of potentially contaminated land back into use in ten years: Yuliia Svyrydenko at the London conference", Ministry of Economy of Ukraine, 22 June 2023, at: https://bit.ly/4dMpGu3.

209 Online presentation by Hannah Rose Holloway, DRC, CCM Intersessional Meeting, Geneva, 16 May 2022.

# VIETNAM

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

## KEY DATA

### CLUSTER MUNITION CONTAMINATION:

UNKNOWN BUT MASSIVE

SUBMUNITION CLEARANCE IN 2023

**55.26KM²**

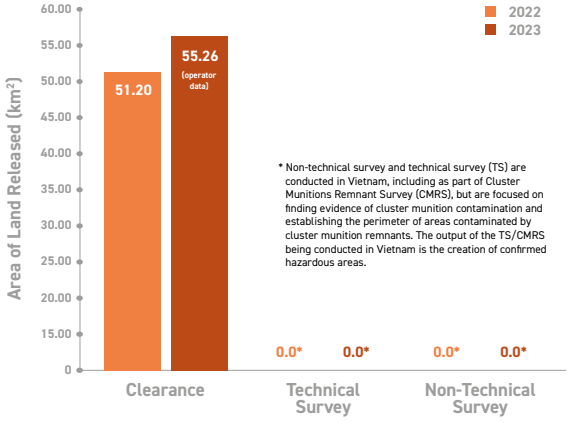
(OPERATOR DATA)

SUBMUNITIONS DESTROYED IN 2023

**11,675**

(INCLUDING 1,228 DESTROYED IN SPOT TASKS) (OPERATOR DATA)

### LAND RELEASE OUTPUT




* Non-technical survey and technical survey (TS) are conducted in Vietnam, including as part of Cluster Munitions Remnant Survey (CMRS), but are focused on finding evidence of cluster munition contamination and establishing the perimeter of areas contaminated by cluster munition remnants. The output of the TS/CMRS being conducted in Vietnam is the creation of confirmed hazardous areas.

## KEY DEVELOPMENTS

Clearance of cluster munition-contaminated area by NGOs continued to accelerate in 2023, rising by 8%, although the number of cluster munition remnants (CMR) dropped by a quarter. NGOs completed technical survey (TS) of all accessible areas of Quang Tri province. The Vietnam National Mine Action Centre (VNMAC) started discussions with the Geneva International Centre for Humanitarian Demining (GICHD) on upgrading the national Information Management System for Mine Action (IMSMA) database.

## RECOMMENDATIONS FOR ACTION

- **Vietnam should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.**
- **VNMAC should set a strategy for expanding non-technical survey (NTS) and TS to enhance understanding of the extent of CMR contamination with a view to setting a national baseline.**
- **VNMAC should publish annual reports detailing results of survey and clearance by all accredited operators.**
- **VNMAC should elaborate and publish annual work plans for CMR, with clear targets for survey and clearance.**
- **Vietnam should complete revision of National Mine Action Standards (TCVNs), in line with the International Mine Action Standards (IMAS), as soon as possible.**

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Vietnam National Mine Action Centre (VNMAC)
- Provincial mine action centres and authorities (e.g. the Quang Tri Mine Action Centre (QTMAC), the Quang Binh Database and Coordination Unit (DBCU), and Thua Thien Hue database unit (DBU))

### NATIONAL OPERATORS

- Ministry of Defence

### INTERNATIONAL OPERATORS

- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)
- PeaceTrees Vietnam (PTVN)

### OTHER ACTORS

- Association of South East Asian Nations (ASEAN) Regional Mine Action Centre (ARMAC)
- Geneva International Centre for Humanitarian Demining (GICHD)
- Golden West Humanitarian Foundation (Golden West)
- International Committee of the Red Cross (ICRC)
- United Nations Development Programme (UNDP)

## UNDERSTANDING OF CMR CONTAMINATION

Vietnam is massively contaminated by CMR but no accurate estimate exists, even to the nearest hundred square kilometres. An explosive remnants of war (ERW) impact survey, started in 2004 and completed in 2014, was only published in 2018. It said that 61,308km$^2$ or 19% of Vietnam's land surface area was affected by ERW, but did not specify the area affected by CMR. It found, though, that CMR affected 32 of Vietnam's 63 provinces and cities.[1] According to VNMAC, the total area still contaminated with bombs, mines, and explosive ordnance in Vietnam was 56,000km$^2$, which accounts for approximately 17% of Vietnam's land surface. Contamination is mainly concentrated in central provinces including Quang Tri, Quang Binh, Ha Tinh, Nghe An, and Quang Ngai.[2]

VNMAC does not plan to conduct a separate survey for CMR, and instead is implementing its survey and clearance plan for all types of explosive ordnance.[3] Vietnam is, however, slowly starting to gain a clearer picture of CMR contamination thanks to the expansion of Cluster Munition Remnant Survey (CMRS) into new provinces. In Quang Tri province, Norwegian People's Aid (NPA) is conducting a province-wide survey.[4] Estimates of cluster munition-contaminated area are increasing sharply as survey progresses. In April 2023, NPA completed CMRS of all accessible areas in the province. In total, between 2015 and 2023, NPA defined a total of 1,270 confirmed hazardous areas (CHAs), covering 620km$^2$, of which more than 177km$^2$ has already been cleared.[5] Of the 110 villages in the province that remain to be surveyed, 47 were made accessible to international operators in May 2023 and 63 villages remain inaccessible due to national security.[6] The Quang Tri Mine Action Centre (QTMAC) is said to be interested in exploring the possibility for the military to be trained to conduct CMRS of these remaining villages.[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, approved use of a CMRS approach in 2020.[8] In the province, MAG has historically used an NTS methodology—Evidence Point Polygon (EPP) mapping—to map initial CHAs. Since February 2022, NPA has taken over from MAG conducting TS in Quang Binh as part of the US Department of State's Bureau of Political-Military Affairs PM-WRA (PM/WRA) consortium.[9] At the end of 2023 TS had been fully completed in 7 out of Quang Binh's 151 communes, confirming CMR contamination of almost 83km$^2$, and by the end of March 2024 survey had been completed in two more communes, with total CHAs amounting to 117.5km$^2$. Together with the results of survey under way in three other communes the total CHA identified at the end of March 2024 stood at 131km$^2$.[10] NPA estimates that, in total, there is some 1,000km$^2$ of CMR contamination in the province and that it could take 27 years to complete TS, based on current capacity.[11]

In Thua Thien Hue province, NPA in collaboration with VNMAC and the provincial authorities, has been implementing CMRS in four districts. Between 2011 and 2022, nearly 19km$^2$ of CHA had been identified, of which 15.8km$^2$ is in the western district of A Luoi. In addition to TS, NPA multi-task teams continued to clear CHAs and respond to any explosive ordnance reported to Hue Database Unit (DBU) or through the NPA hotline phone number.[12]

The United States dropped 413,130 tons of submunitions over Vietnam between 1965 and 1973, reportedly striking 55 provinces and cities. Vietnam's Military Engineering Command has recorded finding 15 types of US-made submunitions. Most submunition types were air-dropped, but artillery-delivered submunitions were also used in central Quang Binh and provinces to the south.[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 Rockeye bombs,[14] as well as BLU-63 (in Quang Binh province).[15] In Quang Nam province, almost all the CMR previously cleared by Danish Demining Group (DDG, now Danish Refugee Council) were M83 submunitions.[16]

1 VNMAC, "Report on Explosive Remnants of War Contamination in Vietnam, Based on the Explosive Remnants of War Contamination Survey and Mapping – Phase 1", provided by VNMAC 19 April 2018, p. 38.
2 Email from VNMAC, 14 July 2023.
3 Email from VNMAC, 14 July 2023.
4 Email from Resad Junuzagic, Country Director, NPA, 6 May 2019.
5 QTMAC website, accessed 7 July 2023, at: https.//bit.ly/3rfPNGa.
6 Email from Melissa Andersson, Programme Manager, NPA, 30 April 2024.
7 Interview with Jan Erik Støa, NPA, Oslo, 8 June 2023.
8 Email from Jan Erik Støa, NPA, 24 June 2020.
9 Emails from Helene Kuperman, MAG, 31 March 2021; and Valentina Stivanello, MAG, 29 April 2022.
10 Emails from Melissa Andersson, NPA, 30 April 2024; and Sarah Goring, Country Director, MAG, 17 June 2024.
11 Email from NPA Vietnam, 16 June 2023.
12 Ibid.
13 "Vietnam mine/ERW (including cluster munitions) contamination, impacts and clearance requirements", Presentation by Sr. Col. Phan Duc Tuan, People's Army of Vietnam, in Geneva, 30 June 2011; Handicap International, *Fatal Footprint, the Global Human Impact of Cluster Munitions*, Report, Brussels, November 2006, p. 15.
14 Interview with Magnus Johansson, NPA, Hanoi, 17 April 2018; and Michael Raine, MAG, Quang Tri, 18 April 2018.
15 Email from Helene Kuperman, MAG, 23 June 2020.
16 Email from Clinton Smith, Country Director, DDG, 23 March 2017.

### 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.[17] 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.[18]

## 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.[19] A Decree on the Management and Implementation of Mine Action Activities (Decree No. 18), which entered into effect in 2019 confirmed the Ministry of Defence (MoD) as the lead authority for the national mine action programme, in coordination with other relevant ministries and sectors;[20] while VNMAC will, under the direction of the Prime Minister and management of the MoD, "monitor, coordinate and implement mine action tasks".[21] The government's Circular 195, which came into effect in 2020[22] provides detailed guidance on the implementation of the provisions of the Decree.

Decree 18 is currently the highest-level legal document governing mine action activities in Vietnam and applicable to all domestic and foreign organisations operating in mine action in the country.[23] It established the legal basis for revising and updating national regulations (QCVNs) and standards (TCVNs) (see below the section, Land Release System) and for regulating information management. In February 2022, the Prime Minister ordered the preparation of an Ordinance for mine action in Vietnam to be issued by the Standing Committee of the National Assembly which will supersede Decree 18 in importance.[24] The ordinance is reportedly being prepared.

VNMAC is nationally funded but the National Mine Action Programme (Program 504) is funded by both the state and international donors.[25] According to VNMAC, government support for mine action has included the following

- establishing coordinating agencies and associations to support all levels of mine action;
- completing a legal framework, mechanism, and policies for demining (the MoD cooperates with other ministries to develop Circulars guiding QCVNs, TCVNs, and standing operating procedures (SOPs) on quality management (QM), survey, and clearance, and related issues);
- facilitating the capacity development of demining organisations in management, administration, survey, and clearance;
- setting up a national QM system for survey and clearance in accordance with international standards; and
- developing an information management system.[26]

VNMAC participated in all meetings of the Mine Action Working Group (MAWG), which provides a platform for all mine action stakeholders to discuss issues that impact the sector. MAG and the United Nations Development Programme (UNDP) co-chaired the meetings in 2023 while PeaceTrees Vietnam and UNDP were elected as co-chairs for 2024 and 2025.[27] In April 2022, MAWG members established sub-taskforces on capacity development, gender, the environment, victim assistance, and risk education.[28] VNMAC participates in all meetings of the MAWG and its sub-taskforces.[29] The MAWG met three times in 2023—in March, September, and December—allowing members to assess progress in the sector, the work of MAWG sub-task forces, development of the ordinance for mine action, and the TCVNs.[30]

VNMAC is collaborating with the Korea International Cooperation Agency (KOICA) and UNDP in a project for ERW survey and clearance in central Vietnam. The $29 million first phase conducted between 2018 and 2022 involved ERW survey and clearance in Binh Dinh and Quang Binh provinces. In the $25 million second phase, starting in 2024 and running until 2026, BOMICEN will deploy 14 teams for survey and clearance in Binh Dinh, Quang Ngai and Thua Thien Hue provinces.[31]

MAG, NPA, PTVN, the GICHD, Golden West Humanitarian Foundation (Golden West), and UNDP all provide capacity

17 VNMAC, "Report on Explosive Remnants of War Contamination in Vietnam", Hanoi, 2018, pp. 33–36.

18 Interviews with Resad Junuzagic, Jan Eric Stoa, and Magnus Johansson, NPA, Hanoi, 17 April 2018; and with Simon Rea and Michael Raine, MAG, Quang Tri, 19 April 2018; and emails from Clinton Smith, DDG, 23 March 2017 and 19 April 2018.

19 Prime Ministerial Decree (No. 738 of 2013) on the management and implementation of mine action activities, Hanoi.

20 Decree on Implementation and Management of Mine Action, No. 18/2019/ND-CP, 1 February 2019.

21 Draft Decree on the management and implementation of mine action activities, Hanoi, April 2018.

22 Emails from Jan Erik Støa, NPA, 6 April 2020; and Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

23 Email from Sarah Goring, MAG, 5 April 2023.

24 Ibid.

25 Email from Tim Horner, Senior Technical Advisor, VNMAC, on behalf of Mr Phuc, VNMAC, 6 April 2021.

26 Ibid.

27 Email from Sarah Goring, MAG, 17 May 2024.

28 Email from Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

29 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

30 Emails from Do Quy Linh, NPA, 16 June 2023, Melissa Andersson, NPA, 30 April 2024; and Sarah Goring, MAG, 17 May 2024.

31 Interview with Kwon Goosoon, Chief Technical Adviser for Mine Action, UNDP, in Geneva, 1 May 2024.

development support in Vietnam.[32] In October 2021, MAG concluded a three-year Memorandum of Understanding (MoU) with VNMAC to provide technical support and capacity building on explosive ordnance disposal (EOD), clearance, QM, and expanding digital risk education to new provinces. There are plans for a new MoU when the existing agreement expires.[33]

NPA continued a project to build VNMAC's capacity as the sector coordinator funded by PM/WRA under which it provides a senior technical adviser (STA) and information management (IM) adviser. The STA is active in supporting donor engagement, international cooperation, and the updating of the legal framework for mine action in Vietnam. The IM adviser has worked with VNMAC on upgrading the IMSMA database, drafting technical regulations, and training personnel in its central IM unit and regional database units.[34]

NPA also supported VNMAC to establish a fully-equipped mobile bomb cutting team. With support from the US Department of Defense (DoD), an NPA technical advisor conducted training in Hanoi followed by practical experience in Quang Tri province. Eight VNMAC personnel, including one woman, were certified in the use of the bomb cutting tools and methodology, and all equipment—including trailer, saw, and X-ray machine—were handed over to VNMAC.[35]

Vietnam's regional mine action centres coordinate operations at the regional level with support from operators. Quang Binh province's database and coordination unit (DBCU) tasks operators applying a prioritisation system introduced in April 2022 and holds regular coordination meetings with operators.[36] Quang Tri Mine Action Centre (QTMAC), supported by MAG and NPA, is implementing a five-year, 2021–25 action plan under which it sets task priorities and conducts quality assurance (QA) for operators in the province.[37]

## GENDER AND DIVERSITY

In 2013, Vietnam amended Article 26 of the Constitution so that "male and female citizens are equal in all aspects", prohibiting gender discrimination. State policy is to guarantee equal gender rights and opportunities. In mine action, women participate more in victim assistance and risk education, while national survey/clearance and information management are still male-dominated and managed by the Vietnam Army.[38] A MAWG sub-task force on gender was established in 2022 and in December of that year MAG co-hosted a workshop in Hanoi on gender mainstreaming with UNDP.[39] In December 2023, members renamed it the Gender, Diversity, and Inclusion (GDI) task force to emphasise its focus on inclusivity.[40] In 2024, VNMAC for the first time put forward a female candidate to undertake EOD training.

**Table 1: Gender composition of NGO operators in 2023[41]**

| Operator | Total staff | Women employed | Total staff in managerial or supervisory positions | Women in managerial or supervisory positions | Total staff in operational positions | Women in operational positions |
|---|---|---|---|---|---|---|
| MAG | 743 | 217 (29%) | 33 | 11 (33%) | 687 | 194 (28%) |
| NPA | 375 | 124 (33%) | 12 | 8 (75%) | 212 | 88 (42%) |
| PTVN | 216 | 51 (24%) | 13 | 6 (36%) | 185 | 38 (21%) |
| **Totals** | **1,334** | **392 (29%)** | **58** | **25 (43%)** | **1,084** | **320 (30%)** |

MAG Vietnam's gender balance remained largely unchanged in 2023, with women making up 29% of overall and operations staff, but to continue its promotion of diversity it had a country strategy workshop in October 2023 to discuss MAG's strategy for the next five years. In early 2024, it conducted consultation sessions with different groups of staff to support the development of its GDI action plan. Following this, a survey was also circulated to all staff to get deeper insights into the current situation of GDI in MAG Vietnam.[42]

NPA, which established Vietnam's first all-female battle area clearance (BAC) team, continued to promote gender mainstreaming through a five-person Gender Working Group set up in 2023 and the integration of gender and diversity policy into programme development and training. All NPA's national staff received training on the issue in 2023. NPA also promoted gender and inclusion in the sector speaking at public events, including International Day for Mine Awareness and an event commemorating the 79th anniversary of the Vietnam People's Army emphasising the role of women in mine action.[43]

32 Emails from Melissa Andersson, NPA, 30 April 2024; Sarah Goring, MAG, 17 May 2024 and Phạm Hoàng Hà, PTVN, 27 May 2024.
33 Emails from Valentina Stivanello, MAG, 29 April 2022 and Sarah Goring, MAG, 17 May 2024.
34 Email from Melissa Andersson, NPA, 30 April 2024.
35 Email from Do Quy Linh, NPA, 16 June 2023.
36 Emails from Helene Kuperman, MAG, 10 April, 23 June 2020, and 31 March 2021; Jan Erik Støa, NPA, 24 June 2020; and Phạm Hoàng Hà, PeaceTrees Vietnam (PTVN), 11 May 2021.
37 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.
38 Email from the GICHD, 5 May 2023.
39 Emails from Sarah Goring, MAG, 5 April and 19 May 2023.
40 Email from Sarah Goring, MAG, 17 May 2024.
41 Ibid.; and emails from Melissa Andersson, NPA, 30 April 2024; and Phạm Hoàng Hà, PTVN, 27 May 2024.
42 Email from Sarah Goring, MAG, 17 May 2024.
43 Email from Melissa Andersson, NPA, 30 April 2024.

PTVN has gender and diversity policies in place and ensures equal opportunities for all staff within its recruitment, pay, training, and procedures for promotion. PTVN regularly measures and tracks personnel data, which helps it better mainstream gender and diversity.[44]

## ENVIRONMENTAL POLICIES AND ACTION

Mine action in Vietnam contends with a number of environmental challenges in its diverse habitats ranging from tropical forest to coastal wetlands, all of which are aggravated by climate change. Heavy rainfall and flooding, particularly during monsoon seasons, displace items of explosive ordnance, making their detection and removal more challenging. Additionally, erosion and sediment transport caused by intense rainfall can bury or expose explosive ordnance, necessitating frequent re-surveying and clearance of affected areas. Severe flooding following intense rainfall in Thua Thien Hue province in October 2023 prevented NPA deploying survey teams for several weeks and landslides necessitated relocating its clearance team from A Luoi, the province's most heavily contaminated district.[45]

Vietnam lacks a national mine action standard on environmental management but VNMAC has engaged actively in IMAS Review Board discussions on a revised IMAS chapter on the environment, gaining experience expected to feed into drafting a TCVN on the environment planned once the IMAS process is complete.[46] The MAWG's Environment Task Force met in November 2023, focusing on promoting environmental awareness and best practices among operators to reduce the environmental impact of mine action operations in Vietnam.[47]

MAG Vietnam's operations follow an environmental SOP in place from MAG's Global Technical Standards, which are based on IMAS 07.13. Additionally, in 2023, MAG engaged an environmental consultancy group, Keep Vietnam Clean (KVC), to conduct an environmental impact assessment of its operations focused on waste management and energy saving. KVC visited MAG teams in Quang Tri and Quang Binh in January 2024 to assess the impact of field operations and current management practices with a view to presenting findings and recommendations for MAG's future plans later in 2024.[48]

NPA completed trials of a "Green Field Tool" in 2023 and started rolling out the initiative which is designed to systematically measure and monitor the environmental impact of its field operations and guide the implementation of mitigation measures at both the programme and global levels. The tool addresses factors including vehicle emissions; the impact of operations on vegetation, soil, and water resources; and measures to adapt to the impacts of climate change. NPA Vietnam's Environment Protection Coordinator is monitoring the programme's application of the tool and will be working with NPA's head office and other programmes in developing improvements. Among measures adopted by the programme in 2023 NPA collaborated with local partners in Thua Thien Hue province using co bang, a local grass, to make sandbags for demolitions as a way to reduce plastic waste.[49]

PTVN organised training courses on environment and climate change for staff with instruction from consultants in Hue University's Centre for Climate Change Study in Central Vietnam. PTVN reported that its management and staff began integrating lessons learned from the courses in activities. Among other actions in 2023, PTVN planted bamboo trees in Quang Tri's Huong Ha district to support efforts of local authorities in preventing soil erosion and providing raw materials for local communities. PTVN planned to update environmental management policies in 2024 and to revise materials used to follow environmentally friendly standards.[50]

## INFORMATION MANAGEMENT AND REPORTING

VNMAC has declared the development of information management a top priority.[51] It issued regulations establishing a national information management system in July 2022 requiring all provinces to submit standardised reporting of mine action data into the national IMSMA database.[52] VNMAC provided training and a laptop containing IMSMA with all provincial data for authorities in each province.[53] VNMAC quality checks data for consistency and completeness. VNMAC is also responsible for the QA of the data received by the commercial operators.[54] As at April 2024 18 provinces had submitted reports.[55]

VNMAC, supported by NPA's capacity development project, completed consolidation of data from five different IMSMA databases into one national IMSMA database in December 2022.[56] VNMAC is now preparing to upgrade the database

44 Emails from Phạm Hoàng Hà, PTVN, 3 May 2023 and 27 May 2024.
45 Email from Melissa Andersson, NPA, 30 April 2024.
46 Ibid.
47 Email from Sarah Goring, MAG, 17 May 2024.
48 Ibid.
49 Email from Melissa Andersson, NPA, 30 April 2024.
50 Email from Phạm Hoàng Hà, PTVN, 27 May 2024.
51 Interview with Mr Hop, VNMAC, Geneva, 22 June 2023.
52 Email from Tim Horner, NPA, 7 September 2022.
53 Emails from Sarah Goring, MAG, 5 April 2023; Do Quy Linh, NPA, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.
54 Email from Do Quy Linh, NPA, 16 June 2023.
55 Email from Melissa Andersson, NPA, 30 April 2024.
56 Email from Do Quy Linh, NPA, 16 June 2023.

from IMSMA New Generation to the latest edition, IMSMA Core. VNMAC and its NPA IM advisers started discussion on the upgrade with the GICHD in 2023, and in March 2024 the GICHD conducted an assessment of VNMAC's database to prepare for transition to Core in 2025.[57]

Quang Binh, Quang Tri, and Thua Thien Hue provinces have operated mine action databases that collect and analyse data and task operators. The operators report activities to these databases which in turn report to VNMAC's central Information Management Unit. Binh Dinh is reportedly the next key province that VNMAC wants to focus on.[58]

## PLANNING AND TASKING

Programme 504, approved by the Prime Minister in April 2010, set out a National Mine Action Plan for 2010–25. The plan, which covers mines, CMR, and other ERW, aimed to "mobilize domestic and international resources in making efforts to minimize and finally create impact-free environment for social economic development." The programme called for clearance of 8,000km$^2$ of ERW between 2016 and 2025[59] and planned to complete an impact survey to map contamination nationwide, develop national standards, and establish a database management centre.[60] 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.

In February 2022, VNMAC shared a five-year plan for the 2021–25 final phase of the National Mine Action plan, which was prepared by the government without input from NGOs or other members of the MAWG.[61] The plan was updated and eventually adopted in June of 2023 for the last two years to 2025. It focuses on improving organisational structures, enhancing legislation and national standards, fostering international cooperation for funding and resources, conducting research and development, establishing a national mine data system, promoting ERW risk awareness, and providing assistance to ERW victims.[62] The government is developing a 20-year plan for 2025–45. Targets and objectives have been set for survey, clearance, and risk education, and responsibilities have been identified within the different government agencies.[63]

VNMAC has said that its objectives for 2021–25 included completing the organisational structure, legal framework, and policies for mine action; ensuring effective mine action management; fostering international cooperation to mobilise the required resources; completing the information management system for mine action nationwide; and implementing survey and clearance over 5,000km$^2$, with priority given to heavily contaminated areas.[64]

Vietnam does not have a national prioritisation system for CMR clearance.[65] In Quang Binh province, the system for reporting and tasking by the provincial DBCU became effective in 2021 and is said to have been conducted efficiently by the DBCU, with the DBCU reporting to the VNMAC.[66] A province-wide prioritisation system is now being applied in Quang Binh province.[67] The DCBU submitted a Quang Binh Provincial Mine Action Programme 2024–2035 to the Provincial People's Committee for official approval in the first quarter of 2024. The programme sets specific objectives and timelines to minimise the impact of CMR and ERW contamination, with the longer term ambition of becoming impact-free by 2045.[68]

In Quang Tri province, a prioritisation process is in place along with an effective system for task allocation, both of which are managed by QTMAC.[69] The criteria for prioritisation 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.[70]

In Thua Thien Hue province, tasking for NGO operators is decided by provincial authorities in accordance with the provincial socio-economic development plan.[71]

57 Email from Melissa Andersson, NPA, 30 April 2024.
58 Email from Kimberley McCosker, NPA, 21 April 2022.
59 Prime Minister, "Decision on Approval of the National Mine Action Plan Period 2010–2025", Hanoi, 21 April 2010.
60 STA Capacity Development Project (NPA), "Vietnamese legal framework in mine action", January 2023.
61 Emails from Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021; Valentina Stivanello, MAG, 29 April and 20 June 2022; and Kimberley McCosker, NPA, 22 June 2022.
62 Email from Sarah Goring, MAG, 17 May 2024.
63 Email from Melissa Andersson, NPA, 30 April 2024.
64 Email from Doan Thi Hong Hai, Capacity Development Project Officer, NPA, on behalf of Mr Phuc, VNMAC, 3 June 2022.
65 Emails from Sarah Goring, MAG, 5 April 2023 and Do Quy Linh, NPA, 16 June 2023.
66 Email from Kimberley McCosker, NPA, 21 April 2022.
67 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.
68 Email from Sarah Goring, MAG, 17 May 2024.
69 Emails from Simon Rea, MAG, 16 June 2019; Resad Junuzagic, NPA, 6 May 2019; Helene Kuperman, MAG, 31 March 2021; Phạm Hoàng Hà, PTVN, 11 May 2021; and Kimberley McCosker, NPA, 13 May 2021.
70 Emails from Jan Erik Støa, NPA, 6 April 2020; Simon Rea, MAG, 24 April 2019; Helene Kuperman, MAG, 31 March 2021; and Phạm Hoàng Hà, PTVN, 3 May 2023.
71 Email from Jan Erik Støa, NPA, 6 April 2020.

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

Vietnam has two types of national standards: National Technical Regulations (QCVNs), which are mandatory for all operators, and National Mine Action Standards (TCVNs), which are only guidelines for organisations that do not receive Vietnamese funding.[72]

The TCVNs, 15 in total, are under review but include: (1) General regulations, (2) Appraisal and certification of MA organisations' capacity, (3) Monitoring & Evaluation, (4) Contamination inspection, (5) Survey, (6) Safety assurance, (7) Survey and clearance; (8) Disposal of landmines/bombs, (9) Medical insurance, (10) Inspection over incidents, (11) Collecting, processing and providing mine action information, (12) Quality management, (13) Risk management, (14) Risk education, and (15) Victim assistance. The review process is time-consuming as it involves several government ministries. In early 2024, the TCVNs were being reviewed by the Ministry of Science and Technology. VNMAC hoped that the TCVNs would be approved before the end of 2024.[73] A further TCVN on environmental protection in mine action is also expected to be developed.[74]

QCVNs were promulgated by the MoD in a Circular (No. 59) August 2022 after extensive review in recent years by four working groups, co-chaired by VNMAC, and after extensive consultation with operators and international organisations, including the GICHD.[75] They include general provisions, technical regulations, regulations on safety and on management, the responsibilities of organisations and individuals, and organisation and implementation.[76] In Quang Tri, QTMAC coordinated with operators to provide a consolidated report to VNMAC on any discrepancies between the QCVNs and operator SOPs.[77]

Additional circulars were issued relating to the revised NTS, TS, and clearance procedures (Circular 121) along with guidelines to determine the rate per shift of demining machines and equipment (Circular 121) and guidelines for determining costs in EO clearance estimates (Circular 122).[78]

## OPERATORS AND OPERATIONAL TOOLS

Most clearance in Vietnam is conducted by the Army Engineering Corps and 43 military-owned commercial companies. Vietnamese officials have previously reported that it had 250 mine clearance and BAC teams nationally,[79] but the current strength and deployment of military-related demining is unknown.

International operators active in 2023 included: MAG, working in Quang Binh and Quang Tri provinces; NPA, working in Quang Binh, Quang Tri, and Thua Thien Hue provinces, and most recently also in Kon Tum province since late 2022; and PTVN, who have been working in Quang Tri province since 1995 and now also in Quang Binh province.[80]

MAG operated in 2023 with the same capacity as the previous year, consisting of 41 clearance teams with 410 personnel working in Quang Binh and Quang Tri provinces. These were backed up by 14 clearance support teams with another 70 personnel, and eight community liaison teams conducting NTS, EORE, and impact assessments. In 2024, it has restructured capacity to boost clearance. In 2022, MAG had stopped conducting TS and converted its survey teams to clearance. From June 2024, MAG resumed conducting TS in Quang Binh and integrated all the support personnel into clearance operations, increasing the size of existing clearance teams from 13 to 14 members each and adding three more clearance teams, bringing the total number of clearance personnel to 484.[81]

NPA continued working in three provinces in 2023: Quang Binh, Quang Tri, and Thua Thien Hue. Its total operational capacity of 212 staff included 11 NTS teams but it reconfigured its TS and clearance capacity in the course of the year. For the first four months of 2023, NPA worked with 14 TS teams with 101 staff and 9 clearance teams with 130 deminers. After completing survey of all the accessible villages in Quang Tri, it converted 10 of the TS teams into 5 clearance teams leaving 21 staff employed in TS and 213 personnel working on clearance. NPA expected that an increase in funding from PM/WRA in 2024 would allow a small increase in survey capacity in Quang Binh and clearance capacity in Quang Tri.[82]

72 Email from Resad Junuzagic, NPA, 6 May 2019.

73 Email from Melissa Andersson, NPA, 30 April 2024.

74 Emails from Sarah Goring, MAG, 5 April 2023; Do Quy Linh, NPA, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

75 Emails from Kimberley McCosker, NPA, 8 April 2021 and 21 April 2022; Valentina Stivanello, MAG, 29 April 2022; GICHD, 24 April 2022; and Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

76 STA Capacity Development Project (NPA), "Vietnamese legal framework in mine action", January 2023.

77 Email from Sarah Goring, MAG, 5 April 2023.

78 "Vietnamese legal framework in mine action", January 2023; and email from Sarah Goring, MAG, 5 April 2023.

79 Interview with Sr. Col. Nguyen Thanh Ban, Engineering Command, Hanoi, 18 June 2013.

80 Emails from Sarah Goring, MAG, 5 April 2023; Do Quy Linh, NPA, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

81 Emails from Sarah Goring, MAG, 17 May and 17 June 2024.

82 Email from Melissa Andersson, NPA, 30 April 2024.

PTVN, also working in Quang Binh and Quang Tri provinces, did not conduct any survey but operated 11 clearance teams with 110 deminers in 2023, unchanged from the second half of 2022. PTVN's capacity included two multi-task teams primarily focused on EOD in Quang Binh but also available to do area clearance. In the first half of 2023, PTVN had deployed 142 clearance personnel and in 2024 it expected the number to increase.[83]

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2023

NGOs reported clearing 55.3km$^2$ of CMR-contaminated land in three provinces in 2023 (see Table 3), 8% more than the previous year. Vietnam's army and army-owned commercial companies do not publicly report results of any activities. The NGOs destroyed a total of 11,675 submunitions in 2023: 1,822 in the course of TS, 8,625 during clearance, and the remaining 1,228 in EOD spot-task operations. The total represented a 25% drop from the previous year, primarily due to a sharp contraction in the scope of TS in 2023.[84]

## SURVEY IN 2023

Survey by NGOs confirmed 62.4km$^2$ in 2023 (see Table 2), less than half the level of 2022. The downturn came after NPA completed TS of all the non-restricted villages in Quang Tri and shifted the TS teams in that province to clearance. As at April 2024, only the 63 villages inaccessible to international operators remained to be released, putting the possibility of completing survey in reach and focusing attention on the need for local and national authorities to agree a comprehensive plan for finishing the job.[85]

Continuing TS in Quang Binh had completed seven of its 151 communes by the end of 2023 when NPA confirmed 33km$^2$ as contaminated by CMR bringing the province's total CHA to 83km$^2$. By the end of March 2024, survey had been completed in nine communes and the total CHA had risen to 99km$^2$.[86]

**Table 2: Technical survey of cluster munition-contaminated area in 2023 (NGO data)[87]**

| Operator | Province | Area surveyed (m$^2$) | Area confirmed (m$^2$) | Submunitions destroyed | Other UXO destroyed |
|---|---|---|---|---|---|
| NPA | Quang Binh | 14,600,000 | 32,987,446 | 666 | 92 |
| NPA | Quang Tri | 15,722,500 | 31,444,112 | 1,156 | 776 |
| **Totals** | | **30,322,500** | **64,431,558** | **1,822** | **868** |

* The total area surveyed included box skipping, of which 457,500m$^2$ was physically surveyed.

## CLEARANCE IN 2023

The overall 8% increase in NGO clearance of CMR-affected in 2023 was mainly driven by higher output in Quang Tri province which accounts for about 75% of the total (see Table 3). MAG's clearance in Quang Tri rose 10% over 2022 output and made up close to half the provincial total, offsetting a slight drop in the area cleared in Quang Binh. Its productivity was adversely affected by heavy rainfall in the final quarter of 2023 when total operational hours lost came to 21 days.[88] NPA's conversion of its Quang Tri survey teams to clearance enabled it boost clearance there by 30% but flooding and landslides in Thua Thien Hue cut its clearance in that province by more than half.[89]

PTVN attributed an overall increase of 10% in the CMR land it cleared in 2023 to increased capacity in Quang Binh and the availability of its EOD teams for clearance. In addition to the main area clearance operations recorded in Table 3, PTVN said it cleared a total of 39,695m$^2$ in response to community requests in Quang Tri and Quang Binh.[90]

83 Email from Phạm Hoàng Hà, PTVN, 27 May 2024.
84 Emails from Sarah Goring, MAG, 17 May and 17 June 2024; Melissa Andersson, NPA, 30 April 2024; and Phạm Hoàng Hà, PTVN, 27 May 2024.
85 Email from Melissa Andersson, NPA, 30 April 2024.
86 Ibid.
87 Ibid.
88 Email from Sarah Goring, MAG, 17 May 2024.
89 Email from Melissa Andersson, NPA, 30 April 2024.
90 Email from Phạm Hoàng Hà, PTVN, 27 May 2024.

**Table 3: CMR clearance in 2023 (NGO data)[91]**

| Province | Operator | Area cleared (m²) | Submunitions destroyed | Other UXO destroyed |
|---|---|---|---|---|
| Quang Binh | MAG | 9,752,699 | 2,442 | 2,467 |
| Quang Binh | PTVN | 1,997,701 | 466 | 169 |
| Quang Tri | MAG | 26,455,159 | 3,875 | 3,893 |
| Quang Tri | NPA | 9,537,148 | 1,374 | 2,790 |
| Quang Tri | PTVN | 6,858,640 | 149 | 1,106 |
| Thua Thien Hue | NPA | 660,555 | 319 | 148 |
| **Totals** | | **55,261,902** | **8,625** | **10,573** |

MAG, NPA and PTVN also destroyed a total of 1,228 submunitions in the course of spot task operations in 2023: 1,030 in Quang Binh province, 88 in Quang Tri, and 110 in Thua Thien Hue.[92]

## PROGRESS TOWARDS COMPLETION

The absence of a baseline estimate of Vietnam's CMR contamination or any public reporting of clearance conducted by military units or military-owned commercial companies prevents any meaningful assessment of Vietnam's overall progress towards completion. Moreover, Vietnam's National Mine Action Plan for 2021–25 set targets for ERW clearance without disaggregating CMR-specific goals. However, clearance by NGOs in 2023 was more than 40% higher than in 2019 (see Table 4) attesting to advances in survey and clearance supported by VNMAC and provincial authorities in Quang Tri, Quang Binh, and Thua Thien Hue and the slowly widening footprint of operations into other areas.

**Table 4: Five-year summary of NGO clearance**

| Year | Area cleared (km²) |
|---|---|
| 2023 | 55.3 |
| 2022 | 51.2 |
| 2021 | 48.0 |
| 2020 | 48.5 |
| 2019 | 38.5 |
| **Total** | **241.5** |

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

The GICHD has been supporting VNMAC, NPA, and UNDP in the review of the current legislative and normative framework, with a focus on residual risk management. As a preparatory step, the GICHD and the VNMAC, with the support of UNDP and NPA, have been assessing the existing residual risk management capacity and the required or desired capacities that VNMAC needs to manage residual contamination.[93]

91 Emails from Sarah Goring, MAG, 17 May 2024; Melissa Andersson, NPA, 30 April 2024; and Phạm Hoàng Hà, PTVN, 27 May 2024.

92 Emails from Sarah Goring, MAG, 17 May 2024; Melissa Andersson, NPA, 30 April 2024; and Phạm Hoàng Hà, PTVN, 27 May 2024.

93 Email from the GICHD, 24 April 2022.

# YEMEN

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

## KEY DATA

### CLUSTER MUNITION CONTAMINATION:

UNKNOWN BUT HEAVY

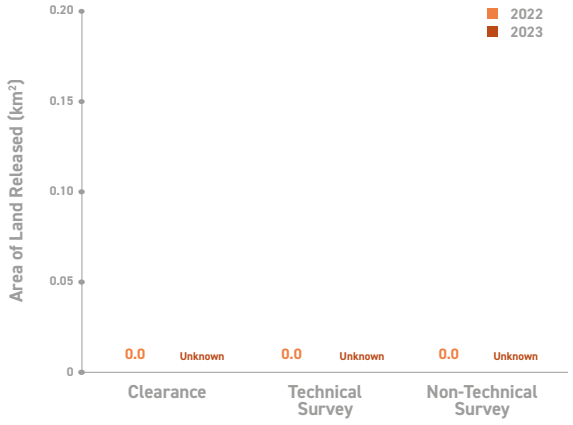
SUBMUNITION CLEARANCE IN 2023

UNKNOWN

SUBMUNITIONS DESTROYED IN 2023

UNKNOWN

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

The United Nations Development Programme (UNDP) Emergency Mine Action Programme closed in June 2023, suspending donor funding for survey and clearance operations by Yemen Mine Action Centre (YEMAC) pending a review of the sector's institutional structures, management, and operations. International operators working in areas controlled by the internationally-recognised government (IRG) continued survey and clearance focused on landmines and improvised explosive devices. Three international demining organisations visited Sana'a to negotiate a memorandum of understanding (MoU) with YEMAC and the de facto authorities (DFA) in the north but no agreement had been reached by the end of the year.

## RECOMMENDATIONS FOR ACTION

- **Yemen should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.**
- **YEMAC-DFA (YEMAC North) and YEMAC-IRG (YEMAC South) should each report annually on capacity deployed for survey and clearance of explosive ordnance and operating results that provide details of clearance and explosive ordnance disposal (EOD) spot tasks disaggregated by device type.**
- **YEMAC-IRG should release its revised national mine action standards (NMAS).**
- **The DFA in Sana'a should expedite access for international demining organisations in order to facilitate capacity building for the mine action programme.**
- **The DFA and YEMAC should establish a coordination centre in the north similar to the Yemen Mine Action Coordination Centre (YMACC) to increase efficiency and avoid the conflict of interest in its current role as regulator and operator.**
- **YEMAC-DFA and YEMAC-IRG should draw up work plans for operations in the north and the south respectively.**

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Yemen Executive Mine Action Centre (YEMAC), which in practice is now split between YEMAC DFA (YEMAC North) based in Sana'a and YEMAC-IRG (YEMAC South) based in Aden.
- Yemen Mine Action Coordination Centre (YMACC)

### NATIONAL OPERATORS

- YEMAC

### INTERNATIONAL OPERATORS

- Danish Refugee Council (DRC)
- The HALO Trust (HALO)
- Norwegian People's Aid (NPA)
- Project MASAM/SafeLane Global

### OTHER ACTORS

- United Nations Development Programme (UNDP)
- Geneva International Centre for Humanitarian Demining (GICHD)

# UNDERSTANDING OF CMR CONTAMINATION

The extent of cluster munition contamination in Yemen is not known but is thought to be heavy. YEMAC has previously reported the presence of cluster munition remnants (CMR) in seven governorates with the heaviest contamination in the northernmost Saada and al-Jawf governorates bordering Saudi Arabia. The other affected governorates included Amran, Hajjah, Hodeida, Mawit, and Sanaa, including in Sana'a City.[1] Recent estimates of explosive ordnance (EO) contamination provided by mine action authorities in northern areas controlled by the Sana'a-based DFA (the Houthis) and the rest of the country, which is largely controlled by the Aden-based internationally-recognised government (IRG), reflect the constraints on systematic survey imposed by nearly a decade of conflict and refer to EO without specifying the type of hazard.

Yemen had CMR contamination before 2015 and Human Rights Watch has said it recorded Saudi air strikes using cluster munitions dating back to 2009.[2] But the escalation of conflict since late March 2015 significantly increased both the extent of CMR and their threat to the civilian population. This was the result of airstrikes by the Saudi Arabia-led coalition on territory controlled by the Houthis (Ansar Allah).[3] In December 2016, Human Rights Watch reported that 18 coalition attacks using cluster munitions since the previous year had killed at least 18 civilians and injured 74 more.[4] NGOs recorded coalition use of cluster munitions until February 2017 and suspected continued use in 2018 but have not reported use since then.[5]

YEMAC North reports contamination from 15 types of cluster munition, of which 10 are produced in the United States (US), along with two British- and three Brazilian-made types.[6] Human rights groups have documented the use of US BLU-63 submunitions (in Sana'a City); BLU-97 combined-effect submunitions (in Saada governorate); CBU-58 and CBU-105 sensor-fuzed munitions (in Amran and Sanaa governorates); Brazilian Astros ll munitions (in Saada governorate and city), and British-made BL755 submunitions (in Hayran district of Hajjah governorate). They have also reported use of artillery-delivered ZP-39 Dual-Purpose Improved Conventional Munitions (DPICM) of indeterminate origin.[7]

# NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Management of mine action in Yemen is geographically divided along the lines of the conflict that erupted in March 2015 between the Houthi movement (the DFA) controlling the capital Sana'a as well as much of the north and west of the country, and the IRG, operationally based in Aden and the south. A Sana'a-based inter-ministerial National Mine Action Committee (NMAC), which was created to set national mine action policy, strategy and priorities is no longer recognised by the IRG, which reported it had disbanded in 2019.[8]

YEMAC was established in Sana'a in January 1999 as a national mine action agency under the NMAC and functioning as both regulator and operator. It has nominally maintained a national role and in 2021, UNDP reported that, in total, YEMAC conducted clearance in 19 of Yemen's 21 governorates.[9] In practice, YEMAC had split into two operations, centred round Sana'a and Aden, respectively. YEMAC South informed Mine Action Review there was no coordination between the two because YEMAC North was under the control of Houthi militia.[10]

1 Interviews with Ahmed Alawi, YEMAC, 17 February 2016; and Stephen Bryant, Chief Technical Adviser, UNDP, in Geneva, 6 February 2017.

2 Human Rights Watch, "Yemen: Cluster munitions harm civilians", 31 May 2015, at: http://bit.ly/32sdP0x.

3 UNDP, Grant Progress Report for 1 October–31 December 2015, 25 January 2016.

4 Human Rights Watch, "Brazil-made cluster munitions wound children", 23 December 2016, at: http://bit.ly/32ub4vE.

5 Landmine and Cluster Munition Monitor, Yemen country profile, 2022, at: https://bit.ly/4evj4R7.

6 Email from Ahmed Yahya Alawi, Executive Officer, YEMAC North, 18 April 2023.

7 Human Rights Watch, "Brazil-made cluster munitions wound children", 23 December 2016; Human Rights Watch, "Yemen: Cluster munitions harm civilians", 31 May 2015; Amnesty International, "Yemen: children among civilians killed and maimed in cluster bomb 'minefields'", 23 May 2016; and Legal Centre for Rights and Development, Sanaa, "The bombing of civilians and residential neighbourhoods with international forbidden weapons (cluster munitions)", undated but 2018.

8 APMBC Article 7 Report (covering 2018), Form A.

9 *UNDP Annual Report on Mine Action in Yemen 2020*, February 2021, p. 9.

10 Email from Ameen Saleh Alaqili, Director, YEMAC, 26 December 2021.

YEMAC South, headquartered in Aden, operated through three branches serving Hadramaut, Marib, and Taiz. It identified Aden, Abyan, Dhale, Hodeida, Lahej, and Taiz as high-priority districts for mine action interventions.[11] Yemen's Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request, submitted in March 2022, said that YEMAC was planning to open an office in Marib to support operations in Al Bayda and Al Jawf governorates, as well as the western Shabwah governorate. Operations included explosive ordnance disposal (EOD) spot tasks, non-technical survey (NTS), and risk education.[12]

In April 2020, YEMAC South opened YMACC in Aden with a view to strengthening programme management in areas controlled by the IRG. The centre, which is intended to facilitate cooperation with international organisations, has responsibility for accrediting organisations and issuing task orders. It has departments for planning, information management, and quality assurance (QA)/quality control (QC).[13] The centre convened its first coordination meeting on 9 April 2020 and by early 2021 employed 44 people.[14] It had set up technical working groups focused on NTS and risk education.[15] Termination of the UNDP emergency project resulted in reduced staffing and left YMACC without funding for essential utilities, including electricity or fuel for vehicles, leading to delays in its activities. Implementing partners said YMACC continues to convene regular meetings for project managers and although staff had not received salaries they continued to support operators on issues of accreditation, task orders, access, the import of equipment and security.[16]

YEMAC-DFA (YEMAC North) functions as both the coordinator of mine action in northern governorates controlled by Houthi forces and as operator involved in all aspects of mine action including survey and clearance, risk education, victim assistance, information management, and quality management, a situation seen as creating a problematic conflict of interest.[17] To address that issue, YEMAC North and the DFA's Supreme Council for the Management and Coordination of Humanitarian Affairs (SCMCHA) agreed in principle to set up a coordination centre similar to YMACC in the IRG-controlled areas[18] but as at June 2024 no further action had been taken to implement the proposal. Three demining INGOs—Danish Refugee Council (DRC), The HALO Trust, and Norwegian People's Aid (NPA)—visited Sana'a in February 2023 and negotiated an MoU with YEMAC North that would provide a basis for operating in the DFA-controlled areas when signed,[19] but this did not take place in 2023.

The United Nations has provided technical and administrative support to YEMAC for two decades but in 2023 ended its current project and embarked on a review of its involvement in mine action in Yemen.[20] From 1999 to 2003 the UN supported mine action through a programme implemented by the UN Office for Project Services (UNOPS). From 2003, the programme came under full national management. At the end of 2014, UNDP launched an Emergency Mine Action Project to support development of national capacity for mine action planning and programme management and from 2017 paid for approximately 1,000 national personnel to conduct survey, clearance, and EOD.[21] At the start of 2022, UNDP had six international staff; area coordinators based in Aden, Hodeida, Mokha, and Mukalla; two administrative staff in Sana'a; and three administrative staff in Aden.[22] Two international staff had left the programme by the end of 2022. The remaining staff left with the closure of the programme in June 2023 and UN engagement with mine action came under the Resident Coordinator pending a review of mine action sector management structures and international support.[23] Two UN staff deployed to Yemen in January 2024 under an ECHO project, "Strategic Coordination of Ways Forward for Humanitarian Mine Action interventions in Yemen", in order to devise recommendations for the UN's future engagement with mine action in Yemen.[24]

The UN Mission to Support the Hudaydah Agreement (UNMHA) set up under UN Security Council Resolution 2452 opened a joint operations centre in the city in October 2019. Its mine action section includes a senior mine action adviser in Hudaydah undertaking an advisory and advocacy role, supported by a mine action officer based in Aden and a staff member in Sana'a.[25]

## ENVIRONMENTAL POLICIES AND ACTION

Yemen does not have an NMAS on environmental management, and the emergency character of the response to mines and other explosive ordnance does not take account of environmental issues in planning and tasking. International operators report complying with relevant international standards. DRC said it sought to ensure that waste produced during demolitions is picked up and disposed of properly.[26]

11 Email from Ameen Saleh Alaqili, YEMAC, 21 May 2023.

12 Yemen Article 5 deadline Extension Request, March 2022, pp. 26–27.

13 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 12; and email from Ameen Saleh Alaqili, YEMAC, 26 December 2021.

14 Emails from Ameen Saleh Alaqili, YEMAC, 5 May 2021; and Stephen Robinson, UNDP, 27 May 2020.

15 *UNDP Annual Report on Mine Action in Yemen 2020*, p. 14.

16 Emails from Jack Lister, Programme Manager, HALO, 6 June 2024; and Tony Wyles, Country Director, NPA, 25 June 2024.

17 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 21.

18 Ibid.

19 Emails from Christina Hendryx, Programme Manager, Humanitarian, Disarmament and Peace Building (HDP), DRC, 15 May 2023; and Faiz Mohammad Paktian, Country Director, NPA, 7 May 2023.

20 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 24.

21 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 9; and interviews with Stephen Robinson, UNDP, in Geneva, 20 July 2020; and Patrick Fruchet, Senior Mine Action Adviser to UN Resident Coordinator's Office for Yemen, in Geneva, 21 June 2023.

22 UNDP, Emergency Mine Action Project Annual Report, February 2022, p. 8.

23 Interviews with Patrick Fruchet, UN Adviser, in Geneva, 21 June 2023; and with Aleksandar Mihajlov, UNDP, in Geneva, 22 June 2023.

24 Email from Charles Frisby, Senior Humanitarian Mine Action Adviser, UNOPS, 26 June 2024.

25 Email from Leon Louw, Mine Action Adviser, UNMHA, 25 June 2024.

26 Emails from Christina Hendryx, DRC, 15 May 2023; and Matthew Smith, Head of Region, HALO, 11 July 2023.

## GENDER AND DIVERSITY

YEMAC-IRG (YEMAC South) said in 2021 that the inclusion of women in mine action was a priority, and the Article 5 deadline extension request submitted by the IRG in March 2022 repeated that this was the position of both YEMAC and YMACC.[27] It started training female staff for EOD, NTS, and risk education in 2020.[28] The 2022 extension request noted that YEMAC had employed 15 women in NTS as well as another 15 women in risk education in order to ensure the different needs of women and girls as well as men and boys are taken into account. It said other women worked in information management and victim assistance. It stated that "there is no objection to including more women",[29] but YMACC was reportedly resistant to employing women in multitask teams.[30] Any plans for employing women were put on hold with the suspension of donor funding in 2023.

YEMAC-DFA (YEMAC North) affirmed to UNDP that women made up half of their NTS staff[31] but no details were available of overall staffing or the gender composition.

UNDP had noted that integrating women into the mine action programme remained "challenging", but it reported that among 17 women who underwent training in 2021, 3 took an EOD Level 2 course, 3 others attended an improvised explosive device disposal (IEDD) good practice course and engage in IED disposal operations with the Directorate of Family Protection, and 10 women were trained in NTS.[32]

Social and cultural conventions present a significant impediment to efforts to promote inclusion in the sector. Women's traditional role as responsible for family care is seen as discouraging women from applying for jobs. Operators report cases where husbands have forbidden women applicants from attending interviews. Risk education is conducted separately for 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.[33]

Employment of women among international operators remained at a low level. HALO's 70 staff included 13 women at the end of 2023, including 6 of the 37 operations personnel and 4 of 23 staff in managerial or supervisory positions.[34] Women made up 7 of DRC's 36 employees in 2022, including 2 of 11 staff in managerial or supervisory jobs and 3 of the 27 staff in field operations, with one female in each of three NTS teams.[35]

## INFORMATION MANAGEMENT AND REPORTING

Information management in the YEMAC-IRG (YEMAC South) area of operations has improved since 2021 with the installation of the Information Management System for Mine Action (IMSMA) Core database and the introduction of approved reporting templates.[36] A main server was installed in YMACC at the end of 2021 with support from UNDP and the Geneva International Centre for Humanitarian Demining (GICHD), and in 2022 was populated with data on clearance, victims, and accidents as well as receiving results of the baseline survey.[37]

In 2023, YEMAC said that information management system operations continue to be reviewed and strengthened.[38] It reported that all electronic reporting forms were designed with participation of operators in technical working groups and that a series of workshops and training sessions were organised for operators with support from UNDP and the GICHD.[39]

Implementing partners previously submitted operating results to YMACC by email but in 2022 moved over to reporting via IMSMA. They submit operating results to YMACC on a monthly basis and say it is proactive in following up on reports but they only have direct access to data relating to their own operations.[40] Operators are able to request maps and other data to support operations and report that data received on tasks have proved reliable.[41] Project Masam reported its operating results to YMACC but the data was held separately from other operators' results. Discussions were underway in 2023 on steps to integrate Project Masam's data with the rest of the mine action programme results.[42]

YEMAC-DFA (YEMAC North) works with an older IMSMA New Generation (Version 5) system.[43] Its information management capacity in 2023 was not known.

27 Email from Ameen Saleh Al-Aqili, YEMAC, 26 December 2021; and Article 5 deadline Extension Request, March 2022, p. 21.
28 Email from Ameen Saleh Al-Aqili, YEMAC, 5 May 2021; and *UNDP Annual Report 2020*, p. 15.
29 Article 5 deadline Extension Request, March 2022, p. 21.
30 Email from Marie-Josée Hamel, DRC, 30 March 2022.
31 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 15.
32 UNDP, *Annual Report on Mine Action in Yemen 2021*, p. 15.
33 Email from Esteban Bernal, Programme Manager, Humanitarian, Disarmament and Peace Building, DRC, 23 March 2021.
34 Email from Jack Lister, Programme Manager, HALO, 6 June 2024.
35 Emails from Marie-Josée Hamel, DRC, 30 March 2022; and Christina Hendryx, DRC, 15 May 2023.
36 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 9.
37 Interview with Mukahhal Sulaiman, GICHD, Geneva, 11 July 2023.
38 Email from Ameen Saleh Alaqili, YEMAC, 21 May 2023.
39 Ibid.; interview with Stephen Robinson, UNDP, in Geneva, 23 March 2021; and *UNDP Annual Report 2021*, p. 10.
40 Email from Jack Lister, HALO, 6 June 2024.
41 Emails from Christina Hendryx, DRC, 15 May 2023; and Matthew Smith, HALO, 11 July 2023.
42 Interview with Mukahhal Sulaiman, GICHD, Geneva, 11 July 2023.
43 Interview with Mukahhal Sulaiman, GICHD, Geneva, 27 June 2024.

## PLANNING AND TASKING

Mine action in Yemen is conducted on an emergency basis in a context of continuing armed conflict, responding to immediate threats from all forms of explosive ordnance.[44] UNDP has seen that YEMAC needed to organise field operations to also address longer term impacts of contamination from explosive remnants of war (ERW).[45] YEMAC-DFA (YEMAC North) has not communicated any plans for tackling contamination by CMR or other EO. A work plan in Yemen IRG's 2022 APMBC Article 5 deadline extension request, submitted in March 2022, identified general areas of activity such as emergency response, survey, and risk education, but gave no details. It said it would update its plans every year or two.[46]

The 2022 extension request also identified the planned Yemen Baseline Survey (YBLS) as key to understanding the extent, location, and type of all explosive ordnance hazards, and thus a priority, along with building the capacity and resources of the mine action sector for survey and clearance. The request emphasised flexibility, stating that its plans were a "living document" that would be subject to continuous review to adapt to changing circumstances.[47] Operators report YMACC has regular meetings that are well attended by YEMAC and implementing partners and frankly discuss operational issues.[48]

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Yemen is in the process of revising and updating its NMAS. The existing standards were based on the International Mine Action Standards (IMAS) when they were drawn up in 2007. In 2019, YEMAC acknowledged that the standards were obsolete and said standard operating procedures (SOPs) based on the standards were not consistently applied by its clearance personnel.[49]

YEMAC-IRG (YEMAC South) reported in 2023 that it had revised 31 chapters of NMAS, which were undergoing a final review and were expected to be approved and adopted before the end of 2023.[50] They included standards relating to land release and are said to be compliant with IMAS and the 2019 Oslo Action Plan.[51] Dual language standards have been drafted but have not yet been officially released.[52] Further action appears to have ceased with the termination of the UNDP Emergency Mine Action Project and suspension of international funding.

### OPERATORS AND OPERATIONAL TOOLS

Until 2023, YEMAC was nominally the biggest operator, employing some 400 personnel under YEMAC-DFA in the north and 550 personnel under YEMAC-IRG in the south, but estimates of operational capacity in both areas were complicated by the reported presence of ghost deminers and by patchy reporting on the part of YEMAC team leaders.[53]

YEMAC-IRG (YEMAC South) reported in 2022 that it deployed 30 manual clearance teams employing 256 personnel in 2022 and three battle area clearance (BAC)/EOD teams with an additional 29 personnel and 6 mine detection dog (MDD) teams. It also had 15 to 18 NTS teams with 72 staff, 7 technical survey (TS) teams with 45 personnel, 5 risk education teams, and 3 quality management teams. YEMAC-IRG also seconded deminers to all the other implementing partners.[54] UNDP informed YEMAC-IRG in June 2023 that it would no longer fund mine action resulting in the suspension of virtually all operations. Since then, YEMAC-IRG reported it has only deployed teams for emergency call-outs.[55]

YEMAC-DFA (YEMAC North) said it had four clearance platoons; three MDD groups working with thirty-six dogs; two NTS teams, five TS teams, and a mechanical clearance team; as well as three risk education teams, a field monitoring team, and three quality management teams.[56] NMAC-DFA did not specify the numbers of personnel involved and it was unclear how much of its capacity was active in 2023 or how it was funded.

International operators present in Yemen in 2023 included DRC, HALO, Humanity & Inclusion (HI), NPA, and Project Masam. In 2023, only Project Masam, the biggest operator funded by Saudi Arabia with 32 demining teams employing some 450 deminers seconded from YEMAC, operated in

44 Article 5 deadline Extension Request, March 2022, p. 26.
45 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 23.
46 Article 5 deadline Extension Request, March 2022, p. 27.
47 Ibid., p. 29.
48 Email from Christina Hendryx, DRC, 15 May 2023.
49 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 17; and 2019 Article 5 deadline Extension Request, p. 16.
50 Email from Ameen Saleh Alaqili, YEMAC, 21 May 2023.
51 Email from Ameen Saleh Alaqili, YEMAC, 26 December 2021.
52 Email from Jack Lister, HALO, 6 June 2024.
53 Interview with mine action stakeholders in Geneva, 23 June 2022.
54 Email from Ameen Saleh Alaqili, YEMAC, 21 May 2023.
55 Interview with Ameen Saleh Alaqili, YEMAC, in Geneva, 1 May 2024.
56 Email from Ahmed Yahiya Alawi, YEMAC-DFA; and APMBC Article 7 Report (covering 1 April 2022–31 March 2023), Form L.

areas identified as contaminated by cluster munitions. These included, Hudaydah, al-Jawf and Marib governorates. It reported clearing thousands of landmines and items of unexploded ordnance but did not specify destruction of cluster munition remnants.[57]

## LAND RELEASE OUTPUTS IN 2023

Mine action in Yemen is conducted on an emergency basis focused on survey to identify the extent of contamination by all forms of explosive ordnance conducting urgent clearance to remove explosive hazards that pose an immediate threat to communities. YEMAC-IRG (YEMAC South) did not identify CMR as a major part of Yemen's explosive hazard threats[58] and they were not a target of specific survey or clearance.

Data provided by UNDP identified destruction of 271 submunitions in 2022, down from 1,771 destroyed the previous year.[59] YEMAC did not report clearance results for 2023.

YEMAC-DFA (YEMAC North) reported clearance of clearance of 1,506 submunitions in the 12 months to the end of March 2022 but only two in the 12 months to the end of March 2023.[60]

57 See Project Masam website, at: https://www.projectmasam.com/eng/.

58 Email from Ameen Saleh Alaqili, YEMAC-IRG, 21 May 2023.

59 UNDP Annual Report on Mine Action in Yemen 2021, p. 11; and UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, pp. 8, 12.

60 Email from Ahmed Yahya Alawi, YEMAC North, 18 April 2023.

# OTHER AREAS

# KOSOVO

MINE ACTION REVIEW

CLEARING CLUSTER MUNITION REMNANTS 2024

## KEY DATA

**CLUSTER MUNITION CONTAMINATION:** MEDIUM

NATIONAL ESTIMATE

**8.78KM²**

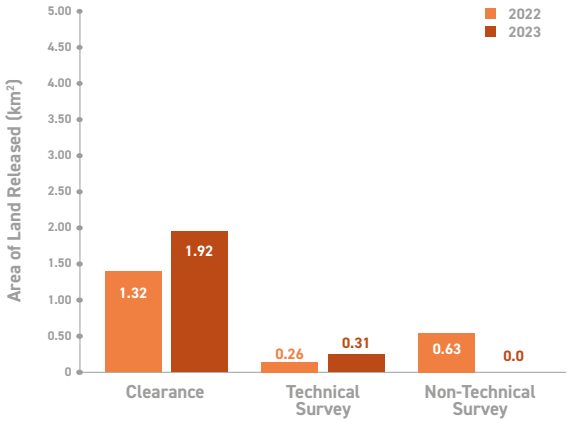
SUBMUNITION CLEARANCE IN 2023

**1.92KM²**

SUBMUNITIONS DESTROYED IN 2023

**196**

### LAND RELEASE OUTPUT




## RECOMMENDATIONS FOR ACTION

- **While formal accession to the Convention on Cluster Munitions (CCM) is not currently possible for Kosovo, as it is not recognised as a State by the depositary, Kosovo should submit a letter to the UN Secretary-General pledging to comply fully, on a voluntary basis, with the CCM and, as is planned for this year, submit voluntary Article 7 reports on an annual basis.**
- **The Kosovo Mine Action Centre (KMAC) should seek to complete clearance of cluster munition remnants (CMR) as soon as possible. With the newly developed mine action strategy, and provided that funding is sustained, KMAC should ensure the implementation of realistic annual targets and adhere to the established timeline for completion.**
- **In addition to survey of suspected hazardous areas (SHAs), Kosovo should also review the basis on which confirmed hazardous areas (CHAs) are established. In particular, it should conduct survey to confirm CMR contamination before embarking on full clearance.**

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Kosovo Mine Action Centre (KMAC)

### NATIONAL OPERATORS

- Kosovo Security Force (KSF)

### INTERNATIONAL OPERATORS

- The HALO Trust (HALO)
- Norwegian People's Aid (NPA)
- The Kosovo Force (KFOR), a NATO-led international peacekeeping force

### OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)

# UNDERSTANDING OF CMR CONTAMINATION

At the end of 2023, Kosovo reported 8.78km$^2$ of CMR contamination across 38 hazardous areas, comprised of 22 CHAs covering a total of 3.88km$^2$ and 16 SHAs covering 4.9km$^2$ (see Table 1).[1] The overall estimate has decreased by 1.24km$^2$ from the 10.02km$^2$ at the end of 2022.[2]

**Table 1: Cluster munition-contaminated area (KMAC data) (at end 2023)[3]**

| District | CHAs | Area (m$^2$) | SHAs | Area (m$^2$) | Total areas | Total area (m$^2$) |
|---|---|---|---|---|---|---|
| South | 3 | 375,000 | 3 | 610,000 | 6 | 985,000 |
| North | 5 | 1,529,850 | 3 | 3,395,089 | 8 | 4,924,939 |
| Centre | 4 | 710,000 | 1 | 100,000 | 5 | 810,000 |
| East | 1 | 520,000 | 1 | 50,000 | 2 | 570,000 |
| West | 9 | 742,614 | 8 | 745,375 | 17 | 1,487,989 |
| **Totals** | **22** | **3,877,464** | **16** | **4,900,464** | **38** | **8,777,928** |

Kosovo has a reasonable if imperfect understanding of CMR contamination remaining on its territory because of two decades of mine action, including surveys in 2013 and 2015. In September 2022, The HALO Trust (HALO) completed a non-technical survey (NTS) project that was designed to create CHAs and SHAs, as this was not done during the 2013 survey; prior to the NTS project there was no classification of CHAs and SHAs in Kosovo.[4] In 2024, Norwegian People's Aid (NPA) was planning to conduct NTS of seven tasks in the municipalities of Leposavic, Mitrovica, and Zubin Potok, where no activities have been done since the initial NTS in 2015.[5] KMAC believes that once these surveys are completed the baseline of contamination in the northern municipalities will be finalised.[6] Kosovo's newly launched national mine action strategy for 2025–30 plans for nine hazardous areas to be resurveyed in the northern regions by the beginning of 2025.[7]

In 2013, HALO and KMAC conducted joint NTS of cluster munition strikes and mined areas across Kosovo, with the exception of four municipalities in the north. The survey identified 130 CHAs: 51 cluster munition strikes, covering 7.63km$^2$, and 79 mined areas over 2.76km$^2$.[8] In 2015, NPA, in coordination with KMAC and local municipality authorities, conducted NTS of the four northern municipalities.[9] The NPA survey confirmed 8.9km$^2$ of CMR contamination in three of the four municipalities surveyed (Leposavic, Zubin Potok, and Zvecan). No CMR were found in the fourth (Mitrovica North). NPA believes that 83 cluster bombs were dropped in this region, dispersing a total of 17,041 submunitions.[10]

Contamination is primarily a result of conflict between the Federal Republic of Yugoslavia (FRY) and the Kosovo Liberation Army (KLA) in the late 1990s; and between the FRY and North Atlantic Treaty Organization (NATO) in 1999. During Operation Allied Force, NATO aircraft bombed 333 locations between 24 March and 10 June 1999, dropping 1,392 bombs that released more than 295,700 submunitions.[11] FRY forces also used cluster munitions during the 1998–99 conflict in Kosovo. A large clearance programme followed in 1999 under a UN mandate, but this ended prematurely in 2001, leaving many CMR-contaminated areas still needing to be cleared.[12]

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Kosovo is also contaminated with anti-personnel mines (see Mine Action Review's *Clearing the Mines* report on Kosovo for further information). It remains affected by explosive remnants of war (ERW) other than CMR. Most ERW consists of unexploded aircraft bombs and items of abandoned explosive ordnance (AXO) from the conflicts in the 1990s. However, explosive ordnance disposal (EOD) teams continue to encounter items of unexploded ordnance (UXO) dating back to the Second World War.[13] The Kosovo Force (KFOR) and Kosovo Security Force (KSF) EOD teams regularly dispose of ERW in response to information provided by the public and demining organisations.[14]

1 Email from Ahmet Sallova, Head, KMAC, 14 May 2024.
2 Email from Ahmet Sallova, KMAC, 24 April 2023.
3 Email from Ahmet Sallova, KMAC, 14 May 2024.
4 Email from Michael Montafi, Programme Manager, HALO, 18 April 2023.
5 Email from Claus Nielsen, Country Director, NPA, 25 April 2024.
6 Email from Ahmet Sallova, KMAC, 24 May 2022.
7 Kosovo Mine Action Strategy 2025–2030, 18 June 2024, p. 11.
8 A. Moore, HALO, "Action on cluster munitions in Kosovo", Side event, First CCM Review Conference, Dubrovnik, 10 September 2015.
9 NPA, "Cluster Munition Remnants in Northern Kosovo: non-technical survey of contamination and impact", September 2015; and email from Goran Peršic, NPA Bosnia and Herzegovina, 13 May 2016.
10 NPA, "Cluster Munition Remnants in Northern Kosovo: non-technical survey of contamination and impact.
11 ICRC, "Explosive Remnants of War, Cluster Bombs and Landmines in Kosovo", rev. June 2001, pp. 4 and 6; and HALO, "Action on cluster munitions in Kosovo", 10 September 2015, at: https://bit.ly/30P1X70.
12 A. Moore, HALO, "Action on cluster munitions in Kosovo", Side event, First CCM Review Conference, Dubrovnik, 10 September 2015.
13 UNMIK, "OKPCC EOD Management Section Annual Report 2008", Pristina, 12 January 2009, p. 4.
14 Email from Ahmet Sallova, KMAC, 1 August 2012.

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

KMAC is responsible for managing survey and clearance of mines and ERW throughout Kosovo. The Centre prepares an annual work plan in cooperation with the international demining non-governmental organisations (NGOs) and coordinates their operations along with the national demining teams of the KSF. It also coordinates survey, quality assurance (QA), risk education, public information, and victim assistance.[15] 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 which was amended in 2022.[16]

NGO operators in Kosovo report a constructive working relationship with KMAC and say there is an enabling environment for mine action in Kosovo with clear administrative processes in place for obtaining visas and annual accreditation.[17]

In 2023, the Kosovo Government provided €1.1 million in financial support to KMAC and to the KSF for mine and CMR clearance.[18] In 2023, NPA's CMR survey and clearance activities were funded by the Norwegian Ministry of Foreign Affairs (NMFA), the United States (US) Department of State's Office of Weapon Removal and Abatement (PM/WRA), and the European Union (EU).[19] HALO received funding for battle area clearance (BAC) from US PM/WRA and the Swiss Federal Department of Foreign Affairs (FDFA).[20] It has been estimated that €3.5 million will be required on an annual basis to meet Kosovo's mine action strategy's objectives, totalling €21 million between 2025 and 2030. The programme currently has limited confirmed international funding beyond the middle of 2025. To address this gap, the mine action programme will actively seek to mobilise funds and other resources which will allow for the strategy to be implemented.[21]

## GENDER AND DIVERSITY

Kosovo's mine action strategy for 2025–30 prioritises gender and diversity mainstreaming as a guiding principle. The strategy directs that mine action activities be sensitive to gender and inclusive of ethnic and disability considerations. It emphasises that gender and diversity considerations should be integrated into all phases of planning, implementation and follow-up.[22] 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.

**Table 2: Gender composition of operators in 2023[23]**

| Operator | Total staff | Women staff | Total managerial or supervisory staff | Women in managerial or supervisory positions | Total operational staff | Women in operational positions |
|---|---|---|---|---|---|---|
| KMAC | 5 | 1 (20%) | 0 | 0 | 3 | 0 (0%) |
| KSF | 112 | 27 (24%) | 14 | 2 (14%) | 60 | 9 (15%) |
| NPA | 110 | 35 (32%) | 4 | 2 (50%) | 101 | 32 (32%) |
| HALO* | 145 | 34 (23%) | 13 | 2 (15%) | 124 | 29 (23%) |
| **Totals** | **372** | **97 (26%)** | **31** | **6 (19%)** | **288** | **70 (24%)** |

* The numbers change monthly.

Kosovo's mine action strategy recognises the lack of economic opportunities in Kosovo, with women and youth particularly impacted by limited employment prospects. This leads many to seek better prospects abroad, posing both a challenge and an opportunity for the mine action sector. It poses a threat of losing valuable talent and human capital, yet it also provides an opportunity to recruit new talent within Kosovo. By hiring both women and men from diverse ethnic groups and offering competitive salary packages and benefits, NPA and HALO actively promote gender equality and economic empowerment within local communities. This approach aligns with the principles outlined in their respective Gender and Diversity Policies.[24]

15 Ibid.

16 Emails from Ahmet Sallova, KMAC, 16 June and 3 July 2017; Ministry of Defence, "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 3; and Kosovo Mine Action Strategy 2025–2030, 18 June 2024, p. 4.

17 Emails from Vanja Sikirica, NPA, 30 March 2023; and Michael Montafi, HALO, 18 April 2023.

18 Email from Ahmet Sallova, KMAC, 14 May 2024.

19 Email from Claus Nielsen, NPA, 25 April 2024.

20 Email from Michael Montafi, HALO, 7 May 2024.

21 Kosovo Mine Action Strategy 2025–2030, 18 June 2024, p. 16.

22 Ibid., p. 18.

23 Emails from Ahmet Sallova, KMAC, 14 May 2024; Claus Nielsen, NPA, 25 April 2024; and Michael Montafi, HALO, 7 May 2024.

24 Kosovo Mine Action Strategy 2025–2030, 18 June 2024, p. 5.

KMAC recognises that explosive ordnance contamination affects women, girls, men and boys differently and that gender specific mobility patterns, roles and responsibilities mean that females and males of various ages and ethnic backgrounds will have different information on areas that are contaminated in their communities, and also different priorities for clearance and post-release land use.[25]

HALO has a gender policy in place which was developed in consultation with the Kosovo Women's Network. The policy aims at both increasing the recruitment of women and at retaining existing female employees and includes provision for increased family leave and child-care allowances for those taking care of children, to remove barriers to women's employment.[26] In 2023, HALO received funding to provide monthly childcare stipends for mothers with children under 6, baby boxes for newborns, and school supplies for children up to 15. This initiative supports the recruitment and retention of women, particularly mothers, by removing employment barriers. In 2023, four women received childcare stipends, one baby box was issued, and 85 school supply packages were given to 41 parents in the programme. Additionally, HALO filmed a recruitment video featuring three female staff members—a team leader, a medic, and our HR manager—discussing their experiences, the work environment, benefits, and the importance of recruiting women. As a result, HALO saw a significant increase in female applicants for operator positions in the following recruitment round.[27]

HALO continues to ensure that as many household members as possible are consulted during pre- and post-clearance surveys. It stated that it continues to ensure inclusion of women, children, and ethnic minorities in community liaison (CL) activities; there is always a CL Officer woman supporting the NTS teams, and senior management staff who are fluent in relevant languages are deployed for CL activities.[28]

In 2023, NPA increased the proportion of female employees from 27% of the workforce in 2022 to 32%. Additionally, half of the senior management team is now female. A Gender and Safeguarding focal point was identified in 2023 and was due to begin work in 2024 after receiving training from the global advisor at NPA's Head Office.[29]

NPA confirmed its survey and CL teams were gender balanced and ensured that the participation of all relevant social groups is always taken into account when conducting activities in local communities.[30] NPA's efforts to recruit and train multi-ethnic survey and clearance teams have also been a critical factor in allowing the deployment of teams in areas of particular ethnic and political sensitivities, extending the reach of mine action operations in northern Kosovo, while also building bridges and friendships between the individual staff members and through their community liaison activities.[31] NPA has reported that in its areas of operations both Albanian and Serbian communities have been previously surveyed and NPA teams conducted clearance in all communities based on the approved annual operational plan.[32] At the end of 2023, 54% of NPA staff were Albanian and 46% were Serbian.[33]

## ENVIRONMENTAL POLICIES AND ACTION

Kosovo has a national mine action standard on the environment which was updated in line with International Mine Action Standard (IMAS) 07.13 on environmental management in mine action during 2022.[34] KMAC reported that environmental assessments are part of the planning and delivery of survey and clearance operations.[35] In Kosovo, demining operations are conducted from April to November, but climate change is impacting these efforts with more frequent and unpredictable weather events. The first Law on Climate Change, enacted in December 2023, aims to improve environmental protection by controlling greenhouse gas emissions under the Ministry of Environment, Spatial Planning, and Infrastructure.[36] KMAC sets priorities for clearance using a system based on three criteria: risk reduction, development and environmental protection, and poverty reduction. Within the development and environmental protection criterion, hazardous areas contributing to climate change impacts are assigned the highest priority (Priority 1) for clearance.[37]

NPA Kosovo conducted an initial desk assessment of the environmental impact of its operations with the highest impact coming from the use of very old diesel vehicles. NPA plans to partly mitigate this impact through the procurement of nine new vehicles and by minimising the number of vehicles used to transport equipment and staff during operations. NPA also has a single-use plastic policy in place, has integrated environmental criteria into the procurement process and increased vehicle maintenance.[38] Environmental considerations are embedded in Module 3 of NPA's standing

25 Email from Ahmet Sallova, KMAC, 24 April 2023.
26 Email from Olivia Meader, HALO, 22 May 2020.
27 Email from Michael Montafi, HALO, 7 May 2024.
28 Email from Megan Dwyer, HALO, 11 May 2022.
29 Email from Claus Nielsen, NPA, 25 April 2024.
30 Email from Terje Eldøen, NPA, 25 April 2019.
31 Emails from Terje Eldøen, NPA, 25 April 2019 and 1 September 2020.
32 Email from Vanja Sikirica, NPA, 1 June 2022.
33 Email from Claus Nielsen, NPA, 25 April 2024.
34 Email from Ahmet Sallova, KMAC, 24 April 2023.
35 Email from Ahmet Sallova, KMAC, 14 May 2024.
36 Kosovo Mine Action Strategy 2025–2030, 18 June 2024, p. 5.
37 Mine Action and the Resilience of Communities to Climate Change, GICHD, December 2023, p. 40.
38 Email from Vanja Sikirica, NPA, 30 March 2023.

operating procedures (SOP) for Kosovo, which covers Health, Safety, and Environment and environmental assessments are integrated into survey and task planning. In 2023, an environmental focal point was identified who will begin duties after training by NPA's global advisor. NPA and KMAC report that they consider climate-related and extreme weather risks in their task planning.[39]

In March 2024, HALO's Kosovo programme introduced an SOP on Environmental Management for Operations, aligned with HALO's global environmental management SOP. This SOP aims to ensure minimal environmental impact and mitigates potential negative effects of survey and clearance operations. While HALO does not currently conduct environmental assessments for planning and delivery of survey and clearance tasks, it follows its SOP and takes measures such as minimising vegetation cutting during clearance, avoids cutting down trees whose trunks are larger than 5cm in diameter, and works around smaller trees when possible, rather than cutting them down. HALO also plans for weather-related impacts by, for example, scheduling high-altitude tasks during the dry season to ensure better access and safety. HALO notes that increasingly unpredictable weather patterns have made planning more challenging in recent years.[40]

## 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.[41] 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. At the time of writing, KMAC was collaborating with the Geneva International Centre for Humanitarian Demining (GICHD) to install IMSMA Core, which was expected to be operational by late 2024. During this process, data quality has been improved and data updated, incorporating reports from operators. HALO Kosovo's Information Manager and KMAC's Quality Assurance Officer participated in an IMSMA Core training in Switzerland and are assisting KMAC with the transition to the new system.[42]

Operators report to KMAC on a weekly basis; NPA reported all data collection forms are consistent and enable collection of the necessary data.[43] HALO was similarly positive, adding that the database is checked against HALO's quarterly reports. Once a task is completed or when KMAC agrees and signs off on a re-survey or survey conducted by an NTS team, the data is fed into IMSMA.[44]

The land release data reported to Mine Action Review by clearance operators and the KMAC were more or less aligned. This is an improvement compared to previous years' reports, which typically contained greater discrepancies.

KMAC reported to Mine Action Review that Kosovo was planning to submit a voluntary Article 7 report for the CCM.[45]

## PLANNING AND TASKING

Kosovo's newly launched Mine Action Strategy for 2025–30, developed by KMAC in consultation with operators and with the support of the GICHD, declares that the risk of explosive ordnance contamination will be considered tolerable once all high and medium-priority tasks have been completed by 2030, and provided that there are no incidents for five years thereafter. The general expectation is that any remaining contamination after 2030 would be considered as residual.[46] Strategic objective 1 on land release is supported by four strategic outcomes:

- Greater clarity on the remaining contamination in Northern municipalities will be established;
- Mine action organisations will continue clearance operations to fulfil task completion, prioritising high and medium-priority tasks and concluding with low-priority tasks;
- In light of current efficiency challenges and anticipated obstacles posed by difficult terrain such as dense vegetation and steep slopes, KMAC will reassess clearance requirements to enhance efficiency and effectiveness; and
- Recognising that 2030 marks the conclusion of the international mine action organisations' presence in Kosovo, the mine action programme will implement staff transition plans.[47]

The target of 1.8km$^2$ of annual BAC has been set, along with zero high and medium priority tasks remaining by 2030 and as few low priority tasks remaining as possible. It is planned that of the 38 municipalities that are currently contaminated with landmines and CMR 35 will be declared free from risks of landmines or CMR by 2030.[48]

39 Email from Claus Nielsen, NPA, 25 April 2024.
40 Email from Michael Montañ, HALO, 7 May 2024.
41 Email from Ahmet Sallova, KMAC, 30 April 2019.
42 Emails from Ahmet Sallova, KMAC, 14 May 2024; and Erkin Huseinov, Advisor Information Management, GICHD, 21 June 2024.
43 Emails from Olivia Meader, HALO, 1 May 2019; Terje Eldøen, NPA, 25 April 2019; and Vanja Sikirica, NPA, 1 June 2022.
44 Email from Megan Dwyer, HALO, 11 May 2022.
45 Email from Ahmet Sallova, KMAC, 14 May 2024.
46 Kosovo Mine Action Strategy 2025–2030, 18 June 2024, p. 8.
47 Ibid., p. 10.
48 Ibid., p. 11.

KMAC elaborates an annual work plan for survey and clearance of CMR. In 2024, it planned for the release of 14 of the 38 hazardous areas.[49]

In 2019, HALO developed a new prioritisation system that considers the "community profile" for a task. This system draws on several factors, such as socio-economic status, planned land use, government development plans, and demographics. All information is collected from government and public data as well as from extensive community survey. New prioritisation information was added during 2021 and early 2022 through the NTS project by providing an individual rank for prioritisation based on set parameters.[50]

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

In 2022, the national mine action standard (NMAS) for land release in Kosovo was updated in accordance with IMAS and made available to operators in March 2023.[51] The terms "mine/ERW" were replaced by "explosive ordnance" throughout. The definition of "clearance" was updated, along with the addition of a section on improvised explosive devices (IEDs) and booby-traps.[52]

At the beginning of 2023, HALO Kosovo updated its SOPs for manual mine clearance, BAC, and task management to reflect the organisation's global best practices. Due to the dense vegetation and steep slopes in the remaining BAC tasks, HALO, and with agreement from KMAC, chose the Schonstedt GA-72Cd detector as the primary search method for BAC. This decision was based on extensive testing in consultation with clearance operators. The Vallon VMX-10 Large Loop Detector, previously the primary search detector, exhibited limitations in specific operational scenarios. It struggled to manoeuvre effectively in young forests with closely grouped trees, where diameters range from three to ten centimetres, requiring multiple areas to be marked for subsequent searches with the Schonstedt. Additionally, when operating in steep terrain, BAC operators faced challenges maintaining balance and ensuring consistent mapping at the required height with the Vallon VMX-10. Navigating such terrain proved time-consuming, as it required extra effort from operators to maintain balance and remap areas for accurate coverage. The Vallon VMX-10 will continue to be used in specific areas where its deployment is practical.[53]

Since 2018, NPA has been implementing the Cluster Munition Remnants Survey (CMRS) methodology to carry out technical survey (TS) on CMR-contaminated areas in Kosovo. According to this methodology, which NPA has modified to reflect the specific conditions in Kosovo (and in line with the IMAS), operators are permitted to enter a cluster munition strike area and to walk on ground with subsurface contamination, increasing the efficiency of the survey process and offering the ability to accurately define confirmed hazardous areas.[54] HALO also works in the same way after conducting a field risk assessment to evaluate the safety implications of walking in uncleared ground.[55]

The HALO Kosovo Programme continues to conduct its research and development activities to increase safety and operational efficiency and share innovative technological means. The Scorpion detection system from US Humanitarian Demining Research and Development Program (HDRD) was successfully trialled in 2019 and is now deployed to support BAC tasks. The Scorpion detector integrates a large-loop electromagnetic induction (EMI) sensor and caesium vapour total-field magnetometer and applies differential global positioning system (DGPS) for centimetre accuracy in targeting. It is essentially two integrated detectors mounted on a trolley, which can be deployed over an open task to identify desired magnetic anomalies in the ground.

The Scorpion system has been found to significantly improve BAC productivity in suitable areas, that is outside of densely vegetated areas or steep terrains. In 2023, the Scorpion system was more than twice as productive as the Large Loop Detector, with average clearance rates of 168m$^2$ per day compared to 82m$^2$ a day for the Large Loop Detector.[56]

## OPERATORS AND OPERATIONAL TOOLS

In 2023, Kosovo's national mine action programme's capacity consisted of two international operators, HALO and NPA, and a national operator, the KSF. The KSF, also provided a round-the-clock EOD emergency response. KFOR also supports the KSF and Kosovo Police with EOD response tasks and organising mine and ERW demolitions in Mitrovica and the north of Kosovo, including in NPA's areas of operations.[57]

49 Email from Ahmet Sallova, KMAC, 14 May 2024.
50 Emails from Olivia Meader, HALO, 22 May 2020; and Megan Dwyer, HALO, 11 May 2022.
51 Email from Ahmet Sallova, KMAC, 24 May 2022.
52 Email from Ahmet Sallova, KMAC, 24 April 2023.
53 Emails from Michael Montañ, HALO, 7 May 2024; and Laura Moreno-González, Operations Manager, HALO, 25 June 2024.
54 Interview with Terje Eldøen, NPA, Pristina, 5 April 2019; and email, 25 April 2019.
55 Email from Laura Moreno-González, HALO, 25 June 2024.
56 Email from Michael Montañ, HALO, 7 May 2024.
57 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 4; and interview with Ahmet Sallova, KMAC, Pristina, 5 April 2019.

**Table 3: Operational clearance capacities deployed in 2023[58]**

| Operator | Manual CMR clearance teams | Total CMR clearance personnel |
|---|---|---|
| KSF | 3 | 45 |
| HALO | 9 | 73 |
| NPA | 8 | 80 |
| **Totals** | **20** | **198** |

HALO's operational personnel are cross-trained for mine clearance and BAC and can move readily between the two.[59] There was no substantial change to the number of clearance personnel deployed by HALO in 2023 compared to 2022. However, no survey personnel were deployed in 2023 following the completion of the survey project in 2022. Training continues for new staff to replace those who have retired or left, but HALO did not expect any significant changes to their overall capacity in 2024.[60]

NPA's area of operations in Kosovo cover the five northern municipalities of Leposavic, Mitrovica, Podujevo, Zubin Potok, and Zvecan.[61] In 2023, there was a significant increase in the number of CMRS and clearance personnel deployed by NPA compared to 2022, with three additional teams deployed from March 2023, funded by the EU. This capacity will be maintained throughout 2024.[62]

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2023

A total of 2.23km$^2$ of cluster munition-contaminated area was released in 2023, of which 1.92km$^2$ was cleared and 0.31km$^2$ was reduced through TS. Half of all area clearance in 2023, however, found no CMR.

## SURVEY IN 2023

In 2023, no land was cancelled through NTS and 0.31km$^2$ was reduced through TS (see Table 4).[63] This is a decrease from the 0.63km$^2$ cancelled through NTS in 2022 and an increase from the 0.26km$^2$ reduced through TS in 2022.[64]

**Table 4: Reduction through TS in 2023**

| District | Operator | Area reduced (m²) |
|---|---|---|
| Mitrovica | NPA | 145,851 |
| Zvecan | NPA | 159,720 |
| **Total** | | **305,571** |

## CLEARANCE IN 2023

In 2023, over 1.93km$^2$ of CMR-contaminated area was cleared with the destruction of 196 submunitions (see Table 5).[65] This is an increase from the 1.32km$^2$ of CMR-contaminated area cleared in 2022.[66] That said, since half of all clearance in 2023 found no CMR, this indicates an ongoing problem with survey.

**Table 5: CMR clearance in 2023[67]**

| District | Operator | Areas cleared | Area cleared (m²) | Submunitions destroyed | Other UXO destroyed |
|---|---|---|---|---|---|
| Mitrovica | NPA | 1 | 453,202 | 26 | 36 |
| Zvecan | NPA | 1 | 336,095 | 152 | 4 |
| Pristina | NPA | 1 | 25,550 | 0 | 0 |
| Gracanica | NPA | 1 | 72,258 | 3 | 139 |
| Ferizaj | HALO | 1 | 120,621 | 0 | 0 |
| Peje | HALO | 2 | 81,931 | 5 | 0 |

58 Emails from Ahmet Sallova, KMAC, 14 May 2024; Claus Nielsen, NPA, 25 April 2024; and Michael Montañ, HALO, 7 May 2024.
59 Email from Megan Dwyer, HALO, 11 May 2022.
60 Email from Michael Montañ, HALO, 7 May 2024.
61 Email from Terje Eldøen, NPA, 26 August 2020.
62 Email from Claus Nielsen, NPA, 25 April 2024.
63 Emails from Ahmet Sallova, KMAC, 14 May 2024; Claus Nielsen, NPA, 25 April 2024; and Michael Montañ, HALO, 7 May 2024.
64 Emails from Ahmet Sallova, KMAC, 24 April 2023; Vanja Sikirica, NPA, 30 March 2023; and Michael Montañ, HALO, 18 April 2023.
65 Emails from Ahmet Sallova, KMAC, 14 May 2024; Claus Nielsen, NPA, 25 April 2024; and Michael Montañ, HALO, 7 May 2024.
66 Emails from Ahmet Sallova, KMAC, 24 April 2023; Vanja Sikirica, NPA, 30 March 2023; and Michael Montañ, HALO, 18 April 2023.
67 Emails from Ahmet Sallova, KMAC, 14 May and 4 July 2024; Claus Nielsen, NPA, 25 April 2024; and Michael Montañ, HALO, 7 May 2024.
68 Email from Ahmet Sallova, KMAC, 14 May 2024.

**Table 5 Continued**

| District | Operator | Areas cleared | Area cleared (m²) | Submunitions destroyed | Other UXO destroyed |
|---|---|---|---|---|---|
| Prishtine | HALO | 2 | 32,645 | 10 | 0 |
| Prizren | HALO | 1 | 32,963 | 0 | 0 |
| Ferizaj | KSF | 1 | 41,000 | 0 | 1 |
| Ferizaj | KSF | 1 | 71,000 | 0 | 115 |
| Babaj i Bokes | KSF | 1 | 656,000 | (Surface clearance only) 0 | 5 |
| **Totals** | | **13** | **1,923,265** | **196** | **300** |

KSF was reported to have cleared a total 146,071m² across two tasks with no submunitions found.[68] NPA started clearance of the task in Pristina in late 2023 and cleared 25,550m² with no submunitions found but this task was ongoing in 2024 and it was expected that submunitions would be found during clearance.[69] HALO released one task in Devetak, Ferizaj totalling 247,367m² with no submunitions found although their teams found considerable evidence of the presence of cluster munitions.[70] The original polygon was 185,258m², though total area cleared was 201,693m² due to additional fade-outs outside the original surveyed area, with 45,674m² from the original survey polygon reduced.[71]

There was a significant decrease in the amount of CMR contaminated area cleared by HALO from 2022 to 2023. This decrease was primarily due to the remaining tasks being in steep, densely vegetated areas unsuitable for the large-loop detector it has been using. However, the area reduced through TS increased due to fewer evidence points requiring fade-out. With the survey project completed in 2022, no area was cancelled in 2023.[72] There was no significant change in NPA's clearance output from 2022 to 2023.[73]

## PROGRESS TOWARDS COMPLETION

Kosovo cannot formally adhere to the CCM and therefore does not have a specific clearance deadline under Article 4. Nonetheless, it has obligations under international human rights law to clear CMR as soon as possible.

Kosovo's Mine Action Strategy 2019–24 aimed to complete mine and cluster munition clearance by the end of 2024.[74] It is now understood by KMAC and operators that meeting this clearance deadline will not be possible, and a new mine action strategy for 2025–30 has been developed with a new completion deadline set for 2030.[75]

NPA reported that the delayed EU funding, which was initially supposed to start in 2019 but did not feed through until the end of 2022, had been a significant impediment to meeting clearance targets as operators were not able to increase clearance capacity as planned. In addition, the restrictions imposed by the COVID-19 pandemic in 2020 led to a significant reduction in clearance output for that year. Furthermore, previously unrecorded CMR contamination has been found and added to the database every year. For NPA working in northern Kosovo, the remaining contaminated areas are located at high altitudes where due to local weather conditions it is only possible to conduct clearance from May to September, thereby restricting annual clearance output.[76]

Operators agree that the new deadline can be met, given sustained donor commitment to clearing the remaining mine and cluster munition contamination in Kosovo. This effort is seen as a crucial contributor to enhancing human security, economic development, and stability in Kosovo and the broader Western Balkans region.[77]

**Table 6: Five-year summary of CMR clearance**

| Year | Area cleared (km²) |
|---|---|
| 2023 | 1.92 |
| 2022 | 1.32 |
| 2021 | 1.30 |
| 2020 | 0.34 |
| 2019 | 1.26 |
| **Total** | **6.14** |

69 Email from Claus Nielsen, NPA, 25 April 2024.
70 Emails from Michael Montañ, HALO, 7 May and 25 June 2024.
71 Email from Laura Moreno-González, HALO, 25 June 2024.
72 Ibid.
73 Email from Claus Nielsen, NPA, 25 April 2024.
74 "Mine Action Strategy 2019–2024 in Republic of Kosovo", 4 April 2019, p. 6.
75 Emails from Ahmet Sallova, KMAC, 14 May 2024; Claus Nielsen, NPA, 25 April 2024; and Michael Montañ, HALO, 7 May 2024.
76 Email from Vanja Sikirica, NPA, 30 March 2023.
77 Email from Michael Montañ, HALO, 7 May 2024.

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

The second strategic objective of Kosovo's Mine Action Strategy 2025–30 focuses on enhancing national capacities and includes a strategic outcome on the management of residual contamination. As clearance operations conclude in 2030, Kosovo will shift from proactive clearance efforts to the reactive management of residual threats by KMAC with support from KSF units. Recognising the unique requirements of risk management, KMAC will seek to ensure that both KMAC and KSF are equipped, staffed, and resourced to address residual contamination effectively.[78] A comprehensive residual contamination strategy is planned for development and submission to the Government of Kosovo by 2029.[79]

78 Kosovo Mine Action Strategy 2025–2030, 18 June 2024, pp. 8 and 12.

79 Ibid., p. 13.

# WESTERN SAHARA



## KEY DATA

### CLUSTER MUNITION CONTAMINATION: LIGHT

NATIONAL ESTIMATE

**2KM²**

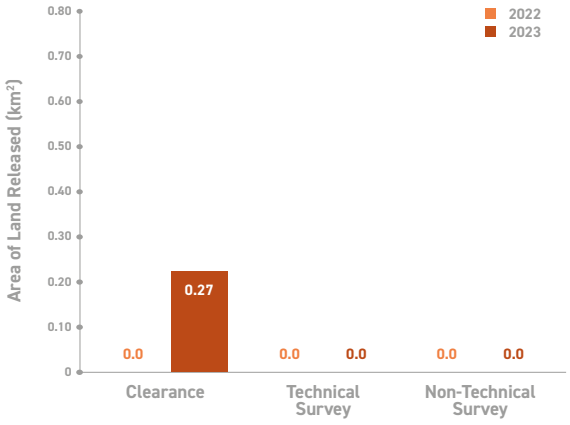
SUBMUNITION CLEARANCE IN 2023

**0.27KM²**

SUBMUNITIONS DESTROYED IN 2023

**33**

### LAND RELEASE OUTPUT




## KEY DEVELOPMENTS

In 2023, multi-task teams were redeployed for battle area clearance (BAC) for the first time since 2020, following the resumption of conflict between the Polisario Front and Morocco after nearly 30 years of ceasefire. Although the renewed conflict has remained low intensity without any recorded use of cluster munitions, new areas of previously unrecorded cluster munition remnants (CMR) contamination continue to be identified. In 2023, 61,716m² of cluster munition-contaminated area was added to the database.

## RECOMMENDATIONS FOR ACTION

- **The Sahrawi Arab Democratic Republic (SADR) should reaffirm in writing its commitment to respect and implement the Convention on Cluster Munitions (CCM), including clearance of all cluster munition remnants (CMR), consonant with its international human rights obligations. This commitment should include annual submission of voluntary Article 7 transparency reports.**
- **The Saharawi Mine Action Coordination Office (SMACO) should draft a new strategy, including a new deadline for completion of clearance of CMR with annual survey and clearance targets, along with a detailed budget.**
- **Greater support should be provided to SMACO to enable it to continue coordinating mine action in Western Sahara east of the Berm and to ensure that the remaining explosive ordnance contamination is addressed.**

## CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Saharawi Mine Action Coordination Office (SMACO) [Western Sahara, east of the Berm]
- Royal Moroccan Army [West of the Berm]

### NATIONAL OPERATORS

- Royal Moroccan Army

### INTERNATIONAL OPERATORS

- SafeLane Global
- Danish Refugee Council (DRC)

### OTHER ACTORS

- United Nations Mine Action Service (UNMAS) Western Sahara

# UNDERSTANDING OF CMR CONTAMINATION

According to the United Nations Mine Action Service (UNMAS), at the end of 2023, Western Sahara east of the Berm[1] had a total of 45 confirmed hazardous areas (CHAs) containing CMR, covering a total of 2.08km$^2$.[2] The small decrease in contamination from 2022 reflects the clearance that took place in 2023. Both the north and south of Western Sahara east of the Berm are still affected by CMR, as summarised in Table 1.[3]

**Table 1: Cluster munition-contaminated area east of the Berm (at end 2023)[4]**

| Region | CHAs | Area (km$^2$) |
|---|---|---|
| North | 24 | 0.80 |
| South | 21 | 1.28 |
| **Totals** | **45** | **2.08** |

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 Tifariti.[5] UNMAS reported that submunitions have also been found in Agwanit.[6]

In November 2020, Morocco sent troops into the UN-monitored buffer zone to end Polisario Front supporters' three-week blockade of the strategic Guerguerat road. In response, Polisario withdrew from the almost 30-year-long ceasefire and renewed attacks on Moroccan military units.[7] To date, the renewed conflict between the Polisario Front and Morocco has been of low intensity, without any recorded use of cluster munitions.[8] In 2022, however, the UN Mission for the Referendum in Western Sahara (MINURSO) identified a renewed threat of landmines and explosive remnants of war (ERW) in the area to the east of the Berm, including in areas previously deemed safe since 2020. MINURSO advocated that the parties to the conflict share detailed information on where renewed fighting had taken place and the types of munitions used to update the mine action database.[9] At the time of writing, neither the Royal Moroccan Army nor the Polisario Front had shared the locations of hazardous areas or types of munitions they had used. Nevertheless, in 2023, MINURSO, in collaboration with UNMAS, identified additional CHAs through survey.[10]

While CMR clearance had been projected to be completed by the end of 2012,[11] discovery of previously unrecorded contamination meant this target date was not met. According to UNMAS, new strike areas have continued to be identified since 2013 as mine action activities continued and additional information was received from local populations.[12] In 2023, more new areas of CMR contamination were identified and 61,716m$^2$ was added to the database. More than half of these newly identified areas had, though, already been cleared.[13]

Of the 45 recorded CHAs, eight cluster munition strike areas covering a total estimated size of 0.5km$^2$ are located inside the buffer strip and are inaccessible for clearance.[14] Clearance of mines and ERW in the buffer strip and along the Berm itself is not foreseen in the MINURSO mission agreements.[15] After the resumption of hostilities, the Polisario Front also issued instructions that clearance of mines and ERW could not take place in restricted areas.[16]

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Western Sahara also remains significantly affected by other ERW and mines due to the conflict (see Mine Action Review's *Clearing the Mines* report on Western Sahara for further information).

# NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

UNMAS Western Sahara, formerly the MINURSO Mine Action Coordination Centre (MACC), facilitates MINURSO monitoring of the ceasefire and ensures the safe passage of UN personnel. On 30 October 2023, under UN Security Council Resolution 2703, MINURSO's mandate was extended for an additional 12 months until 31 October 2024.

1 A defensive wall (the Berm) was built during the conflict between the Royal Moroccan Armed Forces and the Popular Front for the Liberation of Saguia el Hamra and Rio de Oro (Polisario Front) forces, dividing control of the territory between Morocco on the west, and the Polisario Front on the east.

2 Email from Elhadji Kebe, Chief Mine Action Programme, UNMAS, 16 May 2024.

3 Email from Elhadji Kebe, UNMAS, 25 April 2023.

4 Ibid.

5 SADR Voluntary CCM Article 7 Report, dated 20 June 2014, Form F.

6 Email from Artyom Harutyunyan, Head of Project Unit, UNMAS – MINURSO, 11 June 2024.

7 International Crisis Group, *Time for International Re-engagement in Western Sahara*, Middle East and North Africa Briefing No. 82, 11 March 2021, at: https://bit.ly/3mPfYgl.

8 Email from Edwin Faigmane, UNMAS, 24 May 2022.

9 Report of the Secretary-General, Situation concerning Western Sahara, UN doc. S/2022/733, 3 October 2022.

10 Email from Elhadji Kebe, UNMAS, 16 May 2024.

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 Elhadji Kebe, UNMAS, 16 May 2024.

14 Ibid. The buffer strip is an area 5km wide, east of the Berm.

15 "Report of the Secretary-General on the situation concerning Western Sahara", UN doc. S/2017/307, 10 April 2017, p. 8.

16 Email from Artyom Harutyunyan, UNMAS – MINURSO, 11 June 2024.

UNMAS Western Sahara serves as the UN focal point for mine action activities within the MINURSO area of operations. Its contracted teams work only in areas east of the Berm. The Royal Moroccan Army conducts its own demining in areas west of the Berm. In 2013–14, the Polisario Front, with UN support, established the Saharawi Mine Action Coordination Office (SMACO), which is responsible for coordinating mine action activities in Western Sahara east of the Berm, excluding the buffer strip.[17]

In 2023, $27,499 was provided to SMACO and UNMAS received $2,010,171 for survey and clearance operations.[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 2023, there was one woman employed by SMACO and eleven (14%) by SafeLane Global (UNMAS's contractor), including eight in operational roles (14%) (see Table 2).[23]

**Table 2: Gender composition of SMACO and SafeLane Global[24]**

| Entity | Total staff | Total women staff | Total managerial or supervisory staff | Women in managerial or supervisory positions | Total operational staff | Women in operational positions |
|---|---|---|---|---|---|---|
| SMACO | 5 | 1 (20%) | 2 | 0 (0%) | 0 | 0 |
| SafeLane Global | 77 | 11 (14%) | 17 | 2 (12%) | 57 | 8 (14%) |
| **Totals** | **82** | **12 (15%)** | **19** | **2 (11%)** | **57** | **8 (14%)** |

Through SMACO, UNMAS also supports the Sahrawi Mine Action Women's Team (SMAWT), an all-female organisation working on risk education in Rabouni and the five Sahrawi refugee camps. All national deminers, both male and female, are ethnic Sahrawi.[25]

## ENVIRONMENTAL POLICIES AND ACTION

There is no national standard on environmental management in mine action, but SMACO have a policy on environmental management with a requirement that all implementation plans consider environmental impacts.[26] UNMAS Western Sahara reported that environmental impact is considered as part of the tasking process and implementation plan in order to minimise potential harm from demining activities.[27] This includes waste disposal procedures for rubbish and grey and black water disposal; how and where to set up camps; and how to dismantle camps without leaving an operational footprint.[28]

Risks from extreme weather such as high temperatures and sandstorms are factored into the planning and prioritisation of survey and clearance tasks. Operations are halted during sandstorms; during periods of extreme heat, teams start earlier and work shorter hours.[29]

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 Elhadji Kebe, UNMAS, 16 May 2024.
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 Elhadji Kebe, UNMAS, 16 May 2024.
24 Ibid.
25 Email from Leon Louw, UNMAS, 30 March 2021; and SMAWT newsletter, March 2022, at: https://bit.ly/3yN542U.
26 Email from Edwin Faigmane, UNMAS, 18 June 2020.
27 Emails from Leon Louw, UNMAS, 4 February 2022; and Edwin Faigmane, UNMAS, 21 March 2022.
28 Email from Edwin Faigmane, UNMAS, 24 May 2022.
29 Email from Elhadji Kebe, UNMAS, 16 May 2024.

# INFORMATION MANAGEMENT AND REPORTING

The Information Management System for Mine Action (IMSMA) database for Western Sahara, east of the Berm, was upgraded to IMSMA Core in 2022.[30] All data have been successfully migrated to the new database. Review and verification of the data, which began at the end of 2023, was ongoing at the time of writing.[31]

# 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.[32] No specific objectives relate to CMR in the strategy for mine action in Western Sahara, east of the Berm, but SMACO has established a set of goals towards a Western Sahara free of the impact of mines and ERW. These included establishing an effective mechanism for data collection on accidents and victims; ensuring sustainable and constant funding of SMACO by 2020; and ensuring human resources were in place to comprehensively manage mine action by 2020.[33]

These goals were not achieved and UNMAS has reported that no new strategy was under development. There is, however, a plan for UNMAS to establish a standing capacity to support SMACO in developing a new strategy as soon as possible.[34] A mine action work plan was in place for UNMAS in 2023, developed by UNMAS Western Sahara, in support of MINURSO's mandate.[35]

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.[36]

# LAND RELEASE SYSTEM

## STANDARDS AND LAND RELEASE EFFICIENCY

Local mine action standards were developed and finalised in 2016 by UNMAS, together with SMACO, and in coordination with mine action partners. UNMAS reported in June 2019 that translation of the standards into Arabic had been completed and shared with SMACO.[37] UNMAS reported that the standards are reviewed annually but that no updates were made in 2023.[38] An external quality management system was in place from 2018 and implemented by UNMAS and SMACO to the east of the Berm.[39]

## OPERATORS AND OPERATIONAL TOOLS

**Table 3: Operational clearance capacities deployed in 2023[40]**

| Operator | Manual teams | Total deminers | Dog teams | Mechanical assets | Comments |
|---|---|---|---|---|---|
| SafeLane Global (for UNMAS Western Sahara) | 2 | 24 | 0 | 0 | Increase from 2022 |
| **Totals** | **2** | **24** | **0** | **0** | |

SafeLane Global (formerly Dynasafe MineTech Limited) was the sole implementing operator for UNMAS Western Sahara in 2023.[41]

30 Emails from Leon Louw, UNMAS, 4 February 2022; and Nadine Husseine, UNMAS, 30 May 2023.
31 Email from Elhadji Kebe, UNMAS, 16 May 2024.
32 Emails from Leon Louw, UNMAS, 30 March 2021; and Edwin Faigmane, UNMAS, 21 March 2022.
33 SMACO, "Strategic Plan 2019–2023", at: http://bit.ly/38jaGm²; and email from Robert Thompson, UNMAS, 31 July 2019.
34 Email from Elhadji Kebe, UNMAS, 16 May 2024.
35 Ibid.
36 Emails from Graeme Abernethy, UNMAS, 1 March and 5 May 2018; and Edwin Faigmane, UNMAS, 6 August 2020.
37 Emails from Robert Thompson, UNMAS, 29 April 2019; and Dandan Xu, UNMAS, 28 June 2019.
38 Email from Elhadji Kebe, UNMAS, 16 May 2024.
39 Emails from Robert Thompson, UNMAS, 29 April 2019; and Edwin Faigmane, UNMAS, 28 July 2020.
40 Email from Elhadji Kebe, UNMAS, 25 April 2023.
41 Email from Elhadji Kebe, UNMAS, 16 May 2024.

# LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

## LAND RELEASE OUTPUTS IN 2023

No CMR-contaminated area was released through survey in 2023 or the previous year.[42]

In 2023, five CMR contaminated areas totalling 270,100m² were cleared with the destruction of 33 submunitions.[43] In 2022, no clearance took place.[44] Clearance operations were halted from 2020 until the end of 2022 during which time mine action activities were limited to emergency disposal of explosive ordnance, route verification, and risk education, as well as assistance to investigation patrols at sites of alleged aerial strikes and support to ground convoy movements east of the berm.[45]

**Table 4: Clearance in 2023[46]**

| District | Town | Operator | Area cleared (m²) | Submunitions destroyed |
|---|---|---|---|---|
| Smara | Tifariti | SafeLane Global | 270,100 | 33 |
| **Totals** | | | **270,100** | **33** |

## PROGRESS TOWARDS COMPLETION

Western Sahara is neither a State Party nor a signatory to the CCM—it is not recognised as a State by the UN Secretary-General and therefore cannot formally adhere to the treaty—and hence does not have a specific clearance deadline under Article 4. However, the SADR submitted a voluntary CCM Article 7 transparency report to the UN in 2014, stating that "the SADR would like to reaffirm its commitment to a total ban on cluster munitions as well as its willingness to accede to the Convention on Cluster Munitions and be bound by its provisions".[47] The SADR has obligations under international human rights law to clear CMR as soon as possible.

Western Sahara's draft mine action strategic plan aimed to release all recorded cluster munition strike areas to the east of the Berm, outside the buffer strip, by 2019.[48] UNMAS had expected to clear all CMR in the Northern Sector (Bir Lahlou, Mehaires, and Tifariti districts) east of the Berm by the end of 2018.[49] This did not happen, however, and in SMACO's mine action strategy 2019–23, the vision was for Western Sahara to be free of the impact of mines and ERW by 2023.[50] Western Sahara did not meet this date. A new completion should now be elaborated along with a new strategic plan. However, UNMAS has stated that due to the current political and security situation, it is challenging to estimate a completion date for clearing mines and explosive ordnance in Western Sahara.[51]

UNMAS Western Sahara advocated for the resumption of demining east of the Berm, receiving approval from the Royal Moroccan Army in August 2022 with the Polisario Front following suit in January 2023. In April 2023, demining teams were remobilised and retrained with teams deployed for battle area clearance the following month for the first time since 2020.[52] In 2023, UNMAS personnel east of the Berm faced movement restrictions imposed by the Polisario Front/SMACO on four occasions.[53]

Alongside demining activities, UNMAS teams are investigating all explosive ordnance incidents related to drone strikes east of the Berm and high-calibre shootings west of the Berm. The results are documented and shared with MINURSO. These investigations are conducted jointly by the implementing partner and UN Military Observers and are recorded in the UNMAS database.[54]

42 Emails from Elhadji Kebe, UNMAS, 25 April 2023 and 16 May 2024.
43 Email from Elhadji Kebe, UNMAS, 16 May 2024.
44 Email from Elhadji Kebe, UNMAS, 25 April 2023.
45 Situation concerning Western Sahara, Report of the Secretary-General, UN doc. S/2023/729, 3 October 2023.
46 Email from Elhadji Kebe, UNMAS, 16 May 2024.
47 SADR Voluntary CCM Article 7 Report, Form F, 20 June 2014.
48 Emails from Virginie Auger, UNMAS, 29 March 2017; and Graeme Abernethy, UNMAS, 31 March 2018.
49 Email from Graeme Abernethy, UNMAS, 1 March 2018.
50 SMACO, "Strategic Plan 2019–2023", at: http://bit.ly/38jaGm².
51 Email from Elhadji Kebe, UNMAS, 16 May 2024.
52 Email from Elhadji Kebe, UNMAS, 30 May 2023.
53 Email from Elhadji Kebe, UNMAS, 16 May 2024.
54 Ibid.

# ANNEX

# 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) |
| **AP mine** | Anti-personnel mine |
| **APMBC** | 1997 Anti-Personnel Mine Ban Convention |
| **AV mine** | Anti-vehicle mine |
| **AXO** | Abandoned explosive ordnance |
| **BAC** | Battle area clearance |
| **BiH** | Bosnia and Herzegovina |
| **CCM** | 2008 Convention on Cluster Munitions |
| **CCW** | Convention on Certain Conventional Weapons |
| **CHA** | Confirmed hazardous area |
| **CMR** | Cluster munition remnants |
| **CMRS** | Cluster Munition Remnants Survey |
| **DCA** | DanChurchAid |
| **DDG** | Danish Demining Group |
| **EDD** | Explosive detection dog (team) |
| **EO** | Explosive ordnance |
| **EOD** | Explosive ordnance disposal |
| **EORE** | Explosive ordnance risk education |
| **ERW** | Explosive remnants of war |
| **EU** | European Union |
| **FSD** | Swiss Foundation for Mine Action |
| **GICHD** | Geneva International Centre for Humanitarian Demining |
| **GIS** | Geographic information system |
| **HI** | Humanity and Inclusion |
| **ICRC** | International Committee of the Red Cross |
| **IED** | Improvised explosive device |
| **IMAS** | International Mine Action Standards |
| **IMSMA** | Information Management System for Mine Action |
| **IP** | Implementing partner |
| **ITF** | International Trust Fund (ITF) Enhancing Human Security |
| **LIS** | Landmine Impact Survey |
| **MAG** | Mines Advisory Group |
| **MDD** | Mine detection dog (team) |
| **MoU** | Memorandum of Understanding |
| **MRE** | Mine risk education |
| **MTT** | Multi-task team |
| **NATO** | North Atlantic Treaty Organization |
| **NGO** | Non-governmental organisation |
| **NMAS** | National Mines Action Standards |
| **NPA** | Norwegian People's Aid |
| **NSAG** | Non-state armed group |
| **NTS** | Non-technical survey |
| **OAP** | Oslo Action Plan |
| **OAS** | Organization of American States |
| **OSCE** | Organization for Security and Co-operation in Europe |
| **PPE** | Personal protective equipment |
| **QA** | Quality assurance |
| **QC** | Quality control |
| **QM** | Quality management |
| **SHA** | Suspected hazardous area |
| **SOP** | Standing (or standard) operating procedure |
| **TS** | Technical survey |
| **TWG** | Technical working group |
| **UN** | United Nations |
| **UNDP** | United Nations Development Programme |
| **UNICEF** | United Nations Children's Fund |
| **UNMAS** | United Nations Mine Action Service |
| **UXO** | Unexploded ordnance |
| **VA** | Victim assistance |
| **VTF** | Voluntary Trust Fund (United Nations) |

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