

CLEARING CLUSTER MUNITION REMNANTS 2017

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

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Norwegian People's Aid



A Report by Mine Action Review for the Seventh Meeting of States Parties to the Convention on Cluster Munitions



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Other information

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Mine Action Review conducted the mine action research in 2017, including on cluster munition remnants survey and clearance, and shared all its country reports (excluding the sections on programme performance, performance commentary, and recommendations for action) with the International Campaign to Ban Landmines (ICBL) and Cluster Munition Coalition (CMC)'s Cluster Munition Monitor.

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Disclaimer

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FOREWORD

The implementation of the Convention on Cluster Munitions (CCM), and particularly its obligations to survey and clear cluster-munition-contaminated areas, is a priority for each of our three organisations. In the last 12 months, our work has contributed to the completion of cluster munition remnant clearance in Mozambique, a CCM state party, as well as in the Democratic Republic of Congo, a signatory state. Eleven countries have successfully finished the job since the adoption of the CCM and we hope that, within the coming 12 months, at least Angola (a signatory) and Tajikistan (a state not party) will be added to this growing list. With political will, sustained funding, and application of efficient land release techniques, it is possible for all but the most heavily contaminated countries to complete cluster munition clearance within a few years.

The deadline for the completion of clearance, along with the other provisions set out in Article 4 of the CCM and Action 3 of the Dubrovnik Action Plan, compels states parties to meet their obligations. This includes creating dedicated national survey and clearance plans and, where necessary, seeking and receiving assistance from others to fulfil their legal obligations. Critical to effective programme management is high-quality information management, and in some countries significant improvements on this issue are still required. During our work in the field, too often we see programmes struggle because they do not systematically collect, store, and analyse data on cluster munition contamination, survey, and clearance, disaggregated from other forms of explosive remnants of war (ERW) and mines. Accurate and well managed data is essential to effective survey and clearance operations.

The adoption of the CCM in 2008, and its implementation during the intervening years, has helped the mine action community to understand that cluster munition contamination, and the methodology to address it, is inherently different to that of landmine contamination and operations. However, in setting standards for cluster munition remnant operations, some states have yet to reflect this fully and embrace the most efficient survey and clearance methodologies to tackle this specific type of explosive ordnance.

Cluster munition contamination should be identified and defined using evidence-based survey to confirm the location, nature, and extent of hazardous areas. Clearance should be driven by nationally defined priorities framed by a clear strategic plan that addresses humanitarian and development needs. And national standards should reflect international good practice, the foundations of which are based on sound risk management principles. In countries with very high levels of contamination, structures and processes to address residual risk also need to be planned for, developed, and put in place. Let us not forget that there is an opportunity cost inherent in all clearance: wherever areas are cleared that prove not to have been contaminated, we are delaying the release of areas that do have cluster munition remnants. That opportunity cost is counted in lives and livelihoods.

We need to work together ever more closely to hasten progress, especially as the first of the Article 4 deadlines are on the not too distant horizon. But if we are to achieve our common goal, states must be politically as well as financially engaged in supporting cluster munition survey and clearance. Best practice in standards and principles of effective mine action are all well known. What is sometimes missing is the willingness to put them into action. We hope that Mine Action Review's annual Clearing Cluster Munition Remnants report, with its country-level analysis and recommendations for action, continues to serve as an important tool for the sector and can be used to bring national authorities, clearance operators, donors, and other stakeholders together to discuss and drive forward progress towards completion on a country-by-country basis.



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CLEARING CLUSTER MUNITION REMNANTS

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OVERVIEW

SUMMARY

Twenty-seven states and three other areas are contaminated with cluster munition remnants (CMR). Since the last report by Mine Action Review in mid-2016, Mozambique, a state party to the Convention on Cluster Munitions (CCM), and the Democratic Republic of Congo (DR Congo), a treaty signatory, have completed clearance of all areas known or suspected to contain CMR. In addition, Tajikistan, which has yet to join the CCM, was expected to complete clearance in the course of 2017. Targeted survey in Colombia, a state party, and Angola, a signatory, may enable these two states to soon fulfil the requirements of Article 4 of the CCM.¹

Mine Action Review has recorded meaningful progress in the destruction of CMR in 13 states and 3 other areas. More than 140,000 submunitions were destroyed by clearance operations in 2016 from over 88km² of contaminated area. Global clearance in 2016 cleared 25% more area and destroyed 15% more submunitions than the previous year's total even though overall funding for operations is decreasing. This suggests CMR clearance operations have, overall, continued the efficiency gains identified in 2015. But contamination continues to be

added globally through significant new use of cluster munitions in 2016: by Syrian, and possibly also Russian, forces in Syria and in Yemen by Saudi Arabia and possibly other members of the coalition.² Cluster munitions were also used in Nagorno-Karabakh, albeit on a much smaller scale, during the year.

Although, in 2016, the greatest area of clearance was once again recorded in the world's most heavily contaminated state, the Lao People's Democratic Republic (Lao PDR), output was one-quarter down on results in 2015, reducing from 41km² in 2015 to 30km² in 2016 (though the total number of submunitions destroyed dropped only slightly, suggesting that targeting of clearance may be continuing to improve). Clearance of CMR-contaminated areas in Iraq also dropped significantly in 2016 compared to the previous year. These reductions in area cleared were, however, compensated for by clearance output in Vietnam, which increased significantly on 2015 results, the result of increased capacity and the Cluster Munition Remnants Survey (CMRS) methodology used to identify contamination.

GLOBAL CONTAMINATION

As at June 2017, 13 states parties to the CCM were confirmed or strongly suspected to contain CMR, as well as 1 signatory, 13 states not party, and 3 other areas (see Table 1). As noted in the Summary above, this is a reduction of two states (one state party, the other a CCM signatory) on the total in Mine Action Review's report last year, and Tajikistan, a state not party, was expected to complete clearance in the course of 2017.

Table 1: Global CMR contamination (as at June 2017)

States parties	Signatory states	States not party	Other areas
Afghanistan	Angola	Azerbaijan*	Kosovo
Bosnia and Herzegovina		Cambodia	Nagorno-Karabakh
Chad		Georgia	Western Sahara
Chile		Iran	
Colombia		Libya	
Croatia		Serbia	
Germany		South Sudan	
Iraq		Sudan	
Lao PDR		Syria	
Lebanon		Tajikistan**	
Montenegro		Ukraine	
Somalia		Vietnam	
United Kingdom		Yemen	
13 states parties	1 signatory state	13 states not party	3 other areas

* Clearance complete in areas under government control. ** Clearance expected to be completed in 2017.

In 2016, in the Shida Kartli region of Georgia under government control that was not believed to be contaminated, members of local communities reported the presence of unexploded submunitions. As at June 2017, The HALO Trust was conducting non-technical survey to investigate the call-outs and had already found several submunitions during its survey.

There are reports that Armenia may have CMR contamination in the Syunik region, that it was planning to survey in 2017.³ It is also not certain that contamination in Eritrea and Ethiopia resulting from the 1998–2000 conflict⁴ has been fully cleared, though no suspected or confirmed hazardous areas containing CMR are recorded by either state.

EXTENT OF CONTAMINATION

In many affected states, contamination is limited and the problem is manageable within a few months or years. Lao PDR and Vietnam, however, are massively contaminated (defined as covering more than 1,000km² of land), while heavy contamination exists in Cambodia and Iraq (covering more than 100km²). Clearance in all four states will take many years and possibly decades. Most other states are far less affected, although in several cases the extent is simply unknown or, as yet, unclear. Furthermore, inadequate earlier surveys in a number of contexts, notably Kosovo and Lebanon, mean that, despite ongoing clearance, the estimated total contamination has not reduced proportionally, in part due to previously unknown contamination continuing to be identified.

Table 2 summarises what is known or reasonably believed about the actual extent of CMR contamination in affected states and other areas. It is therefore an assessment by Mine Action Review based on available evidence, as opposed to the claims of governments or mine action programmes, which are sometimes unsubstantiated or improbable. No reliable estimate yet exists (in terms of square kilometres) for the extent of land contaminated globally with CMR.

Table 2: Extent of contamination in affected states and other areas

Massive (>1,000km ²)	Heavy (100–1,000km ²)	Medium (5–99km ²)	Light (<5km ²) or unclear
Lao PDR	Cambodia	Afghanistan	Angola
Vietnam	Iraq	Azerbaijan*	Chad
		Bosnia and Herzegovina	Colombia
		Chile	Croatia
		Kosovo	Georgia
		Lebanon	Germany
		Nagorno-Karabakh	Iran
		Syria	Libya
		Ukraine	Montenegro
		Western Sahara	Serbia
		Yemen	Somalia
			South Sudan
			Sudan
			Tajikistan
			United Kingdom
2 states	2 states	8 states and 3 other areas	15 states

* Contamination exists or is suspected to exist in areas outside of government control.

Eleven states are no longer suspected to be contaminated with CMR since the CCM was adopted in August 2008. As Table 3 illustrates, seven states parties have declared completion of their Article 4 obligations and an eighth — Mozambique — was expected to make its declaration of completion at the Seventh Meeting of States Parties in September 2017. Signatory states DRC and Uganda and state not party Thailand are also believed to have completed clearance of CMR.

Table 3: Completion of CMR survey and clearance since 2008

State*	Date of completion
DRC	2017
Mozambique	2016
Mauritania	2013
Norway	2013
Grenada	2012
Republic of Congo	2012
Guinea-Bissau	2012
Thailand	2011
Zambia	2010
Albania	2009
Uganda	2008
Total	11 states

* States parties to the CCM are in bold.

CLEARANCE IN 2016

In 2016, a total of more than 140,000 submunitions were destroyed by clearance operations around the world from over 88km² of contaminated area. This does not capture all global clearance because much is not publicly reported, for instance in Iran, Ukraine, or Vietnam by national operators. Table 4 summarises the outputs of major CMR clearance operations in 2016.

Table 4: Major recorded CMR clearance in 2016

State/area*	Area cleared (km ²)**	Submunitions destroyed
Lao PDR	30.2	106,636***
Cambodia	22.4	8,852***
Vietnam	17.4	11,872***
South Sudan	3.5	3,045
Nagorno-Karabakh	3.3	355
Iraq	3.1	1,682
Afghanistan	1.9	359
Lebanon	1.9	4,049
Croatia	1.2	214
Mozambique	1.2	145
Western Sahara	1.2	335
Totals	87.3	137,544****

* States parties to the CCM are in bold.

** Figures are rounded up or down to the nearest decimal point.

*** Includes submunitions destroyed during technical survey.

**** In Yemen, the Yemen Mine Action Centre (YEMAC) did not conduct systematic area clearance in 2016 but teams destroyed 2,196 submunitions during spot tasks in nine governorates.

As in the previous year, the largest area of clearance in 2016 took place in Lao PDR, the world's most heavily contaminated state. Output was one-quarter down on results in 2015, reducing from 41km² in 2015 to 30km² in 2016, a result of reallocation of capacity to survey. This saw the total number of submunitions drop only by some 9,000 to around 111,000 (a reduction of only 7.5%). Given the extent of contamination in Lao PDR, at current rates of clearance it could be 50 years until the country is free of the impact of unexploded submunitions despite substantial advances in land release approaches.

In Vietnam, the world's second most contaminated state, land released through clearance by international operators again rose sharply in 2016 to 17km². This was largely a result of a more than doubling of clearance in Quang Tri province, reflecting the progress of the United States-funded collaboration between Norwegian People's Aid (NPA), conducting technical survey, and Mines Advisory Group (MAG) clearing the resulting polygons. In contrast, clearance of CMR-contaminated area in Iraq dropped significantly in 2016 compared to the previous year, largely a consequence of the need to address dense contamination by improvised mines that continue to inflict many casualties and delay the return of civilian populations to urban centres formerly controlled by Islamic State, lowering the priority of CMR clearance.

TREATY DEADLINES FOR CLEARANCE

In accordance with Article 4, each state has a deadline of 10 years to complete CMR survey and clearance upon becoming party to the CCM. Table 5 summarises progress towards these deadlines, the first of which expires in less than three years' time. Of CCM states parties, only Croatia is currently on track to meet its treaty deadline. Progress in far too many states parties has been sluggish at best.

Indeed, there may even be states parties that are in breach of their international legal obligation to clear

CMR "as soon as possible", most notably Chile. Germany finally began clearance in 2017, seven years after it joined the CCM. In addition, Montenegro should urgently secure the limited funding it requires to clear the remaining contamination, from national sources if international funding is not available. The United Kingdom still needs to conduct survey and clearance of hazardous areas in which submunitions are suspected to remain: to date, it has not acknowledged its legal obligations under Article 4 of the CCM.

Table 5: Progress in implementing Article 4 of the CCM

State Party	CCM deadline	Status of progress	Implementation priorities
Croatia	1 August 2020	On track to meet deadline	Strategic plan for completion of clearance
Lao PDR	1 August 2020	Not on track; will need successive extensions given extent of contamination	National baseline survey of contamination
Germany	1 August 2020	Unclear whether on track to meet deadline	Clearance as soon as possible
Montenegro	1 August 2020	Unclear whether on track to meet deadline	Clearance as soon as possible
United Kingdom	1 November 2020	Unclear whether on track to meet deadline	Acknowledgement of obligations to survey and clear the Falklands
Bosnia and Herzegovina	1 March 2021	Unclear whether on track to meet deadline	Workplan for completion of clearance
Lebanon	1 May 2021	Not on track to meet deadline	Adoption of national standards specific to cluster munition remnants contamination and more effective use of survey during land release operations
Chile	1 June 2021	Not on track to meet deadline; possibly in violation of Article 4	Survey and clearance as soon as possible
Afghanistan	1 March 2022	Should still meet deadline but security concerns may prevent safe access	Strategic plan for completion of clearance
Chad	1 September 2023	Unclear whether on track to meet deadline	Targeted survey of contamination
Iraq	1 November 2023	Not on track; will need extension given contamination and conflict	National baseline survey of contamination and strategic plan for completion of clearance
Colombia	1 March 2026	Contamination likely to be minimal; should be able to complete soon	Targeted survey and disaggregation of recording to capture any submunitions cleared
Somalia	1 March 2026	Too soon to say	Targeted survey of contamination

State party Colombia and treaty signatory Angola should be able to declare completion once the requisite survey (and any necessary clearance) has been carried out, as contamination is likely to be only limited in extent.

While states not party to the CCM do not have specific clearance deadlines, their obligations under international human rights law to protect life mean that they are required to survey, mark, and clear CMR as soon as possible.⁵ Tajikistan was expected to complete clearance of CMR in the course of 2017. Western Sahara has set an informal target of completion in 2019, while Kosovo will likely not be clear before 2024. All affected states not party are encouraged to set ambitious but realistic targets to complete clearance of CMR-contaminated areas.

PROGRAMME PERFORMANCE

The quality of programmes for the survey and clearance of CMR varies widely among states and territories. To help affected states and their partners focus their capacity building and technical assistance efforts on areas of weakness, a performance scoring system is used by Mine Action Review. Ten areas with a particularly strong influence on the effectiveness and efficiency of a CMR survey and clearance programme are assessed, as explained in Table 6.

A score of between 0 and 10 is accorded for each of the ten criteria and an average performance score calculated. Average scores of 8.0 or above are considered “very good”, 7.0–7.9 is ranked “good”, 5.0–6.9 is ranked “average”, 4.0–4.9 is ranked “poor”, while 0–3.9 ranks as “very poor”. The factors that determine each score are summarised in the table below.

Table 6: Programme performance – criteria and factors

Criterion	Key factors affecting scoring
Understanding of the problem	<ul style="list-style-type: none"> Has a national baseline of CMR contamination been established? Has the extent of the CMR threat been identified with a reasonable degree of accuracy? Does the estimate include CHAs as well as SHAs?
Target date for completion	<ul style="list-style-type: none"> Is a state seeking effectively to clear all contamination from its territory? Has a date been set by the mine action centre (MAC) or national mine action authority for completion of clearance? Is the target date realistic based on existing capacity? Is there a strategic plan in place to meet the target date? Is it sufficiently ambitious?
Targeted clearance	<ul style="list-style-type: none"> Is clearance focused on confirmed contamination? Are significant areas of land being cleared that prove to have no contamination? If clearance is ongoing for more than ten days in an area without finding contamination, what happens?
Efficient clearance	<ul style="list-style-type: none"> How much does manual clearance cost per m²? Are costs increasing or decreasing? Are dogs integrated into demining operations (where appropriate)? Are machines integrated into demining operations (where appropriate)?
National funding of programme	<ul style="list-style-type: none"> Is national funding covering the cost of the MAC? Is national funding covering any survey or clearance costs? Is national funding being used efficiently? Is national funding being used in accordance with good governance principles?
Timely clearance	<ul style="list-style-type: none"> Are contaminated areas prioritised for clearance according to explicit criteria? Are areas of high impact dealt with swiftly? Are there delays to clearing an area for political reasons?
Land release system	<ul style="list-style-type: none"> Is there a coherent land release system in place for the programme? Is this system understood and used by all the operators? Is there an effectively functioning non-technical survey capacity? Is there an effectively functioning technical survey capacity?
National standards	<ul style="list-style-type: none"> Do national mine action standards exist? Do they respect the International Mine Action Standards (IMAS)? Are they adapted to the local threat and context? How well are they applied?

Reporting on progress	Does the state submit regular Article 7 transparency reports on progress in fulfilling its CCM Article 4 clearance obligations?
	Does it report regularly and meaningfully to donors and civil society?
	Do these reports detail progress disaggregated by the different methods of land release?
	Are they accurate?
Improving performance	Has the national programme, or have key parts of it, improved or deteriorated over the previous year?

The table below summarises CMR programme performance for states and territories in 2016. Mozambique, which completed clearance in 2016, topped the scoring for 2016, having had the second highest score for 2015. Croatia, which had the highest score in 2014 and 2015, was second in 2016. Both programmes received a rating of “Good”.

Certain affected states that were engaged in very limited CMR operations in 2016 or else did not conduct any CMR-related operations during the year are not given a performance scoring. The table also does not include rankings for Libya or Syria.

Table 7: States and other areas by CMR programme performance score in 2016

State/territory	Performance score	Performance rating	Change in performance score	Performance trend
Mozambique	7.9	Good	+ 1.1	▲
Croatia	7.2	Good	+/- 0	◀▶
Afghanistan	6.3	Average	+ 0.1	▲
South Sudan	6.2	Average	+ 0.4	▲
Kosovo	6.1	Average	+/- 0	◀▶
Western Sahara	6.1	Average	+ 0.2	▲
DR Congo	6.0	Average	+/- 0	◀▶
Lao PDR	5.7	Average	- 0.4	▼
Bosnia and Herzegovina	5.6	Average	- 0.3	▼
Germany	5.5	Average	+ 0.4	▲
United Kingdom	5.5	Average	+/- 0	◀▶
Lebanon	5.4	Average	+/- 0	◀▶
Sudan	5.1	Average	+ 0.3	▲
Azerbaijan	5.0	Average	+/- 0	◀▶
Cambodia	5.0	Average	- 0.2	▼
Nagorno-Karabakh	5.0	Average	+/- 0	◀▶
Vietnam	5.0	Average	- 0.1	▼
Ukraine	4.9	Poor	+/- 0	◀▶
Montenegro	4.6	Poor	- 0.2	▼
Iraq	4.6	Poor	- 0.3	▼
Serbia	4.2	Poor	+ 0.1	▲
Somalia	4.2	Poor	- 0.4	▼
Yemen	3.7	Very Poor	+ 0.7	▲
Chad	3.6	Very Poor	+/- 0	◀▶
Chile	3.1	Very Poor	- 0.1	▼

REPORTING ON SURVEY AND CLEARANCE

It continues to be unacceptable how poorly many states report on their efforts to tackle CMR. Too many are either unable or unwilling to provide simple and accurate reports on the extent of contamination and progress in survey and clearance.

For states parties to the CCM, detailed reporting is a legal obligation. Under Article 7, each affected state party is required to report annually on:

- The size and location of all CMR-contaminated areas under its jurisdiction or control, with detail on the type and quantity of each type of remnant “to the extent possible”; and
- The status and progress during the previous calendar year of clearance and destruction of all CMR.⁶

Failure to comply with this reporting obligation is a violation of the CCM.

Mine Action Review has a set of reporting templates that it provides to affected states to ensure reporting in accordance with good practice, including IMAS. They cover contamination, survey, and clearance, and are set

out in Annex 2. In particular, the tables for survey and clearance set out the data the national mine action centre should require operators to report on a monthly basis, and which all states should be able to present.

The most common problems Mine Action Review has encountered in reports by states and operators are:

- An inability or refusal to distinguish mine clearance from cluster munition clearance
- An inability to report accurately on the number and extent of cluster munition contaminated-areas in which the presence of CMR is confirmed to be present
- Reporting as “land release” an initial survey of a large, previously unsurveyed area (even a district) that may contain contamination but which in fact does not
- Failure to disaggregate reported data by the amount of land cancelled by non-technical survey, reduced by technical survey, and released by clearance, and
- Failure to disaggregate submunitions from other forms of unexploded ordnance (UXO) in clearance figures.

OUTLOOK

Efficient release of CMR-contaminated or suspected areas depends on high-quality non-technical and technical survey. Each affected state that has not yet done so should conduct a national baseline survey and develop a strategic plan to release all identified areas of CMR contamination. Too many states parties have still to meet their legal obligations under Article 4 of the CCM and at least Chile may already be in violation of its duty to clear CMR “as soon as possible”. These are challenges that all CCM states parties need to meet.

1 See Annex 1 for the text of Article 4, CCM.

2 See, e.g., Human Rights Watch, “Russia/Syria: Widespread New Cluster Munition Use”, 28 July 2016, at: <https://www.hrw.org/news/2016/07/28/russia/syria-widespread-new-cluster-munition-use>; R. Mason, “UK cluster bombs used in Yemen by Saudi Arabia, finds research”, *The Guardian*, 19 December 2016, at: <https://www.theguardian.com/uk-news/2016/dec/18/uk-cluster-bombs-used-in-yemen-by-saudi-arabia-finds-research>; and Amnesty International, “Yemen: Saudi Arabia-led coalition uses banned Brazilian cluster munitions on residential areas”, 9 March 2017, at: <https://www.amnesty.org/en/latest/news/2017/03/yemen-saudi-arabia-led-coalition-uses-banned-brazilian-cluster-munitions-on-residential-areas/>.

3 Email from Ruben Arakelyan, Director, Armenian Center for Humanitarian Demining and Expertise (ACHDE), 28 April 2017.

4 See, e.g., “Cluster Munitions in Africa”, Regional Fact Sheet prepared by Human Rights Watch, March 2008, at: https://www.hrw.org/sites/default/files/related_material/CMC.ClusterMunitions.Africa.2008.pdf.

5 For instance, in the case of *Albekov v. Russia*, which concerned the failure to clear landmines, the European Court of Human Rights held that “having regard to the State’s failure to endeavour to locate and deactivate the mines, to mark and seal off the mined area so as to prevent anybody from freely entering it, and to provide the villagers with comprehensive warnings concerning the mines laid in the vicinity of their village, the Court finds that the State has failed to comply with its positive obligation under Article 2 of the Convention to protect [life].” European Court of Human Rights, *Albekov and Others v. Russia*, Judgment [Final], 6 April 2009, §90. See also *Pasa and Erkan Erol v. Turkey*, Judgment, 12 December 2006. Russia was not (and is still not) a party to the Anti-Personnel Mine Ban Convention. See also Human Rights Committee, “Draft general comment No. 36. Article 6: Right to life”, Draft prepared by Yuval Shany and Nigel Rodley, Rapporteurs, UN doc. CCPR/C/GC/R.36/Rev.2, 7 September 2015, §25.

6 Art. 7(1)(h) and (i), CCM.

STATES PARTIES

The background of the page is composed of several large, overlapping geometric shapes in two shades of orange and yellow. The shapes are angular and abstract, creating a dynamic, layered effect. The top-left corner is a solid dark orange. Below it, a lighter yellow shape extends towards the center. To the right, a medium orange shape overlaps the yellow one. A large, light yellow shape dominates the middle section, while a dark orange shape is visible on the right side. The bottom half of the page features more complex overlaps of these colors, with a prominent diagonal band of medium orange crossing from the bottom left towards the center.

AFGHANISTAN

ARTICLE 4 DEADLINE: 1 MARCH 2022
(UNCLEAR WHETHER ON TRACK TO MEET DEADLINE)

PROGRAMME PERFORMANCE	2016	2015
Problem understood	7	7
Target date for completion of cluster munition clearance	6	6
Targeted clearance	7	7
Efficient clearance	7	7
National funding of programme	5	5
Timely clearance	6	5
Land-release system in place	7	7
National mine action standards	7	7
Reporting on progress	6	6
Improving performance	5	5
PERFORMANCE SCORE: AVERAGE	6.3	6.2

PERFORMANCE COMMENTARY

Deteriorating security and problems of access in Afghanistan adds to uncertainty about prospects for completing the plans to clear sites contaminated by cluster munition remnants (CMR) in time to meet Afghanistan's Article 4 deadline under the Convention on Cluster Munitions (CCM).

RECOMMENDATION FOR ACTION

- The Directorate of Mine Action Coordination (DMAC) should provide an update on which CMR-affected areas are too insecure to be cleared and set out a detailed schedule and timelines for clearing those that are accessible.

CONTAMINATION

The UN Mine Action Centre for Afghanistan (UNMACA) reported that as at May 2017 Afghanistan had 17 CMR-contaminated areas in four provinces covering a total area of 5,572,573m² reflecting significant clearance. Until late December 2016, the area of contamination stood at 6,855,393m², a level unchanged since April 2015. Nearly half of the contamination was in one district of north-eastern Takhar province. “UNMAS in support of DMAC” (UNMAS/DMAC) explained that a national demining operator had started clearance on one site in late December 2016.¹

Table 1: CMR contamination (as at November 2016)²

Province	Area affected (m ²)
Wardak	658,124
Nangahar	1,717,200
Takhar	3,280,069
Paktia	1,200,000
Total	6,855,393

All sites are affected by remnants of the 1,228 cluster munitions containing some 248,056 BLU-97B submunitions dropped by the United States between October 2001 and early 2002.³ CMR are said to block access to grazing and agricultural land.⁴

CMR contamination, however, is more widespread than the clearly defined US cluster strike sites, as clearance in 2016 clearly shows. Soviet forces used cluster munitions during the decade-long war of resistance to the Soviet-backed government and demining operators continue to find unexploded submunitions on demining and battle area clearance tasks.⁵

Other Explosive Remnants of War and Landmines

Afghanistan contends with a total of nearly 600km² of other hazardous area, including 225km² of mined area containing anti-personnel mines, 277km² of mined area containing anti-vehicle mines, and nearly 84km² of other explosive remnants of war (ERW) contamination, which includes North Atlantic Treaty Organization (NATO) firing ranges.⁶

PROGRAMME MANAGEMENT

The Mine Action Programme of Afghanistan (MAPA) is led by DMAC, which comes under the Afghan National Disaster Management Authority. It received operational support in planning, prioritising and information management from UNMACA, which changed its name to “UNMAS in support of DMAC” (UNMAS/DMAC) in November 2016.⁷

By the end of 2016, DMAC had 16 staff, but was preparing to expand to 35 in 2017. The staff of the former UNMACA, now UNMAS/DMAC, increased in 2016 to 201, including six internationals. As at July 2017, all former UNMACA operational personnel except department heads were due to transfer to contracts bringing them under DMAC management and reporting directly to DMAC. Department heads were due to continue as UNMAS advisers to DMAC until also coming under DMAC management by the end of 2018.⁸

Clearance of explosive contamination is conducted by five long-established national and two international NGOs. The Afghan NGOs are: Afghan Technical Consultants (ATC), Demining Agency for Afghanistan (DAFA), Mine Clearance Planning Agency (MCPA), Mine Detection and Dog Centre (MDC), and the Organization for Mine Clearance and Afghan Rehabilitation (OMAR). AREA,

a national non-governmental organisation (NGO) accredited in 2014, became operational at the end of 2016.

The most active international NGOs are Danish Demining Group (DDG) and The HALO Trust. Since 2012, the Swiss Foundation for Mine Action (FSD) has had a small operation near the border with Tajikistan. Janus Demining Afghanistan (previously Sterling International) has been contracted to undertake clearance of firing ranges used by militaries serving with the NATO-led International Security Assistance Force.⁹

Strategic Planning

Afghanistan has prepared a number of plans for clearing part or all of its CMR hazards but each time, implementation was overtaken by other priorities. At the end of 2016, the government circulated a proposal to donors to complete clearance of all 17 identified sites of CMR contamination, at a cost of \$1.85 million.¹⁰

LAND RELEASE

None of the 17 sites UNMAS/DMAC identify as CMR contaminated was released in 2016 reflecting insecurity in many of the areas and competing priorities at a time when the mine action programme is dealing with a sharp downturn in funding.¹¹ AREA started work on one CMR task on 24 December 2016, and by May 2017 UNMAS/DMAC reported 1,282,820m² had been released.¹² Data from UNMAS/DMAC also did not record destruction of any submunitions in 2016.¹³

The HALO Trust destroyed a total of 359 submunitions in the course of conducting a number of different operations in 2016. This included 65 CMR destroyed in clearance of two battle areas covering 1.88km² and three CMR destroyed in mine clearance operations. Explosive ordnance and conventional weapons disposal teams located and destroyed 291 submunitions during 152 call-outs. The submunitions found, with a few exceptions, were from the former Soviet Union.¹⁴

Table 2: Clearance of CMR-contaminated areas in 2016¹⁵

Operator	Areas cleared	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
The HALO Trust	2	1,883,850	65	78

ARTICLE 4 COMPLIANCE

Under Article 4 of the CCM, Afghanistan is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 March 2022.

Afghanistan has the knowledge, capacity, and intent to meet this deadline, but achieving it is not a foregone conclusion. Afghanistan's Anti-Personnel Mine Ban Convention Article 5 extension request provided for clearance of all ERW, including unexploded submunitions, by 2020.¹⁶ UNMAS/DMAC has issued a call to donors to finance clearance of all remaining sites. However, clearance of CMR hazards had stalled in 2015 because they are located in areas that were too insecure for operators to access and it is still not clear whether all locations are sufficiently secure to permit clearance.¹⁷

1 Emails from Abdul Qudos Ziaee, Operations R&D Manager, UNMAS/DMAC, 10 and 15 May 2017.

2 "Proposal for Complete Removal of the Known Cluster Sub-munitions Contamination in Afghanistan", undated but 2016, Document received from DMAC by email, 19 February 2017, p. 18.

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

4 Statement of Afghanistan, CCM intersessional meetings (Clearance and Risk Education Session), Geneva, 15 April 2013.

5 Interviews with MACCA implementing partners, Kabul, May 2013.

6 Email from Abdul Qudos Ziaee, UNMAS/DMAC, 10 May 2017.

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

8 Email from Abdul Qudos Ziaee, UNMAS/DMAC, 10 May 2017.

9 Email from MACCA, 10 May 2011.

10 "Proposal for Complete Removal of the Known Cluster Sub-munitions Contamination in Afghanistan".

11 Email from Mohammed Wakil, Chief of Staff, MACCA, 1 May 2016.

12 Email from Abdul Qudos Ziaee, UNMAS/DMAC, 15 May 2017.

13 Email from Abdul Qudos Ziaee, UNMAS/DMAC, 10 May 2017.

14 Email from Camille Wallen, Head of Policy and Evaluation, HALO Trust, 19 July 2017.

15 Ibid.

16 Article 5 deadline Extension Request, 29 March 2012, p. 194.

17 Email from Mohammed Wakil, MACCA, 1 May 2016; CCM Article 7 Report (for 2015), Form F.

BOSNIA AND HERZEGOVINA

ARTICLE 4 DEADLINE: 1 MARCH 2021
(UNCLEAR WHETHER ON TRACK TO MEET DEADLINE)

PROGRAMME PERFORMANCE	2016	2015
Problem understood	8	8
Target date for completion of cluster munition clearance	3	4
Targeted clearance	6	6
Efficient clearance	6	6
National funding of programme	7	7
Timely clearance	4	6
Land-release system in place	5	5
National mine action standards	6	6
Reporting on progress	5	5
Improving performance	6	6
PERFORMANCE SCORE: AVERAGE	5.6	5.9

PERFORMANCE COMMENTARY

New mine action standards relating to cluster munition remnants (CMR) have now been introduced, alongside the corresponding standards relating to mines which were adopted in 2015. Although Bosnia and Herzegovina (BiH) is currently working on a new National Mine Action Strategy for 2018–25, with support from the Geneva International Centre for Humanitarian demining (GICHD), which addresses all contamination, including CMR, it has yet to elaborate a plan and timeframe for completion of CMR clearance. Only a very small area contaminated with CMR was cleared in 2016, putting into doubt the compliance of BiH with its Convention on Cluster Munitions (CCM) clearance obligations.

RECOMMENDATIONS FOR ACTION

- BiH should accelerate clearance of CMR to fulfil its CCM Article 4 obligations in advance of its treaty deadline.
- BiH should develop a plan to release areas confirmed or suspected to contain CMR.
- In both its CCM reporting and its strategic planning, the Bosnia and Herzegovina Mine Action Centre (BHMIC) should clearly separate out contamination resulting from the use of individual submunitions fired from modified rifles from contamination resulting from the ordinary use of cluster munitions. The former do not fall within the definition of a cluster munition covered by the CCM, and as such the treaty clearance obligations do not apply to this contamination.
- The BiH Armed Forces and the Federal Administration of Civil Protection should be provided with the necessary demining equipment, in a timely manner, to ensure that their respective demining capacities can be fully and efficiently deployed.
- BiH should implement the recommendations of both the 2015 United Nations Development Programme (UNDP) Mine Action Governance and Management Assessment, and the 2016 performance audit report of the Audit Office of the Institutions of BiH.¹ In particular, BiH should continue reforming and strengthening the governance and management of the mine action programme.
- BHMIC should report more accurately and consistently on land release data (disaggregated by product (cancelled, reduced and cleared), activity (non-technical survey, technical survey, and clearance), and classification (suspected hazardous area (SHA) and confirmed hazardous area (CHA), in a manner consistent with the International Mine Action Standards (IMAS).

CONTAMINATION

As at the end of 2016, BiH reported 23 areas covering a total of 1.12km² confirmed to contain CMR, while a further 207 areas over 7.30km² were suspected to contain CMR (see Table 1).² This compares to reported contamination, as at the end of 2015, of 25 CHAs covering 0.85km² and 294 SHAs over an estimated 7.3km².³

Table 1: CMR contamination at of end 2016⁴

Canton	CHAs	CHA (km ²)	SHAs	SHA (km ²)
Unsko-Sanski	4	0.25	29	0.21
Tuzlanski	3	0.09	31	0.84
Zenicko-Dobojski	4	0.14	46	2.31
Srednje-Bosanski	4	0.20	35	1.78
Zapadno-Hercegovački	0	0	11	0.22
Sarajevo	2	0.07	9	0.38
Canton 10	4	0.25	24	0.43
Total Federation BiH	21	1.00	185	6.17
Total Republika Srpska	2	0.12	22	1.13
TOTALS	23	1.12	207	7.30

The contamination figures in Table 1 differ slightly from those in BiH's latest CCM Article 7 transparency report, which claimed 7.31km² was the total of all contamination. No reference is made in BiH's Article 7 report to the 1.12km² of confirmed area reported separately to Mine Action Review.⁵

Of the total suspected CMR contamination, 2.7km² is the result of individually launched KB-1 submunitions fired from modified AK-47 rifles.⁶ When used in this way, individual KB-1 submunitions are not defined as a cluster munition under the CCM.⁷ Therefore, strictly speaking this 2.7km² of contamination is not subject to the clearance obligations under Article 4 of the CCM.⁸ BHMIC plans to undertake a survey to more accurately delineate areas containing the contamination from the improvised use of individual submunitions, and will then produce an analysis of the findings.⁹

A total of 4.3km² of contamination, including the 2.7km² of improvised submunition contamination, is in areas which also contain mines.¹⁰

The difference in total CMR contamination between the end of 2015 and end of 2016, both in terms of the number of CHA and SHA, and the overall area of contamination, cannot be explained or reconciled by area released by technical survey and clearance or the amount of land confirmed as CMR contaminated. No satisfactory explanation has been provided for the disparity in data between reporting periods.

CMR contamination dates back to the conflicts of 1992–95 related to the break-up of the Socialist Federal Republic of Yugoslavia.¹¹ A survey and initial general assessment of cluster munition contamination was jointly conducted by BHMIC and Norwegian People's Aid (NPA) in 2011. This estimated the total area suspected to contain CMR at almost 12.2km², scattered across 140 areas. This estimate was subsequently revised upwards to 14.6km² following the start of land release operations in 2012.¹² Of this, around 5km² was deemed as contaminated and marked for clearance.¹³

According to BHMIC, since technical survey and clearance operations began in 2012, and through the end of 2016, 5km² of area was reduced or cleared, with 2,195 submunitions and 92 other explosive remnants of war (ERW) destroyed.¹⁴

CMR contamination in BiH is a small humanitarian risk but has a greater impact on development, impeding access to natural resources and posing an obstacle to rehabilitation and building of infrastructure.¹⁵ Sixty communities have been identified as affected with submunitions, of which thirty-one are also affected by mines.¹⁶ In August 2016, a boy was injured by a KB-1 submunition while tending livestock in Sehovina, Mostar.¹⁷ Prior to this, the last recorded submunition casualty was in 2009.¹⁸

Other Explosive Remnants of War and Landmines

BiH is also contaminated by other unexploded ordnance (UXO) and anti-personnel mines.

PROGRAMME MANAGEMENT

The Demining Commission, under the BiH Ministry of Civil Affairs, supervises the state-wide BHMIC and represents BiH in its relations with the international community on mine-related issues.¹⁹ The Demining Commission is composed of representatives from three ministries (Ministry of Civil Affairs, Ministry of Security, and Ministry of Defence) elected from the three constituent "peoples" of BiH and representing BiH's three majority ethnic groups (Bosniaks, Croats, and Serbs).²⁰ Three new Demining Commission members were appointed on 23 July 2015.²¹ Whereas the Minister for Civil Affairs remains ultimately responsible for mine action, the Demining Commission represents the strategic body responsible for setting mine action policy, and it proposes the appointment of BHMIC senior staff, for approval by the Council of Ministers.²² One problem posed by the structure of the Demining Commission is that each of the three represented ministries has separate portfolios in their respective ministries; and their work on the Demining Commission is only part-time in addition to their other responsibilities.²³

BHMIC, established by a 2002 Decree of the Council of Ministers, is responsible for regulating mine action and implementing BiH's demining plan, including accreditation of all mine action organisations.²⁴ BHMIC operates from its headquarters in Sarajevo, and two main offices in Sarajevo and Banja Luka, and eight regional offices (Banja Luka, Bihac Brčko, Mostar, Pale, Sarajevo, Travnik, and Tuzla).²⁵

A November 2016 national audit report on the efficiency of the demining system in BiH concluded that "The institutions of BiH have not undertaken all activities required to ensure efficiency of the demining system. A conclusion can be drawn that BiH is not committed to dealing seriously with the demining problem, which

jeopardises the implementation of the BiH strategic goals and the fulfilment of international commitments assumed. The demining process has neither been analysed nor improved systematically in the past 15 years".²⁶ This mirrors some of the strong criticism of BHMIC's governance and management prior to 2015, (see "Clearing the Mines 2015" report on BiH). However, reforms are now being implemented, under the leadership of a new acting director of BHMIC, who was appointed on 22 September 2015 by the Council of Ministers.²⁷ The Demining Commission has drafted an Action Plan to address the recommendations of the 2016 audit report, which, as at May 2017, had been sent for approval by the Council of Ministers.²⁸

In its 2015 revision of the National Mine Action Strategy for 2009–19, BHMIC stated that one of its goals was to "organize regular meetings for Board of Donors in order to present the results and to ensure and increase trust and support of donors".²⁹ After a 10-year hiatus, Board of Donor meetings resumed in September 2015,³⁰ and a second meeting took place in March 2016.³¹ As the Board of Donors is one of the few platforms where international actors meet formally under law, international donors in BiH have welcomed the resumption of the meetings, which provide a forum for improved coordination and communication with the national authorities.³²

In May 2016, moves were made to reinstate expert working groups (EWGs), which used to meet until 2009, helping to address issues such as quality control.³³ According to BHMIC, the EWGs, which were re-established in October 2016, will meet as often as needed.³⁴ The BiH Armed Forces think the EWG would benefit from regular, quarterly meetings.³⁵ As at June 2017, UNDP reported that it was planning to organise EWGs in coordination with BHMIC.³⁶

Strategic Planning

The BiH Mine Action Strategy for 2009–19 guides mine action in BiH, but the original document does not mention CMR clearance. BHMAL conducted the first of three planned revisions of the strategy in 2012–13.³⁷ Although the 2012 revision did refer to CMR clearance,³⁸ the revised strategy was not formally adopted by the Council of Ministers, highlighting the lack of political attention to mine action in BiH.³⁹ The second revision of the strategy in 2015,⁴⁰ conducted in consultation with the Demining Commission and UNDP,⁴¹ did include strategic and operational goals regarding CMR clearance. The second revision was endorsed by the Demining Commission in BiH in March 2016, but was not adopted by the Council of Ministers.⁴²

The third revision of the strategy was due to be concluded by the end of 2017, and in 2016, BHMAL, in consultation with the GICHD, started the revision process. However, instead of revising the existing Mine Action Strategy 2009–19 (revision II, with proposed amendments), BiH, with support from the GICHD, is producing a new mine action strategy for the period through to projected completion of mine and CMR clearance (2018–2025).⁴³ As part of this process, an initial workshop was held in November 2016, followed by a second workshop on “Bosnia and Herzegovina National Mine Action Strategy Working Group Sessions”, organised by BHMAL and the GICHD, with the participation of relevant government ministries, clearance operators, and other stakeholders, took place in Sarajevo in February 2017.⁴⁴

The new strategy, which was due for completion by the end of 2017, will contain a plan and timeframe for the completion of CMR clearance, as well as for mine clearance, which represents by far the biggest challenge in BiH.⁴⁵ Donors are hoping that the strategy will contain clear, realistic indicators and milestones, and incorporate up-to-date land release methodologies.⁴⁶ BHMAL has reported that it intends to factor at least two revisions into its new mine action strategy, to help monitor progress and ensure it remains valid.⁴⁷

Legislation

A new draft demining law, which was first submitted to parliament in 2010, has still to be approved as at May 2017. It has not even received approval from the Council of Ministers,⁴⁸ after which it must be sent for parliamentary approval. The last attempt to amend the law took place in the second half of 2015 and the draft Bill failed to attract the support of the Council of Ministers,⁴⁹ which concluded that instead of adopting a new law the existing law on demining should be amended.⁵⁰ BHMAL is following the recommendation to amend the existing law, but as such is restricted to the number of changes it can include, as amendments are not permitted to exceed 40% of an original Act or else a new law is needed.⁵¹ In August 2016, the 68th session of the Council of Ministers of BiH issued a “Decision of the establishment of working group for the design of changes on the Demining law in BH”.⁵² In December 2016, the Ministry of Civil Affairs of BiH opened a short 16-day public consultation process on Draft of Law on Amendments to the Law on Demining in BiH in accordance with the rules for consultations in drafting legal regulations in institutions of BiH.⁵³ As at June 2017, the public consultation had been completed.⁵⁴

Standards

In 2016, the Demining Commission formally adopted the three chapters of the national mine action standards (NMAS) on land release, non-technical survey, and technical survey.⁵⁵ The Demining Commission then subsequently adopted new standards for CMRs, at the beginning of 2017.⁵⁶ The previous year, BHMAL adopted a new standing operating procedure (SOP) for non-technical survey of areas suspected to contain CMR, based on NPA’s own SOPs.⁵⁷

In 2016, in collaboration with the GICHD and UNDP, BHMAL held a workshop on “standards and SOP revisions”.⁵⁸ In order to further optimise efficiency and effectiveness, and ensure that the standards and SOPs allow for the optimal release of land through survey, including by technical survey, BHMAL created four working groups in 2016, for amendments and annexes for all chapters of the national mine action standards and SOPs, including those relating to survey and clearance of CMR.⁵⁹ The working groups expected to complete their work by the end of September 2017, after which recommendations will be sent to the demining commission for adoption.⁶⁰

Successful results from a 2014 pilot project using special detection dogs (SDDs) for technical survey and clearance of CMR-contaminated areas, implemented by NPA,⁶¹ led to BHMAL updating the relevant NMAS to include the use of dogs in targeted technical survey of CMR.⁶² However, as at May 2017, the corresponding SOPs had not yet been approved.⁶³

Operators

At the end of 2016, 26 organisations were accredited for mine action in BiH, comprising four government organisations (Armed Forces of BiH, Federal Administration of Civil Protection, Civil Protection Administration of Republic of Srpska, and Brčko District Civil Protection), the Red Cross Society BiH, nine commercial companies (eight national and one international), and twelve non-governmental organisations (NGOs) (ten national and two international).⁶⁴ Overall demining capacity totalled 1,200 persons in accredited organisations, comprising 900 deminers and 300 others (including team leaders, site leader, operational officers, quality assurance (QA) officers, and dog trainers).⁶⁵

During 2016, four organisations conducted CMR technical survey and/or clearance: the BiH Armed Forces, the Federal Administration of Civil Protection, and NGOs NPA and PRO VITA.⁶⁶

Four of thirty-four of the BiH Armed Forces’ ten-strong demining teams (eight deminers, plus a team leader and a medic) are specialised for CMR clearance. However, as at May 2017, only two were deployed, due to a shortage of metal detectors for CMR detection.⁶⁷ The general view is that the BiH Armed Forces and Civil Protection are both good partners, and have effective capacities, but have suffered from logistical challenges and equipment deficits, which prevent them from working at full capacity.⁶⁸ For example, both the Federal Administration of Civil Protection and the BiH lack detectors for CMR clearance,⁶⁹ and the BiH Forces require ongoing support from external partners, such as NPA, to secure personal

protective equipment, batteries for detectors, and fuel for demining machinery, since the Army's own complex procurement system often cannot deliver such items in sufficient time.⁷⁰

Furthermore, both entities suffer recruitment challenges, but of a differing nature. Deminers in the BiH Armed Forces are forced to stop demining at the age of 38 (this upper limit, until recently, had been 35). This results in experienced deminers being forced to retire and a high turnover of deminers.⁷¹ The Federal Administration of Civil Protection on the other hand, is unable to employ new deminers, as this is a Federal Government decision. Therefore, the capacity of the Federal Administration of Civil Protection has been reduced as pensioned deminers or those absent due to sickness have not been replaced.⁷²

NPA had an operational capacity of one six-strong CMR team for seven months in 2016.⁷³ While SDDs were successfully piloted by NPA for targeted technical survey

for CMR in 2014, as noted above the corresponding SOPs were still awaiting approval.⁷⁴

In total, the four organisations undertaking CMR operations comprised 174 operational staff and 61 searchers. In addition, BHMAL, conducted non-technical survey with the support of one NPA team seconded to BHMAL.⁷⁵ This represented a similar overall capacity to 2015.⁷⁶

In addition, Mines Advisory Group (MAG) received operational accreditation in April 2017, and began demining in May 2017, but was engaged in landmine survey and clearance only.⁷⁷

Quality Management

BHMAL'S two main offices in Banja Luka and Sarajevo coordinate the activities of regional offices in planning, survey, and quality control/QA. QA inspectors are based in the regional offices.⁷⁸

LAND RELEASE

In 2016, a total of 0.1km² of CMR-contaminated area was released by clearance while 0.76km² was reduced by technical survey. No area was reported by BHMAL as cancelled by non-technical survey.⁷⁹ This represents a decrease compared to 2015, when 0.23km² was fully cleared, 0.76km² was reduced by technical survey, and 0.47km² was cancelled by non-technical survey.⁸⁰

Survey in 2016

In 2016, non-technical survey of areas suspected to contain CMR was conducted by BHMAL and an NPA team seconded to BHMAL regional offices. In addition, BHMAL, the BiH Armed Forces, and NGOs NPA and Pro Vita, all conducted technical survey.⁸¹

During survey operations 0.76km² was reduced by technical survey, all within the Federation BiH.⁸² Sixteen SHAs were confirmed as contaminated, totalling 0.47km² (see Table 2).⁸³

Table 2: CMR survey in 2016⁸⁴

Operator	Areas confirmed	Confirmed area (m ²)	Area reduced by TS (m ²)
BHMAL*	16	470,000	0
BiH Armed Forces	0	0	192,604
NPA	0	0	520,728
Pro Vita	0	0	48,931
Totals	16	470,000	762,263

* Includes survey support from NPA TS = Technical survey

Clearance in 2016

In 2016, four operators cleared a total of 0.1km² containing CMR, destroying 632 submunitions and 26 other items of UXO, all in the Federation BiH (see Table 3).⁸⁵

Table 3: Clearance of CMR-contaminated area in 2016⁸⁶

Operator	Areas cleared	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
Armed Forces BiH	6	51,126	333	5
Federal Administration of Civil Protection	4	7,618	150	18
NPA	4	0	149	3
Pro Vita	1	42,059	0	0
Totals	15	100,803	632	26

ARTICLE 4 COMPLIANCE

Under Article 4 of the CCM, BiH is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 March 2021. It is unclear whether BiH is on track to meet this deadline.

The 2012 Mine Action Strategy Revision had expected that BiH would “completely eliminate” all CMR-contaminated areas by 2015.⁸⁷ In the second Mine Action Strategy Revision, conducted in 2015 and adopted by the Demining Commission in March 2016, this target was pushed back to the end of 2017.⁸⁸ However, based on the status of current CMR survey and clearance operations, BiH no longer expects to meet its Article 4 obligations by the end of 2017, as it had previously stated at the CCM First Review Conference in September 2015 and forecast in its second Mine Action Strategy Review.⁸⁹

While BHMACH has stated that it does not expect any obstacles in meeting its Article 4 deadline of 1 March 2021,⁹⁰ the fact that less than 1km² of CMR-contaminated land has been cleared in the last five years (see Table 4), is cause for concern. It is now not certain that BiH will indeed meet its Article 4 deadline.

BHMACH is funded by the common institutions of BiH and other institutions at state level.⁹¹ BiH national state funding also supports survey and clearance of CMR. Operations of the BiH Armed Forces are supported by the budget of the common and entity institutions of BiH, while the Government of the Federation of BiH (FBiH) finances the operations of Federal Administration of Civil Protection.⁹² According to BHMACH, small-scale investments in equipment and training could significantly increase the capabilities of both the Federal Administration of Civil Protection and the Armed Forces.⁹³

Funding in 2017 was expected to remain at the same level as 2016.⁹⁴ In 2016, just under BAM34.7 million (approx. US\$19.3 million) was allocated to mine action operations in BiH.⁹⁵ Of this, BAM19 million (approx. US\$10.9 million) came from national sources while almost BAM14.8 million (approx. US\$8.5 million) was from international donors.⁹⁶ However, funding for the implementation of the Mine Action Strategy 2009–2019 is significantly less than originally planned,⁹⁷ which in 2016 was only 53% of the BAM63.6 million (approx. US\$36.5 million) planned originally.⁹⁸ The Ministry of Civil Affairs, the Demining Commission, and BHMACH have highlighted the limited funds for demining and have requested funds from the national budget.⁹⁹

NPA reported that it had secured funds for CMR clearance for seven months in 2017, but would risk having to reallocate teams to mine clearance operations if continued donor funding for CMR were not secured.¹⁰⁰

Table 4: Five-year summary of CMR clearance¹⁰¹

Year	Area cleared (km ²)
2016	0.10
2015	0.23
2014	0.26
2013	0.24
2012	0.16
Total	0.99

- 1 UNDP, Draft Mine Action Governance and Management Assessment for BiH, 13 May 2015; 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. 22.
- 2 Email from Goran Zdrle, Senior Officer for Analysis and Reporting, Bosnia and Herzegovina Mine Action Center (BHMIC), 17 May 2017.
- 3 Email from Tarik Serak, Head, Department for Mine Action Management, BHMIC, 26 May 2016. BiH's CCM Article 7 Report (for 2015) reported the 7.3km² of suspected contamination, but not the 0.85km² of confirmed contamination BHMIC has reported to Mine Action Review.
- 4 Emails from Goran Zdrle, BHMIC, 17 May and 6 June 2017.
- 5 Ibid.; and CCM Article 7 Report (for 2015), Form F.
- 6 Interview with Braco Pandurevic, Head of Operations, NPA BiH, Sarajevo, 9 May 2017; and BHMIC, "Analysis of implementation of mine action strategy of Bosnia and Herzegovina (2009-2019) and draft amendments", adopted by the Demining Commission on 28 March 2016, p. 9.
- 7 According to Article 2(2) of the CCM, "'Cluster munition' means a **conventional munition** that is designed to disperse or release **explosive submunitions** each weighing less than 20 kilograms, and includes those explosive submunitions" [emphasis added].
- 8 The definition of a cluster munition in Article 2 of the CCM refers to "a conventional munition that is designed to disperse or release explosive submunitions".
- 9 Interview with Saša Obradovic, Director of BHMIC, Sarajevo, 10 May 2017.
- 10 Email from Goran Zdrle, BHMIC, 6 June 2017. There is a slight discrepancy with the 3.44km² (2.7km² of improvised submunition contamination, plus an additional 0.74km² of conventional cluster munition contamination) in areas which also contain mine contamination, as reported in the BHMIC "Analysis of implementation of mine action strategy of Bosnia and Herzegovina (2009-2019) and draft amendments", adopted by the Demining Commission on 28 March 2016, p. 9.
- 11 BHMIC, "Mine Action Report in BiH for 2015 approved by the BH Ministry Council", 16 May 2016, at: <http://www.bhmik.org/en/stream.daenet?sta=3&pid=937&kat=19>.
- 12 Statements of BiH, First CCM Review Conference, Dubrovnik, 9 September 2015; and High-level Segment, First CCM Review Conference, 7 September 2015.
- 13 Statement of BiH, High-level Segment, First CCM Review Conference, Dubrovnik, 7 September 2015.
- 14 BHMIC, "Report on Mine Action in BiH for 2016", February 2017, p. 15.
- 15 Email from Darvin Lisica, Programme Manager BiH, NPA, 5 May 2016.
- 16 Email from Goran Zdrle, BHMIC, 17 May 2017.
- 17 Ibid.; CCM Article 7 Report (for 2015), Form J; and BHMIC, "Report on Mine Action in BiH for 2016", February 2017, p. 6.
- 18 Statement of BiH, High-level Segment, First CCM Review Conference, Dubrovnik, 7 September 2015.
- 19 BHMIC Organisational chart, at: http://www.bhmik.org/?page_id=704&lang=en, accessed 28 May 2017.
- 20 The principle of organising BiH state-level bodies along ethnic lines came under scrutiny following the 2009 judgment of the European Court of Human Rights in the *Sejdić and Finci* case that the rights of two Bosnians of Roma and Jewish descent had been violated by being denied the opportunity to run for high-level elected office because they were not of the major ethnic groups. European Court of Human Rights, *Sejdić and Finci v. Bosnia and Herzegovina*, Judgment, 22 December 2009; UNDP, Draft Mine Action Governance and Management Assessment for BiH, 13 May 2015, p. 22; and email from Suad Baljak, Mine Action Officer, UNDP, 15 June 2017.
- 21 BHMIC, "The appointment of new members of Demining Commission in Bosnia and Herzegovina", News item, 24 July 2015; and "Official gazette of BH", number 67/15 – Decision of establishment of demining commission of BH by Counsel of Ministers of BH, 30 July 2015.
- 22 UNDP, Draft Mine Action Governance and Management Assessment for BiH, 13 May 2015, p. 22.
- 23 Ibid.; 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. 22.
- 24 Bosnia and Herzegovina Official Gazette, Sarajevo, 17 March 2002.
- 25 BHMIC Organisational chart.
- 26 Audit Office of the Institutions of Bosnia and Herzegovina, "Performance Audit Report. Efficiency of the Demining System in Bosnia and Herzegovina".
- 27 Council of Ministers of BiH, "The conclusions of the 24th session of the Council of Ministers of Bosnia and Herzegovina", 22 September 2015.
- 28 Interview with Saša Obradovic, BHMIC, Sarajevo, 10 May 2017.
- 29 BHMIC, "Analysis of implementation of mine action strategy of Bosnia and Herzegovina (2009-2019) and draft amendments", adopted by the Demining Commission on 28 March 2016, p. 17.
- 30 Audit Office of the Institutions of Bosnia and Herzegovina, "Performance Audit Report. Efficiency of the Demining System in Bosnia and Herzegovina", pp. 24 and 31.
- 31 Interview with Tarik Serak, Head of Operations, BHMIC, 10 May 2017, Sarajevo; emails from Fotini Antonopoulou, representative of the European Union to BiH, 19 June 2017; and Suad Baljak, UNDP, 15 June 2017; and "Mine Action Board of Donors Meeting", 31 March 2016, UNDP in BiH, at: http://www.ba.undp.org/content/bosnia_and_herzegovina/en/home/presscenter/articles/2016/03/31/sastanak-odbora-donatora-za-protuminske-akcije.html.
- 32 Interviews with Haris Lokvancic, Advisor on Political Affairs, Programme Officer – Human Security/Justice, Swiss Embassy, Sarajevo, 9 May 2017; Fotini Antonopoulou, European Union delegation, Sarajevo, 10 May 2017, and Lt.-Col. Martin Herrmann, Defence Attaché to Bosnia and Herzegovina and Kosovo, German Embassy, Sarajevo, 10 May 2017.
- 33 Audit Office of the Institutions of Bosnia and Herzegovina, "Performance Audit Report. Efficiency of the Demining System in Bosnia and Herzegovina", p. 28.
- 34 Interview with Tarik Serak, BHMIC, 10 May 2017, Sarajevo.
- 35 Interview with Blažen Kovač, Ministry of Defence, Chair of the Demining Commission, Sarajevo, 10 May 2017.
- 36 Email from Suad Baljak, UNDP, 15 June 2017.
- 37 Statement of BiH, Anti-Personnel Mine Ban Convention (APMBC) Thirteenth Meeting of States Parties, Geneva, 5 December 2013, p. 2.
- 38 BHMIC, "Revision of Mine Action Strategy in Bosnia and Herzegovina 2009-2019 (First Revision 2012)", 14 March 2013.
- 39 UNDP, "Draft Mine Action Governance and Management Assessment for Bosnia and Herzegovina", 13 May 2015, p. 17.
- 40 Statement of BiH, APMBC Fourteenth Meeting of States Parties, Geneva, 18 December 2015; and email from Tarik Serak, BHMIC, 26 May 2016.
- 41 Email from Tarik Serak, BHMIC, 26 May 2016.
- 42 Email from Goran Zdrle, BHMIC, 17 May 2017; and Audit Office of the Institutions of Bosnia and Herzegovina, "Performance Audit Report. Efficiency of the Demining System in Bosnia and Herzegovina", p. 25.
- 43 Interview with Åsa Massleberg, Advisor, Strategic Management, GICHD, Geneva, 9 March 2017; and email from Goran Zdrle, BHMIC, 17 May 2017.
- 44 BHMIC, "From 7 till 11 November a workshop on National Mine Action Strategy and prioritisation is being held", 7 November 2016, at: <http://www.bhmik.org/?p=2853&lang=en>; and "Workshop on 'Revision of Mine Action Strategy 2009-2019' held in Sarajevo", 17 February 2017, at: <http://www.bhmik.org/?p=3067&lang=en>; and emails from Anna-Lena Schluchter, containing information on behalf of Åsa Massleberg, GICHD, 20 and 29 June 2017.
- 45 Email from Goran Zdrle, BHMIC, 17 May 2017; and interview with Saša Obradovic, BHMIC, Sarajevo, 10 May 2017.

- 46 Interview with Haris Lokvancic, Advisor on Political Affairs, Programme Officer – Human Security/Justice, Swiss Embassy, Sarajevo, 9 May 2017.
- 47 Interview with Saša Obradovic, BHMAL, Sarajevo, 10 May 2017.
- 48 UNDP, "Mine Action Board of Donors Meeting", 31 March 2016, at: http://www.ba.undp.org/content/bosnia_and_herzegovina/en/home/presscenter/articles/2016/03/31/sastanak-odbora-donatora-za-protuminske-akcije.html; and email from Amela Balic, NPA, 17 June 2016.
- 49 Audit Office of the Institutions of Bosnia and Herzegovina, "Performance Audit Report. Efficiency of the Demining System in Bosnia and Herzegovina", p. 23.
- 50 Ibid.
- 51 Interview with Zdravko Jonjić, Assistant Director for Operations, BHMAL, Sarajevo, 10 May 2017.
- 52 Email from Suad Baljak, UNDP, 15 June 2017; and see: <http://slist.ba/glasnik/2016/broj70/broj070.pdf>, p. 8.
- 53 BHMAL, "Consultation process on the Law on Amendments to the Law on Demining in Bosnia and Herzegovina", 28 December 2016, at: <http://www.bhmal.org/?p=3037&lang=en>.
- 54 Statement of BiH, APMBL intersessional meetings, Geneva, 8 June 2017.
- 55 BHMAL, "Report on Mine Action in BiH for 2016", February 2017, p. 18; and Audit Office of the Institutions of Bosnia and Herzegovina, "Performance Audit Report. Efficiency of the Demining System in Bosnia and Herzegovina", No. 01-02-03-10-16-1-1101/16, October 2016, p. 26.
- 56 Interview with Saša Obradovic, BHMAL, Sarajevo, 10 May 2017.
- 57 Emails from Darvin Lisica, NPA, 11 August 2015, and Tarik Serak, BHMAL, 26 May 2016; and Statement of BiH, First CCM Review Conference, Dubrovnik, 9 September 2015.
- 58 BHMAL, "Report on Mine Action in BiH for 2016", February 2017, p. 20.
- 59 Email from Goran Zdrle, BHMAL, 17 May 2017; and BHMAL, "Report on Mine Action in BiH for 2016", February 2017, pp. 18 and 24.
- 60 Email from Goran Zdrle, BHMAL, 17 May 2017; and Statement of BiH, APMBL intersessional meetings, Geneva, 8 June 2017.
- 61 Email from Amela Balic, NPA Bosnia, 15 April 2015.
- 62 Email from Goran Zdrle, BHMAL, 17 May 2017.
- 63 Email from Goran Šehić, Deputy Programme Manager, NPA BiH, 26 May 2017.
- 64 BHMAL, "Report on Mine Action in BiH for 2016", February 2017, p. 20.
- 65 Ibid., p. 21.
- 66 Email from Goran Zdrle, BHMAL, 17 May 2017.
- 67 Interview with Blažen Kovač, Ministry of Defense, Chair of the Demining Commission, Sarajevo, 10 May 2017.
- 68 UNDP, Draft Mine Action Governance and Management Assessment for BiH, 13 May 2015, p. 29; interview with Darvin Lisica, NPA, Sarajevo, 8 May 2017; and interviews with Haris Lokvancic, Swiss Embassy, Sarajevo, 9 May 2017; and Tarik Serak, BHMAL, Sarajevo, 10 May 2017.
- 69 Interview with Muamer Husilović, Expert Advisor, and Ahmet Dulović, Documenter, the Federal Civil Protection of BiH, Sarajevo, 10 May 2017.
- 70 Interview with Lt.-Col. Dzevad Zenunovic, Demining Battalion of the Armed Forces of BiH, Sarajevo, 10 May 2017.
- 71 Ibid.
- 72 Interview with Muamer Husilović and Ahmet Dulović, the Federal Civil Protection of BiH, Sarajevo, 10 May 2017; and interview with Tarik Serak, BHMAL, Sarajevo, 10 May 2017.
- 73 Interview with Darvin Lisica, NPA, Sarajevo, 8 May 2017; and email from Goran Šehić, NPA, 26 May 2017.
- 74 Email from Goran Šehić, NPA, 26 May 2017.
- 75 Ibid.
- 76 Email from Goran Zdrle, BHMAL, 17 May 2017.
- 77 Interview with Josephine Dresner, Programme Manager, MAG, Sarajevo, 9 May 2017.
- 78 BHMAL, "Bosnia and Herzegovina Mine Action Annual Report 2011", adopted by the Demining Commission, May 2012, p. 22; and email from Tarik Serak, BHMAL, 6 May 2014.
- 79 Email from Goran Zdrle, BHMAL, 17 May 2017.
- 80 Email from Tarik Serak, BHMAL, 26 May 2016.
- 81 Email from Goran Zdrle, BHMAL, 17 May 2017.
- 82 Ibid.; and BHMAL, "Report on Mine Action in BiH for 2016", February 2017, p. 14.
- 83 Email from Goran Zdrle, BHMAL, 17 May 2017.
- 84 Ibid.; CCM Article 7 Report (for 2016), Form F (however, the land reduced by technical survey was not disaggregated from the land released through clearance, in the reporting form); and BHMAL, "Report on Mine Action in BiH for 2016", February 2017, p. 14. In addition, NPA also reported supporting BHMAL to cancel 32 SHAs totalling just over 1.7km² and to confirm 29 areas covering just over 0.8km², in addition to reducing just over 0.2km² through technical survey.
- 85 Email from Goran Zdrle, BHMAL, 17 May 2017; and BHMAL, "Report on Mine Action in BiH for 2016", February 2017, p. 14.
- 86 CCM Article 7 Report (for 2016), Form F (however, the land reduced by technical survey was not disaggregated from the land released through clearance, in the reporting form); and email from Goran Zdrle, BHMAL, 17 May 2017. Whereas BHMAL did not record the area cleared by NPA, NPA reported that it cleared had 258,126m². Furthermore, the 7,618m² reported to have been cleared by the Federal Administration of Civil Protection, only includes the area of the one task that was completed in 2016. However, the Federal Administration of Civil Protection reported that it had cleared an additional 275,916m² in 2016, in clearance tasks which had not yet been completed as at the end of 2016. Email from Muamer Husilović, the Federal Civil Protection of BiH, Sarajevo, 10 May 2017.
- 87 BHMAL, "Revision of Mine Action Strategy in Bosnia and Herzegovina 2009-2019 (First Revision 2012)", 14 March 2013, p. 13; and email from Darvin Lisica, NPA, 5 May 2016.
- 88 BHMAL, "Analysis of implementation of mine action strategy of Bosnia and Herzegovina (2009-2019) and draft amendments", adopted by the Demining Commission on 28 March 2016, p. 17.
- 89 Email from Tarik Serak, BHMAL, 26 May 2016, and email from Goran Zdrle, BHMAL, 17 May 2017.
- 90 Email from Goran Zdrle, BHMAL, 17 May 2017.
- 91 Ibid.
- 92 Ibid.
- 93 Statement of BiH, First CCM Review Conference, Dubrovnik, 9 September 2015; and interview with Tarik, BHMAL, Sarajevo, 10 May 2017.
- 94 Email from Goran Zdrle, BHMAL, 17 May 2017.
- 95 BHMAL, "Report on Mine Action in BiH for 2016", February 2017, p. 23.
- 96 Ibid.
- 97 BHMAL, "Five years since the entry into force of the Convention on Cluster Munitions", 3 August 2015.
- 98 BHMAL, "Report on Mine Action in BiH for 2016", February 2017, pp. 23 and 24.
- 99 Interview with Lt.-Col. Dzevad Zenunovic, Ministry of Defense, Chair of the Demining Commission, Sarajevo, 10 May 2017.
- 100 Email from Goran Šehić, NPA, 26 May 2017.
- 101 See Cluster Munition Monitor and Mine Action Review reports on clearance in BiH covering 2012-16.

CHAD



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

PROGRAMME PERFORMANCE	2016	2015
Problem understood	3	3
Target date for completion of cluster munition clearance	3	3
Targeted clearance	3	3
Efficient clearance	4	4
National funding of programme	2	3
Timely clearance	2	2
Land release system in place	6	6
National mine action standards	7	6
Reporting on progress	3	3
Improving performance	3	3
PERFORMANCE SCORE: VERY POOR	3.6	3.6

PERFORMANCE COMMENTARY

No cluster munition remnants (CMR) were encountered by international mine action operators in Chad in 2016. A limited number of CMR have been found by operators in the past, as recently as 2015. While the extent of remaining contamination is not known, the level is thought to be low. However, large portions of the northern regions of Chad, which are heavily contaminated by mines and explosive remnants of war (ERW), remain un-surveyed, and it is possible CMR contamination could remain.

RECOMMENDATION FOR ACTION

- Targeted survey is needed, particularly in the Borkou and Tibesti regions, to identify mines and explosive remnants of war (ERW) contamination, including CMR.

CONTAMINATION

The extent of CMR contamination remaining in Chad is unknown, but is not believed to be heavy. In July 2017, Mines Advisory Group (MAG) reported that its programme in the north of the country has, to date, only found very limited evidence of CMR.¹

Following the end of armed conflict with Libya in 1987, unexploded submunitions and cluster munition containers were found in the three northern provinces of Borkou, Ennedi, and Tibesti; in the Biltine department in Wadi Fira region in the north-east; and east of the capital, N'Djamena.² In 2011, MAG found unexploded Soviet anti-tank PTAB-1.5 submunitions during survey in an area close to Faya Largeau.³

The most recent discovery of CMR was in 2015, when MAG identified and destroyed a limited number of CMR, including two empty RBK-250-275 cluster bomb containers in the Tibesti region and an AO-1Sch submunition in the Borkou region.⁴ In January 2015, four children (three girls and one boy) were reportedly injured after handling a submunition in Faya Largeau.⁵

MAG did not encounter any CMR in its survey and mine clearance operations in 2016 in Tibesti.⁶ Likewise, Handicap International (HI), the only other international organisation carrying out mine action activities in the country, did not report finding any CMR in its survey operations in Borkou and Ennedi regions during the year.⁷ According to MAG, there were no reports of casualties from submunitions in 2016.⁸

In May 2017, both MAG and HI informed Mine Action Review that they had not seen any evidence of significant CMR contamination remaining in Chad. According to MAG, since the beginning of its activities in 2004, no area of CMR contamination had been reported or identified. However, MAG emphasised that the majority of the

Tibesti region, thought to be one of the most heavily contaminated regions with mines and ERW, had yet to be surveyed, and that there were few local informants who might know of contamination. It also noted the possibility that CMR might be found around ex-Libyan military bases in the future.⁹

In 2012, Chad stated that while the precise extent of CMR contamination was not known, it was certain the weapons had been used in the Fada region and highly likely that they had been used in other parts of the north. Chad said that the Tibesti region was being surveyed to determine the extent of the contamination.¹⁰ In 2014, Chad reported that, after Libyan troops withdrew in 1987, members of the French Sixth Engineers Regiment discovered and subsequently destroyed CMR around Libyan positions, prior to the building of the national mine action centre. It reiterated its suspicion of additional contamination in the Tibesti region.¹¹

Other Explosive Remnants of War and Landmines

Chad has a significant mine and ERW problem as a result of the 1973 Libyan invasion and more than 30 years of internal conflict. Mines and ERW are said to obstruct safe access to housing, roads, pastures, water points, and mining areas, especially in northern Chad. Contamination is an ongoing threat to local populations and its negative impact on the socio-economic development of Borkou, Ennedi, and Tibesti, which are among its poorest regions, is particularly severe.¹²

PROGRAMME MANAGEMENT

The national mine action programme is managed by a national mine action authority, the National High Commission for Demining (Haut Commissariat National de Déminage, HCND) and the national mine action centre (Centre National de Déminage, CND).

In December 2016, funding for a two-year European Union (EU)-funded mine action project (Projet d'appui au secteur du déminage au Tchad, PADEMIN) came to an end.¹³ Under this project, MAG conducted survey and clearance of mines and ERW, focusing on Borkou, Ennedi, and Tibesti. HI provided capacity-building support to the CND, in particular for information and quality management, and carried out non-technical survey in three southern regions of the country thought to be contaminated by mines and ERW.¹⁴

But as the two-year EU funding ended, the EU agreed to support a new four-year mine action project in Chad, and MAG and HI were set to resume mine action activities during 2017. A third international operator, the Swiss Foundation for Demining (La Fondation Suisse pour le Déminage, FSD), was preparing to provide technical support to the CND.¹⁵

Since 2008, Chad's mine action programme has suffered from a lack of international funding, weak government oversight, and mismanagement issues within the CND.¹⁶ CND demining operations have also been plagued by poor equipment and lack of funding.

Strategic Planning

In 2013, the Government of Chad approved a new strategic mine action plan for 2013–17. The goals of the plan included the development and maintenance of an effective data collection and management system, strengthened national capacities, and the release of contaminated areas.¹⁷

Following the request of the Thirteenth Meeting of States Parties to the Anti-Personnel Mine Ban Convention (APMBC), the CND elaborated a national mine action plan for 2014–19, with technical support from the United Nations Development Programme (UNDP). The plan notes that Chad adhered to the CCM but does not detail plans to clear CMR.¹⁸ According to MAG, the CND assigns areas for clearance and decides on priorities in consultation with mine action operators.¹⁹

Standards, and Quality and Information Management

HI reviewed Chad's national mine action standards on land release and quality management in the beginning of 2016, with a new version expected to be produced in June 2016.²⁰ Both MAG and HI reported that internal quality assurance and quality control activities (QA/QC) were done on a regular basis in 2015, and that the CND carried out a number of external QA/QC visits, evaluations, and accreditations during the year.²¹

LAND RELEASE

In 2016, MAG concluded operations under the EU PADEMIN project, with the release of a total of 98 areas with a size of nearly 1.4km², along with over 100,000m² of traffic routes. During the year, it focused operations on mine survey and clearance in the Tibesti region.²²

In December 2016, HI conducted a survey in Borkou and the west of Ennedi region to prepare for the start of the new four-year EU-funded demining project. It reported identifying more than 40km² as contaminated with mines, 2.7km² as contaminated with ERW, and a total of 147 open suspected or confirmed hazardous areas.²³

As noted above, no CMR survey or clearance occurred in 2016, nor did MAG or HI report encountering any CMR in their activities. Likewise, no CMR survey or clearance occurred in 2015, though MAG found and destroyed two empty cluster munition containers in Zouar and a submunition was found and destroyed by the CND in Faya Largeau in the Borkou region.²⁴

ARTICLE 4 COMPLIANCE

Under Article 4 of the CCM, Chad is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 September 2023. It is unclear whether Chad is on track to meet this deadline.

Facing the loss of the only international donor and the cessation of mine action operations in Chad with the end of the PADEMIN project in December 2016, the securing of EU funding for a new four-year demining project starting in 2017 was a critical development. Under the new project, MAG was set to begin operations in Tibesti and Lac regions and HI to commence survey and mine clearance in Borkou and the west of Ennedi region. MAG expected to increase its non-technical survey and risk education capacity, and deploy a community liaison team for seven months.²⁵ FSD was set to provide technical support to the CND for training new demining teams and increasing the technical and managerial capacity of senior CND staff.²⁶

In May 2017, MAG reiterated its concerns over the lack of financial resources provided by the Government of Chad for the CND or demining activities.²⁷ Previously, in 2015, Chad requested international cooperation and assistance in the form of two Multi-Task Teams to carry out non-technical survey, risk education, and explosive ordnance disposal for CMR.²⁸

- 1 Email from Jeannette von Däniken, Programme Support Coordinator, Sahel and West Africa, MAG, 19 July 2017.
- 2 Handicap International (HI), *Fatal Footprint: The Global Human Impact of Cluster Munitions*, Brussels, 2006, p. 17; HI, *Circle of Impact: The Fatal Footprint of Cluster Munitions on People and Communities*, Brussels, 2007, p. 48; Survey Action Centre, "Landmine Impact Survey, Republic of Chad", Washington DC, 2002, p. 59; and Human Rights Watch and Landmine Action, *Banning Cluster Munitions: Government Policy and Practice*, Mines Action Canada, Ottawa, 2009, p. 56.
- 3 Emails from Liebeschitz Rodolphe, UNDP, 21 February 2011; and Bruno Bouchardy, MAG Chad, 11 March 2011.
- 4 CCM Article 7 Report (for 2015), Form F; and email from Llewelyn Jones, Director of Programmes, MAG, 31 May 2016.
- 5 CCM Article 7 Report (for 2015), Form H.
- 6 Response to questionnaire by Romain Coupez, Country Director, MAG, received by email via Llewelyn Jones, MAG, 3 May 2017.
- 7 Response to questionnaire by Benjamin Westercamp, Head of Mission, and Seydou N'Gaye, Senior Technical Advisor, HI, received by email via Julien Kempeneers, Deputy Desk Officer, Mine Action Department, HI, 22 March 2017.
- 8 Email from Romain Coupez, MAG, 10 May 2017.
- 9 Ibid.; and response to questionnaire, 3 May 2017.
- 10 Statement of Chad, CCM Third Meeting of States Parties, Oslo, 13 September 2012.
- 11 CCM Article 7 Report (for 2013), Form F.
- 12 HCND, *Mine Action Plan 2014–2019*, May 2014; and response to questionnaire by Romain Coupez, MAG, 3 May 2017; and response to questionnaire by Benjamin Westercamp and Seydou N'Gaye, HI, 22 March 2017.
- 13 Response to questionnaire by Romain Coupez, MAG, 3 May 2017.
- 14 Email from Julien Kempeneers, HI, 2 May 2016; and HI, "Landmine Clearance Efforts Begin in Chad", undated, at: http://www.handicap-international.us/landmine_clearance_efforts_begin_in_chad.
- 15 Response to questionnaire by Romain Coupez, MAG, 3 May 2017; and response to questionnaire by Benjamin Westercamp and Seydou N'Gaye, HI, 22 March 2017.
- 16 Presentation of Chad at African Union/ICRC Weapons Contamination Workshop, Addis Ababa, 3–5 March 2013; Anti-Personnel Mine Ban Convention (APMBC) Third Article 5 deadline Extension Request, 2 May 2013, p. 12.
- 17 Mine Action Strategic Plan 2013–2017, annexed to Third APMBC Article 5 deadline Extension Request, 2 May 2013.
- 18 HCND, *Mine Action Plan 2014–2019*, May 2014, p. 4.
- 19 Response to questionnaire by Romain Coupez, MAG, 3 May 2017.
- 20 Emails from Julien Kempeneers, HI, 2 May 2016; and Llewelyn Jones, MAG, 7 May 2016.
- 21 Ibid.
- 22 Response to questionnaire by Romain Coupez, MAG, 3 May 2017.
- 23 Response to questionnaire by Benjamin Westercamp and Seydou N'Gaye, HI, 22 March 2017.
- 24 Email from Llewelyn Jones, MAG, 31 May 2016; and CCM Article 7 Report (for 2015), Form F.
- 25 Response to questionnaire by Romain Coupez, MAG, 3 May 2017; and response to questionnaire by Benjamin Westercamp and Seydou N'Gaye, HI, 22 March 2017.
- 26 Response to questionnaire by Benjamin Westercamp and Seydou N'Gaye, HI, 22 March 2017.
- 27 Response to questionnaire by Romain Coupez, MAG, 3 May 2017.
- 28 CCM Article 7 Report (for 2015), Form F.

CHILE



ARTICLE 4 DEADLINE: 1 JUNE 2021
(NOT ON TARGET TO MEET DEADLINE)

PROGRAMME PERFORMANCE	2016	2015
Problem understood	6	6
Target date for completion of cluster munition clearance	1	1
Targeted clearance	0	0
Efficient clearance	0	0
National funding of programme	7	7
Timely clearance	0	0
Land release system in place	7	7
National mine action standards	7	7
Reporting on progress	1	2
Improving performance	2	2
PERFORMANCE SCORE: VERY POOR	3.1	3.2

PERFORMANCE COMMENTARY

Chile has failed to initiate survey and clearance of contaminated areas, despite being a state party since 2011. This is a violation of the duty under Article 4 of the Convention on Cluster Munitions (CCM) to clear cluster munition remnants (CMR) "as soon as possible". It has also not submitted an Article 7 report since 2013. This is also a violation of the CCM.

RECOMMENDATION FOR ACTION

- Chile should submit an Article 7 report and, even more importantly, begin survey and clearance of CMR-contaminated areas as soon as possible.

CONTAMINATION

Chile has reported almost 97km² of CMR-contaminated area in three of its fifteen regions (see Table 1). Contamination is the consequence of deployment of cluster munitions on military training ranges. Since the reported extent represents the total size of the areas where cluster munitions were used,¹ the actual extent of contamination may be significantly smaller.

Table 1: CMR contamination (as at June 2015)²

Province	CHAs	Area (km ²)	Submunitions “expected”
Arica and Parinacota	1	33.71	608
Tarapacá	2	56.65	20
Magallanes and Antártica Chilena	1	6.52	20
Totals	4	96.88	648

CHAs = Confirmed hazardous areas

The impact of CMR contamination is believed to be minimal, and there have been no reports of any casualties.

Other Explosive Remnants of War and Landmines

Chile is also affected, to a limited extent, by other unexploded ordnance (UXO), and has some 5.6km² of mined areas still to release.

PROGRAMME MANAGEMENT

The national mine action programme is managed by the National Demining Commission (Comisión Nacional de Desminado, CNAD), which is chaired by the Minister of Defence.

Chile has not reported on any steps taken to elaborate a workplan to address its four contaminated areas.

LAND RELEASE

As at the end of May 2017, Chile had not reported conducting any survey or clearance of its four CMR-contaminated areas.

ARTICLE 4 COMPLIANCE

Under Article 4 of the CCM, Chile is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 June 2021. Its apparent inaction means that it is not on target to meet its deadline.

Indeed, as reported in the last two year’s Mine Action Reviews, Chile should already have completed requisite survey and be conducting full clearance of hazardous areas. Its failure to do so is a violation of the Convention.

¹ CCM Article 7 Report, Form F, September 2012.

² Email from Juan Pablo Rosso, Expert in International Security, International and Human Security Department, Chilean Ministry of Foreign Affairs, 16 June 2015; and see CCM Article 7 Report, Form F, September 2012. Chile has made a calculation of the number of unexploded submunitions it expects to find in the contaminated areas, but has not explained the basis for this figure.

COLOMBIA



ARTICLE 4 DEADLINE: 1 MARCH 2026
(EXTENT OF CONTAMINATION UNCLEAR)

RECOMMENDATIONS FOR ACTION

- Colombia should assess the extent of cluster munition remnants (CMR) contamination as soon as possible, including through the conduct of survey.
- Colombia should ensure its national mine action database disaggregates data on unexploded submunitions and other explosive remnants of war (ERW).

CONTAMINATION

The extent to which Colombia is affected by CMR is unclear. Colombia ratified the Convention on Cluster Munitions (CCM) on 10 September 2015. It made a formal declaration upon depositing its instrument of ratification whereby “it is possible that there remain, in national territory, cluster munitions or cluster munition remnants of whose location the State has no knowledge or suspicion. ... Regarding article 4, and in connection with the particular circumstances of its internal armed conflict, the Republic of Colombia understands ‘cluster munition remnants’ to mean those whose location is known or suspected by the State.”¹

Colombia’s initial CCM Article 7 transparency report, which could have helped to clarify its status under Article 4 of the Convention, was submitted in 2016 but did not address the issue of CMR. Its Article 7 report for 2016 merely noted that Form F (covering contamination and clearance) was “unchanged”.

In May 2009, Colombia’s Minister of Defence, Juan Manuel Santos, acknowledged that the Colombian Armed Forces had used cluster munitions in the past “to destroy clandestine airstrips and camps held by illegal armed groups”, but noted the submunitions sometimes did not explode and “became a danger to the civilian

population.”² In 2010, the Ministry of National Defence said that the Colombian Air Force last used cluster munitions on 10 October 2006 “to destroy clandestine airstrips belonging to organizations dedicated to drug trafficking in remote areas of the country where the risk to civilians was minimal.”³

In November 2012, the Inter-American Court of Human Rights found that Colombia had violated the rights to life and to physical, mental, and moral integrity by using a United States World War II “cluster adapter” to disperse fragmentation bombs during an attack on the village of Santo Domingo in December 1998.⁴ A helicopter dropped an AN-M1A2 cluster munition containing six submunitions, killing 17 civilians, including 6 children, and injuring a further 27 civilians, including 9 children. The action also resulted in the displacement of the village’s inhabitants. Colombia had sought to attribute the deaths to a bomb placed by Revolutionary Armed Forces of Colombia (FARC) guerrillas.⁵

The impact of any residual CMR contamination is believed to be minimal. The HALO Trust has not encountered or received any reports of unexploded submunitions,⁶ nor has Norwegian People’s Aid (NPA).⁷

Other Explosive Remnants of War and Landmines

Colombia is also affected by other unexploded ordnance (UXO) and landmines.

PROGRAMME MANAGEMENT

Established on 30 July 2002 under Law No. 759/2002, the National Interministerial Commission on Anti-personnel Mine Action (Comisión Intersectorial Nacional para la Acción contra Minas Antipersonal, CINAMAP) is the National Mine Action Authority responsible for implementing the Anti-Personnel Mine Ban Convention, including development of a national plan and policy decisions, and coordination of international assistance.⁸ This body is expected to be also responsible for CCM implementation.

The Presidential Programme for Comprehensive Mine Action (Programa Presidencial para la Acción Integral contra Minas Antipersonal, PAICMA) previously served as the technical secretary for CINAMAP, responsible for

coordinating implementation of the 2009–2019 Integrated Mine Action Plan.⁹ In September 2014, however, Decree 1649 modified the structure of the Presidency's Administrative Department, creating the Directorate for Comprehensive Mine Action (Dirección para la Acción Integral contra minas Antipersonal, DAICMA) to replace PAICMA. DAICMA has retained the same mandate and functions as PAICMA; the only change being that DAICMA is now supporting the Minister-Advisor for Post-Conflict, Human Rights, and Security and the Minister-Advisor's office in the strategic management of the national mine action programme.

LAND RELEASE

As at the end of May 2017, Colombia had not reported conducting any survey or clearance of any CMR-contaminated areas. As noted above, its Article 7 reports have not addressed the issue of CMR.

ARTICLE 4 COMPLIANCE

Under Article 4 of the CCM, Colombia is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 March 2026.

Colombia may be able to declare full completion of its Article 4 obligations once the requisite assessment and survey has been taken.

1 Declaration of Colombia, at: https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI-6&chapter=26&lang=en#EndDec.

2 C. Osorio, "Colombia destruye sus últimas bombas de tipo racimo" ("Colombia destroys its last cluster bombs"), *Agence France-Presse*, 7 May 2009.

3 Ministry of National Defense presentation on cluster munitions, Bogotá, December 2010.

4 Inter-American Court on Human Rights (IACtHR), *Caso Masacre de Santo Domingo v. Colombia*, Official Summary in Spanish, 30 November 2012; and Inter-American Commission on Human Rights, *Masacre de Santo Domingo*, Colombia, Case No. 12.416, 22 April 2011.

5 IACtHR, *Caso Masacre de Santo Domingo v. Colombia*, Judgment, 30 November 2012, §§210–30 (in Spanish); see <http://www.weaponslaw.org/case-law/iacthr-santodomingo-massacre>.

6 Email from Harriet Houlsby, Programme Coordinator, HALO Trust, Colombia, 17 March 2017.

7 Email from Vanessa Finson, Programme Manager, Humanitarian Disarmament – Colombia, NPA, 14 March 2017.

8 Acta CINAMAP 02/2013, 18 December 2013, pp. 3–4.

9 Presidency of Colombia, Decree 2150 of 2007.

CROATIA

ARTICLE 4 DEADLINE: 1 AUGUST 2020
(ON TRACK TO MEET DEADLINE)

PROGRAMME PERFORMANCE	2016	2015
Problem understood	9	9
Target date for completion of cluster munition clearance	7	7
Targeted clearance	7	7
Efficient clearance	7	7
National funding of programme	9	9
Timely clearance	6	6
Land release system in place	7	7
National mine action standards	6	7
Reporting on progress	6	6
Improving performance	8	7
PERFORMANCE SCORE: GOOD	7.2	7.2

PERFORMANCE COMMENTARY

Croatia's release of area contaminated with cluster munition remnants (CMR) strengthened in 2016 with a substantial increase in clearance output, marking a five-year high. This is despite the adoption of a new mine action law that may impede effective and efficient operations.

RECOMMENDATIONS FOR ACTION

- Croatia should adopt and present a strategic plan for completion of its clearance obligations under the Convention on Cluster Munitions (CCM).
- Croatia should revisit the 2015 Mine Action Law to rectify some of the unintended challenges it poses to the implementation of mine action operations.

CONTAMINATION

At the end of 2016, Croatia had ten areas confirmed to contain CMR covering a total area of 1.74km² (see Table 1).¹ This compares to reported contamination a year earlier of 11 confirmed hazardous areas (CHAs) over a total of 2.64km².²

CMR clearance in the county of Split-Dalmatia was completed in 2016, leaving only three counties contaminated.³

Table 1: CMR contamination by county (at end 2016)⁴

County	CHAs	Area (km ²)
Lika-Senj	4	0.72
Zadar	4	0.73
Šibenik-Knin	2	0.29
Totals	10	1.74

Croatia was contaminated with unexploded KB-1 and Mk-1 submunitions by the conflicts in the 1990s that followed the break-up of the Socialist Federal Republic of Yugoslavia. While Croatia was affected by the 2014 Balkan floods, none of the CMR-affected areas were flooded.⁵

The Croatian Mine Action Centre (CROMAC) reports that CMR have more of a socio-economic than humanitarian impact.⁶ At the end of 2016, 7.1% of the remaining CMR-contaminated land was defined as agricultural; 92.6% as forested, and 0.3% as “other area” (e.g. water, marshland, landslides, coast).⁷

Other Explosive Remnants of War and Landmines

Croatia is heavily contaminated by other unexploded ordnance (UXO) and anti-personnel mines.

PROGRAMME MANAGEMENT

CROMAC was established on 19 February 1998 as the umbrella organisation for mine action coordination.⁸ The CROMAC Council, the oversight and strategic planning body for mine action, is supposed to meet on a monthly basis⁹ but since the expiry of the mandate of government-appointed members in August 2016, the council has not met.¹⁰ As at April 2017, the CROMAC Council had been reformed, but was awaiting a new government decree in order to be formally established and commence its work.¹¹

Delay in government approval of the CROMAC Council primarily poses administrative challenges, rather than hindering mine action operations on the ground. Until the Decree is passed the CROMAC council is not able to send documents such as the annual work plan, to the government for approval; and it also impacts recruitment within CROMAC.¹² This explains why the head of CROMAC was still “Acting” Director as at writing.

In April 2012, the government created the OMA, reporting to the Prime Minister’s office, to function as a focal point for mine action, strengthen coordination among stakeholders and funding agencies, and raise public awareness about mine hazards.¹³ The OMA does not sit above CROMAC; rather, it is the government institution dealing with the political aspects of mine action whereas CROMAC deals with operations.¹⁴ The OMA includes a Unit for European Union (EU) Funds, tasked with promoting access to a range of EU funds to support the mine action sector.¹⁵ The establishment of the OMA has elevated the status of mine action within the country as it can politically pressure the government and international actors in ways that CROMAC, as a technical body, cannot.¹⁶

Strategic Planning

CROMAC has a National Mine Action Strategy 2009–2019, which includes among its main goals the tackling of CMR in accordance with the obligations of the CCM.¹⁷ There is, though, no detailed plan for the release of all areas containing CMR. All CMR-contaminated areas are said to be cleared in accordance with county and state priorities.¹⁸

Legislation and Standards

A new mine action law was adopted by the Croatian Parliament on 21 October 2015, incorporating developments from the latest International Mine Action Standards (IMAS), and specifically those relating to the use of technical survey to confirm the presence or absence of contamination.¹⁹ The 2015 law introduces a new procedure for “supplementary general survey” (i.e. non-technical survey) and enables “exclusion” (i.e. reduction) of suspected hazardous areas (SHAs) through technical survey, which was not possible under the previous law.²⁰ The 2015 Law on Mine Action has eliminated the need for standing operating procedures (SOPs), as all aspects of mine action are now clearly defined in the new law.²¹ National Mine Action Standards are also encompassed within it.²²

While the 2015 Law, which was initiated by the OMA and produced by the Ministry of Interior, marks an improvement in certain respects (for instance, by permitting land release through technical survey), it also poses challenges to the efficient and effective running of Croatia’s mine action programme. Operators were extensively consulted during the drafting of the former mine action law, but this did not occur during the elaboration of the 2015 Law. While CROMAC provided expert input and feedback on the draft, many of its substantive recommendations were not incorporated.²³

There is widespread agreement among mine action experts and professionals with significant experience in the field (e.g. CROMAC staff and deminers), that the new law is not practical to implement in the field, and impedes efficient and effective mine action operations.²⁴ Certain articles of the 2015 Law lack clarity and are hard to interpret, or do not make good sense operationally.²⁵ Furthermore, the 2015 Law has limited CROMAC’s supervision of the commercial operators.²⁶

Another consequence of the new law is that CROMAC no longer has responsibility for investigating demining accidents. This responsibility now lies with the State Attorney, under the oversight of the Ministry of Interior, rather than with the body with the requisite technical expertise. CROMAC only receives accident report summaries from the Ministry.²⁷

With sufficient political will, the challenges posed by the 2015 Law could be addressed and its provisions strengthened.²⁸ CROMAC would prefer that this is achieved through amendments to the law itself, rather than through the creation of supplementary by-laws and regulations, which is currently the case.

Previously, Croatia’s land release system was felt to be more suited to addressing mined areas, and lacked a specific system for tackling CMR. In particular,

technical survey was not being used to release land efficiently.²⁹ Article 143 of the Law on Mine Action required that by-laws be adopted to cover a number of issues, including demining methodology. Accordingly, a working group under the Ministry of Interior developed two supplementary regulations. The first by-law, “Regulations on demining, quality control, non-technical and technical surveys and marking of suspected hazardous areas”, entered into force in May 2016, and included, among other aspects, distinct technical survey procedures for mines and CMR, respectively. The second by-law, “Regulations on personal supervisory booklet and ID card of mine action employees and record forms”, entered into force in June 2016.³⁰

Under the 2015 Law, the Ministry of Interior assesses authorised legal entities for conducting demining; this was formerly CROMAC’s responsibility.³¹ With regard to accreditation, the Ministry of Interior now provides three separate permits: approval for manual mine detection, approval for mechanical mine detection, and approval for operations by mine and UXO detection dogs. This replaces the former unified accreditation license.³²

Quality Management

With the adoption of the 2015 Law on Mine Action, supervision during and after survey and clearance has been replaced by ongoing quality control (QC) and final QC. Required “ongoing QC” for clearance operators has increased from a minimum of 1% of cleared area to 5%, in order to increase safety and quality. In addition, CROMAC QC officers review a minimum of 5% of control samples at least every three days, and final quality management of 1% is conducted by a commission with two representatives from CROMAC and one from the Ministry of Interior.³³ The QC requirements of the 2015 Law are said to pose a significant capacity challenge for both operators and CROMAC, and rather than strengthen QC as intended, they threaten to negatively impact it.³⁴

Operators

At the beginning of 2016, 46 commercial companies, with a total capacity of 653 deminers, 55 machines, and 42 mine detection dogs (MDDs), were accredited to conduct CMR and mine clearance. By the end of the year, this had decreased to 41 accredited commercial companies with a total of 600 deminers, 51 demining machines, and 60 MDDs.³⁵ Nine companies were involved in clearing CMR in 2016.³⁶ Overall capacity remained roughly the same, but use of MDDs increased in 2016.³⁷ Most assets were deployed for mine clearance.

Following the adoption of the new mine action law, CROMAC expects MUNGOS, a state-owned clearance operator, to be more involved in technical survey, in addition to clearance.³⁸

LAND RELEASE

Croatia released 1.2km² of CMR area by clearance in 2016 and completed clearance of CMR in Split-Dalmatia county.³⁹ Output was a significant increase on the 0.43km² of clearance in 2015.⁴⁰

Survey in 2016

CROMAC identified and confirmed three CMR-contaminated areas totalling 94,270m² in 2016: 28,197m² in Lika-Senj county; 34,369m² in Split-Dalmatia county; and 31,704m² in Zadar county.⁴¹ Of the total area confirmed as CMR-contaminated in 2016, part was cleared during the year, and 55,426m² remained to be cleared at the end of the year.⁴²

Clearance in 2016

Croatia cleared 1.2km² of area containing only CMR in 2016, in addition to a further 111,571m² of mixed mine and CMR clearance in two areas in Lika-Senj county and Zadar counties, destroying 214 submunitions, mainly KB-1 submunitions in total (see Table 2).⁴³

Table 2: Clearance of CMR-contaminated area in 2016⁴⁴

Operator	County	Areas cleared	Area cleared (m ²)	Submunitions destroyed
Israživač	Lika-Senj	1	25,182	26
Piper	Lika-Senj	1	14,926	15
Fas	Split-Dalmatia	1	16,769	5
MUNGOS	Split-Dalmatia	1	17,600	1
MUNGOS	Split-Dalmatia	1	765,744	69
Diz-eko	Šibenik-Knin	1	125,419	13
Istraživač Benz	Zadar	1	86,389	72
Capsula Interna	Zadar	1	146,707	13
Totals		8	1,198,736	214

ARTICLE 4 COMPLIANCE

Under Article 4 of the CCM, Croatia is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 August 2020. It is on track to meet this deadline.

In 2016, Croatia contributed around €4.9 million (approximately US\$5.3 million) in national funding towards the cost of CROMAC, and around €21 million (approximately US\$22.9 million) to cover the cost of survey and clearance of mined areas.⁴⁵ CROMAC expected to receive increased funding in 2017, especially from the EU.⁴⁶ In 2017, however, CROMAC reported that funding to complete CMR clearance had been committed from the state budget, and that the success of the programme was not dependent on EU funds.⁴⁷

Croatia has cleared a total of 4.21km² over the past five years, with 2016 recording the highest annual clearance total in this period, as illustrated in Table 3. Croatia predicts that it will be able to meet its Article 4 obligations by the end of 2018,⁴⁸ well in advance of its August 2020 Article 4 deadline.

Table 3: Five-year summary of clearance⁴⁹

Year	Area cleared (km ²)
2016	1.20
2015	0.43
2014	0.66
2013	1.15
2012	0.77
Total	4.21

- 1 Email from Nataša Mateković, Assistant Director and Head of Planning and Analysis Department, CROMAC, 22 March 2017.
- 2 Emails from Miljenko Vahtaric, then Assistant Director for International Cooperation and Education, CROMAC, 13 and 18 May 2016; and CCM Article 7 Report (for 2015), Form A.
- 3 Email from Nataša Mateković, CROMAC, 22 March 2017; and CCM Article 7 Report (for 2015), Form A.
- 4 Ibid.
- 5 Email from Miljenko Vahtaric, CROMAC, 27 April 2015.
- 6 Email from Nataša Mateković, CROMAC, 22 March 2017.
- 7 Ibid.
- 8 CROMAC, "National Mine Action Strategy of Croatia 2009–2019", Zagreb, June 2009, p. 2.
- 9 Interview with Nataša Mateković, then Director, Planning and Analysis Department, CROMAC, Sisak, 29 February 2008; extract from "Law on Humanitarian Demining", National Gazette (Narodne Novine), No. 153/05, 28 December 2005; and interview with Miljenko Vahtaric, CROMAC, Sisak, 14 April 2014; and emails, 9 June 2015 and 24 August 2016.
- 10 Emails from Miljenko Vahtaric, CROMAC, 24 August 2016; and Nataša Mateković, CROMAC, 20 June 2017.
- 11 Email from Nataša Mateković, CROMAC, 22 March 2017.
- 12 Interviews with Hrvoje Debač, Acting Director, Government Office for Mine Action (OMA), 17 May 2017, Zagreb; and Neven Karas, Assistant Director and Head of Sector for General and Financial Affairs, CROMAC, Sisak, 18 May 2017.
- 13 Interview with Dijana Pleština, Director, OMA, in Geneva, 23 May 2012 and 10 April 2014; and email from Miljenko Vahtaric, CROMAC, 4 July 2013.
- 14 Email from Miljenko Vahtaric, CROMAC, 3 June 2016.
- 15 Interview with Miljenko Vahtaric, CROMAC, in Geneva, 11 April 2013, and email, 4 July 2013.
- 16 Interview with Miljenko Vahtaric, CROMAC, Sisak, 14 April 2014.
- 17 Email from Miljenko Vahtaric, CROMAC, 13 May 2016.
- 18 Email from Miljenko Vahtaric, CROMAC, 10 June 2015.
- 19 CCM Article 7 Report (for 2015), Form A.
- 20 Ibid.; and emails from Miljenko Vahtaric, CROMAC, 13 and 18 May 2016.
- 21 Email from Miljenko Vahtaric, CROMAC, 13 May 2016; and CCM Article 7 Report (for 2015), Form A.
- 22 Email from Miljenko Vahtaric, CROMAC, 13 May 2016.
- 23 Interviews with Hrvoje Debač, OMA, 17 May 2017, Zagreb; Ante Brkljačić, Acting Director, CROMAC, Geneva, 9 June 2017; and Neven Karas, CROMAC and Tomislav Ban, Assistant Director and Head of Sector for Operational Planning and Programming, CROMAC, Sisak, 18 May 2017.
- 24 Interviews with Neven Karas and Tomislav Ban, CROMAC, Sisak, 18 May 2017.
- 25 Interview with Tomislav Ban, CROMAC, Sisak, 18 May 2017.
- 26 Ibid.
- 27 Ibid.; and interview with Ante Brkljačić, CROMAC, Geneva, 9 June 2017.
- 28 Interviews with Neven Karas, and Tomislav Ban, CROMAC, Sisak, 18 May 2017; and Ante Brkljačić, CROMAC, Geneva, 9 June 2017.
- 29 Email from Darvin Lisica, Programme Manager, Bosnia and Herzegovina, Norwegian People's Aid, 3 March 2015.
- 30 Emails from Miljenko Vahtaric, CROMAC, 18 May 2016 and Nataša Mateković, CROMAC, 20 June 2017; Statement of Croatia, Clearance session, Anti-Personnel Mine Ban Convention 15th Meeting of States Parties, Santiago, 29 November 2016; and CCM Article 7 Report (for 2016), Form A.
- 31 Email from Miljenko Vahtaric, CROMAC, 24 August 2016.
- 32 Ibid.
- 33 Emails from Miljenko Vahtaric, CROMAC, 13 May 2016; and Nataša Mateković, CROMAC, 20 June 2017.
- 34 Interviews with Tomislav Ban, CROMAC, Sisak, 18 May 2017 and a representative of the Croatian Employers' Association (CEA) – Humanitarian Demining Association, Zagreb, 17 May 2017.
- 35 Email from Nataša Mateković, CROMAC, 22 March 2017.
- 36 Ibid.; and interview with Nataša Mateković, CROMAC, Sisak, 18 May 2017.
- 37 Ibid.
- 38 Ibid.
- 39 Email from Nataša Mateković, CROMAC, 22 March 2017.
- 40 Email from Miljenko Vahtaric, CROMAC, 13 May 2016.
- 41 Statement of Croatia, Clearance Session, CCM 6th Meeting of States Parties, Geneva, 5 September 2016.
- 42 Emails from Nataša Mateković, CROMAC, 22 March and 26 May 2017; and CCM Article 7 Report (for 2015), Form F.
- 43 Email from Nataša Mateković, CROMAC, 20 June 2017; and CCM Article 7 Report (for 2016), Form F.
- 44 Emails from Nataša Mateković, CROMAC, 20 June 2017; and Dejan Rendulić, CROMAC, 30 June 2017; and CCM Article 7 Report (for 2016), Form F. CMR clearance operations also involved destruction of 27 anti-personnel mines and 15 anti-vehicle mines.
- 45 Ibid.
- 46 Ibid.
- 47 Interview with Nataša Mateković, CROMAC, in Geneva, 10 February 2017.
- 48 Ibid.; and email from Nataša Mateković, CROMAC, 22 March 2017.
- 49 See Cluster Munition Monitor and Mine Action Review reports on clearance in Croatia covering 2012–15.

GERMANY

ARTICLE 4 DEADLINE: 1 AUGUST 2020
(UNCLEAR WHETHER ON TRACK TO MEET DEADLINE)

PROGRAMME PERFORMANCE	2016	2015
Problem understood	8	7
Target date for completion of cluster munition clearance	4	4
Targeted clearance	5	4
Efficient clearance	2	2
National funding of programme	8	8
Timely clearance	4	4
Land release system in place	5	5
National mine action standards	8	8
Reporting on progress	5	4
Improving performance	6	5
PERFORMANCE SCORE: AVERAGE	5.5	5.1

PERFORMANCE COMMENTARY

Germany's programme for the release of cluster munition remnants (CMR) performed better in 2016. Having completed survey of the contaminated area in 2015, Germany prepared the site-wide fire protection system in 2016 in readiness for clearance, which finally began in 2017. However, Germany's planned clearance, which aims to complete CMR clearance in early 2020, does not factor in a sufficient margin for delays if it is to comply with its Article 4 deadline under the Convention on Cluster Munitions (CCM).

RECOMMENDATION FOR ACTION

- Germany should provide details of its proposed timeline for completion of CMR clearance, and assess whether it can speed up planned release to ensure unforeseen delays do not prevent it from meeting its Article 4 deadline.

CONTAMINATION

As at April 2017, Germany had 11km² of area suspected to contain CMR at a former Soviet military training area at Wittstock, Brandenburg, in former East Germany.¹ The Soviet-era ShOAB-0.5 submunitions contaminating Wittstock result from testing of the weapon in 1952–93.² The area is highly contaminated with various kinds of explosive ordnance, and “especially ordnance with considerable explosive power”, as well as scrap metal.³

In its initial CCM Article 7 transparency report, submitted in January 2011, Germany declared having no areas confirmed or suspected to contain CMR.⁴ In June 2011, however, at an Anti-Personnel Mine Ban Convention (APMBC) Standing Committee meeting, Germany

declared that the area at Wittstock was suspected to contain CMR.⁵ Germany repeated the information at the CCM Intersessional Meetings a week later, noting that the remnants were “principally found within the confines of a target range” located at the south of the training area.⁶

From 2011 to early 2014, suspected CMR contamination was reported to total 4km².⁷ In August 2014, however, Germany reported that the suspected hazardous area (SHA) was actually 11km².⁸ The increased estimate for the size of the SHA was ascribed to discovery of submunitions during non-technical survey across a greater area than previously reported.⁹

PROGRAMME MANAGEMENT

In early October 2011, ownership of the Wittstock former training range was transferred from the military to the federal government authority in charge of real estate, Bundesanstalt für Immobilienaufgaben (BImA).

Beginning in 2012, BImA implemented a risk education programme in collaboration with local authorities based on a “danger prevention plan”. The plan was described as a “crucial prerequisite” for further technical survey of the area.¹⁰ Activities included marking the perimeter and preventing civilian access to the area.¹¹ It was planned

to conduct an initial survey of access routes and areas of suspected unexploded ordnance (UXO) contamination in neighbouring locations, and, subsequently, technical survey.¹² The cost of any clearance would be covered by BImA.

Once safely released, the site is due to remain part of a “nature protection area” in the Kyritz-Ruppiner-Heide, managed by BImA as part of the Europa NATURA 2000 site, under the European Union (EU) Habitats Directive.¹³

LAND RELEASE

No land was released by survey or clearance in 2016.

Survey of the area of suspected CMR-contamination was completed in 2015, and in 2016 Germany undertook preparations for CMR clearance. Clearance began in March 2017.¹⁴

Survey in 2012–15

At the CCM intersessional meetings in April 2012, Germany announced plans to conduct technical survey and, if necessary, clearance during 2012 of a 40km-long, 50-metre-wide tract of land to ensure fire prevention and environment protection. During the same period, it would also clear a network of paths and tracks to enable emergency management.¹⁵ By August 2014, however, it was stated only that preparations for a “technical investigation” were “underway”.¹⁶

According to Germany, in order to start technical survey, an area of 100 hectares (1km²) of vegetation had first to be burnt to form a corridor around the targeted area. This was envisaged to take place in March 2015, followed by a technical survey pilot phase later in the year. The length of the survey would be dictated by what was found, and mechanical assets were not to be deployed because of the mixed nature of contamination.¹⁷ In April 2015, Germany again reported that a technical survey was scheduled for later in the year.¹⁸ In June 2015, Germany confirmed that technical survey was finally underway, but provided no further information on the expected timeframe for the survey or any clearance operations.¹⁹

In September 2015, Germany reported having carried out extensive non-technical and technical survey.²⁰ During preparation of the technical survey in 2015, four ShOAB-0.5 submunitions were cleared.²¹ Site and “geophysical investigation” revealed strong evidence that CMR contamination existed only on the surface.²² Germany subsequently confirmed that all required survey had been completed in 2015, and the results had formed the basis for the subsequent preparatory work in 2016.²³

Clearance in 2015–17

In September 2015, Germany reported that following non-technical and technical survey, 46km of affected roads had been “cleared” in order to guarantee safe access to the area.²⁴ Despite a request for clarification from Mine Action Review, Germany did not confirm if the 46km of affected road was actually released by clearance, as reported, or was in fact released by survey, which seems more probable. Germany also did not confirm the number and type of UXO discovered and destroyed during this process.

As at September 2015, Germany reported that it was in the process of planning the final steps to clear the area of CMR, and that it would commence clearance in the first quarter of 2016.²⁵

Due to the dense vegetation in the contaminated area, Germany opted to burn the area in sections, to ensure an unobstructed view of the natural ground surface, where submunitions will be detected by visual and “geophysical means”.²⁶ As at July 2016, Germany reported it was “making progress with the fire protection system and everything is so far working as planned”.²⁷ Preparation of the site-wide fire protection system was implemented by remote-controlled caterpillar machinery operated by a team of five explosive ordnance disposal (EOD) personnel (one senior EOD technician and four machinery operators/surveyors). This was completed in 2016, with the exception of a small forest area on the eastern edge of the SHA.²⁸ During this process, an additional five ShOAB-0.5 submunitions were destroyed.²⁹

Progress in 2017

As envisaged in its CCM Article 7 transparency report for 2015,³⁰ after preparing for CMR clearance in 2016 by creating the fire protection system, burning of vegetation and clearance of the SHA started in early 2017. Some 2km² of heathland was burnt in mid-March 2017, with clearance operations beginning later the same month.³¹ Clearance operations in 2017 are intended to clear the 2km² area prepared for clearance, in addition to some of the forest on the eastern edge of the SHA that could not be burnt as part of the fire protection system.³²

ARTICLE 4 COMPLIANCE

Under Article 4 of the CCM, Germany is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 August 2020. It is unclear whether Germany is on track to meet this deadline.

Germany currently plans to complete clearance operations in early 2020. It does not expect any personal, technical, or financial obstacles to clearance. However, favourable meteorological conditions are necessary for operations, and environmental protection laws limit the burning periods. According to Germany, these two factors could lead to unplanned delays.³³ Given the tight timetable, such delays could prevent Germany from meeting its Article 4 deadline of 1 August 2020.³⁴

According to Germany's Article 7 report for 2016, the cost of the "site wide fire-protection system" instituted in 2016 by remote-controlled caterpillar machinery, stood at €600,000.³⁵

- 1 Email from official from the Desk for Conventional Arms Control, German Federal Foreign Office, 19 April 2017; and CCM Article 7 Report (for 2016), Form F.
- 2 CCM Article 7 Report (for 2016), Form F; and Statement of Germany, High-Level Segment, First CCM Review Conference, Dubrovnik, 7 September 2015.
- 3 Statement of Germany, First CCM Review Conference, Dubrovnik, 7 September 2015.
- 4 CCM Article 7 Report (for 2010), Form F.
- 5 Statement of Germany, APMBC intersessional meetings (Standing Committee on Mine Action), Geneva, 21 June 2011.
- 6 Statement of Germany, CCM intersessional meetings (Clearance and Risk Reduction Session), Geneva, 28 June 2011.
- 7 Ibid; and Statement of Germany, CCM Third Meeting of States Parties, Oslo, 13 September 2012; CCM Article 7 Report (for 2012), Form F; and CCM Article 7 Report (for 2013), Form F.
- 8 Email from official from the Desk for Conventional Arms Control, German Federal Foreign Office, 4 August 2014.
- 9 Statement of Germany, First CCM Review Conference, Dubrovnik, 7 September 2015.
- 10 Statement of Germany, APMBC intersessional meetings (Standing Committee on Mine Action), Geneva, 23 May 2012.
- 11 CCM Article 7 Report (for 2011), Form G.
- 12 Statements of Germany, APMBC intersessional meetings (Standing Committee on Mine Action), Geneva, 27 May 2012; and APMBC Twelfth Meeting of States Parties, Geneva, 6 December 2012.
- 13 APMBC Article 5 deadline Extension Request, 15 April 2013, p. 7; and CCM Article 7 Report (for 2015), Form F.
- 14 Email from official from the Desk for Conventional Arms Control, German Federal Foreign Office, 19 April 2017; and CCM Article 7 Report (for 2016), Form F.
- 15 Statement of Germany, CCM intersessional meetings (Clearance and Risk Reduction Session), 17 April 2012.
- 16 Email from official from the Desk for Conventional Arms Control, German Federal Foreign Office, 4 August 2014.
- 17 Meeting with official from the Desk for Conventional Arms Control, German Federal Foreign Office, in San José, September 2014.
- 18 CCM Article 7 Report (for 2014), Form F.
- 19 Meeting with official from the German Mission to the Conference on Disarmament, Geneva, 25 June 2015.
- 20 Statement of Germany, First CCM Review Conference, Dubrovnik, 7 September 2015.
- 21 CCM Article 7 Report (for 2015), Form F.
- 22 Ibid.
- 23 Email from official from the Desk for Conventional Arms Control, German Federal Foreign Office, 19 April 2017.
- 24 Statement of Germany, First CCM Review Conference, Dubrovnik, 7 September 2015.
- 25 Ibid.
- 26 CCM Article 7 Report (for 2015), Form F.
- 27 Email from official from the Desk for Conventional Arms Control, German Federal Foreign Office, 14 July 2016.
- 28 Email from official from the Desk for Conventional Arms Control, German Federal Foreign Office, 19 April 2017; and CCM Article 7 Report (for 2016), Form F.
- 29 CCM Article 7 Report (for 2016), Form F; and email from official from the Desk for Conventional Arms Control, German Federal Foreign Office, 14 June 2017.
- 30 CCM Article 7 Report (for 2015), Form F.
- 31 Emails from official from the Desk for Conventional Arms Control, German Federal Foreign Office, 19 April and 13 June 2017; and CCM Article 7 Report (for 2016), Form F.
- 32 Email from official from the Desk for Conventional Arms Control, German Federal Foreign Office, 19 April 2017.
- 33 Ibid.
- 34 Ibid.
- 35 CCM Article 7 Report (for 2016), Form F.

IRAQ

ARTICLE 4 DEADLINE: 1 NOVEMBER 2023
(NOT ON TARGET TO MEET DEADLINE)

PROGRAMME PERFORMANCE	2016	2015
Problem understood	5	6
Target date for completion of cluster munition clearance	3	3
Targeted clearance	4	4
Efficient clearance	6	6
National funding of programme	5	6
Timely clearance	3	3
Land release system in place	6	6
National mine action standards	5	5
Reporting on progress	5	5
Improving performance	4	5
PERFORMANCE SCORE: POOR	4.6	4.9

PERFORMANCE COMMENTARY

Iraq's mine action programme made significant progress in the south, but in central and northern Iraq the conflict with Islamic State diverted attention and resources to priorities other than clearance of cluster munition remnants (CMR).

RECOMMENDATIONS FOR ACTION

- Iraq should formulate a strategic plan and detailed national standards for survey and clearance of cluster munitions.
- Iraq should work with operators to resolve major discrepancies in data, particularly concerning operations in central and southern Iraq.
- When circumstances permit, technical survey of areas confirmed or suspected to contain CMR should be conducted to establish a robust figure for nationwide contamination.
- Iraq should devise procedures to end long and hazardous delays in carrying out demolitions of cleared items.

CONTAMINATION

CMR contaminate significant areas of central and southern Iraq, a legacy of the 1991 Gulf War and the 2003 invasion of Iraq. Iraq has claimed that CMR in confirmed hazardous areas (CHAs) cover a total of 200km² across nine central and southern governorates of which 95% was said to be in just the three governorates of Basra, Muthanna, and Thi-Qar.¹ A small amount of CMR contamination also remains in northern Iraq's Kurdish region.

The highway between Kuwait and Basrah was heavily targeted by cluster bomb strikes in the 1991 Gulf War,² and cluster munitions were also used extensively during the 2003 invasion of Iraq, particularly around Basra,

Nasiriyah, and the approaches to Baghdad. CMR are a feature of many of the clearance tasks being undertaken to open up access to oilfields and develop infrastructure as well as for humanitarian clearance.³

The Department of Mine Action (DMA) estimated that CMR contamination whose presence had been confirmed at the end of 2016 was 207km², nearly 7km² more than a year earlier, reflecting identification of additional hazards in the course of survey in 2016. One district of Muthanna governorate, Al-Salman, accounted for 128.5km², more than half the total.⁴

Table 1: CMR contamination in Iraq 2016⁵

Governorate	CHAs	Area (m ²)	SHAs	Area (m ²)
Babylon	1	89,500	0	0
Basra	154	25,524,912	0	0
Karbala	4	1,595,474	1	218,708
Missan	10	671,938	1	5,932
Muthanna	31	128,643,822	0	0
Najaf	4	4,012,033	1	1,309,596
Al-Qadisiyah	4	3,740,034	1	226,303
Thi-Qar	12	43,092,816	0	0
Wassit	2	299,143	0	0
Totals	222	207,669,672	4	1,760,539

Kurdish regional authorities estimated CMR-affected areas at 1.18km² in two governorates (Dohuk and Garbiyan) at the end of 2015 together with 0.6km² of SHAs. A year later they said northern governorates had residual, scattered CMR contamination but no CHAs or SHAs.⁶ A number of areas where there is evidence of CMR still need to be surveyed to establish the extent of contamination.⁷

Other Explosive Remnants of War and Landmines

Iraq also has very heavy ERW contamination across the north, centre, and south, and more than 200km² of confirmed anti-personnel mine contamination, as well as dense contamination by improvised mines in areas controlled by, or liberated from, Islamic State.⁸

PROGRAMME MANAGEMENT

The mine action programme in Iraq is managed along regional lines. The DMA represents Iraq internationally and manages mine action for humanitarian purposes in the centre and the south, implementing policies set by an inter-ministerial Higher Council of Mine Action which reports to the Prime Minister. Commercial companies undertaking oilfield clearance operations report to the Ministry of Oil.⁹

The DMA oversees four Regional Mine Action Centres (RMACs): for the north (covering the governorates of Anbar, Kirkuk, Mosul, and Saladin), the centre (Baghdad, Diyala, and Wassit), a region identified as "ME" (Babylon, Karbala, Najaf, and al-Qadisiyah), and the south (Basra, Missan, Muthanna, and Thi-Qar).¹⁰ RMAC South, based in

Basra, is active coordinating the activities of non-commercial operators and collecting survey and clearance data, but the extent to which other RMACs are functioning is unclear.

Mine action in Iraq's northern governorates under the Kurdistan Regional Government (KRG) is managed by the Iraqi Kurdistan Mine Action Agency (IKMAA). It coordinates four directorates in Dohuk, Erbil, Garmiyān, and Sulimaniya (Slemanī).

Strategic Planning

Iraq does not have a national strategic plan for clearance of CMR. Its vision for mine action is "Iraq free from the impact of mines and explosive remnants of war, including cluster munitions."¹¹

Operators

The DMA said five organisations conducted survey and/or clearance of areas affected by cluster munitions in 2016, including Civil Defence, Danish Demining Group (DDG), Iraq Mine Clearance Organization (IMCO), Norwegian People's Aid (NPA) and RMAC South. IMCO had ceased operation in 2015 but the DMA said it reaccredited IMCO after it re-registered as a national organisation.¹²

Despite Iraq's high level of CMR contamination, only two organisations, Civil Defence and NPA, were involved in systematic CMR clearance in 2016. Civil Defence provided the main CMR clearance capacity, deploying teams with a total of 202 deminers/explosive ordnance disposal (EOD) technicians in 15 governorates.¹³ NPA's capacity included three three-strong survey teams and five EOD/battle area clearance (BAC) teams with 48 deminers/EOD technicians, for a total of 57 personnel.¹⁴

IKMAA has reported that only Mines Advisory Group (MAG) conducts CMR clearance in the KRG.¹⁵

LAND RELEASE

Iraq's war against Islamic State and associated security and humanitarian challenges raised attention to the mine action sector in 2016, but lowered the priority of cluster munitions clearance. Dense contamination by improvised devices inflicting casualties and delaying the return of civilian populations to urban centres controlled by Islamic State was the top imperative, resulting in slower progress on CMR survey and clearance.¹⁶

Major discrepancies between the data available from mine action authorities and operators made it difficult to assess progress. Moreover, long delays between completing clearance of tasks and final QC checks by mine action authorities can also result in long delays before it is formally released.¹⁷

Survey in 2016

Survey of CMR-affected areas in central and southern Iraq in 2016 (see Table 2) covered less than a quarter of the 42.17km² surveyed the previous year, according to DMA data.¹⁸

Table 2: Survey of CMR-contaminated areas in 2016

Operator	CHAs confirmed	Area confirmed (m ²)
Civil Defence	7	987,397
DDG	2	2,516,211
IMCO	6	5,222,379
NPA	18	747,347
RMAC South	1	49,821
Totals	34	9,523,155

DMA's record of activities undertaken by international operators, as in the past, differed significantly from the operators' own records. DDG had prepared to set up survey teams but reported that it was instructed that survey was not a requirement and as a result it undertook no CMR survey in 2016.¹⁹ NPA said it confirmed 76 CMR hazards covering 6.73km², mostly in Missan governorate, in addition to cancelling 14 SHAs covering 5.74km², nearly 10 times more than recorded by DMA data (see Table 3).²⁰ Even including NPA's survey results, the CMR-affected area surveyed in 2016 was almost two-thirds less than the previous year.

Table 3: Non-technical survey and CMR survey in 2016²¹

Operator	SHAs cancelled	Area cancelled (m ²)	SHAs confirmed	Area confirmed (m ²)
NPA South Iraq	14	5,740,052	76	6,731,293

IKMAA has concluded that the KRG has only scattered, residual CMR contamination, and did not record any CMR-related survey in 2016.²²

Clearance in 2016

The DMA reported a sharp decline in the amount of CMR-affected land cleared in central and southern Iraq in 2016 to 2.9km², compared with 8.2km² the previous year, but official numbers appear to be distorted by delays in the government's certification of clearance, among other factors, and the pace of clearance may in fact have accelerated.

DMA records showed that NPA, working in Basra and Missan governorates, cleared 1.18km² of CMR-affected areas in 2016 but cleared another 2.21km² of land that had some submunitions, clearing 129 items.²³ Data from NPA, which worked with three survey teams and 48 EOD/BAC technicians, showed that it cleared 7.9km² in 2016, more than three times the 2.3km² it said it cleared in 2015, although by its own count the number of submunitions it cleared dropped from 1,157 in 2015 to 525. The acceleration in clearance accompanied stronger coordination with RMAC South which saw NPA for the first time operating with a workplan for non-technical survey and clearance in Basrah, Missan, and Muthanna governorates in 2017–18.²⁴

Demolitions of cleared items, however, remained a major concern for all operators across the mine action sector. Only the army was authorised to conduct demolitions and the diversion of military personnel and resources to conflict areas reduced the attention to demolitions, leaving cleared items stored in insecure settings for long periods.²⁵

In the KRG, MAG remained the only organisation working on cluster munition strikes in 2016 but this made up only a small part of its activities in 2016 and it cleared less than half the 0.55km² tackled the previous year.²⁶

Table 4: Clearance of CMR contamination in 2016

Operator	Areas cleared	Area cleared (m ²)	Submunitions destroyed	UXO destroyed
Centre & South²⁷				
Civil Defence	12	1,730,893	1,462	62
NPA ²⁸	11	1,158,692	123	11
Subtotals	23	2,889,585	1,585	73
KRG				
MAG ²⁹	5	209,920	97	7
Totals	28	3,099,505	1,682	80

ARTICLE 4 COMPLIANCE

Under Article 4 of the Convention on Cluster Munitions, Iraq is required to destroy all cluster munition remnants in areas under its jurisdiction or control as soon as possible, but not later than 1 November 2023.

On current estimates of contamination Iraq would need to release around 30km² of CMR-affected areas a year to meet its treaty deadline. That would pose a

significant challenge even without the pressures it faces from conflict with Islamic State and the many resulting security and humanitarian imperatives. Against that background, however, cluster munitions does not rank as a priority and progress in survey and clearance lags well behind the level that would be needed to meet its deadline.

- 1 Email from Ahmed Al-Jasim, Head of Information Management Department, DMA, 30 May 2016.
- 2 United Nations Children's Fund (UNICEF)/UN Development Programme (UNDP), "Overview of Landmines and Explosive Remnants of War in Iraq", June 2009, p. 10.
- 3 Telephone interview with Kent Paulusson, Senior Mine Action Advisor for Iraq, UNDP, 28 July 2011.
- 4 Email from Ahmed Al-Jasim, DMA, 6 April 2017.
- 5 Ibid.
- 6 Emails from Khatab Omer Ahmad, Planning Manager, Directorate General of Technical Affairs, Iraqi Kurdistan Mine Action Agency (IKMAA), 8 April 2017 and 20 May 2016.
- 7 Information from Kathy Keary, Liaison Manager, Mines Advisory Group (MAG), 26 June 2017.
- 8 Emails from Ahmed Al-Jasim, DMA, 6 April 2017; and Khatab Omer Ahmad, IKMAA, 8 April 2017.
- 9 DMA presentation to 2015 Mine Action Country Planning Workshop for Iraq, Istanbul, 13 May 2015; Geneva International Centre for Humanitarian Demining, "Capacity Development Support to National Mine Action Authorities in Iraq, Phase 1: Initial Assessment Mission", February 2012.
- 10 DMA presentation to 2015 Mine Action Country Planning Workshop for Iraq, Istanbul, 13 May 2015.
- 11 Ibid.
- 12 Email from Ahmed Al-Jasim, DMA, 4 May 2017.

- 13 Emails from Ahmed Al-Jasim, DMA, 6 April and 4 May 2017.
- 14 Email from Mats Hektor, Project Manager South Iraq, NPA, 1 April 2017.
- 15 Email from Khatab Omer Ahmed, IKMAA, 8 April 2017.
- 16 Email from Ahmed Al-Jasim, DMA, 23 May 2017.
- 17 NPA reported in April 2017 that it was waiting for QC of tasks completed in 2015. Email from Mats Hektor, NPA, 27 April 2017.
- 18 Email from Khatab Omer Ahmed, IKMAA, 8 April 2017.
- 19 Email from Southern Craib, Country Director, DDG, 27 March 2017.
- 20 Email from Mats Hektor, NPA, 1 April 2017.
- 21 Interviews and correspondence with operators, February–May 2017.
- 22 Email from Khatab Omer Ahmed, IKMAA, 20 May 2016.
- 23 Email from Ahmed Al-Jasim, DMA, 6 April 2017.
- 24 Emails from Mats Hektor, NPA, 1 April 2017; and Bjørn Skodvin Hannisdal, Country Programme Director, NPA, 3 June 2016.
- 25 Email from Mats Hektor, NPA, 1 April 2017.
- 26 Email from Steven Warner, Desk Officer for Iraq, MAG, 28 April 2017.
- 27 Emails from Ahmed Al-Jasim, DMA, 6 April and 4 May 2017.
- 28 NPA reported to Mine Action Review that it had cleared 14 areas containing CMR totalling 7.95km², clearing 525 submunitions, 1,549 other items of UXO, 43 anti-personnel mines, and 5 anti-vehicle mines. Email from Mats Hektor, NPA, 1 April 2017.
- 29 Email from Steven Warner, MAG, 28 April 2017.

LAO PEOPLE'S DEMOCRATIC REPUBLIC

ARTICLE 4 DEADLINE: 1 AUGUST 2020
(NOT ON TRACK TO MEET THE DEADLINE)

PROGRAMME PERFORMANCE	2016	2015
Problem understood	5	6
Target date for completion of cluster munition clearance	5	5
Targeted clearance	7	7
Efficient clearance	6	6
National funding of programme	5	5
Timely clearance	5	5
Land release system in place	5	6
National mine action standards	7	7
Reporting on progress	6	6
Improving performance	6	8
PERFORMANCE SCORE: AVERAGE	5.7	6.1

PERFORMANCE COMMENTARY

Analysis of data in the Information Management System for Mine Action (IMSMA) database revealed many errors requiring a major data clean-up exercise potentially slowing implementation of a badly needed national baseline survey of contamination. Procedures and standards for the survey were again the subject of extensive discussion between the National Regulatory Agency (NRA) and operators in 2016, but without a conclusion being reached. Coordination of survey and clearance required strengthening at provincial level and between provinces and the capital.

RECOMMENDATIONS FOR ACTION

- National authorities and operators should agree clear standards and criteria for cluster munition remnants survey ahead of the planned national survey.
- Procedures for issuing or renewing Memoranda of Understanding (MoU) continue to create inefficiencies and delays and should be streamlined and made more transparent to facilitate timely use of donor funds.
- The Lao People's Democratic Republic (Lao PDR) should establish a budget line for sustained national funding of the sector.

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 (US) conducted one of the heaviest aerial bombardments in history, dropping more than two million tonnes of bombs between 1964 and 1973,¹ including more than 270 million submunitions (known locally as bombies). Clearance teams have found 29 types of submunition, including most commonly BLU 26, 24/66, and 63.²

Lao PDR does not have a reliable estimate of contamination by cluster munition remnants (CMR). The NRA reports that 14 of the country's 17 provinces are contaminated by UXO, with 9 heavily affected. In 2016, it embarked on plans for a nationwide survey that should produce an evidence-based assessment of the extent of contamination (see, below, the section on Survey in 2016) by 2020.³ Survey in the past three years has confirmed more than 320km² of CMR contamination.⁴ The NRA reported the total area of CHA at 352 km².⁵ International operators believe total CMR contamination is likely to amount to less than 2,000km².⁶

Bombies accounted for 84% of all items cleared in 2016, a higher proportion for the third successive year that reflects increased focus on cluster munitions in survey and clearance. In 2014, bombies made up about two-thirds of all items cleared and in 2015 about three-quarters.⁷ The NRA has identified submunitions as responsible for close to 30% of all incidents.⁸ Submunitions are also said to be the type of ERW most feared by the population.⁹ UNDP has reported that "economic opportunities in tourism, hydroelectric power, mining, forestry and many other areas of activity considered main engines of growth for the Lao PDR are restricted, complicated and made more expensive" by submunition contamination.¹⁰

Other Explosive Remnants of War and Landmines

Extensive contamination from other ERW includes both air-dropped and ground-fired UXO, though the extent of residual ERW is not known. Clearance operators have reported the presence of at least 186 types of munition in Lao PDR.¹¹ These range from 20lb fragmentation bombs to 2,000lb general-purpose bombs and sometimes bigger items.¹² Other major causes of incidents are artillery shells, grenades, mortars, and rockets.¹³

PROGRAMME MANAGEMENT

The NRA, created by government decree in 2004 and active since mid-2006, has an interministerial board chaired by the deputy prime minister and composed of 22 representatives from government ministries.¹⁴ Until 2011, the NRA came under the supervision of the Ministry of Labour and Social Welfare. A decree issued in June 2011 appointed a minister in the Prime Minister's Office responsible for rural development and poverty reduction as Vice-Chair of the Board, together with the Vice-Minister of Foreign Affairs.¹⁵ A February 2015 decree expanded the NRA board to 22 members, which is chaired by the Minister in the Prime Minister's Office responsible for rural development, Bounheuang Douangphachanh, and with ministers of Defence, Foreign Affairs and Labour and Social Welfare as vice-chairmen.¹⁶

A parliamentary election in March 2016 led to leadership changes, including the retirement of Bounheuang Douangphachanh. In September 2016, the government transferred the NRA and the mine action sector back under the control of the Ministry of Labour and Social Welfare. The reasons for the change were not known. The draft of a new decree formalising changes to the NRA board was submitted for approval by the Ministry of Labour and Social Welfare in April 2017.¹⁷

The change reportedly resulted in confusion at provincial and district level over distribution of responsibilities. Operators said the change also resulted in significant additional delays to processing even routine requests in addition to lengthy delays routinely experienced in obtaining approval of MoUs, which have the effect of delaying operations and obstructing improvements in scale and efficiencies.

NRA said it reviewed its structure in 2016 and plans to develop a network of regional offices in light of preparations for a nationwide survey and its inability to coordinate survey activities at a provincial level, including the management of information and conduct of quality assurance. NRA intended to trial increased support in three provinces.¹⁸

Strategic Planning

The Lao government adopted UXO clearance as a ninth Millennium Development Goal in 2010, targeting removal of all UXO from priority agricultural land by 2020.¹⁹ In 2013, the government identified 64 priority areas planned to become small rural townships, 167 focal sites to consolidate and “stabilise” remote rural communities, and more than 1,680 priority projects.²⁰ Although progress is not measured against these targets they remain as a reference point for the sector.

Strategic goals were set out in the “Safe Path Forward 2” (SPF) plan, as revised in June 2015, when the NRA set a number of specific targets for the remaining five years up to 2020. These included non-technical survey of 3,860 villages, pursuing technical survey, keeping clearance as a priority of the government’s poverty eradication programme, bringing down the number of casualties to less than 40 a year, and providing medical care, vocational training, and economic support to 1,500 UXO victims.²¹

Many of these were superseded in March 2016 when the NRA issued a landmark paper committing to time-bound nationwide non-technical and technical survey, with a view to producing Lao PDR’s first baseline estimate of cluster munitions contamination.²² The paper called for completing non-technical survey of all villages in the 14 CMR-affected provinces within 4 years, at an estimated cost of \$6.84 million, and technical survey of all evidence points in 5 years (by the end of 2021), at a projected cost of at least \$20 million. Once technical survey is 30% complete, the government would be able to provide an estimate of total CMR contamination.

Survey would be conducted mostly by international NGOs and UXO Lao, possibly with some involvement of the Lao Army in non-technical survey. The paper also stated, without explanation, that the government expects international humanitarian operators, who account for about half the capacity of the humanitarian UXO sector, to cease conducting clearance after technical survey has been completed.²³

The NRA set out amended targets in a sector working group meeting in November 2016. These called for non-technical survey of 3,160 villages between 2017 and 2019 at an estimated cost of \$5.6 million and completion of technical survey in 2,700 villages in five years (2017–21) at a cost of \$69.7 million.²⁴ As at May 2017, no detailed plan, priorities, or timelines for conducting the survey had been decided. Operators were due to submit bids to the US Office of Weapons Removal and Abatement in the State Department’s Bureau of Political-Military Affairs (PM/WRA) in August 2017 and to start work in January 2018.²⁵

The plan outlined at the Working Group also targeted clearance for 2017–21 of 45km² a year, far in excess of current clearance rates (see Table 2). The plan called for spending on clearance of \$57 million.²⁶

Operators

UXO Lao, working in nine provinces, continued as the biggest operator employing around 1,400 staff, including 80 clearance teams, 15 technical survey teams and 9 non-technical survey teams, though fluctuating donor support raised questions about future role and capacity. In Luang Prabang, UXO Lao operated with funding from Norway and management support from Norwegian People’s Aid (NPA).²⁷

International humanitarian operators included The HALO Trust conducting survey and clearance in four of Savannakhet province’s most contaminated districts (Nong, Phine, Sepon, and Vilabouly) with a total of 240 staff; Handicap International (HI), with 54 staff also working in Savannakhet province; and MAG, with 332 staff conducting survey and clearance in Xieng Khouang province and clearing CHAs identified by NPA in Khamouane province. NPA, with 268 staff, conducted survey mainly in three southern provinces of Attapeu, Saravane, and Sekong.²⁸

Lao PDR has accredited 15 commercial companies but in 2016 reported clearance by only 7. International commercial operators include Auslao UXO Clearance, BACTEC (Battle Area Clearance, Training, Equipment and Consultancy), Milsearch, and Munitions Management Group (MMG). National commercial operators that have been accredited include ASA Power Engineering, GREAT Company, Lao BSL UXO Clearance, Lao Uneod Cooper, OUMMA UXO Clearance, PSD, SBH, Sengphet UXO Clearance, and XTD UXO Clearance. Two more local commercial companies accredited in 2016 were L&B UXO Clearance and Longlo Lao UXO Clearance.²⁹

The Lao armed forces had three humanitarian teams reportedly funded by the government (approximately US\$100,000) and two teams funded by the Korean International Cooperation Agency (US\$700,000).³⁰ Its teams were reportedly preparing to start work in 2016 in Xaisomboun, Bolikhamxay and Khamouane provinces but no clearance was reported. The army plans to increase the number of teams to 25 within the coming five years.³¹ Separately, Lao army engineers not involved with humanitarian teams and not coordinated by the NRA were reportedly due to start clearance of UXO, which was holding up construction work on the \$6 billion Laos-China high speed railway.³²

LAND RELEASE

UXO sector results in 2016 underscored Lao PDR's sharp swing away from a focus on square metres cleared, often involving land with no contamination, to survey of cluster munitions contamination that will provide an understanding of the scale of the problem for the first time and to evidence-based clearance that is more productive in terms of items cleared. The amount of land confirmed as hazardous in 2016 was close to 80% higher than in 2015, based on operator data (see Table 1).³³ By contrast, land released by clearance amounted to 30km² in 2016 (see Table 2), a drop of more than one-quarter from clearance in 2015 and 55% less than two years previously.

Survey in 2016

CMR-focused survey led by international operators continued to accelerate in 2016 and far outstrips clearance rates. International operators surveyed nearly 230km² in 2016, 45% more land than the previous year, while the 138km² they confirmed as hazardous more than doubled the 2015 result. UXO Lao, which historically has concentrated on clearance, provided no data on its activities in 2016.

Table 1: Technical survey of CMR-suspected area in 2016³⁴

Operator	Area surveyed (km ²)	CHAs identified	Area identified (km ²)
The HALO Trust	30.41	365	9.04
HI	34.18	185	13.73
MAG	62.19	105	46.26
NPA	102.93	404	69.91
UXO Lao	N/R	N/R	41.26
Totals	229.71	1,059	180.20

N/R = Not Reported

The NRA reports that a total of 28,674 submunitions were destroyed during technical survey in 2016.³⁵

Operators continued to refine their cluster munition survey methodology in a bid to accelerate operations. MAG and NPA, partnering in Khamouane province, trialled a process of "chequerboarding" in which teams finding items in one survey box skipped the immediate neighbouring box and surveyed the box next to that. Operators believed this may be applicable in areas of heavy contamination such as Xieng Khouang province with multiple, overlapping strikes and large CHA polygons, but less applicable in areas with more scattered strikes. After testing this procedure in the first half of 2016, as well as different survey team sizes and configurations, MAG said productivity rose 30% per day per team in the course of the year from eight to ten 50m x 50m boxes, depending on the site and terrain, to twelve to fourteen boxes.³⁶

The Cluster Munition Remnants Survey (CMRS) approach was modified in 2016 to put more emphasis on desk assessment and non-technical survey. The Evidence Point Polygon (EPP) mapping pioneered by MAG, which uses historical operations data to map and define contaminated areas, has supported this process.

NPA started a review of villages surveyed between 2011 and 2017 in Attapeu, Saravane, and Sekong, which was due for completion by July 2017, and expected to go back and resurvey several hundred villages. NPA's internal quality management concluded teams had not made sufficient use of historical data in some villages. It amended procedures to include analysis of non-technical survey data by senior information management and operations staff and changed team structures to strengthen quality management.³⁷

The importance of tightening non-technical and technical survey procedures was underscored in a report by Sterling International which 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, and 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. Others 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 in UXO Lao reporting and mostly between 2004 and 2010 but that it affected "many" organisations.³⁸

The NRA circulated proposals for revised survey requirements in March 2017, calling for correction of data errors in the IMSMA database in the course of the national cluster munition survey. It noted this would have a significant effect on the planning and work of operators conducting the survey but proposed that organisations conducting the survey should be responsible for data corrections, irrespective of which operator originally carried out the work. It proposed a series of changes to standards for use of evidence points, procedures for reporting conclusion of survey and introducing operator "liability" for survey quality.³⁹ Discussion of the proposals in the UXO sector continued as this report was being drafted but were expected to lead to amendments to standing operating procedures (SOPs) for both non-technical survey and technical survey.

Clearance in 2016

The sharp fall in area clearance from 41.20km² in 2015 to 30.17km² in 2016 was most pronounced in the results of commercial companies, which released little more than half of the area they cleared in the previous year. Humanitarian operators recorded a 21% fall in area cleared in 2016 when the sector focused increasingly on survey, but the rewards of evidence-based clearance were apparent in a much smaller drop (8%) in the number of items they destroyed.

Table 2: Battle area clearance in 2016⁴⁰

Operator	Area cleared (m ²)	Submunitions destroyed	Bombs destroyed	Other UXO destroyed	Mines destroyed
Humanitarian					
The HALO Trust	1,432,835	2,109	0	1,200	0
HI	64,685	302	0	302	0
MAG	5,031,422	4,717	4	186	0
NPA	647,788	1,168	0	33	0
UXO Lao	16,733,714	36,765	17	8,863	8
Subtotals	23,910,444	45,061	21	10,584	8
Commercial					
BACTEC	46,656	1	0	39	0
Lao BSL	3,900	12	1	13	0
Milsearch	310,350	39	0	32	0
MMG	1,543,052	184	3	862	1
OUMMA	889,000	193	1	0	0
SBH	3,046,534	62	0	1	1
XTD	415,360	0	0	0	0
Subtotals	6,254,852	491	5	947	2
TOTALS	30,165,296	45,552	26	11,531	10

UXO Lao continued working in the nine most contaminated provinces (Attapeu, Champasak, Houaphan, Khamouane, Luang Prabang, Saravane, Savannakhet, Sekong, and Xieng Khouang) but its area clearance dropped in 2016, falling 15% compared to the previous year. US funding enabled UXO Lao to add 15 teams and 150 personnel in 2016 but the organisation faced uncertainty over the future support of other key donors and over the balance between survey and clearance in its future operations.⁴¹

International operators increasingly converged around strategies for tackling survey and clearance of cluster munitions, but uneven support delivered mixed results. The HALO Trust, after increasing the number of teams from eight to ten and adding new equipment, increased the amount of land it cleared in Savannakhet province by one-third to 1.4km².⁴²

MAG remained the international operator with the biggest area clearance operation working in three districts of Xieng Khouang. In Khamouane province it cleared CHAs identified in survey conducted by NPA. But the ending of two grants in late 2015 and early 2016 meant that by the end of the year it was operating with only half the number of BAC teams it had in 2015, and the area it cleared was almost one-third less than the previous year.⁴³ HI shifted the focus of its small number of teams from clearance to technical survey and the area cleared fell sharply as a result from 0.5km² in 2015 to 64,155m² in 2016.⁴⁴ HI reduced international staff in the first half of 2017 and was exploring opportunities for shifting operations from Savannakhet, where The HALO Trust already operates, to Houaphan province where no other international operator is working.⁴⁵

NRA data on roving operations showed the number of submunitions destroyed was 40% higher than the previous year, but significant discrepancies with results reported by operators in both years left the outcome uncertain. However, The HALO Trust more than doubled the number of submunitions destroyed in roving operations.⁴⁶

Table 3: Roving clearance operations in 2016⁴⁷

Operator	Submunitions destroyed	Bombs destroyed	Other UXO destroyed	Mines destroyed
The HALO Trust	5,075	15	1,222	0
HI	2,308	27	1,295	5
MAG	5,595	4	988	0
Milsearch	13	0	1	0
NPA	11,410	3	826	0
UXO Lao	8,009	31	1,641	30
Totals	32,410	80	5,973	35

ARTICLE 4 COMPLIANCE

Under Article 4 of the Convention on Cluster Munitions, 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 2020.

Lao PDR will need to apply for an extension given the extent of its CMR contamination but is expected to present an evidence-based estimate of the extent of contamination as a result of its proposed national survey. Plans for conducting the survey and accelerating clearance will depend on the level of international donor support. In 2016, the Lao PDR sector received \$26 million, less than in the previous two years.⁴⁸

Table 4: Five-year summary of clearance

Year	Area cleared (km ²)
2016	30.17
2015	41.30
2014	67.78
2013	64.86
2012	54.42
Total	258.53

US President Barack Obama pledged in September 2016 that the United States would provide \$30 million a year over three years for the UXO sector, doubling the level of US funding in 2015.⁴⁹ The United States has not reaffirmed that commitment since the inauguration of President Donald Trump, whose administration has signalled its intention to make major cuts in international aid, raising uncertainty about how much of the \$90 million will be delivered. In the meantime, the NRA and other stakeholders are concerned that support by other donors has fallen and any shortfall in US support could leave the plans for survey and clearance underfunded.⁵⁰

The government reported providing \$4.82 million for the UXO sector in 2015, nearly identical to the figure reported the previous year, and including rent for UXO Lao and the NRA, tax exemption on operator equipment imports, and costs associated with UXO sector activities of the Lao PDR armed forces. The government would contribute \$380,000 to the sector in 2016.⁵¹

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- 3 Interview with Phoukhieo Chanthasomboune, Director, National Regulatory Authority, Vientiane, 4 May 2016; NRA, "From Survey to Safety, Quantifying and Clearing UXO Contamination in Lao PDR", March 2016.
- 4 Data compiled by the Mine Action Review in 2015, 2016, and 2017.
- 5 Information provided by Phoukhieo Chanthasomboune, NRA, 27 April 2017.
- 6 Interviews with international operators, Vientiane, 3–7 May 2016.
- 7 "Sector Achievements" for 2015 and 2014, received from the NRA, Vientiane, 4 July 2016 and 11 May 2015.
- 8 NRA, "UXO Sector Annual Report 2012", Vientiane, undated but 2013, p. 5.
- 9 Interview with Jo Durham, author of "Post-Clearance Impact Assessment", Vientiane, 10 November 2011.
- 10 "Hazardous Ground, Cluster Munitions and UXO in the Lao PDR", UNDP, Vientiane, October 2008, p. 8.
- 11 Landmine Action, Explosive remnants of war and mines other than anti-personnel mines, Global Survey 2003–2004, March 2005, p. 104.
- 12 NRA website, "UXO types: Bombs", at: <http://www.nra.gov.la/bombs.html>.
- 13 NRA, "National Survey of UXO Victims and Accidents, Phase 1", Vientiane, 2009, p. 39.
- 14 NRA, "UXO Sector Annual Report 2009", Vientiane, May 2009, p. 14.
- 15 Prime Minister's Decree No. 164, 9 June 2011; NRA, "National Regulatory Authority for UXO/Mine Action Sector in Lao PDR Switches Ministries", October 2011.
- 16 "Announcement 93: UXO clearance for socio-economic development projects in the Lao PDR", NRA Board, 19 November 2012.
- 17 Interview with Allan Poston, Technical Adviser, UNDP, 26 April 2017; with Phoukhieo Chanthasomboune, NRA, 27 April 2017.
- 18 Information provided by Phoukhieo Chanthasomboune, NRA, 27 April 2017.
- 19 "Laos: new MDG to tackle UXOs", IRIN, 12 November 2010.
- 20 Interviews with Phoukhieo Chanthasomboune, NRA, Vientiane, 13 June 2013, and Phil Bean, NRA, Vientiane, 12 June 2013.
- 21 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 4 May 2016.
- 22 NRA, "From Survey to Safety, Quantifying and Clearing UXO Contamination in Lao PDR", March 2016.
- 23 Ibid., pp 1–3.
- 24 "Survey and clearance plan for UXO/mine action sector in Lao PDR, 2017–2021", presentation by Phommachanh Khammanichanh, Chief of UXO Clearance Section, NRA, 8 November 2016.
- 25 Interviews with Allan Poston, Technical Adviser, UNDP, 24 and 26 April 2017.
- 26 "Survey and clearance plan for UXO/mine action sector in Lao PDR, 2017–2021".
- 27 Interviews with Jonas Zachrisson, Country Director, NPA, 24 April 2017; and Thipasone Soukhathammavong, National Programme Director, UXO Lao, Vientiane, 26 April 2017.
- 28 Emails from Susanna Smale, Programme Manager, HALO Trust, 11 May 2017; Kim Warren, Head of Mission, HI, 22 March 2017; Simon Rea, Country Director, MAG, 19 May 2017; Thanalat Samalavong, NPA, 26 May 2017; and (for UXO Lao) "Sector Achievements 2016", received from NRA, 19 May 2017.
- 29 Information provided by Phoukhieo Chanthasomboune, NRA, 27 April 2017.
- 30 "Progress and Plans of Lao People's Army", presentation by Lao Army Humanitarian Team, 8 November 2016.
- 31 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 27 April 2017.
- 32 Souksakhone Vaenko, "Army deployed to clear UXO for Laos-China railway", *Vientiane Times*, 6 January 2017.
- 33 The NRA reported 101.48km² confirmed as hazardous in 2015 and 113.41km² in 2016 but its data included major discrepancies with operators' results. The NRA did not record any survey activity by The HALO Trust and reported NPA confirmed 12.14km² as hazardous area.
- 34 Data provided by Susanna Smale, HALO Trust, 11 May 2017; Kim Warren, HI, 22 March 2017; Simon Rea, MAG, 19 May 2017; Thanalat Samalavong, NPA, 26 May 2017; and (for UXO Lao) "Sector Achievements 2016", received from NRA, 19 May 2017.
- 35 "Sector Achievements 2016", received from NRA, 19 May 2017.
- 36 Email from Simon Rea, MAG, 11 April 2017 and Skype interview 25 April 2017.
- 37 Emails from Jonas Zachrisson, Country Director, NPA, 17 March and 23 May 2017, and interview, 24 April 2017.
- 38 "Data errors on IMSMA", Nigel Orr, Technical Adviser, Sterling International, 26 April 2017.
- 39 "Lao PDR National Survey Procedures Supplement, Revised Survey Requirements", NRA, undated but April 2017.
- 40 "Sector Achievements 2016", received from NRA, 19 May 2017.
- 41 Interview with Thipasone Soukhathammavong, UXO Lao, 26 April 2017, and Phoukhieo Chanthasomboune, NRA, Vientiane, 27 April 2017.
- 42 Email from Susanna Smale, HALO Trust, 22 March 2017 and skype interview 25 April 2017.
- 43 Email from Simon Rea, MAG, 11 April 2017, and Skype interview, 25 April 2017.
- 44 Email from Kim Warren, HI, 22 March 2017.
- 45 Telephone interview with Noémie Marcellin, Field Coordinator, HI, 26 April 2017.
- 46 "Sector Achievements 2016", received from the NRA, 19 May 2017.
- 47 NRA data on HALO Trust roving operations in 2016 included items reported by The HALO Trust as destroyed in technical survey.
- 48 Information provided by Phoukhieo Chanthasomboune, NRA, 27 April 2017.
- 49 Mark Landler, "Obama Acknowledges Scars of America's Shadow War in Laos", *New York Times*, 6 September 2016.
- 50 Interviews with Phoukhieo Chanthasomboune, NRA, 27 April 2017; and Allan Poston, Technical Adviser, UNDP, 24 and 26 April 2017.
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LEBANON

ARTICLE 4 DEADLINE: 1 MAY 2021
(NOT ON TRACK TO MEET DEADLINE)

PROGRAMME PERFORMANCE	2016	2015
Problem understood	5	5
Target date for completion of cluster munition clearance	6	6
Targeted clearance	5	5
Efficient clearance	5	5
National funding of programme	7	7
Timely clearance	5	5
Land release system in place	4	4
National mine action standards	4	4
Reporting on progress	7	7
Improving performance	6	6
PERFORMANCE SCORE: AVERAGE	5.4	5.4

PERFORMANCE COMMENTARY

Lebanon's performance in survey and clearance of areas affected by cluster munition remnants (CMR) in 2016 was mixed. While a more accurate baseline of CMR contamination is still lacking, the Lebanese Mine Action Centre (LMAC) has been consulting operators on the revision of the national mine action standards (NMAS) that could enhance operational efficiency. It is hoped that a strengthened land release methodology will be embodied in the revised NMAS, based on sound risk management principles, and then applied systematically in CMR tasks on the ground.

RECOMMENDATIONS FOR ACTION

- LMAC should determine more accurately the baseline contamination from CMR.
- LMAC should improve its land release system to accord with international standards. This includes using survey and clearance techniques that are appropriate for CMR contamination, rather than landmines. Improvements should be reflected in the revised NMAS, which should include standards specific to CMR contamination, and all mine action stakeholders should be consulted before their finalisation.
- Newly discovered cluster strikes should not automatically be recorded in the LMAC database as covering 33,000m². Instead, a more accurate assessment of the size of each contaminated area should be determined through non-technical and technical survey.
- Technical survey should be preferred to full clearance when moving from the perimeter of the task area to the first CMR evidence point.
- LMAC should ensure effective quality assurance (QA) and cross-checking of information entered into the Information Management System for Mine Action (IMSMA) database, to ensure CMR contamination and land release data are being assessed, recorded, extracted accurately, and then analysed.
- LMAC should also aim to engage with the clearance operators with regard to information management, and should provide regular IMSMA reports to operators, as a means to help cross-checking and confirm data integrity.
- Lebanon should mobilise the necessary resources to finish CMR clearance as soon as possible.

CONTAMINATION

Lebanon reported in its latest CCM Article 7 transparency report (for 2016), that CMR contamination at the end of 2016 stood at almost 20km².¹ At the end of March 2017, Lebanon had 833 areas confirmed to contain CMR, totalling almost 18.2km², as reported to Mine Action Review. Five regions still contain CMR contamination, as set out in Table 1.² This compares to 773 areas confirmed or suspected to contain CMR, totalling more than 16.3km², at the end of 2015.³

A further 79 “dangerous areas” totalling 5.6km² are suspected to contain CMR contamination.⁴ There is no comparable figure for 2015, as previously LMAC did not disaggregate areas suspected to contain CMR from areas suspected to contain mine contamination. The designated

“dangerous areas” are mainly the result of accidents having been reported to LMAC by the local community, and for which further investigation/survey is required in order to confirm the type and extent of suspected contamination.⁵

The significant increase in total CMR contamination since the end of 2015 is partly explained by previously unrecorded contamination being discovered by non-technical survey.⁶ However, the survey numbers reported do not fully explain the increase in reported baseline contamination. This is because many of the CMR clearance tasks conducted in 2016 needed to clear a larger area than the one recorded in the database, thereby impacting the baseline contamination area.⁷

Table 1: CMR contamination (as at end March 2017)⁸

Province	Areas	Area (m ²)
Beqaa	69	2,186,501
Jabal Loubnan (Mount Lebanon)	29	957,000
Janoub (South)	250	5,645,314
Nabatiyeh	483	9,347,835
North	2	43,000
Totals	833	18,179,650

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.⁹ In addition, some CMR still remain from earlier conflicts with Israel in 1978 and 1982.¹⁰

After the 2006 war, contamination was initially estimated to cover 55km². This estimate was later increased, based on surveys conducted, to almost 58km² across 1,484 areas, over the three regions of Beqaa, Mount Lebanon, and south Lebanon.¹¹ In 2016, LMAC claimed original contamination had been more than 60km², with almost 44km² having been cleared to date, leaving 16.3km² of contamination to release at the beginning of 2016.¹²

The baseline estimate of overall contamination continues to be revised (and indeed significantly increased), in part because previously unrecorded contamination is still being discovered, but also because the 33,000m² (per strike) area automatically assigned to CMR tasks by LMAC has been proven in many instances to underestimate the actual task size. For example, based on empirical field data, Mines Advisory Group (MAG) has calculated the average CMR clearance task to be approximately 60,000m²,¹³ and Norwegian People's Aid (NPA) had previously calculated it to be 65,000m² per task.¹⁴ According to LMAC, the 33,000m² is the estimated average cluster munition strike footprint, and sometimes many strikes are located within the same area.¹⁵

The accuracy of the baseline of CMR contamination is also further complicated by clearance undertaken in the immediate aftermath of the 2006 cluster munition strikes, during which emergency clearance of submunitions spotted in and around infrastructure, schools, and roads was carried out by the Lebanese Armed Forces (LAF) as well as individual Lebanese.

The United Nations (UN) Mine Action Coordination Centre – south Lebanon (MACC-SL) assumed the role of coordinating CMR clearance in 2007, in cooperation with the National Demining Office (now known as LMAC). It contracted out CMR clearance to non-governmental organisations (NGOs), commercial operators, and government groups.¹⁶ However, not all clearance undertaken in the years immediately following 2006 was in accordance with the International Mine Action Standards (IMAS). Some Israeli bombing data has been provided – most recently through the UN Interim Force in Lebanon (UNIFIL) – but has proved to be very inaccurate.¹⁷

Additional CMR may also exist in the Blue Line minefields in the far south of Lebanon, along the border with Israel.¹⁸ Since late 2015, permission has been granted for clearance to be undertaken of some of the Blue Line minefields. Clearance of the Blue Line minefields commenced in November 2016,¹⁹ and as it proceeds the extent to which these mined areas are also contaminated with CMR will be revealed.²⁰

MAG undertook a pre-clearance non-technical survey of 443 CMR clearance tasks between September 2013 and April 2014, with a view to confirming areas of CMR as accurately as possible, informing LMAC's operational planning and prioritisation, and identifying the socio-economic impact of remaining clearance.²¹ A national NGO, Peace Generation Organization for Demining (POD), supported MAG in carrying out the survey.²² The survey resulted in MAG recommending 96 tasks for cancellation, covering an estimated 2.8km².²³ The remaining 347 tasks surveyed by MAG were recommended for clearance.²⁴

In September 2014, at the Fifth Meeting of States Parties to the CCM, Lebanon announced it was reviewing MAG's recommendations for task cancellation and that it hoped to use the survey findings to focus clearance on areas with strong evidence of contamination.²⁵ Lebanon further stated that, as a result of the survey, almost 1.5km² out of 14.5km² of land had already been released and handed over to the owners.²⁶

After reviewing the 96 tasks recommended by MAG for cancellation, LMAC decided to cancel 51, totalling an area of 1.7km².²⁷ LMAC decided not to cancel the remaining 45 tasks recommended for cancellation, as following a review it believed these areas still contained CMR. These tasks therefore remain in the database, and will be tasked for clearance, depending on their assigned priority.²⁸ While LMAC has chosen not to cancel these tasks, information from MAG's survey will be used to inform pre-clearance plans.²⁹

Furthermore, MAG's pre-clearance survey estimated contaminated areas ranging from between 10,000m² to 50,000m² in size, and it is believed that LMAC is planning to review this data, which could help to more accurately record the baseline CMR contamination in the surveyed areas, and also assist in the tasking for clearance of more accurately delineated areas.³⁰

Previously unrecorded CMR contamination continues to be discovered, predominantly in south Lebanon, and during 2016, 17 CMR-contaminated areas were identified, totalling 469,000m² (of which only 8 areas, totalling 264,000m², had been entered into IMSMA and reported in Lebanon's Article 7 report for 2016).³¹ Contaminated areas discovered in the south are automatically recorded in the database as covering 33,000m²,³² even though the actual contaminated area may be significantly larger or smaller. The extent of CMR contamination depends on a variety of factors, including the type of cluster munition used and whether it was ground-launched or air-dropped, as well as the terrain onto which it lands.³³ Some areas contain unexploded submunitions resulting from both ground-launched and air-dropped cluster munitions, which can further complicate the picture.³⁴

LMAC has also recorded historical CMR tasks in south Lebanon as 33,000m² in size. In the Mount Lebanon region, though, cluster strikes have been, and continue to be, recorded as 10,000m² per task, as the 1982 cluster munition strikes were not as intense as the 2006 strikes in the south.³⁵ However, reported CMR-contamination data for Mount Lebanon as at 31 March 2017 (see Table 1), suggests that CMR areas in this region are in fact recorded as 33,000m².

At present, clearance tasks assigned to operators by LMAC are deemed to already reflect survey data, and LMAC does not formally permit operators to conduct additional survey other than pre-clearance assessments. As at April 2017, clearance operators had not been permitted to conduct technical survey on BAC tasks.³⁶ That said, in a positive development in 2016, MAG and Norwegian People's Aid (NPA) were permitted to conduct pre-clearance non-technical survey on some CMR tasks.³⁷

Furthermore, in November 2016 a workshop on implementation of CCM Article 4, was held in Lebanon, convened by Norway and the Netherlands in their capacity as Convention Co-ordinators on clearance. The workshop, which was facilitated by the Geneva International Centre for Humanitarian Demining (GICHD), brought together the LMAC and the Regional Mine Action Centre (RMAC, a body that is part of LMAC), with national and international clearance operators, donors, and the UN Development Programme (UNDP). The main topics of discussion were CMR land release methodology and whether operational efficiencies can be increased through better use of non-technical and technical survey; and how a more accurate CMR baseline can be determined.³⁸

Lebanon has set three levels of priority regarding mine action. The first is to address infrastructure to allow those displaced by the 2006 conflict to return home; the second is to release agricultural land; and the third

is to release land for activities other than agriculture. The first priority goal was met in 2009, and clearance of agricultural areas and development areas are now the priority targets.³⁹ Indeed, CMR continue to affect the agricultural community, particularly in Beqaa and south Lebanon. MAG's pre-clearance survey of 347 tasks recommended for clearance revealed that in four-fifths, contamination had made access to resources unsafe or had blocked access altogether.⁴⁰ Nonetheless, many landowners and workers still enter CMR-contaminated areas, declaring they have no alternative.⁴¹

LMAC has reported that around 85% of cleared land has been used for socio-economic purposes, such as by farmers to generate a source of income.⁴² Post-clearance surveys concerning cluster strike areas, carried out by LMAC in collaboration with clearance operators, have revealed that, of the cleared land which was subsequently exploited, 78% was used for agriculture, 15% for pasture, and the remainder for residential and infrastructure development.⁴³ NPA has reported that its impact assessments, which are conducted three to six months after the release of land from the threat of CMR, indicate that cleared land is mainly used for agriculture.⁴⁴ LMAC aims to enhance monitoring and recording of post-clearance activities and of how land release affects livelihoods and socio-economic development.⁴⁵ Comprehensive implementation of pre- and post-impact surveys by operators, using an agreed format, could support the achievement of this aim.⁴⁶

In 2016, one adult was injured by a submunition detonation.⁴⁷

Other Explosive Remnants of War and Landmines

Lebanon is also contaminated by other unexploded ordnance (UXO), booby-traps, and anti-personnel mines.

PROGRAMME MANAGEMENT

Established in 1998 by the Council of Ministers, the Lebanon Mine Action Authority (LMAA) is the responsibility of the Ministry of Defence and is chaired by the Minister of Defence himself. The LMAA has overall responsibility for Lebanon's mine action programme. 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.⁴⁸

LMAC, part of the LAF,⁴⁹ is based in Beirut. Since 2009, the RMAC, based in Nabatiye, which is a part of LMAC, has overseen operations in south Lebanon and western Beqaa, under LMAC supervision.⁵⁰ The Director of LMAC is typically rotated every couple of years, and in recent years there has been a high turnover of the colonels who have run the RMAC. Both factors have the potential to negatively affect the management of the two mine action centres. A new director of LMAC started in early 2017, while a new director of RMAC started in May.⁵¹

There is said to be generally good coordination and collaboration between LMAC/RMAC and clearance operators. In south Lebanon, coordination meetings between RMAC and operators take place at least monthly, during which clearance operations, quality assurance (QA), and other operational issues are openly discussed.⁵² LMAC also manages risk education and victim assistance.⁵³

A donor support group meeting is convened annually, which brings together donors, operators, and the national authorities.⁵⁴ UNDP personnel, funded by the European Union (EU), are also seconded to LMAC and RMAC, providing support towards capacity building, including transparency reporting, strategic reviews, and IMSMA database entry, community liaison officers, and QA. UNDP does not provide technical assistance on operational decisions.⁵⁵

In 2015, the Ministry of Defence, represented by LMAC, signed a Memorandum of Understanding with the GICHD to manage and coordinate the Arab Regional Cooperation Programme (formerly known as the Arabic-Language Outreach Programme) for Mine Action.⁵⁶ Planning, management, and coordination of the Programme were due to be handed over to LMAC at the beginning of 2017,⁵⁷ and LMAC, through the Regional School for Humanitarian Demining in Lebanon (RSHDL), will serve as a regional centre for the Programme's activities.⁵⁸ As at April 2017, the buildings of the RSHDL in Hammana were being renovated, with completion due by the end of July 2017. Lebanon plans to offer explosive ordnance disposal (EOD) courses, among others, at the RSHDL.⁵⁹

Strategic Planning

In September 2011, LMAC adopted a strategic mine action plan for 2011–20.⁶⁰ The plan called for clearance of all CMR by 2016, and for completion of mine clearance outside the Blue Line by 2020. Both goals are dependent on capacity, but progress has fallen well short of planning targets.⁶¹

A first mid-term review to the strategy was conducted in January–March 2014 to assess progress towards the 2013 milestone, and to adjust the 2016 and 2020 milestones accordingly. The review revealed that in 2011–13 CMR clearance was slow, suffered from underfunding (with consequently fewer operating teams), while previously unreported contaminated areas were also identified.⁶² A second mid-term assessment was being undertaken in 2016, which was due to be completed in early 2017.⁶³ The assessment had not yet been completed as at June 2017, but LMAC expected it to be finished "very soon".⁶⁴

In 2017, LMAC planned to focus CMR survey on dangerous areas where the presence of CMR is most expected; and to conduct clearance across Lebanon, including at the Blue Line.⁶⁵

Standards

Lebanon developed its first set of NMAS in 2010.⁶⁶ Over the last two years LMAC has been working with UNDP and other partners, under a project funded by the European Union, to revise the standards.⁶⁷ The revision is taking place with a view to enhancing efficiency while respecting IMAS, as well as to "add new modules that were not present in our NMAS version one, as well as relevant modules that are not present in the IMAS such as mine victim assistance".⁶⁸ Once finalised, the revised NMAS will then need to be officially approved by the Ministry of Defence.⁶⁹

Humanitarian demining operators who were consulted submitted recommendations for the NMAS revision.⁷⁰ In March 2017, LMAC distributed a revised draft NMAS to all partners, including clearance operators, for comment.⁷¹ LMAC's consultative approach regarding the revision of the NMAS is welcome, and it is hoped that key recommendations concerning land release for both CMR and landmines are reflected in the final version. According to LMAC, the revised NMAS will include separate sections for CMR and landmine survey; and will permit and facilitate the reporting of land release in accordance with IMAS.⁷²

At present, clearance operators do have an opportunity to discuss with LMAC/RMAC specific land release considerations for assigned clearance tasks that arise during the pre-clearance assessment stage of operations. This may result in the refining of the task size or approved land release specifications.⁷³ However, this approach is contingent on the decision of individual LMAC/RMAC officials and the process would benefit from a more systematic approach using objective land release principles, including prioritising use of non-technical and technical survey. This could usefully be set out in the revised NMAS.

It should be noted that in Lebanon it is not permitted for anyone other than a BAC team with personnel wearing personal protective equipment (PPE) to enter the area of a cluster strike footprint, largely due to the presence and threat posed by the potential explosive volatility of M-series submunitions. This, combined with the lack of flexibility for clearance operators to conduct survey on assigned tasks prior to clearance, means that operators sometimes find themselves clearing access lanes from perimeters of tasks, at distances which are sometimes a long way out from the actual CMR.

Following November 2016's CCM Article 4 workshop, in a positive development, LMAC clarified that clearance operators could cut lanes directly into the confirmed hazardous area (CHA) and not from the Universal Transverse Mercator (UTM)/coordinates from the original non-technical survey, which in some cases is as far as 300 metres from the contaminated area.⁷⁴ As at April 2017, LMAC was continuing discussions on non-technical and technical survey with the clearance operators, prior to making necessary revisions to the NMAS.⁷⁵

Operators

In 2016, CMR clearance was conducted by international operators DanChurchAid (DCA), MAG, and NPA; national operator POD; and the Engineering Regiment of the LAF.⁷⁶ Capacity fluctuated throughout 2016, but the total collective CMR survey and clearance capacity in Lebanon as at December 2016 comprised 22 BAC teams and 2 non-technical survey teams.⁷⁷

The capacity of the LAF Engineering Regiment in 2016 comprised two battle area clearance (BAC) teams,⁷⁸ and LMAC deployed two non-technical survey teams.⁷⁹

MAG deployed seven BAC clearance teams in 2016,⁸⁰ up from the five deployed in 2015. MAG is the only international operator in Lebanon with mechanical assets to support manual clearance operations, and these assets can be used by other organisations upon request of LMAC.⁸¹

NPA operated five BAC teams from February 2016 and four from June 2016, a reduced capacity compared to 2015, due to reduced funding.⁸² NPA expected to maintain four BAC teams in 2017.⁸³

DCA deployed three BAC teams in 2016, and one additional team in partnership with LAMINDA (Lebanese Association for Mine and Natural Disaster Action), a national NGO founded in 2014.⁸⁴ DCA's partnership with LAMINDA is also aimed at strengthening LAMINDA capacity in humanitarian mine action.⁸⁵

POD deployed five BAC teams in 2016.⁸⁶

LMAC has consistently raised concerns over the lack of survey and clearance capacity to address mine and CMR contamination, which it ascribes to inadequate funding.⁸⁷

Quality Management

Between 10% and 40% sampling is conducted during clearance operations by the organisation site supervisor and QA officer; 10% sampling is conducted by the LMAC QA/QC (quality control) officer during work. Up to 30% sampling is conducted by LMAC's sampling team at the end of the task, but the decision to conduct sampling is decided on a case-by-case basis, and not all released areas are sampled.⁸⁸

Information Management

IMSMA is used by LMAC and RMAC to record land release in Lebanon. LMAC has reported that the system for database entry now more accurately reflects operational data, especially in instances where the task size/area of CMR-contamination exceeds the original task size in the database.⁸⁹ Previously, any area cleared in excess of the original task size was entered into the database as a new task. Now, while the contaminated area and area cleared are both recorded, area in excess of the original task size is not recorded as additional tasks in the database.⁹⁰

However, as discussed further below, newly discovered CMR-contaminated areas in the south of Lebanon continue to be entered into the IMSMA database as a standardised 33,000m² for each new area/task. This is thought to be impacting the accuracy of the baseline of CMR contamination in Lebanon.

Furthermore, during clearance, a single task may not always be completed in a single assignment, as clearance of separate sections of the task, such as the "fade-out" area or the "disclaimed" area (area for which permission is not granted for clearance, and which requires signed release papers), may be postponed in favour of higher priority/high-impact tasks elsewhere, and returned to at a later date. In such instances, the fade-out, disclaimed, and/or uncleared areas are marked as separate subtasks in the database, although they are linked through numerical labelling to the original task. This explains, in part, the changing number of hazardous areas between reporting periods.⁹¹ It should be noted that from 2016 disclaimed areas can be cleared without the landowner's permission.⁹²

Information management in Lebanon would arguably benefit from objective QA and cross-checking of data entered into IMSMA, in terms of how the size of new CMR contamination is determined and entered, and the entry and extraction of land release data.

LAND RELEASE

Total CMR-contaminated area released by clearance in 2016 was just over 1.9km²,⁹³ an increase compared to the 1.69km² of area cleared in 2015.⁹⁴

No area was reported as reduced by technical survey in 2016, but 0.5km² was reported as having been cancelled through non-technical survey.⁹⁵

Survey in 2016

Lebanon recorded five areas totalling 514,866m² cancelled by LMAC/RMAC in 2016.⁹⁶ Of this, three were CMR tasks, totalling 14,865m²,⁹⁷ and the remaining two were dangerous areas suspected to contain CMR.⁹⁸ This represents an increase in release on the 17 areas totalling 92,614m² cancelled in 2015.⁹⁹

In addition, LMAC confirmed eight areas in 2016, totalling 264,000m², as CMR contaminated, which were recorded in the IMSMA database.¹⁰⁰ A further nine CMR-contaminated areas totalling 205,000m² were also discovered in 2016, but were not recorded in IMSMA as their inclusion had not yet been “approved” by the LMAC Director.¹⁰¹ New CMR-contaminated areas are typically the result of call-outs from the public, alerting LMAC to previously undiscovered explosive remnants of

war (ERW). LMAC community liaison officers visit each call-out, followed by LMAC’s chief of operations when necessary. New hazardous areas are recorded for those call-outs where CMR contamination is confirmed.¹⁰²

Clearance in 2016

Lebanon reported clearing just over 1.9km² of CMR-contaminated land in 2016, across 76 areas, destroying in the process 3,916 submunitions, 256 other items of UXO, and 4 anti-personnel mines (see Table 2).¹⁰³ In addition, a further 99,641m² was cleared and classified by LMAC as “re-clearance” to avoid double counting,¹⁰⁴ as initial surface clearance had already been undertaken prior to 2009.

Manual clearance is the primary method of clearing CMR in Lebanon, but machines are sometimes deployed to make access lanes and prepare the ground. Mine Detection Dogs (MDDs) are not currently used for CMR clearance.¹⁰⁵ However, NPA reported that it has agreed with LMAC that it can implement a pilot project in 2017/18 using MDDs for technical survey, and that it was in the process of trying to secure funds to initiate the project.¹⁰⁶

Table 2: Clearance of CMR-contaminated area in 2016¹⁰⁷

Operator	Areas cleared	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed	Comment
DCA	6	237,636	1,023	31	
MAG	23	595,380	485	211	MAG cleared an additional 32,241m ² , classified by LMAC as “re-clearance”. Eleven items of UXO were destroyed by the LAF.
NPA	15	430,145	1,162	9	NPA cleared an additional 66,800m ² , classified by LMAC as “re-clearance”. An additional 245 submunitions located by NPA, were destroyed by the LAF, but were not reported to LMAC during 2016.
POD	29	549,295	1,181	0	POD also cleared an additional 600m ² , classified by LMAC as “re-clearance”.
LAMINDA	3	89,311	65	5	
Totals	76	1,901,767	3,916	256	

In addition, during rapid response call-outs the Engineering Regiment and the LAF collectively cleared 108,420m², across 748 tasks, during which 133 submunitions, 794 other items of UXO, 59 anti-personnel mines, and 28 anti-vehicle mines were destroyed.¹⁰⁸

Of the CMR clearance tasks undertaken in 2016, MAG reported one where no contamination was discovered.¹⁰⁹ NPA reported working for 17 days on one BAC task, and 3 days on another, without discovering evidence of CMR contamination. After discussions between NPA and RMAC, it was decided to suspend these tasks. Had a system for formal non-technical survey been in place and permitted, prior to clearance, deployment of clearance teams to these tasks may have been avoided.¹¹⁰

ARTICLE 4 COMPLIANCE

Under Article 4 of the CCM, Lebanon is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 May 2021. Lebanon is not on track to meet this deadline.

LMAC has asserted that the results of the second mid-term review of the strategic mine action plan for 2011–20, conducted in 2016 and due to be completed in 2017, will help reflect more accurately Lebanon's expected CMR completion date.¹¹¹ However, fewer BAC teams, discovery of previously unrecorded CMR-contaminated areas, and the impact of working in difficult terrain, have all been identified as obstacles to meeting this deadline.¹¹²

Clearance of CMR-contaminated land had been expected to be completed by the end of 2016, in accordance with the 2011–20 national strategy.¹¹³ However, meeting this target was contingent on maintaining the number of BAC teams needed.¹¹⁴ In May 2012, stakeholders believed the 2016 target date was reasonable if both funding and the number of teams stabilised or increased, and if contamination estimates proved accurate. The first review of the 2011–20 strategy in early 2014 confirmed that with existing capacity it would not be possible to finish CMR clearance before 2020 at the earliest.¹¹⁵

Lebanon's most recent CCM Article 7 report (for 2016) estimates that an additional 24 teams would be needed to support Lebanon complete CMR clearance by 2020.¹¹⁶ A more accurate estimate of the required capacity will be made during the second mid-term assessment of the strategic plan that is currently under way.¹¹⁷

Annual clearance of CMR-contaminated land had decreased successively since 2012, but 2016 recorded an increase in clearance, as illustrated in Table 3.

Table 3: Five-year summary of clearance¹¹⁸

Year	Area cleared (km ²)
2016	1.90*
2015	1.69
2014	2.10
2013	2.47
2012	2.98
Total	11.14

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

Lebanon has reported contributing US\$9 million annually towards mine action in Lebanon, to support the activities of LMAC, including CMR and mine clearance.¹¹⁹ Lack of international funding continues to pose a challenge to demining operations.¹²⁰ However, while operators agree that lack of capacity is certainly holding back CMR clearance, it is also believed that swifter progress could come from improved land release.¹²¹ This warrants further attention from LMAC as well as other mine action stakeholders in Lebanon.

- 1 Convention on Cluster Munitions (CCM) Article 7 Report (for 2016), Form F. The total area of the table detailing the size and location of cluster munition contaminated area correctly sums to 20,031,672m², and not 21,702,781m² in the table in Lebanon's Article 7 report. This is reportedly due to a computation error, and LMAC confirmed that the correct total is 20,031,672m². Email from Brig.-Gen. Ziad Nasr, Director, LMAC, 22 June 2017.
- 2 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 3 Email from Brig.-Gen. Elie Nassif, then Director, LMAC, 14 May 2016; presentation by LMAC at the 19th International Meeting of National Mine Action Programme Directors and UN Advisers, Geneva, 18 February 2016; and CCM Article 7 Report (for 2015), Form F.
- 4 Emails from Brig.-Gen. Ziad Nasr, LMAC, 24 April and 9 June 2017.
- 5 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, then Head of Operations, LMAC, Beirut, 18 April 2016.
- 6 Presentation by Brig.-Gen. Fakhri, LMAC, Beirut, 16 November 2016.
- 7 Email from Brig.-Gen. Ziad Nasr, LMAC, 9 June 2017.
- 8 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 9 Landmine Action, "Foreseeable Harm: the use and impact of cluster munitions in Lebanon: 2006", 2006.
- 10 Ibid; interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016; and CCM Article 7 Report (for 2016) Form F.
- 11 CCM Article 7 Report (for 2013) Form F; and Statement of Lebanon, CCM Fourth Meeting of States Parties, Lusaka, September 2013.
- 12 Presentation by LMAC at the 19th International Meeting of National Mine Action Programme Directors and UN Advisers, Geneva, 18 February 2016.
- 13 Interview with Bekim Shala, then Programme Manager, MAG, Nabatiyeh, 14 April 2016.
- 14 Email from Eva Veble, then Lebanon Programme Manager, NPA, 8 July 2016.
- 15 Email from Brig.-Gen. Ziad Nasr, LMAC, 22 June 2017.
- 16 Human Rights Watch, "Flooding South Lebanon. Israel's use of cluster munitions in Lebanon in July and August 2006", 16 February 2008.
- 17 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016; and presentation by Brig.-Gen. Fakhri, LMAC, 16 November 2016, Beirut.
- 18 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016.
- 19 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 20 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016.
- 21 MAG, "Cluster Munition Contamination in Lebanon using survey data", September 2014.
- 22 Email from Bekim Shala, MAG, 14 June 2016.
- 23 Ibid. Of the 96 tasks, 3 were recommended for cancellation due to their proximity to others, with a recommendation that multiple tasks be merged in the contamination database. One additional task was recommended for cancellation because of duplication in database coordinates. The remaining 347 tasks surveyed by MAG were recommended for clearance.
- 24 Email from Bekim Shala, MAG, 14 June 2016.
- 25 Statement of Lebanon, CCM Fifth Meeting of States Parties, San José, 2–5 September 2014.
- 26 Ibid.
- 27 Email from Brig.-Gen. Elie Nassif, LMAC, 17 June 2015.
- 28 Interviews with Oussama Merhi, UNDP Mine Action Advisor for LMAC, in Geneva, 26 June 2015; and with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016; and email from Brig.-Gen. Elie Nassif, LMAC, 14 May 2016.
- 29 Interview with Bekim Shala, MAG, Nabatiyeh, 14 April 2016.
- 30 Email from Bekim Shala, MAG, 21 June 2016.
- 31 CCM Article 7 Report (for 2016), Form F; and emails from Brig.-Gen. Ziad Nasr, LMAC, 24 April and 9 June 2017.
- 32 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 33 Interview with Oussama Merhi, UNDP, in Geneva, 26 June 2015; and CCM Article 7 Report (for 2015), Form F.
- 34 Interview with Oussama Merhi, UNDP, in Geneva, 26 June 2015.
- 35 CCM Article 7 Report (for 2015), Form F; interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 May 2016; and email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 36 Email from Dave Willey, Programme Manager, MAG, 25 April 2017.
- 37 Emails from Bekim Shala, MAG, 21 June 2016, and Craig McDiarmid, Programme Manager, NPA, 30 March 2017.
- 38 Expert level workshop under the framework of supporting Lebanon in meeting its CCM Article 4 obligations, attended by Lucy Pinches, Mine Action Review Project Manager and Senior Researcher, Beirut, 17 November 2016.
- 39 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014; and email from Brig.-Gen. Elie Nassif, LMAC, 14 May 2016.
- 40 MAG, "Cluster Munition Contamination in Lebanon using survey data", September 2014, p. 4.
- 41 Ibid.
- 42 Statement of Lebanon, First CCM Review Conference, Dubrovnik, 7–11 September 2015.
- 43 Statement of Lebanon, CCM Fifth Meeting of States Parties, San José, September 2014.s
- 44 Email from Craig McDiarmid, NPA, 30 March 2017.
- 45 Email from Brig.-Gen. Elie Nassif, LMAC, 14 May 2016.
- 46 Email from Craig McDiarmid, NPA, 8 June 2016.
- 47 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 48 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014, pp. 4–5.
- 49 LMAC, "2012 Annual Report Lebanon Mine Action Centre", March 2013.
- 50 LMAC, "Lebanon Mine Action Strategy 2011–2020", September 2011, p. 4.
- 51 Email from Brig.-Gen. Ziad Nasr, LMAC, 22 June 2017.
- 52 Interview with Col. Pierre Bou Maroun, Director, RMAC, Nabatiyeh, 16 November 2016.
- 53 UNDP, "Mine Action in Lebanon: A Review of the Lebanon Mine Action Programme and UNDP Support to mine action in Lebanon", Final Report, September 2011, p. 9.
- 54 Interview with Lt.-Col. Henry Edde, then Director, RMAC, Nabatiyeh, 12 April 2016; and interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 18 May 2016.
- 55 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016.
- 56 Email from Anna-Lena Schluchter, containing data from Rana Elias, focal point for Lebanon, GICHD, 21 June 2017.
- 57 Ibid.
- 58 Statement of Lebanon, CCM Fifth Meeting of States Parties, San José, 2–5 September 2015.
- 59 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 60 LMAC, "Lebanon Mine Action Strategy 2011–2020", September 2011, p. 4.

- 61 Response to Cluster Munition Monitor questionnaire by Brig.-Gen. Imad Odiemi, LMAC, 2 May 2014.
- 62 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014.
- 63 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakih, LMAC, Beirut, 11 April 2016; and email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 64 Email from Brig.-Gen. Ziad Nasr, LMAC, 9 June 2017.
- 65 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 66 Email from Brig.-Gen. Elie Nassif, LMAC, 17 June 2015.
- 67 Emails from Brig.-Gen. Elie Nassif, LMAC, 7 July 2015; and Rory Logan, Programme Manager, NPA, 20 April 2015; Statement of Lebanon, First CCM Review Conference, Dubrovnik, 7–11 September 2015.
- 68 Emails from Brig.-Gen. Elie Nassif, LMAC, 7 July 2015; and Rory Logan, NPA, 20 April 2015.
- 69 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakih, LMAC, Beirut, 11 April 2016.
- 70 Interviews with Bekim Shala, MAG, Nabatiyeh, 14 April 2016; and Craig McDiarmid, NPA, Tyre, 12 April 2016.
- 71 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 72 Ibid.
- 73 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakih, LMAC, Beirut, 11 April 2016.
- 74 Email from Craig McDiarmid, NPA, 30 March 2017.
- 75 Ibid.
- 76 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 77 Ibid.
- 78 Ibid.
- 79 Ibid.
- 80 Ibid.
- 81 Emails from Bekim Shala, MAG, 3 April 2016 and Dave Willey, MAG, 25 April 2017.
- 82 Emails from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017, and Craig McDiarmid, NPA, 30 March 2017.
- 83 Email from Craig McDiarmid, NPA, 30 March 2017.
- 84 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017; and LAMINDA website, accessed 31 May 2017, at: <http://www.laminda.org/>.
- 85 LAMINDA website, accessed 31 May 2017, at: <http://www.laminda.org/our-partner>.
- 86 Ibid.
- 87 Statements of Lebanon, CCM First Meeting of States Parties, Vientiane, September 2010; CCM Fourth Meeting of States Parties, Lusaka, September 2013; CCM Fifth Meeting of States Parties, San José, September 2014; First CCM Review Conference, Dubrovnik, 7–11 September 2015; Mine Action Support Group meeting, 18 October 2013; CCM intersessional meetings, 9 April 2014; and CCM Article 7 Report (for 2013), Form F.
- 88 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 89 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakih, LMAC, Beirut, 11 April 2016.
- 90 Interview with Bekim Shala, MAG, Nabatiyeh, 14 April 2016.
- 91 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakih, LMAC, Beirut, 11 May 2016.
- 92 Email from Brig.-Gen. Elie Nassif, LMAC, 5 July 2016.
- 93 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 94 Ibid.
- 95 Email from Brig.-Gen. Elie Nassif, LMAC, 5 July 2016.
- 96 Emails from Brig.-Gen. Ziad Nasr, LMAC, 24 April and 9 June 2017.
- 97 CCM Article 7 Report (for 2016), Form F; and email from Brig.-Gen. Ziad Nasr, LMAC, 9 June 2017.
- 98 Email from Brig.-Gen. Ziad Nasr, LMAC, 9 June 2017.
- 99 CCM Article 7 Report (for 2015), Form F; and email from Brig.-Gen. Elie Nassif, LMAC, 5 July 2016.
- 100 Emails from Brig.-Gen. Ziad Nasr, LMAC, 24 April and 9 June 2017; and CCM Article 7 Report (for 2016), Form F. In addition, NPA reported confirming 496,945m² as CMR-contaminated during pre-impact assessments on its tasks, before clearance teams were deployed, but this is not classified as formal non-technical survey and is therefore not included in the survey data reported by LMAC.
- 101 Email from Brig.-Gen. Ziad Nasr, LMAC, 9 June 2017.
- 102 CCM Article 7 Report (for 2015), Form F; and email from Brig.-Gen. Elie Nassif, LMAC, 14 May 2016.
- 103 Emails from Brig.-Gen. Ziad Nasr, LMAC, 24 April and 9 June 2017; and CCM Article 7 Report (for 2016), Form F. The clearance table in Lebanon's Article 7 report, totalling just over 2km², is the sum of 1.9km² of clearance and 1km² of re-clearance.
- 104 Ibid.
- 105 Ibid.; and email from Dave Willey, Programme Manager, MAG, 25 April 2017.
- 106 Email from Craig McDiarmid, NPA, 30 March 2017.
- 107 In addition, MAG destroyed four anti-personnel mines during BAC. Emails from Brig.-Gen. Ziad Nasr, LMAC, 24 April and 22 June 2017; Dave Willey, MAG, 25 April 2017; and Craig McDiarmid, NPA, 30 March 2017. There was a small discrepancy between the clearance data provided by MAG (630,809m², destroying 486 submunitions, 213 other items of UXO, and 4 anti-personnel mines) and NPA (496,945m², locating 1,407 submunitions, of which 1,162 were destroyed by NPA and 245 (one cluster bomb unit, in which 245 submunitions were still encased) by RMAC; in addition to locating 11 items of UXO, of which 9 were destroyed by NPA and 2 by the LAF) and that of LMAC, explained by the fact that MAG and NPA included "re-clearance" figures in their clearance totals, whereas LMAC reports re-clearance separately, to prevent double counting. Re-clearance refers to tasks where surface clearance was executed initially, prior to 2009. DCA, LAMINDA, and POD did not provide data to Mine Action Review so the accuracy or quality of their clearance outputs is unclear.
- 108 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 109 Email from Dave Willey, MAG, 25 April 2017.
- 110 Email from Craig McDiarmid, NPA, 30 March 2017.
- 111 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 112 Email from Brig.-Gen. Elie Nassif, LMAC, 14 May 2016; and CCM Article 7 Report (for 2015), Form F.
- 113 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014.
- 114 LMAC, "Lebanon Mine Action Strategy 2011–2020", September 2011.
- 115 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014.
- 116 CCM Article 7 Report (for 2016), Form F.
- 117 CCM Article 7 Report (for 2015), Form F.
- 118 See Cluster Munition Monitor and Mine Action Review reports on clearance in Lebanon covering 2012–16.
- 119 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 120 Ibid.
- 121 Interviews with Bekim Shala, MAG, Nabatiyeh, 14 April 2016, and Craig McDiarmid, NPA, Tyre, 12 April 2016.

MONTENEGRO

ARTICLE 4 DEADLINE: 1 AUGUST 2020
(UNCLEAR WHETHER ON TRACK TO MEET DEADLINE)

PROGRAMME PERFORMANCE	2016	2015
Problem understood	7	7
Target date for completion of cluster munition clearance	2	2
Targeted clearance	5	5
Efficient clearance	6	6
National funding of programme	4	5
Timely clearance	3	4
Land release system in place	6	6
National mine action standards	5	5
Reporting on progress	5	4
Improving performance	3	4
PERFORMANCE SCORE: POOR	4.6	4.8

PERFORMANCE COMMENTARY

Montenegro did not make progress in 2016 towards releasing the relatively small amount of area still contaminated with cluster munition remnants (CMR). Effective measures must be taken swiftly if Montenegro is to meet its Article 4 deadline under the Convention on Cluster Munitions (CCM). Its compliance with its legal duty to complete clearance "as soon as possible" is already in doubt.

RECOMMENDATIONS FOR ACTION

- Montenegro should mobilise the necessary resources to finish CMR clearance as soon as possible, but not later than 1 August 2020, in line with its CCM Article 4 clearance obligations.
- The Directorate for Emergency Situations should complete non-technical survey of the small number of remaining areas not yet surveyed, and plan to complete technical survey and clearance of all CMR swiftly thereafter.

CONTAMINATION

Montenegro has estimated that 1.72km² of land contains CMR.¹ Areas suspected or confirmed to contain CMR are located in two municipalities (Rožaje and Plav) and one urban municipality (Golubovic).² The CMR contamination was identified by Norwegian People's Aid (NPA) in its detailed non-technical survey conducted between December 2012 and April 2013. During the survey, NPA made 87 polygons of suspected or confirmed hazardous areas across 11 locations in three municipalities. Contamination was found to affect five communities.³

Two suspected areas of CMR contamination in Plav municipality, namely Bogajice and Murino, have yet to be surveyed, as NPA was prevented from doing so during its 2013–13 survey, due to snow.⁴

Montenegro became contaminated with explosive remnants of war (ERW), mainly unexploded ordnance (UXO), as a result of conflicts during the break-up of the former Socialist Federal Republic of Yugoslavia in the 1990s.⁵ North Atlantic Treaty Organization (NATO) air strikes in Montenegro between March and June 1999 included the dropping of 22 cluster bombs of four different types: AGM-154A JSOW guided missiles, BL755s, CBU-87/Bs, and Mk-20 Rockeyes. These scattered a total of some 4,000 submunitions of four different types: BLU-97A/B, BL755, MK-1, and Mk118.⁶ In addition, there is CMR contamination in Rožaje, which is the result of dumping of cluster munitions by the Yugoslav army.⁷

Some unexploded submunitions were collected by units of the Yugoslav army immediately after the NATO air strikes. This initial clearance was carried out in haste, without applying international standards for ERW clearance, and for the most part only visible submunitions were destroyed.⁸ Following Montenegro's independence, CMR removal was conducted by the Ministry of Internal Affairs in response to notifications from the public.⁹

To date, CMR clearance according to international standards has only been carried out in one of the three affected municipalities in Montenegro. In 2007, UXB Balkans conducted clearance operations in two locations within the communities of Besnik and Njeguši (in the municipality of Rožaje). In total, some 378,000m² was cleared with the destruction of 16 Mk-1 submunitions.¹⁰

Montenegro's initial Article 7 report had claimed that, as at 27 January 2011, "there are no contaminated areas in Montenegro."¹¹ In July 2011, however, the director of the Regional Centre for Divers' Training and Underwater Demining (RCUD) confirmed that unexploded submunitions had been found in 2007.¹² Montenegro informed a CCM intersessional meeting in 2012 that clearance by military units after the air strikes in 1999, during which more than 1,800 submunitions were collected, had not been conducted "fully according to humanitarian mine action standards" and that it planned to conduct a survey.¹³ This led to the 2012–13 NPA survey described above.¹⁴

Other Explosive Remnants of War

Montenegro is also heavily contaminated by other ERW, with items of UXO discovered daily throughout the country, on land as well as in rivers and the sea.¹⁵ The NATO Science for Peace and Security (SPS) project, which was launched in Montenegro in 2014 to provide the UXO clearance team of the Directorate for Emergency Situations with assistance in the detection and destruction of UXO,¹⁶ is reportedly coming to an end.¹⁷

PROGRAMME MANAGEMENT

The Directorate for Emergency Situations, established in 2006 by the Ministry of Internal Affairs, is responsible for mine action in Montenegro, performing the role of a national mine action centre.¹⁸ Prior to 2017, due to lack of human resources and equipment, the role of the national mine action centre had previously been undertaken by the Regional Centre for Divers' Training and Underwater demining (RCUD), which was set up in 2002.¹⁹

RCUD and NPA signed a Memorandum of Understanding in December 2012 under which NPA agreed to fund and implement a two-phase project — the "Cluster Munition Convention Completion Initiative for Montenegro" — involving first, non-technical survey, and then, technical survey and clearance of areas where the presence of CMR was confirmed. NPA agreed to set up a database and to develop capacity for non-technical survey and quality management.²⁰ The non-technical survey was

completed but funding for the second phase of the project involving technical survey and clearance, originally expected to start in 2013 and continue throughout 2014,²¹ was not secured and as at May 2017 this phase had yet to start.²²

The Department for UXO within the Directorate for Emergency Situations has only five staff, who are primarily dedicated to clearance of UXO other than submunitions, which comprises the heaviest contamination in Montenegro.²³ Owing to the shortage of funds, responsibility for explosive ordnance disposal (EOD) has remained with the police.²⁴

Montenegro has requested international assistance to comply with the International Mine Action Standards (IMAS), for capacity building (training, equipment, vehicles), and for ERW clearance.²⁵

LAND RELEASE

No planned land release operations took place in 2016.²⁶

Survey in 2016

No survey took place in 2016.²⁷

A small amount of previously unreported non-technical survey was conducted in 2015 on an area of approximately 10,000m² around the airport, during which one submunition and one item of UXO were destroyed.²⁸ Prior to this, no survey had taken place since NPA's non-technical survey was completed in April 2013.²⁹

Clearance in 2016

No planned CMR clearance took place in either 2016,³⁰ or in 2015 or 2014, though in 2014, 6,500m² of land was cleared after two unspecified items of UXO were found in Golubovci during construction work;³¹ and as noted above in 2015, 10,000m² of land was released after one submunition and one other item of UXO were found during survey at Golubovci airport.³²

Previously, in 2013, NPA, in cooperation with RCUD, had prepared 10 technical survey and clearance projects covering 834,630m² to be undertaken during the second phase of the "Cluster Munition Convention Completion Initiative for Montenegro" in 2014, and one additional project for underwater clearance covering 24,150m².³³ As noted above, however, lack of funding has meant the work has not yet begun.

ARTICLE 4 COMPLIANCE

Under Article 4 of the CCM, Montenegro is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 August 2020. Montenegro should be able complete the remaining clearance well before this deadline if it identifies funding for the remaining survey and clearance. This should come from the national budget if international funding is not secured.

With funding from the Norwegian Ministry of Foreign Affairs, the non-technical survey completed in April 2013 resulted in an almost complete baseline of remaining CMR contamination in Montenegro. In April 2013, Montenegro said it planned to complete clearance of all contaminated areas in 2014 if the funds were provided.³⁴ In early 2014, Montenegro indicated that clearance would be complete by the end of 2016, subject to funding.³⁵ In June 2015, RCUD reported that if sufficient funding was secured in 2015, CMR clearance in Montenegro would be completed by the end of 2017.³⁶ NPA and RCUD jointly applied for a Norwegian Ministry of Foreign Affairs fund for 2015, through a bilateral agreement between Norway and Montenegro, but the Government of Montenegro did not prioritise the CMR clearance project.³⁷

As at May 2017, however, neither national nor international funding had been secured for CMR clearance in Montenegro.³⁸ Once funding is secured, completion of CMR survey and clearance in Montenegro is predicted to take approximately two years. Therefore, in order to meet its Article 4 deadline of August 2020, Montenegro must secure funds as soon as possible, and commence survey and clearance by the beginning of 2018 at the latest. Montenegro continues to seek international cooperation and assistance to fulfil its survey and clearance obligations under the CCM.³⁹

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- 1 CCM Article 7 Report (for 2016), Form F; and interview with Milovan Joksimović, Head of the Department for UXO, Directorate for Emergency Situations, Ministry of Internal Affairs, 15 May 2017, Podgorica.
 - 2 Ibid.
 - 3 NPA, "Cluster Munition Remnants in Montenegro", July 2013, p. 26.
 - 4 Ibid.; and interview with Milovan Joksimović, Directorate for Emergency Situations, Podgorica, 15 May 2017 and email, 15 June 2017.
 - 5 Interview with Veselin Mijajlovic, RCUD, Bijela, 14 March 2007.
 - 6 NPA, "Cluster Munition Remnants in Montenegro", July 2013, p. 21.
 - 7 Interview with Milovan Joksimović, Directorate for Emergency Situations, Podgorica, 15 May 2017.
 - 8 NPA, "Cluster Munition Remnants in Montenegro", July 2013, p. 22.
 - 9 Ibid., p. 21.
 - 10 Ibid., p. 23.
 - 11 CCM Article 7 Report (for 1 August 2010 to 27 January 2011), Form F.
 - 12 Telephone interviews with Veselin Mijajlovic, RCUD, 19 and 25 July 2011.
 - 13 Statement of Montenegro, CCM intersessional meetings (Clearance and Risk Reduction Session), Geneva, 17 April 2012.
 - 14 NPA, "Cluster Munition Remnants in Montenegro", July 2013, p. 26.
 - 15 Interview with Milovan Joksimović, Directorate for Emergency Situations, Podgorica, 15 May 2017.
 - 16 NATO, "NATO tests Science for Peace and Security projects in Montenegro", 4 November 2016, at: http://www.nato.int/cps/en/natohq/news_137325.htm.
 - 17 Interview with Milovan Joksimović, Directorate for Emergency Situations, Podgorica, 15 May 2017.
 - 18 CCM Article 7 Report (for 2016); and interview with Milovan Joksimović, Directorate for Emergency Situations, Podgorica, 15 May 2017.
 - 19 Email from Veselin Mijajlovic, RCUD, 29 July 2012; and Sluzbeni list RCG [Official Gazette of Montenegro], No.66, pp. 28–32.
 - 20 NPA, "Cluster Munition Remnants in Montenegro", July 2013, p. 9.
 - 21 Ibid., p. 6.
 - 22 Interview with Milovan Joksimović, Directorate for Emergency Situations, Podgorica, 15 May 2017.
 - 23 Ibid.
 - 24 Ibid.; and email from Zoran Begovic, Ministry of Internal Affairs and Public Administration, 28 June 2012.
 - 25 Letter from the Permanent Mission of Montenegro to the UN and other international organisations Geneva, "Information from the Ministry of Interior of Montenegro – in context of support for the Mine Action Center", reference CCM/4-1, May 2017.
 - 26 Interview with Milovan Joksimović, Directorate for Emergency Situations, Podgorica, 15 May 2017.
 - 27 Ibid.
 - 28 Ibid.; and CCM Article 7 Report (for 2015), Form F.
 - 29 Emails from Darvin Lisica, Programme Manager, Bosnia and Herzegovina, NPA, 3 March 2015; and Veselin Mijajlovic, RCUD, 13 May 2016.
 - 30 Interview with Milovan Joksimović, Directorate for Emergency Situations, Podgorica, 15 May 2017.
 - 31 CCM Article 7 Report (for 2014), Form F.
 - 32 Ibid.
 - 33 Response to Cluster Munition Monitor questionnaire by Amela Balic, NPA, 3 March 2014.
 - 34 CCM Article 7 Report (for 30 April 2012 to 31 March 2013), Form F.
 - 35 CCM Article 7 Report (for 2013), Form F.
 - 36 Email from Veselin Mijajlovic, RCUD, 16 June 2015.
 - 37 Email from Darvin Lisica, NPA, 1 April 2016.
 - 38 Interview with Milovan Joksimović, Directorate for Emergency Situations, Podgorica, 15 May 2017.
 - 39 Ibid.; CCM Article 7 Report (for 2016), Form F; and letter from the Permanent Mission of Montenegro to the UN and other international organisations Geneva, "Information from the Ministry of Interior of Montenegro – in context of support for the Mine Action Center", reference CCM/4-1, May 2017.

MOZAMBIQUE



ARTICLE 4 DEADLINE: 1 SEPTEMBER 2021
(CLEARANCE COMPLETED IN 2016)

PROGRAMME PERFORMANCE	2016	2015
Problem understood	10	8
Target date for completion of cluster munition clearance	10	8
Targeted clearance	9	7
Efficient clearance	9	7
National funding of programme	4	4
Timely clearance	9	7
Land release system in place	8	8
National mine action standards	7	7
Reporting on progress	5	6
Improving performance	8	6
PERFORMANCE SCORE: GOOD	7.9	6.8

PERFORMANCE COMMENTARY

Mozambique completed its obligations under Article 4 of the Convention on Cluster Munitions (CCM) in November 2016 by clearing the last known areas of cluster munition remnant (CMR) contamination, five years in advance of its treaty deadline.

RECOMMENDATIONS FOR ACTION

- Mozambique should officially declare completion of clearance of CMR and compliance with CCM Article 4 at the Seventh Meeting of States Parties in September 2017.
- Mozambique should ensure that national capacity exists to address residual contamination from mines, CMR, and other explosive remnants of war (ERW).
- Mozambique should ensure that the national mine action database is transferred to an appropriate government ministry and that resources are allocated to maintain the database.

CONTAMINATION

As a result of targeted CMR survey and clearance efforts that began in September 2015 and concluded in November 2016, Norwegian People's Aid (NPA) identified and cleared a total area of remaining CMR contamination across 1.2km². This included nine areas covering 0.98km² in Manica province and one area with a size of nearly 0.25km² in Tete province.¹

At the end of 2014, Mozambique had no known areas confirmed to contain CMR. However, Mozambique's National Demining Institute (Instituto Nacional de Desminagem, IND) asked NPA to undertake a CMR survey in the second half of 2015 in Gaza, Manica, and Tete provinces, targeting specific communities. According to the IND, this was intended as a mix of additional non-technical and technical survey to confirm that areas where clearance had already been carried out did not contain any CMR and with a view to ensuring completion of CMR clearance "by no later than 2016".²

Cluster munitions are reported to have been used on "a limited scale" during the 1977–92 war in Mozambique.³ In 2013, Mozambique reported that the extent of areas contaminated by CMR was not known, though it noted that cluster munitions had been used in seven provinces: Gaza, Manica, Maputo, Niassa, Sofala, Tete, and Zambezia.⁴ A small number of RBK-250 cluster munition containers and unexploded submunitions, notably Rhodesian-manufactured Alpha bomblets, were found in Gaza, Manica, Maputo, and Tete provinces in 2005–14.⁵ Mozambique asserted that most of the resultant CMR had already been destroyed during mine and ERW clearance by 2014.⁶

NPA reported that clearance of the remaining CMR contamination it identified in 2015–16 had a direct and immediate socio-economic impact on the communities living in and around the areas, whose main livelihood activities were subsistence farming and agriculture. The released land was being put to use for agricultural cultivation and animal husbandry.⁷

Other Explosive Remnants of War and Landmines

Mozambique also has four small suspected mined areas that remain underwater in Inhambane province⁸ and residual contamination from unexploded ordnance (UXO) and other ERW. The IND reported that 47 items of UXO were destroyed in 2016.⁹

PROGRAMME MANAGEMENT

The IND serves as the national mine action centre in Mozambique, reporting to the Ministry of Foreign Affairs. Provincial demining commissions have also been created to assist in planning mine action operations. Beginning in 1999, the United Nations Development Programme (UNDP) provided technical assistance to the IND, most recently under a three-year programme that ended in 2015.¹⁰

As at mid-2016, UNDP no longer had a budget for mine action-related activities in Mozambique.¹¹ At the same time, amid a growing national economic crisis, the government put in place strict austerity measures which saw financial support to the IND reduced drastically. The lack of sufficient funding resulted in the institution being downsized during the year, with only key staff remaining at the start of 2017.¹² NPA has expressed concern at the IND's lack of resources and its ability to maintain a capacity to address residual mine and ERW contamination.¹³

Strategic Plan

A “National Strategy on Management of Residual Contamination 2015–2017” was submitted to the government for adoption in 2015. It calls for Mozambique’s national capacities to be “developed and structured to respond to the anticipated residual contamination problems in the most effective and efficient manner” and sets out three primary goals: the establishment of a national ERW centre; the development of sustainable national explosive ordnance disposal (EOD) capacity; and the creation of an information management system to facilitate coordination and information sharing between stakeholders.¹⁴ The document, however, was not adopted by the government, and as at April 2017, the IND was still pushing for it to be approved.¹⁵

Standards

In 2013–15, the IND sought to revise its national mine action standards (NMAS) to include specific guidance on clearance of CMR, with assistance from NPA.¹⁶ Revised NMAS were not ultimately adopted, however, and the IND explicitly allowed NPA, the only body carrying out CMR survey and clearance in 2015–16, to operate under the organisation’s own standing operating procedures, which include provisions on battle area clearance (BAC) specific to CMR.¹⁷

Operators

In 2016, Mozambique had two international demining operators in country: international non-governmental organisations (NGOs) APOPO and NPA. As noted above, though, NPA was the only operator conducting CMR survey and clearance in 2015–16. At the start of 2016, NPA employed a total of 20 field staff, 10 of whom were CMR searchers.¹⁸

Quality Management

NPA reported that the IND was unable to undertake external quality assurance (QA)/quality control (QC) visits due to a lack of funding in 2016. As such, NPA’s operations in Mozambique received visits from NPA’s technical teams in Zimbabwe to provide a form of external QA/QC.¹⁹ The IND stated that only limited QA activities could be undertaken during the year.²⁰

Information Management

In 2016, the Information Management System for Mine Action (IMSMA) database remained with the IND and was regularly updated with CMR survey and clearance results. Two IND information management staff continued to manage the database at the IND’s office in Maputo. The IND had reported plans to shift responsibility of the IMSMA database to a government ministry, however, as at March 2017, this had not been formalised, and the future of the database remained uncertain.²¹

LAND RELEASE

As a result of its targeted survey operations to address the remaining CMR contamination in Gaza, Manica, and Tete provinces in 2015–16, NPA reported cancelling three suspected hazardous areas in Tete province with a size of 155,897m² and confirming 10 areas with a combined size of just over 1.2km². Nine of these areas were located in Manica province (total size 979,766m²) and one area in Tete province (251,300m²).²²

By November 2016, NPA had cleared all the contaminated areas it had confirmed to contain CMR, as reported above, making a total of 1,231,066m² of CMR-contaminated land released, and destroying in the process 145 submunitions and 22 other items of UXO. It also reported destroying 50 anti-personnel mines during BAC operations in Manica province; it said the mines had not been emplaced, but were scattered on the ground at a former military base.²³

ARTICLE 4 COMPLIANCE

Under Article 4 of the CCM, Mozambique was required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 September 2021. Mozambique fulfilled its Article 4 obligations in November 2016, well in advance of its treaty deadline, and in keeping with previous statements since 2013 that it would complete CMR clearance and ensure compliance with Article 4 of the CCM by “no later than the end of 2016”.²⁴

Mozambique informed the Secretariat of the CCM of completion of CMR clearance in December 2016 and was expected to make an official declaration of completion at the Seventh Meeting of States Parties in September 2017.²⁵ As at May 2017, Mozambique had not submitted an updated annual Article 7 transparency report as the Convention requires.

The Government of Mozambique did not provide any funding for field operations in 2016, though it continued to pay the salaries of key IND staff. The IND expected it would continue to do so, for as long as it remained the coordinating authority for mine action-related activities.²⁶ However, the IND emphasised that with the reduction in financial support from the government, its activities and outreach would be severely affected in 2017, as was the case in 2016.²⁷

The IND reported that significant training had been provided to provincial police units in a training partnership between the police and the US Africa Command in 2016 and it was hoped that the police units would be able to address any future contamination found after 2017.²⁸

- 1 Email from Afedra Robert Iga, Programme Manager Mozambique, NPA, 23 March 2017; and response to questionnaire by the National Demining Institute (Instituto Nacional de Desminagem, IND), received by email via Afedra Robert Iga, NPA, 25 April 2017. As at end 2015, six areas with a total size of nearly 0.74km² had been identified, including five areas with a total size of close to 0.67km² in Manica province and one area of nearly 0.07km² in Tete province.
- 2 Response to questionnaire by the IND, 30 April 2015; and statement by Alberto Maverengue Augusto, Director, IND, CCM Fifth Meeting of States Parties, San José, 4 September 2014.
- 3 Statement by Alberto Maverengue Augusto, IND, CCM Fifth Meeting of States Parties, San José, 4 September 2014.
- 4 CCM Article 7 Report (for 1 September 2011–31 May 2012), Form F.
- 5 In 2014, for instance, international mine clearance NGO, APOPO, destroyed 12 Alpha submunitions in CMR clearance operations in Tete province. CCM Article 7 Report (for 1 September 2011–31 May 2012), Form F; statement by Alberto Maverengue Augusto, IND, CCM Fifth Meeting of States Parties, San José, 4 September 2014; CCM Article 7 Report (for 1 January 2013–1 July 2014), Form F; and responses to questionnaire by the IND, 30 April 2015; and APOPO, 15 May 2015.
- 6 Statement by Alberto Maverengue Augusto, IND, CCM Fifth Meeting of States Parties, San José, 4 September 2014.
- 7 Email from Afedra Robert Iga, NPA, 23 March 2017.
- 8 Statement of Mozambique, APMBC Intersessional Meetings, Geneva, 8 June 2017.
- 9 Response to questionnaire by IND, received by email via Afedra Robert Iga, NPA, 25 April 2017.
- 10 UNDP presentation, Anti-Personnel Mine Ban Convention (APMBC) Thirteenth Meeting of States Parties, Geneva, 3 December 2013.
- 11 Skype interview with Afedra Robert Iga, NPA, 7 June 2016.
- 12 Email from Afedra Robert Iga, NPA, 23 March 2017.
- 13 Skype interview with Afedra Robert Iga, NPA, 7 June 2016.
- 14 The strategy further calls for the development of a national policy on the management of residual contamination and the drafting of standing operating procedures (SOPs) on responding to residual contamination and risk education, and the formalization of a solid coordination system between the ERW centre and relevant authorities, and the establishment of a sustainable archiving system to ensure the long-term availability of information. Republic of Mozambique Ministry of Foreign Affairs and Cooperation National ERW and Training Centre, "National Strategy on Management of Residual Contamination 2015-2017", undated; and response to questionnaire by IND, received by email via Afedra Robert Iga, NPA, 25 April 2017.
- 15 Response to questionnaire by IND, received by email via Afedra Robert Iga, NPA, 25 April 2017.
- 16 Statement of Mozambique, CCM Fourth Meeting of States Parties, Lusaka, 12 September 2013. In April 2015, the IND stated it was requesting assistance from NPA to revise its NMAS, information management, and quality management system specific to CMR survey and clearance.
- 17 Response to questionnaire by IND, received by email via Afedra Robert Iga, NPA, 25 April 2017 and email from Afedra Robert Iga, NPA, 23 March 2017.
- 18 Email from Afedra Robert Iga, NPA, 7 June 2016.
- 19 Email from Afedra Robert Iga, NPA, 23 March 2017.
- 20 Response to questionnaire by IND, received by email via Afedra Robert Iga, NPA, 25 April 2017.
- 21 Emails from Afedra Robert Iga, NPA, 7 June 2016 and 23 March 2017.
- 22 No CMR contamination was identified in Gaza province. Emails from Afedra Robert Iga, NPA, 7 June 2016 and 23 March 2017.
- 23 Emails from Afedra Robert Iga, NPA, 23 March and 4 May 2017.
- 24 Statement by Amb. Pedro Comissário, First CCM Review Conference, Dubrovnik, 7 September 2015; response to questionnaire by the IND, 30 April 2015; statement by Alberto Maverengue Augusto, IND, CCM Fifth Meeting of States Parties, San José, 4 September 2014; and statement of Mozambique, CCM Fourth Meeting of States Parties, Lusaka, 12 September 2013.
- 25 Response to questionnaire by IND, received by email via Afedra Robert Iga, NPA, 25 April 2017; and email from Afedra Robert Iga, NPA, 23 March 2017.
- 26 Response to questionnaire by IND, received by email via Afedra Robert Iga, NPA, 25 April 2017.
- 27 Ibid.
- 28 Ibid.

SOMALIA



ARTICLE 4 DEADLINE: 1 MARCH 2026
(TOO SOON TO ASSESS LIKELIHOOD OF COMPLIANCE)

PROGRAMME PERFORMANCE	2016	2015
Problem understood	3	3
Target date for completion of cluster munition clearance	3	4
Targeted clearance	4	4
Efficient clearance	5	5
National funding of programme	3	3
Timely clearance	4	4
Land release system in place	6	6
National mine action standards	5	6
Reporting on progress	4	5
Improving performance	5	6
PERFORMANCE SCORE: POOR	4.2	4.6

PERFORMANCE COMMENTARY

Somalia has made little progress so far in implementing its obligations under Article 4 of the Convention on Cluster Munitions (CCM). No survey specific to CMR was conducted in 2016 and no cluster munition remnants (CMR) clearance occurred in Somalia during the year. There is a need for much greater support for the Somalia Explosive Management Authority (SEMA) and greater priority on the implementation of mine action operations, with less time spent on coordination and bureaucracy between stakeholders.

RECOMMENDATIONS FOR ACTION

- Somalia should ensure the timely survey and clearance of CMR in accordance with its CCM obligations, alongside efforts to address wider explosive remnants of war (ERW) contamination.
- Somalia should commit more resources for SEMA and mine action operations.
- SEMA should be supported to secure parliamentary approval for its legislative framework and to gain recognition as a salaried civil service government entity.
- SEMA should simultaneously clarify its structure, organigram, and staffing and ensure greater cohesion between its five Federal State offices and state-level consortiums.
- SEMA should ensure a greater focus on output, with less time tied up in coordination and liaison between stakeholders. Bureaucratic blockages should be lifted and permissions and authorisation to carry out mine action activities facilitated.
- The Information Management System for Mine Action (IMSMA) database should be transferred to full national ownership under SEMA, an undertaking that requires additional training and resources for its management.
- Continued efforts should be made to make certain recording of and reporting on mine action is according to International Mine Action Standards (IMAS) terminology.
- SEMA's national mine action policy should be translated and disseminated to mine action stakeholders, with the opportunity for consultation and input.
- Somalia's National Technical Standards and Guidelines (NTSG) should be reviewed and revised to ensure their relevance for the Somali-specific country context and present best practices for tackling the nature of the mine and CMR threat in Somalia.
- Somalia should develop a resource mobilisation strategy and initiate dialogue with development partners on long-term support for mine action, including to address CMR.

CONTAMINATION

The extent of CMR contamination in Somalia is unknown. In 2013, dozens of PTAB-2.5M submunitions and several AO-1Sch submunitions were found within a 30km radius of the town of Dolow on the Somali-Ethiopian border, in the southern Gedo region of southern Somalia.¹ CMR were also identified around the town of Galdogob in the north-central Mudug province of Puntland, further north on the border with Ethiopia.² More contamination was expected to be found in southern Somalia's Lower and Upper Juba regions.³

According to the United Nations Mine Action Service (UNMAS), eight reports were submitted in September 2015 from Rabdhure, in Bakool region of South West state showing empty RBK-250-275 cluster bomb containers, which can contain both AO-1Sch and PTAB-2.5M submunitions.⁴ Three additional reports of the identification of CMR were made in 2016. All reports remained to be verified as at July 2017. In January 2016, several BL755 submunitions were reportedly found near Bu'ale, Middle Juba region, which were claimed by Somali media to have been recently used. In March 2016, a modified BL755 submunition was found in Bardera (Baardheere), Gedo region, and in September 2016, one PTAB-2.5M submunition was reportedly found in Dinsoor, Bay region.⁵

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.⁶ The Soviet Union supplied both Ethiopia and Somalia with weapons during the conflict. PTAB-2.5 and AO-1Sch submunitions were produced by the Soviet Union on a large scale.⁷

On 24 January 2016, Somali media reports circulated photos alleging that cluster munitions had been used by the Kenyan Defence Forces (KDF) during an intensive bombing campaign in Gedo region, in response to an attack on 15 January on KDF forces at an African Union Mission in Somalia (AMISOM) base in El Adde, in which the UN later reported that 150 Kenyan soldiers were killed.⁸

The photos published appear to show unexploded United Kingdom (UK)-manufactured BL755 submunitions in the area of Bu'ale. There were subsequent reports by local residents that al-Shabaab had discovered unexploded submunitions near Bu'ale around the same time. A UN Monitoring Group investigation later determined that unexploded submunitions of the same BL755 type were used in the manufacture of components of improvised explosive devices (IEDs) found in a cache of materials seized by anti-al-Shabaab forces in Bardera, reported on 7 March 2016.⁹

The UN Monitoring Group investigation was unable to conclude whether the KDF dropped the BL-755 munitions during airstrikes in Gedo in January 2016. It reported that, according to the Landmine and Cluster Munition Monitor, Kenya was not known to have ever used, produced, or stockpiled cluster munitions. It noted, however, that the F-5 type aircraft used by the KDF in Somalia can be modified to deliver BL-755 munitions.¹⁰

Likewise, it was unable to determine whether the BL755 submunitions used as part of the IEDs recovered in Bardera were harvested from previously imported or deployed weapons stocks. It noted that the majority of CMR contamination recorded from the 1977–78 Somali-Ethiopian Ogaden war was submunitions of the types PTAB-2.5M and AO-1SCh, and that there were no reports of BL-755 submunitions discovered among legacy UXO contamination in Somalia. However, it observed that BL755 cluster munitions were developed in the early 1970s and known to have been used by Ethiopia at least once, in an attack on Eritrea, in the 1990s.¹¹

The Government of Kenya denied using cluster munitions in the January air campaign, calling the UN Monitoring Group's report "at best, a fabricated, wild and sensationalist allegation".¹²

While the extent of CMR contamination along the Somali border with Ethiopia is not known, in 2014, Somalia claimed it posed an ongoing threat to the lives of nomadic people and their animals.¹³

Other Explosive Remnants of War and Landmines

Somalia is heavily contaminated with ERW other than CMR, a result of conflict in 1990–2012. Contamination exists across its three major regions: south-central Somalia (including the capital Mogadishu), Puntland (a semi-autonomous administration in the north-east), and Somaliland (a self-proclaimed, though unrecognised, state that operates autonomously in the north-west). Landmines along the border with Ethiopia, mainly as a result of legacy minefields, also continued to affect civilians in south-central Somalia.¹⁴

Insecure and poorly managed stockpiles of weapons and ammunition, as well as use of improvised explosive devices (IEDs) by non-state armed groups have a serious humanitarian impact. The extent of the threat is not well known, except in Puntland and Somaliland where a range of surveys have been carried out over the past decade.¹⁵

In 2017, UNMAS reported that ERW and landmine contamination in Somalia continued to restrict community access to basic services and economic opportunities and remained an impediment to stability, security, and ultimately, recovery and development. The ongoing conflict also resulted in new contamination from ERW, which presents a source, along with large quantities of abandoned ammunition, for al-Shabaab and other opposition armed groups to harvest explosives and items to be used in the manufacturing of IEDs.¹⁶

PROGRAMME MANAGEMENT

According to SEMA, as at October 2016, mine action management in Somalia was "temporarily" divided into two geographical regions: Somalia and Somaliland. The respective centres responsible for mine action in each of these areas are SEMA and the Somaliland Mine Action Centre (SMAC).¹⁷ SEMA reported that it maintains a presence across Somalia through its five Federal State members, the SEMA Puntland State Office, SEMA Galmudug State Office, SEMA Hirshabelle State Office, SEMA South West State Office, and SEMA Jubaland Office.¹⁸ Under each of the five Federal State members is an independent consortium of national NGOs.

SEMA was established in 2013 as the mine action centre for southern Somalia, replacing the Somalia National Mine Action Authority (SNMAA) created two years earlier.¹⁹ SEMA's goal was to assume full responsibility for all explosive hazard coordination, regulation, and management by December 2015.²⁰ UNMAS reported that "significant steps" were made in late 2015 towards "the transfer of responsibilities to a national authority" with Somalia's Council of Ministers endorsing of SEMA's legislative framework, policy, and budget, making it responsible for managing and coordinating all explosive hazards in Somalia.²¹

In June 2016, SEMA reported that its legislative framework was still awaiting the approval of the Federal Parliament.²² However, elections held in February 2017 resulted in a period of government paralysis and the legislative framework was not adopted.²³ Due to the lack of parliamentary approval, SEMA did not receive funding from the government in 2016, nor had it received any financial assistance from UNMAS since December 2015.²⁴ A seven-month grant from UNMAS expired in December 2015, under which SEMA was expected to have established itself as a sustainable national mine action institution.²⁵

Puntland

The SEMA Puntland State Office, formerly known as PMAC, was established in Garowe with UN Development Programme (UNDP) support in 1999. Since then, on behalf of the regional government, PMAC has coordinated mine action with local and international partners, including Danish Demining Group (DDG) and Mines Advisory Group (MAG).²⁶ It runs the only police explosive ordnance disposal (EOD) team in Puntland, which is responsible for collecting and destroying explosive ordnance. In June 2015, it requested assistance to increase its capacity and deploy three EOD teams in Bosasso, Galkayo, and Garowe.²⁷

Somaliland

In 1997, UNDP assisted the government of Somaliland to establish SMAC, which is responsible for coordinating and managing demining in Somaliland.²⁸ Officially, SMAC is under the authority of the Vice-President of Somaliland, who heads the interministerial Mine Action Steering Committee.²⁹ The HALO Trust reported that meetings with SMAC were convened on a monthly basis in 2016.³⁰

Strategic Planning

SEMA developed a national mine action policy, which as at May 2017, had received one reading in the Somali Parliament but had yet to be ratified. The document only existed in Somali and no translations were available, nor had any versions been disseminated to national or international mine action operators. Operators raised concerns that the policy was drafted with little to no input from international mine action stakeholders or the international donor community.³¹ NPA reported, however, that it was intended that the policy would be translated and shared with mine action operators in 2017 as part of a UK Department for International Development (DFID)-funded capacity building project.³²

In 2017, the recently elected Somali Government approved The Somalia National Development Plan 2017–2019, outlining priorities for recovery and development. Mine and ERW contamination is recognised as a hindrance to socio-economic development and a security concern for sustainable development initiatives, and identifies mine and ERW clearance as a crucial part of stabilisation efforts in the national development process.³³

In 2015, the Federal Government of Somalia's Ministry of Internal Security and SEMA developed a national strategy document, the "Badbaado Plan for Multi-Year Explosive Hazard Management", in coordination with Federal State members, the UN Assistance Mission in Somalia (UNSOM), and UNMAS. The plan's overarching objective is to support the Federal Government in fulfilling its obligations under the Anti-Personnel Mine Ban Convention and the CCM, with a focus on national ownership through the institutional development of SEMA federal state entities, the training of national police EOD teams, and the creation of employment opportunities for local Somalis, including from at-risk groups such as youths and former combatants, to undertake clearance operations in their own communities.³⁴ According to SEMA, the Badbaado Plan's objectives for nationwide mine and ERW clearance in south-central Somalia include areas "reported with cluster munition presence".³⁵ A separate plan was developed for explosive hazard management by the police.³⁶

Somaliland's latest strategic mine action plan expired in 2014. In May 2017, The HALO Trust reported that it intended to work with SMAC to develop a mine action strategy in 2017–18.³⁷

Standards

UNMAS developed NTSGs for Somalia in 2012–13.³⁸ The NTSGs do not include specific guidance for CMR survey or clearance and SEMA stated in June 2016 that it did not have the capacity to revise the existing NTSGs to include provisions specific to CMR.³⁹ The NTSGs are also not specific to the Somali context, and in 2017, there were calls for the NTSGs to be reviewed and revised to ensure they represent best practices for tackling the particular mine and CMR threat in Somalia.⁴⁰

Mine action standards remained in place in Somaliland and no changes were reported in 2016.⁴¹

Operators

DDG began operations in the country in 1999 with mine and ERW clearance in Somaliland and has since undertaken programmes in Mogadishu, Puntland, and Somaliland.⁴² In 2016, DDG continued to focus its activities on EOD and risk education and did not conduct any mine or battle area clearance (BAC).⁴³

While The HALO Trust's mine clearance programme in Somaliland has been ongoing since 1999, in the first half of 2015, the organisation opened a new programme in southern Somalia but no CMR-related operations were carried out during 2016.⁴⁴ Its capacity increased from 38 staff at the start of the year to 185 in December 2016, due to a planned increase in mine clearance operations. It reported significant gains in training and technical competence, and correspondingly in clearance output, during the year.⁴⁵

In 2016, MAG continued its arms management and destruction (AMD) programme across south-central Somalia, Puntland, and Somaliland. MAG previously conducted non-technical survey and EOD in Puntland, along with training and support to police EOD teams, but halted its mine action programme in August 2013. In 2016, MAG sought further funding to support the Puntland police EOD teams but was not successful.⁴⁶

In 2016, NPA continued a programme initiated in 2014 in southern Somalia for survey, BAC, and capacity-building assistance to SEMA.⁴⁷ It operated three BAC teams conducting surface clearance of ERW in Mogadishu and its outskirts.⁴⁸

From 1 September 2015 to 31 May 2016, UNMAS continued to contract the Ukrainian commercial operator Ukroboronservice to undertake mine action-related tasks in south-central Somalia. It deployed four MTTs along with nine community liaison officers in support of AMISOM projects to conduct survey and clearance of ERW, main supply route assessments, stockpile and ammunition management, and explosive hazard risk education.⁴⁹ Ten government police EOD teams were also deployed in Somalia.⁵⁰

Quality Management

NPA reported that SEMA conducted external quality assurance (QA) of its BAC tasks during 2016.⁵¹ The HALO Trust said that no external QA of its tasks was conducted in 2016 and reported that, as at May 2017, only one visit by a SEMA representative had occurred since the start of the year. No field visits to conduct QA by international managers could be carried out due to security concerns, it said.⁵² In June 2017, SEMA confirmed that clearance projects had been initiated without a strong QA/quality control (QC) process in place and called for further capacity building of SEMA to carry out QA/QC before awarding future contracts.⁵³

Information Management

No changes were reported to the quality of the national IMSMA database or significant developments with respect to information management in 2016.⁵⁴ In July 2017, UNMAS reported that it had made several attempts to hand over the IMSMA database to SEMA, but lack of capacity within SEMA had left the Agency unable to accept the responsibility. UNMAS was continuing to process the data as an interim measure until SEMA has sufficient capacity to administer the database on its own.⁵⁵

In Somaliland, The HALO Trust reported continuing regular checks of its information management system to ensure accuracy of reporting and stated that it transfers all data to SMAC, which then inputs it into its IMSMA database.⁵⁶

LAND RELEASE

Survey in 2016

No overview of areas suspected to contain CMR exists in southern Somalia, and, as at May 2017, no national survey had been conducted, mainly due to the security situation.⁵⁷ No survey specific to CMR was conducted in 2016.

In 2015–16, The HALO Trust carried out surveys in the Hiran region of Hirshabelle state, along the Ethiopian border in the Galguduud region of Galmudug state, and in the Bakool region of South-West state, surveying a total of 101 minefield and 179 UXO tasks. Of this, only one CMR fragment was found in Hiran. No further evidence of use of cluster munitions or CMR contamination was encountered.⁵⁸

Clearance in 2016

No CMR clearance occurred in Somalia in 2016.⁵⁹ No formal land release occurred in Puntland in 2016; operations consisted only of risk education and EOD spot tasks. In Somaliland, The HALO Trust continued non-technical and technical survey, mine clearance, BAC, and EOD spot tasks in 2016 and did not come across any CMR in its operations.⁶⁰

DDG, NPA, and MAG confirmed that they did not encounter any CMR in their operations in southern Somalia in 2016.⁶¹

Deminer Safety

In September 2016, two HALO Trust staff were killed and one permanently disabled in a shooting incident in Galmudug state. The HALO Trust reported that the incident was due to a conflict between rival sub-clans and was not directly targeted at its operations. Nevertheless, it was forced to withdraw from Galmudug as a result.⁶²

ARTICLE 4 COMPLIANCE

Under Article 4 of the CCM, Somalia is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 March 2026.

It is too soon to say whether Somalia is on track to meet its Article 4 deadline although in June 2016, SEMA had claimed to be optimistic that with adequate resources, Somalia would meet the deadline in time.⁶³

It highlighted the need for international assistance; greater transparency on bilaterally funded projects; better coordination and information sharing between operators, SEMA, and its Federal State member offices; and ensuring sufficient capacity to conduct independent QA/QC activities as key areas of concern.⁶⁴

SEMA continued to be hindered by a lack of federal funding in 2016.⁶⁵ NPA reported that UNMAS had stopped funding SEMA, in the expectation that its legislative framework was due to be approved by the Federal Parliament and that funding for SEMA would be allocated from the national budget.⁶⁶ However, due to the lack of parliamentary approval, SEMA did not receive funding from the government in 2016. As noted above, a seven-month grant from UNMAS expired in December 2015 under which SEMA was expected to have established itself as a sustainable government entity.⁶⁷

SEMA began staffing its office in 2016, but as at May 2017, did not have sufficient capacity to manage the reporting and coordination requirements of a national mine action

centre. Operators continued to raise concerns that less time should be directed at political liaison between stakeholders, and that facilitating the implementation of demining operations must be a higher priority.⁶⁸ Greater clarity on SEMA's role and cohesion between SEMA and its five Federal State offices, as well as national consortiums, would also facilitate communication between stakeholders and more efficient implementation of mine action activities.⁶⁹ Security and the safety of demining staff amid political tension and violence remained significant concerns for operations in certain areas.⁷⁰

There were no plans to conduct a national survey of CMR contamination as at May 2017. However, NPA planned to deploy one survey team to an area suspected to contain CMR contamination in the second half of the year.⁷¹

The HALO Trust expected its capacity to decrease slightly at the beginning of 2017 due to a relocation of operations where some staff members could not be deployed. There was a potential for a small increase in funding in September, which would allow for additional hiring and expanded operations.⁷²

In 2017, under a DFID-funded partnership project, NPA was providing capacity development for SEMA on managing the IMSMA database, conducting non-technical and technical survey, and trainings for SEMA management staff.⁷³

1 Emails from Mohamed Abdulkadir Ahmed, Director, SEMA, 14 June 2016; and Mohammad Sediq Rashid, Project Manager, UNMAS Somalia, 8 June 2017. UNMAS reported in June 2017 had these had since been cleared.

2 Response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.

3 Presentation by Mohamed Abdulkadir Ahmed, National Director, Somali National Mine Action Authority (SNMAA), "Somalia Weapons Contamination: Addressing Key Challenges to Meeting Clearance Deadlines under the Mine Ban Convention and Convention on Cluster Munitions", African Union and International Committee of the Red Cross (ICRC) workshop, Addis Ababa, 5 March 2013.

4 Email from Mohammad Sediq Rashid, UNMAS, 8 June 2017.

5 Ibid.

6 Email from Mohamed Abdulkadir Ahmed, SNMAA, 17 April 2013.

7 Ibid.

8 UN Security Council, "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", S2016/919, 31 October 2016, pp. 171–73.

9 Ibid.

10 The UN Monitoring Group requested Lockheed Martin Holdings (UK), which acquired Hunting Engineering/INSYS in 2005 that had manufactured the BL755 cluster munition, to provide export authorisation records for the sale of any BL755s to Kenya; however, the requirement to retain export records had since expired and no records were recoverable. UN Security Council, "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", S2016/919, 31 October 2016, pp. 171–73.

11 Ibid.

12 Ibid.

13 Statement of Somalia, CCM Fifth Meeting of States Parties, San José, 2–5 September 2014.

14 UNMAS, "UN-suggested Explosive Hazard Management Strategic Framework 2015–2019", undated, pp. 6 and 12.

15 UNMAS, "2015 Portfolio of Mine Action Projects, Somalia", at: http://www.mineaction.org/sites/default/files/print/country_portfolio4765-1070-10565.pdf.

16 Ibid.

17 Email from Mohamed Abdulkadir Ahmed, SEMA, 14 October 2016.

18 Ibid.

19 Interview with Mohamed Abdulkadir Ahmed, SEMA, in Geneva, 9 April 2014; and email from Kjell Ivar Breili, UNMAS, 12 July 2015.

20 Response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.

21 UNMAS, "2016 Portfolio of Mine Action Projects, Somalia".

22 Email from Mohamed Abdulkadir Ahmed, SEMA, 14 June 2016.

23 Email from Hilde Jørgensen, NPA, 3 May 2017.

24 Emails from Terje Eldøen, NPA, 22 October 2016; and Mohamed Abdulkadir Ahmed, SEMA, 14 October 2016.

25 Email from Mohammad Sediq Rashid, UNMAS, 8 June 2017.

26 UNMAS, "UN-suggested Explosive Hazard Management Strategic Framework 2015–2019", p. 9.

27 Response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.

28 SMAC, "Annual Report 2011", Hargeisa, January 2012, p. 2.

29 Ibid.

30 Email from Tom Griffiths, Regional Director North Africa, HALO Trust, 31 May 2017.

31 Emails from Tom Griffiths, HALO Trust, 31 May 2017; and Hilde Jørgensen, NPA, 3 May 2017.

32 Email from Hilde Jørgensen, NPA, 3 May 2017.

33 Federal Government of Somalia, "Somalia National Development Plan Towards Recovery, Democracy, and Prosperity 2017–2019", p. 21, at: <http://mopac.gov.so/wp-content/uploads/2016/11/SOMALIA-NATIONAL-DEVELOPMENT-PLAN-2017-2019.pdf>.

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- 34 "Badbaado Plan: Multi-Year Explosive Hazard Management proposal outlined by the Federal Government of Somalia – Ministry of Internal Security and Somalia Explosive Management Authority", HMSWQ/31/8/15/025, 31 August 2015.
- 35 Email from Mohamed Abdulkadir Ahmed, SEMA, 14 June 2016.
- 36 UNMAS, "2016 Portfolio of Mine Action Projects, Somalia".
- 37 Email from Tom Griffiths, HALO Trust, 31 May 2017.
- 38 Email from Terje Eldøen, Programme Manager, NPA, 5 June 2016; and response to questionnaire by Mohamed Abdulkadir Ahmed, SEMA, 19 June 2015.
- 39 Ibid.; and email from Terje Eldøen, NPA, 5 June 2016.
- 40 Email from Tom Griffiths, HALO Trust, 19 May 2017.
- 41 Email from Tom Griffiths, HALO Trust, 31 May 2017.
- 42 In 2007, DDG initiated a mine action programme in southern Somalia (in Mogadishu) and in Puntland. DDG's mine action programme in Somaliland ceased mine clearance in 2006. DDG, "South-Central Somalia and Puntland", undated, but accessed 30 April 2014.
- 43 Email from Roger Fasth, Global Operations Manager, DDG, 10 May 2017.
- 44 Email from Tom Griffiths, HALO Trust, 19 May 2017.
- 45 Email from Tom Griffiths, HALO Trust, 31 May 2017.
- 46 Email from Bill Marsden, Regional Director, East and Southern Africa, MAG, 18 May 2017.
- 47 NPA, "Humanitarian Disarmament in Somalia", accessed 28 April 2014; and emails from Terje Eldøen, NPA, 29 April 2014; and from Ahmed Siyad, NPA, 1 May 2014.
- 48 Email from Hilde Jørgensen, NPA, 3 May 2017; NPA, "Humanitarian Disarmament in Somalia", accessed 28 April 2014; and emails from Terje Eldøen, NPA, 29 April 2014; and from Ahmed Siyad, NPA, 1 May 2014.
- 49 Email from Mohammad Sediq Rashid, UNMAS, 8 June 2017.
- 50 Email from Hussein Ibrahim Ahmed, Operations Coordinator, UNMAS, 22 June 2016.
- 51 Email from Hilde Jørgensen, NPA, 3 May 2017.
- 52 Emails from Tom Griffiths, HALO Trust, 19 and 31 May 2017.
- 53 Email from Mohamed Abdulkadir Ahmed, SEMA, 1 June 2017.
- 54 Emails from Hilde Jørgensen, NPA, 3 May 2017; and Tom Griffiths, HALO Trust, 19 May 2017.
- 55 Email from Tom Griffiths, HALO Trust, 19 May 2017.
- 56 Email from Tom Griffiths, HALO Trust, 31 May 2017.
- 57 UNMAS, "2017 Portfolio of Mine Action Projects, Somalia".
- 58 Email from Tom Griffiths, HALO Trust, 19 May 2017.
- 59 Approximately 32.5km² of BAC was carried out by NPA in south-central Somalia in 2016, a decrease from the 42.4km² in 2015. The HALO Trust reported that by the end of 2016, it had surveyed over 16km² of hazardous area and cleared over 106,300m² by manual mine clearance and BAC along the border regions of Hirshabelle and Galmudug states. Emails from Tom Griffiths, HALO Trust, 31 May 2017; and Hilde Jørgensen, NPA, 3 May 2017.
- 60 Email from Tom Griffiths, HALO Trust, 31 May 2017.
- 61 Emails from Bill Marsden, MAG, 18 May 2017; Tom Griffiths, HALO Trust, 31 May 2017; and Hilde Jørgensen, NPA, 3 May 2017.
- 62 Email from Tom Griffiths, HALO Trust, 31 May 2017.
- 63 Email from Mohamed Abdulkadir Ahmed, SEMA, 14 June 2016.
- 64 Ibid.
- 65 Emails from Tom Griffiths, HALO Trust, 19 May 2017; and Mohamed Abdulkadir Ahmed, SEMA, 14 June 2016.
- 66 Emails from Terje Eldøen, NPA, 5 June and 14 June 2016.
- 67 Email from Mohammad Sediq Rashid, UNMAS, 8 June 2017.
- 68 Emails from Hilde Jørgensen, NPA, 3 May 2017; and Tom Griffiths, HALO Trust, 19 May 2017.
- 69 Geneva Centre for Humanitarian Demining, "Somali Explosive Management Authority (SEMA), Key Findings and Recommendations for Capacity Development Support", 3 November 2011; and NPA, "Somalia Capacity Development Project: Phase 1 Final Report, 2015–2017", 22 February 2017.
- 70 Email from Tom Griffiths, HALO Trust, 19 May 2017.
- 71 Email from Hilde Jørgensen, NPA, 3 May 2017.
- 72 Email from Tom Griffiths, HALO Trust, 31 May 2017.
- 73 Email from Anna Roughley, DfID Project Co-ordinator, NPA, 23 May 2017.

UNITED KINGDOM

(FALKLAND ISLANDS/
MALVINAS)

ARTICLE 4 DEADLINE: 1 NOVEMBER 2020
(UNCLEAR WHETHER ON TRACK TO MEET DEADLINE)

PROGRAMME PERFORMANCE

	2016	2015
Problem understood	6	6
Target date for completion of cluster munition clearance	3	3
Targeted clearance	6	6
Efficient clearance	3	3
National funding of programme	7	7
Timely clearance	3	3
Land release system in place	8	8
National mine action standards	9	9
Reporting on progress	5	5
Improving performance	5	5
PERFORMANCE SCORE: AVERAGE	5.5	5.5

PERFORMANCE COMMENTARY

The United Kingdom has still to present a plan to locate and address any remaining cluster munition remnants (CMR) in the Falkland Islands.

RECOMMENDATIONS FOR ACTION

- The United Kingdom should assess its bombing data to determine the likelihood of cluster munition remnants (CMR) remaining in mined and other suspected hazardous areas (SHAs) in the Falkland Islands.
- Based on this assessment, the United Kingdom should present detailed plans and timelines for survey and, where contamination is found, clearance, in accordance with its Article 4 obligations.

CONTAMINATION

CMR may remain on the Falkland Islands¹ as a result of use of BL755 cluster bombs by British forces against Argentine positions during the 1982 armed conflict. In February 2009, the Ministry of Defence (MoD) stated that: "According to historical records either 106 or 107 Cluster Bomb Units (CBU) were dropped by British Harriers and Sea Harriers during the conflict. Each CBU contains 147 BL755 submunitions and using the higher CBU figure (107), a total of 15,729 submunitions were dropped.

Using a 6.4% failure rate assessed during in-service surveillance over 15 years, we would estimate that 1,006 would not explode. Given that 1,378 BL755s were cleared in the first year after the conflict and that a further 120 have been found and disposed of since (totalling 1,498), clearly there was a slightly higher failure rate. Even if the rate had been closer to 10% and 1,573 had failed, we can only estimate that some 70 remain but that due to the very soft nature of the peat found on the islands, many of these will have been buried well below the surface. We believe that the majority of those remaining are now contained within existing minefields and these will be cleared in due course."²

In 2015, the United Kingdom affirmed that no known areas of CMR contamination exist outside SHAs on the islands, in particular mined areas, all of which are fenced and marked.³ In 1982–84, battle area clearance (BAC) was undertaken over large areas looking for CMR and other unexploded ordnance (UXO). Based on bombing data, areas where unexploded submunitions were expected to be found were targeted "very quickly", and a large number were located and destroyed. Clearance operations involved both surface and subsurface clearance, using the British 4C metal detector.⁴

The United Kingdom has stated that potential CMR contamination has, in part, been taken into account during mine clearance operations in the Falkland Islands, with two areas, Fox Bay 8W and Goose Green 11, selected for clearance partly based on records indicating that cluster munitions had been dropped there. No CMR were found in these two areas.⁵

In 2010, the United Kingdom reported destruction of two submunitions in Stanley Area 3, during clearance operations across four mined areas in 2009–10.⁶ In June 2015, the United Kingdom reported destruction of 19 submunitions during Phase 4(a) clearance operations, in January to April 2015, also in Stanley Area 3.⁷ UK records suggest that four cluster bombs were dropped in this area.⁸ No further CMR were encountered during Phase

4(b) clearance operations in September 2015 to March 2016 in Stanley Area 2 and Stanley Area 3.⁹ In June 2017, the main body of a BL755 cluster munition container was found in "minefield GG08", during BAC in the Goose Green region. No submunitions were found and GG08 has now been declared clear.¹⁰

The United Kingdom conducted CMR clearance in the aftermath of the Falklands conflict, along with comprehensive perimeter marking of mined areas potentially containing remaining CMR. No civilians are believed to have been killed or injured by CMR on the islands.¹¹

Other Explosive Remnants of War and Landmines

As referenced previously, the Falkland Islands is also contaminated by anti-personnel mines (see annual "Clearing the Mines" reports on the United Kingdom) and other explosive remnants of war (ERW). These explosive threats are the focus of the United Kingdom's demining efforts.

Since 2010, mine clearance and BAC in the Falkland Islands has been conducted in four phases. Phase 1 took place from October 2009 to June 2010; Phase 2 from January to March 2012; Phase 3 from January to March 2013; Phase 4(a) from January 2015 to April 2015; and Phase 4(b) from September 2015 to March 2016.

Mine clearance operations in the Falkland Islands during Phases 1, 3, and 4(a) and (b) resulted in the release of 35 mined areas totalling just over 2km², with the destruction of 4,371 anti-personnel mines, 984 anti-vehicle mines, 53 items of UXO, and 21 submunitions. Of the 21 submunitions destroyed, two were discovered during the Phase 1 mine clearance operations and the other nineteen were found during Phase 4(a). None was encountered during Phase 4(b) clearance operations.¹²

BAC operations conducted during Phases 2, 3, and 4(b), resulted in just over 5km² of SHA being cleared, with the destruction of 87 items of UXO and no submunitions. This comprised 3.49km² cleared in Phase 2, with 85 UXO items destroyed; 0.18km² in Phase 3 with no UXO destroyed, and 1.32km² in Phase 4(b), with 2 UXO items destroyed.¹³

In September 2016, the United Kingdom announced plans for the next stage of survey and clearance operations in the Falkland Islands [Phase 5],¹⁴ which began the following month.¹⁵

PROGRAMME MANAGEMENT

A National Mine Action Authority (NMAA) was established in 2009 to oversee clearance of mined areas.¹⁶ The Foreign and Commonwealth Office (FCO) chairs the NMAA, which contains representatives of the Ministry of Defence, the Falkland Islands government, a strategic advisor, and project contractors.¹⁷

Strategic Planning

The first stage of Phase 5 was expected to last for two years, by the end of which the United Kingdom should have a more accurate picture of its remaining mine clearance challenge.¹⁸ The United Kingdom does not currently have a strategic plan in place for completion of mine and CMR clearance on the Falkland Islands.

Operators

In October 2014, the Governor's Office in Port Stanley announced that demining contracts had been awarded to two companies for Phase 4 of clearance on the islands. Battle Area Clearance, Training, Equipment and Consultancy International (BACTEC) was awarded

the land release contract, while Fenix Insight was responsible for the Demining Project Office, which ensures quality management of demining operations. While the announcement by the Governor's Office asserted that 108 minefields existed at the start of Phase 4,¹⁹ the FCO subsequently confirmed that the correct figure was 107.²⁰ Over the course of Phases 4(a) and 4(b), 25 suspected mined areas were released,²¹ as well as one hazardous area suspected to contain ERW.²²

To implement Phase 4, which began in January 2015, BACTEC had a team totalling 46 deminers, along with other support and management staff. In total, 74 staff were employed on the project.²³ BACTEC also used three demining machines during operations: two flails and a tiller.²⁴

BACTEC and Fenix Insight were subsequently awarded the contracts for land release contractor and demining project office (including quality assurance) respectively, for Phase 5 of clearance, which commenced in October 2016.²⁵ Capacity for Phase 5 operations totalled 106 deminers and support staff.²⁶

LAND RELEASE

No submunitions were found in 2016, either during Phase 4(b) of clearance operations in September 2015 to March 2016 or, as at June 2017, during the first stage of Phase 5 operations, which began in October 2016.²⁷

Survey and Clearance in 2016

During Phase 4(b) of clearance operations in September 2015 to March 2016, a further 15 mined areas were cleared, in addition to BAC of an SHA behind the Stanley Common fence to the west of Eliza Cove Road, totalling more than 1.3km².²⁸ Furthermore, as part of Phase 4(b), a limited technical survey was completed of areas MF45, MF46, and MF007 (the latter is located in the sand-duned Yorke Bay area.²⁹ No further CMR contamination was encountered during Phase 4(b).³⁰

Phase 4(b) had been expected to conclude in December 2015, but was extended by an additional three months as one minefield proved especially difficult to clear due to the unexpected inaccuracy of the minefield records.

The United Kingdom allocated additional funding to the project which allowed contractors to complete, at the same time, more tasks than originally planned.³¹

Phase 5 of survey and clearance operations commenced in October 2016,³² and the first stage of Phase 5 was expected to run until March 2018, with a three-month stand down over the winter.³³

Update in 2017

The United Kingdom reported that the main body of a BL755 container was found in June 2017 in "minefield GG08", during BAC in the Goose Green region of the Falkland Islands. No submunitions were found and GG08 has now been declared clear.³⁴

ARTICLE 4 COMPLIANCE

Under Article 4 of the Convention on Cluster Munitions (CCM), the United Kingdom is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 November 2020. It is unclear whether the United Kingdom is on track to meet this deadline.

The United Kingdom does not consider itself to have an obligation under Article 4 of the CCM, and considers any remaining CMR, if found to exist, to be “residual”.³⁵ It also claims to have addressed the humanitarian and developmental effects of CMR on the Falkland Islands.³⁶

However, Article 4(2)(a) of the CCM stipulates that each state party shall, “as soon as possible ... [s]urvey, 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”. Mine Action Review believes that the United Kingdom has still to fulfil this obligation, in particular by conducting survey and clearance in mined areas in which cluster munitions are known or suspected to have been used. Accordingly, an assertion that the remaining threat from CMR is only residual is purely speculative.

- 1 There is a sovereignty dispute with Argentina, which also claims jurisdiction over the islands, which it refers to as the Malvinas.
- 2 Letter to Landmine Action from Lt.-Col. Scott Malina-Derben, Ministry of Defence, 6 February 2009; and email correspondence from a Foreign Office Official, Conventional Arms Policy Officer, Arms Export Policy Department, Foreign and Commonwealth Office (FCO), 11 June 2015.
- 3 Email from an official in the Arms Export Policy Department of the FCO, 1 July 2015.
- 4 Ibid.
- 5 Ibid.
- 6 Statement of UK, Anti-Personnel Mine Ban Convention (APMBC) Tenth Meeting of States Parties, Geneva, 1 December 2010.
- 7 Email from an official in the Arms Export Policy Department of the FCO, 11 June 2015.
- 8 Email from an official in the Arms Export Policy Department of the FCO, 1 July 2015.
- 9 Email from an official in the Arms Export Policy Department of the FCO, 4 May 2016.
- 10 Emails from an official in the Arms Export Policy Department of the FCO, 22 and 23 June 2017.
- 11 Statement of UK, APMBC intersessional meetings (Standing Committee on Mine Action), Geneva, 27 May 2009.
- 12 Email from an official in the Arms Export Policy Department of the FCO, 14 July 2016. The data for Phase 4(a) is inconsistent with what was reported previously (264,800m² cleared, with 2,425 anti-personnel mines and 26 anti-vehicle mines destroyed). However, the FCO confirmed that the revised data reported (264,921m², with 723 anti-personnel mines and 24 anti-vehicle mines destroyed) is the correct data set. The inconsistency was due to Phase 4(a) tasks that were suspended in April 2015 due to winter weather conditions, subsequently being reported in full under Phase 4(b), rather than partially reported at the end of Phase 4(a), as was the previously the case.
- 13 Email from an official in the Arms Export Policy Department of the FCO, 14 July 2016.
- 14 UK government, “UK pledges £20m for landmine clearance from the Falkland Islands”, 14 September 2016, at: <https://www.gov.uk/government/news/uk-pledges-20m-for-landmine-clearance-from-the-falkland-islands>; and email from Official, Arms Export Policy Department of the FCO, 21 September 2016.
- 15 Statement of the UK, APMBC 15th Meeting of States Parties, Santiago, 29 November 2016.
- 16 Statement of the UK, intersessional meetings (Standing Committee on Mine Action), Geneva, 27 May 2009.
- 17 Email from an official in the Arms Export Policy Department of the FCO, 15 July 2016.
- 18 Email from an official in the Arms Export Policy Department, FCO, 21 September 2016; Statement of the UK, APMBC 15th Meeting of States Parties, Santiago, 29 November 2016; and APMBC Article 7 Report (for 2016), Form F.
- 19 Governor’s Office, “Falkland Islands demining contracts awarded”, 28 October 2014, at: <https://www.gov.uk/government/world-location-news/falkland-islands-demining-contracts-awarded>.
- 20 Email from an official in the Arms Export Policy Department of the FCO, 3 June 2015.
- 21 Email from an official in the Arms Export Policy Department of the FCO, 4 May 2016; and APMBC Article 7 Report (for 2016), Form F.
- 22 APMBC Article 7 Report (for 2016), Form F.
- 23 Email from an official in the Arms Export Policy Department of the FCO, 15 July 2016.
- 24 Email from an official in the Arms Export Policy Department of the FCO, 3 June 2015.
- 25 Email from an official in the Arms Export Policy Department of the FCO, 15 July 2016; and APMBC Article 7 Report (for 2016), Form F.
- 26 MercoPress, “Falklands’ mine clearance progresses steadily: 82 field still to be neutralized”, 25 November 2016, at: <http://en.mercoPress.com/2016/11/25/falklands-mine-clearance-progresses-steadily-82-fields-still-to-be-neutralized>.
- 27 Interview with an official in the Arms Export Policy Department of the FCO, London, 16 March 2017; and email 2 June 2017.
- 28 Statement of the UK, APMBC intersessional meetings (Standing Committee on Mine Action), Geneva, 19 May 2016; and APMBC Article 7 Report (for 2015), Form F.
- 29 Ibid.; and email from an official in the Arms Export Policy Department of the FCO, 21 June 2016.
- 30 Email from an official in the Arms Export Policy Department of the FCO, 4 May 2016.
- 31 Emails from an official in the Arms Export Policy Department of the FCO, 14 and 21 June 2016.
- 32 Statement of the UK, APMBC 15th Meeting of States Parties, Santiago, 29 November 2016.
- 33 Email from an official in the Arms Export Policy Department of the FCO, 2 June 2017.
- 34 Emails from an official in the Arms Export Policy Department of the FCO, 22 and 23 June 2017.
- 35 Interview with an official in the Arms Export Policy Department of the FCO, and with Lt.-Col. John Stroud-Turp, Security Policy and Operations, Ministry of Defence, in Geneva, 22 June 2015.
- 36 Email from an official in the Arms Export Policy Department of the FCO, 21 June 2016.

SIGNATORY STATES

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

ANGOLA



RECOMMENDATIONS FOR ACTION

- Angola should confirm as soon as possible whether it believes that cluster munition remnants (CMR) remain to be cleared.
- Angola should ratify the Convention on Cluster Munitions (CCM) as a priority.

CONTAMINATION

The extent to which Angola is affected by CMR remains unclear. There is no confirmed contamination, but there may remain abandoned cluster munitions or unexploded submunitions. 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.

In August 2016, The HALO Trust found two Alpha submunitions in Cunene province, which were reported by local residents to a HALO Trust survey team during re-survey operations.¹ A number of damaged bomb casings were also found but according to The HALO Trust, it was unclear if the bombs had been fired at a target in the area or if they were jettisoned after an unsuccessful mission and the bomblets scattered on the ground.²

The HALO Trust informed Mine Action Review that this was an isolated case and that it had not encountered anything similar in more than 20 years of survey across eight of Angola's eighteen provinces. The HALO Trust emphasised that it had seen very little evidence of cluster munition strikes in Angola, and that the majority of bomblets destroyed by The HALO Trust were aging items from military stockpiles, which the military identified and requested the organisation to destroy.³

As at April 2017, the majority of clearance operators had not found CMR in more than nine years,⁴ apart from The HALO Trust, which had earlier found and destroyed 12 unexploded submunitions in 2012.⁵ In May 2017, Norwegian People's Aid (NPA) and Mines Advisory Group (MAG) confirmed they did not encounter any CMR in their operations in 2016.⁶

In 2011, The HALO Trust and the National Institute for Demining (Instituto Nacional de Desminagem, INAD) affirmed that unexploded submunitions remained in Cuando Cubango province.⁷ In June 2016, Menschen gegen Minen (MgM) reported that it had not encountered CMR in nearly 10 years of operations, including near Jamba, an area in the south-east of the province where contamination might have been expected.⁸

More typical of CMR destruction is the disposal of old or unserviceable cluster munitions identified by HALO Trust's Weapons and Ammunition Disposal (WAD) teams in military storage areas, some of which were earmarked for destruction by the Angolan Armed Forces. Between 2005 and 2012, HALO Trust WAD teams reported destroying a total of 7,284 submunitions.⁹ In May 2016, The HALO Trust indicated that it had not been asked by the military to do any further destruction of cluster munition stockpiles since 2012.¹⁰

Other Explosive Remnants of War and Landmines

Angola is heavily contaminated with landmines and explosive remnants of war (ERW) other than CMR.

PROGRAMME MANAGEMENT

Angola's national mine action programme is managed by two mine action structures. The National Intersectoral Commission for Demining and Humanitarian Assistance (Comissão Nacional Intersectorial de Desminagem e Assistência Humanitária, CNIDAH) serves as the national mine action authority. It reports to the Council of Ministers or, in effect, to the President of Angola.

The other mine action coordination body, the Executive Commission for Demining (Comissão Executiva de Desminagem, CED), was established and is chaired by the Minister of Social Assistance and Reintegration (MINARS). In 2002, in order to separate coordination and operational responsibilities, Angola established INAD, which is responsible, under the auspices of the Ministry of Social Assistance and Reintegration, for demining operations and training.

Operators

Three international non-governmental organisations (NGOs) conduct demining for humanitarian purposes in Angola: The HALO Trust, MAG, and NPA.¹¹ MgM closed its operations in November 2015 upon completion of its last task in Cuando Cubango which formed part of a European Union-funded project.¹² A number of national commercial companies, accredited by CNIDAH and mostly employed by the state or other private companies, also operate in Angola.

LAND RELEASE

No land containing CMR contamination was reported to have been released by clearance or survey in 2016.

After finding the two Alpha bomblets in August 2016, The HALO Trust was planning to carry out limited battle area clearance around the reported area until fade-out. They were intending to perform this work, subject to funding, in July or August 2017, during Angola's dry season when items can be more easily seen.¹³ The area where the bomblets were found was being re-surveyed by The HALO Trust as part of efforts to improve the records in the national Information Management System for Mine Action database. No CMR specific survey is planned.¹⁴

ARTICLE 4 COMPLIANCE

As at May 2017, Angola was a signatory, but not a state party, to the CCM. In addition to its obligations as a treaty signatory, Angola has obligations under international human rights law to clear CMR as soon as possible, in particular by virtue of its duty to protect the right to life of every person under its jurisdiction.

Angola is facing a critical decline in international support for mine action. In the decade from 2007 to April 2017, collectively, the resources of the three largest operators, The HALO Trust, MAG, and NPA declined by 89%. Current annual funding was only 19% of projected amount needed (\$275 million) to complete mine clearance by 2025.¹⁵ This sharp reduction, combined with the national economic crisis brought on by the fall of oil prices, which has resulted in a decrease in government revenue by more than half, severe budget cuts, and double-digit inflation, is jeopardising the sustainability and existence of demining in the country.¹⁶

1 The Alpha bomblet was developed in Rhodesia in 1970 and later in South Africa in the 1980s. It was produced to be incorporated into the CB470 cluster bomb, which contained 40 Alpha submunitions each and were designed to be dropped from baskets or "hoppers" in the bomb bays of bomber aircraft. Email from Gerhard Zank, Programme Manager, HALO Trust, 2 May 2017; and Weapons Systems, "CB470", at: <http://weaponsystems.net/weaponsystem/HH12%20-%20CB470.html>.

2 Email from Gerhard Zank, HALO Trust, 3 May 2017.

3 Ibid.

4 According to reports from NGO operators in the national database at the Intersectoral Commission for Demining and Humanitarian Assistance (CNIDAH), CMR ceased to be found in significant numbers after 2008, with the exception of The HALO Trust reporting finding and destroying 12 submunitions in 2012. Prior to this, as of February 2008, Norwegian People's Aid (NPA) reported clearing 13 submunitions in Kwanza Sul province; Mines Advisory Group (MAG) reported clearing 140 submunitions in Moxico province; and The HALO Trust reported clearing 230 submunitions in Bié province. Email from Mohammad Qasim, United Nations Development Programme (UNDP)/CNIDAH, 22 February 2008. NPA reported finding no CMR during its operations in northern Angola, with the exception of a small number of submunitions found in 2008. Menschen gegen Minen (MgM) reported that no CMR had been discovered in its areas of operations in south-east Angola from 1997 through to May 2016. The HALO Trust also confirmed that it had not encountered any cluster munitions since 2012 and MAG's Technical Operations Manager reported that the programme had not found any CMR since his arrival in 2013. Emails from Vanja Sikirica, Country Director, NPA, 11 May 2016; Kenneth O'Connell, Technical Director, MgM, 5 May and 15 June 2016; Gerhard

Zank, Programme Manager, HALO Trust, 17 May 2016; and Bill Marsden, Regional Director, East and Southern Africa, MAG, 18 May 2016.

5 Response to questionnaire by Gerhard Zank, HALO Trust, 19 March 2013.

6 Emails from Vanja Sikirica, NPA, 3 May 2017 and Bill Marsden, MAG, 3 May 2017.

7 Interviews with Jose Antonio, Site Manager, Cuando Cubango, HALO Trust; and with Coxe Sucama, Director, INAD, in Menongue, 24 June 2011.

8 Email from Kenneth O'Connell, MgM, 15 June 2016.

9 Response to questionnaire by Gerhard Zank, HALO Trust, 19 March 2013.

10 Emails from Gerhard Zank, HALO Trust, 17 May 2016; and Bill Marsden, MAG, 18 May 2016.

11 DanChurchAid (DCA) was forced to close their operations in early 2015 due to lack of funding. M. P. Moore, "Angola Avante – Onward Angola", Landmines in Africa blog, 26 February 2016, at: <https://landminesinafrica.wordpress.com/2016/02/26/angola-avante-onwards-angola/>.

12 Email from Vanja Sikirica, NPA, 3 May 2017.

13 Email from Gerhard Zank, HALO Trust, 3 May 2017.

14 Ibid.

15 Portia Stratton and Chris Loughran, "Issue Brief: Time to Change Course, Angola and The Ottawa Treaty", MAG, April 2017.

16 Ibid; and emails from Vanja Sikirica, NPA, 11 May 2016; Gerhard Zank, HALO Trust, 17 May 2016; and Bill Marsden, MAG, 2 May 2016.

DEMOCRATIC REPUBLIC OF CONGO



[CLEARANCE COMPLETED IN 2017]

PROGRAMME PERFORMANCE	2016	2015
Problem understood	9	8
Target date for completion of cluster munition clearance	7	7
Targeted clearance	8	7
Efficient clearance	7	7
National funding of programme	3	3
Timely clearance	5	5
Land release system in place	7	7
National mine action standards	6	6
Reporting on progress	2	3
Improving performance	6	7
PERFORMANCE SCORE: AVERAGE	6.0	6.0

PERFORMANCE COMMENTARY

The last known area containing cluster munition remnants (CMR) in the Democratic Republic of Congo (DRC), covering 3,900m², was cleared in May 2017.

RECOMMENDATIONS FOR ACTION

- The DRC should make a formal declaration that it has fulfilled the obligations in Article 4 of the Convention Cluster Munitions (CCM).
- The DRC should ratify the CCM as a matter of priority.
- Significant efforts should be made to ensure the national mine action database is accurate, up to date, and effectively managed and resourced by the national authorities.
- Mine action data should be recorded and reported according to International Mine Action Standards (IMAS) land release terminology.

CONTAMINATION

At the end of 2016, only two areas known to contain cluster munition remnant (CMR) contamination remained to be addressed in Bolomba, Equateur province, in the north-west of the country.¹ One suspected hazardous area with an unrecorded size was cancelled by Norwegian People's Aid (NPA) in April 2017, and NPA completed clearance of the other area, with a size of 3,900m², on 12 May 2017.²

Previously, at the start of 2016, the DRC had two remaining areas with a total size of 3,840m² confirmed to contain CMR, and two other areas of unknown size, in Equateur province.³ The DRC identified the areas, all of which are believed to contain BL755 submunitions, in a national survey conducted in 2013.⁴

According to Mines Advisory Group (MAG), CMR contamination in the DRC previously impeded agriculture and limited freedom of movement. MAG reported that its clearance of CMR and other unexploded ordnance (UXO) in areas of former Equateur and Katanga provinces had increased access to firewood, enabled use of once restricted land and new agricultural areas, and facilitated access to remote villages.⁵ In addition to the CMR it had previously cleared around airports, hospitals, and agricultural areas, and beside or on roads, in 2016, MAG reported clearing CMR from farmland and areas frequently foraged for wood or food.⁶

Other Explosive Remnants of War and Landmines

The DRC is affected by other explosive remnants of war (ERW) and a small number of landmines, as a result of years of conflict involving neighbouring states, militias, and rebel groups. Successive conflicts have also left the DRC with significant quantities of abandoned explosive ordnance.⁷

In 2016, ongoing conflict continued to cause new ERW contamination, and explosive hazards remained a constant and significant risk to civilians, as well as placing wide-ranging restrictions on socio-economic development and recovery. In 2002–17, the United Nations Mine Action Service (UNMAS) reported that a total of 2,563 victims of mines and ERW had been registered in the DRC.⁸

PROGRAMME MANAGEMENT

The Congolese Mine Action Centre (Centre Congolais de Lutte Antimines, CCLAM) was established in 2012 with support from the UN Mine Action Coordination Centre (UNMACC) and UNMAS.⁹ Subsequently, UNMAS provided capacity-building support to CCLAM for its operations until the transfer of responsibility for coordinating mine action activities to CCLAM was completed in early 2016.¹⁰

Previously, UNMACC, established in 2002 by UNMAS, coordinated mine action operations through offices in the capital, Kinshasa, and in Goma, Kalemie, Kananga, Kisangani, and Mbandaka.¹¹ UNMACC was part of the UN Stabilization Mission in the DRC (MONUSCO) peacekeeping mission. UN Security Council Resolution 1925 mandated UNMACC to strengthen national mine action capacities and support reconstruction through road and infrastructure clearance.¹²

In March 2013, Security Council Resolution 2098 called for demining activities to be transferred to the UN Country Team and the Congolese authorities.¹³ As a consequence, UNMAS operated two separate projects after splitting its activities between, on the one hand, support for the Government of the DRC and its in-country team, and, on the other, its activities in support of MONUSCO.¹⁴ In accordance with Resolution 2147 of March 2014, demining is no longer included in MONUSCO's mandate.¹⁵ In 2017, UNMAS reported it was assisting MONUSCO operations and mitigating the threat from ERW through explosive ordnance disposal (EOD) operations and risk education.¹⁶

Strategic Planning

The DRC's National Mine Action Strategy for 2012–16 had set the goal of clearing all areas contaminated with anti-personnel mines or unexploded submunitions by the end of 2016.¹⁷ It failed to meet these goals.

In June 2017, following the expiration of the DRC's 2012–16 national strategy, which was developed with the support of the Geneva International Centre for Humanitarian Demining (GICHD), the GICHD reported that, together with UNMAS, it would work closely with CCLAM to develop the DRC's next national mine action strategy, with the first strategy stakeholder workshop to be organised in Kinshasa in September 2017. The future national strategy will focus on fulfilling the country's Anti-Personnel Mine Ban Convention (APMBC) Article 5 obligations.¹⁸

Operators

Five international operators are accredited for mine action in the DRC: DanChurchAid (DCA), Handicap International (HI), MAG, Mechem, and Norwegian People's Aid (NPA), along with a national demining organisation, AFRILAM.¹⁹ MAG and NPA were the only operators to conduct CMR survey and clearance in the DRC in 2016. MAG deployed a total of 11 demining personnel to address CMR contamination, and NPA two technical survey teams of six deminers.²⁰

Standards

In April 2017, UNMAS reported that it would provide technical support to the CCLAM to complete the revision of the DRC's outdated National Technical Standards and Guidelines (NTSG) for mine action during the year.²¹ Revised draft NTSG had been developed as of mid-2016, but had yet to be finalised as of writing. The draft version does not contain CMR-specific provisions.²²

Quality Management

MAG and NPA reported that internal quality assurance (QA)/quality control (QC) systems were in place in 2016, and that UNMAS controlled external QA/QC, prior to handing over responsibility for quality management to the CCLAM.²³ According to UNMAS, only limited QA was carried out by CCLAM in 2016 due to lack of funding for travel or the deployment of personnel. UNMAS stated it undertook regular QA of UN-contracted operators, but reported that the geographical size of the country and lack of adequate and affordable transportation and infrastructure often restricted the provision of timely quality management. No sampling was undertaken in 2016.²⁴

Information Management

The CCLAM assumed responsibility from UNMAS for information management in January 2016. Subsequently, despite many years of capacity-building support from UNMAS, and again from NPA in 2016, serious concerns persisted over the quality of the database and CCLAM's capacity and resources to provide adequate management. Gaps in the database, a lack of maintenance, a lack of capacity to extract and share information from the database, and the absence of coordination meetings with operators, were all evident during the year. NPA, which hosted information management training courses together with the GICHD for CCLAM in 2016, reported that while the Centre had competent technical staff, its limited administrative and financial resources continued to adversely affect its ability to maintain the database and that, as a consequence, a system of parallel reporting to CCLAM and UNMAS had developed.²⁵ CCLAM did not provide information in response to Mine Action Review's requests for data in 2017.

In April 2017, UNMAS reported that discussions were underway with GICHD on potential continued cooperation and support to CCLAM on data clean-up and management.²⁶

LAND RELEASE

The total CMR-contaminated area released in 2016 was just under 0.038m², compared to 0.075km² in 2015.²⁷

Survey in 2016

In 2016, NPA confirmed an area with a total size of 2,629m² as contaminated with CMR and released an area with the size of 2,871m² through technical survey.²⁸

Previously, in 2015, MAG confirmed two suspected hazardous areas (SHAs) as containing CMR contamination with a total size of 75,845m² in Katanga (Tanganyika) and Equateur provinces, along with cancelling 65 SHAs through non-technical survey.²⁹

Clearance in 2016

A total of 37,903m² was released through clearance and technical survey in 2016.³⁰

For a three-month period in 2016, MAG continued its clearance of CMR-contamination tasks which began in 2011, prior to suspending operations March 2016 due to the expiry of funding.³¹ During the year, it cleared one area in Equateur province with a total size of just over 32,000m² and destroyed 15 submunitions, along with two other items of UXO.³² This compared to 2015, when MAG cleared a total of 75,845m² of CMR-contaminated area, and destroyed a total of 65 submunitions.³³

NPA, which was conducting mine survey and clearance operations in Equateur province, was requested by CCLAM to clear a CMR-contaminated area with a size of 5,500m² in Bolomba. During 17 October–18 November 2016, NPA cleared a total of 2,629m² and released 2,871m² through technical survey, and destroyed 31 submunitions, including 3 M61 and 28 BL 61, and 7 items of UXO.³⁴

Table 1: Clearance of CMR-contaminated areas in 2016³⁵

Operator	Areas cleared	Area cleared (m ²)	Submunitions destroyed	UXO destroyed
MAG	1	32,403	15	2
NPA	1	2,629	31	7
Totals	2	35,032	46	9

Also, in February 2016, NPA found one BL755 submunition in Katelwa village and two other BL755 submunitions in Sambi village, in Kabalo, Tanganyika (former Katanga) province, in an area not previously reported as an SHA. The area did not, however, appear to contain a footprint of a cluster munition strike, and the individual submunitions were cleared as spot tasks.³⁶

ARTICLE 4 COMPLIANCE

As at May 2017, the DRC was a signatory but not a state party to the CCM. As such, it does not have a treaty-mandated deadline for clearance.

As noted above, the DRC's national mine action strategic plan for 2012–16 set the goal of clearing all areas contaminated with anti-personnel mines or unexploded submunitions by the end of 2016.³⁷ While as at the end of 2015 it appeared on track to meet this goal, by May 2016, MAG was expressing doubts about the chance of success, noting that remaining CMR-contaminated areas were very remote, with limited access and difficult terrain.³⁸

Only two areas remained to be addressed at the end of 2016, one of which had been reported by local community members in Bolomba, Equateur province late in the year while NPA was finishing clearance of another CMR task nearby. NPA cancelled one of the areas and completed clearance of the other with a size of 3,900m² on 12 May 2017. It did not expect that more CMR would be found in DRC after its completion of the task in Equateur province, which was the only region where there were reports that cluster munitions had been used.³⁹

In May 2017, NPA reported having offered assistance to CCLAM and the Congolese armed forces to conduct a survey to confirm and verify that all known and suspected CMR-contaminated areas have been addressed, in order to declare itself fully compliant with the obligations in Article 4 of the CCM.⁴⁰

In 2017, MAG and NPA raised concerns over a decline in funding for mine action to address the larger problem of mines and ERW in the DRC.⁴¹ UNMAS expected mine action capacity to decrease over the course of the year due to difficulties in obtaining funding, donor concerns over the current political impasse in the country, and higher-impact humanitarian crises such as cholera and yellow fever outbreaks, flooding, and increasing displacement of populations.⁴²

- 1 Emails from Jean-Denis Larsen, Country Director, Norwegian People's Aid (NPA), 19 May 2017; Matthieu Kayisa Ntumba, Operations Manager, NPA, 18 and 20 June 2017; Colin Williams, Chief of Operations, UNMAS, 12 June 2017; and Pehr Lodhammar, Programme Manager, UNMAS, 14 April 2017.
- 2 Emails from Jean-Denis Larsen, NPA, 23 May 2017; and Matthieu Kayisa Ntumba, NPA, 18 and 20 June 2017.
- 3 Emails from Colin Williams, UNMAS, 6 and 12 June 2017 and 6 May 2016. UNMAS previously reported to Mine Action Review in 2016 that there were four remaining areas with a total size of 3,840m² confirmed to contain CMR in Equateur province at the end of 2015. In June 2017, it clarified that there were in fact two areas with a size of 3,840m² and two other areas which had no size estimates at the end of the year. An additional area with a size of 3,900m² was also identified by NPA in 2016 and cleared in May 2017.
- 4 Response to questionnaire by Colin Williams, UNMAS, 19 May 2015; and CCM Article 7 Report (for 2012 and 2013), Form F.
- 5 Email from Llewelyn Jones, Director of Programmes, MAG, 7 May 2016. On 9 January 2015, the National Assembly of the DRC passed a law that reorganised the DRC's 11 provinces into 25 provinces, plus Kinshasa. The area where MAG was operational in Katanga province was renamed as Tanganyika province after the redistricting began to be implemented in July 2015. C. Rigaud, "RDC: le découpage territorial a voté à l'Assemblée" ("DRC: territorial subdivision voted on at the Assembly"), *Afrikarabia*, 10 January 2015, at: <http://afrikarabia.com/wordpress/rdc-le-decoupage-territorial-vote-a-lassemblee/>; and email from Fabienne Chassagneux, Regional Director, West and Central Africa, MAG, 15 July 2016.
- 6 Response to questionnaire by Gerard Kerrien, Country Director, MAG, received by email from Llewelyn Jones, MAG, 8 May 2017.
- 7 UNMAS, "Democratic Republic of the Congo (DRC), Support to UN Country Team and the Government", updated January 2015, at: <http://www.mineaction.org/programmes/drc>.
- 8 UNMAS, "2017 Portfolio of Mine Action Projects, DRC", at: http://www.mineaction.org/sites/default/files/print/country_portfolio7111-1530-34206.pdf.
- 9 Response to Cluster Munition Monitor questionnaire by Michelle Healy, UNMACC, 29 April 2013.
- 10 UNMAS, "About UNMAS Support of One UN and the GODRC", March 2016, at: <http://www.mineaction.org/print/programmes/drc>.
- 11 UNMAS, "DRC, Overview", updated August 2013.
- 12 UN Security Council Resolution 1925, 28 May 2010.
- 13 UN Security Council Resolution 2098, 28 March 2013.
- 14 UNMAS, "DRC: Support to UN Country Team and the Government".
- 15 UN Security Council Resolution 2147, 28 March 2014; and UNMAS, "DRC Overview", updated April 2014, at: <http://www.mineaction.org/programmes/drc>.
- 16 UNMAS, "Support to one UN and the GO of DRC", March 2017, at: <http://www.mineaction.org/programmes/drc>.
- 17 DRC, "Plan Stratégique National de Lutte Antimines en République Démocratique du Congo, 2012–2016" ("National Mine Action Strategic Plan in DRC, 2012–2016"), Kinshasa, November 2011, p. 28, at: http://www.macc-drc.org/IMG/pdf/Plan_strategique_LAM_2012-2016.pdf.
- 18 Information provided to Mine Action Review by Åsa Massleberg, Advisor, Strategy, Transition and Development, GICHD, 20 June 2017.
- 19 Email from Julien Kempeneers, Deputy Desk Officer, Mine Action Department, HI, 14 April 2016.
- 20 Response to questionnaire by Gerard Kerrien, MAG, 8 May 2017; and email from Jean-Denis Larsen, NPA, 23 May 2017.
- 21 Email from Pehr Lodhammar, UNMAS, 5 April 2017.
- 22 Responses to questionnaire by Pehr Lodhammar, NPA, 18 May 2015; Julia Wittig, Programme Officer, MAG, 29 May 2015; and Johan Strydom, Project Manager DRC, Mechem, 13 May 2015.
- 23 Response to questionnaire by Gerard Kerrien, MAG, 8 May 2017; and email from Jean-Denis Larsen, NPA, 19 May 2017.
- 24 Email from Pehr Lodhammar, UNMAS, 5 April 2017.
- 25 Email from Jean-Denis Larsen, NPA, 18 April 2017.
- 26 Email from Pehr Lodhammar, UNMAS, 5 April 2017.
- 27 Email from Jean-Denis Larsen, NPA, 19 May 2017; response to questionnaire by Gerard Kerrien, MAG, 8 May 2017; and response to questionnaire by Julia Wittig, MAG, 29 May 2015.
- 28 Email from Jean-Denis Larsen, NPA, 19 May 2017.
- 29 Email from Llewelyn Jones, MAG, 7 May 2016.
- 30 Response to questionnaire by Gerard Kerrien, MAG, 8 May 2017; and email from Jean-Denis Larsen, NPA, 23 May 2017.
- 31 Response to questionnaire by Gerard Kerrien, MAG, 8 May 2017; and email, 9 June 2017.
- 32 Ibid.
- 33 Email from Llewelyn Jones, MAG, 7 May 2016. The majority of which — 68,073m² — was in Equateur province, with a further 7,772m² in Katanga/Tanganyika province.
- 34 Emails from Jean-Denis Larsen, NPA, 19 and 23 May 2017.
- 35 Email from Jean-Denis Larsen, NPA, 19 May 2017; and response to questionnaire by Gerard Kerrien, MAG, 8 May 2017.
- 36 Emails from Jean-Denis Larsen, NPA, 19 May 2017; and Matthieu Kayisa Ntumba, Operations Manager, NPA, 5 June 2017.
- 37 DRC, "National Mine Action Strategic Plan in DRC, 2012–2016", Kinshasa, November 2011, p. 28.
- 38 Emails from Colin Williams, UNMAS, 6 May 2016; and from Llewelyn Jones, MAG, 7 May 2016.
- 39 Emails from Jean-Denis Larsen, NPA, 19 and 23 May 2017; Matthieu Kayisa Ntumba, NPA, 18 and 20 June 2017; Colin Williams, UNMAS, 12 June 2017; and Pehr Lodhammar, UNMAS, 14 April 2017.
- 40 Email from Jean-Denis Larsen, NPA, 23 May 2017.
- 41 Response to questionnaire by Gerard Kerrien, MAG, 8 May 2017; and email from Jean-Denis Larsen, NPA, 18 April 2017.
- 42 Email from Pehr Lodhammar, UNMAS, 5 April 2017.

STATES NOT PARTY

The background of the entire page is composed of several large, overlapping geometric shapes in two shades of orange and yellow. The shapes are angular and abstract, creating a modern, layered effect. The text 'STATES NOT PARTY' is positioned in the upper left quadrant, set against a dark orange background.

AZERBAIJAN

PROGRAMME PERFORMANCE

	2016	2015
Problem understood	4	4
Target date for completion of cluster munition clearance	3	3
Targeted clearance	6	6
Efficient clearance	5	5
National funding of programme	8	8
Timely clearance	5	5
Land-release system in place	6	6
National mine action standards	5	5
Reporting on progress	4	4
Improving performance	4	4
PERFORMANCE SCORE: AVERAGE	5.0	5.0

RECOMMENDATION FOR ACTION

→ Azerbaijan should accede to, and abide by, the Convention on Cluster Munitions (CCM) as a matter of priority.

CONTAMINATION

The precise extent of contamination from cluster munition remnants (CMR) in Azerbaijan is unknown, as Armenian forces currently occupy a significant area of the country, where the contamination exists. There may also be some residual contamination in territory under government control.

On 1 April 2016, intense fighting broke out in Nagorno-Karabakh along the front line pitting Armenian and Nagorno-Karabakh forces against those of Azerbaijan. While ground fighting was confined to areas close to the Line of Contact (LOC), artillery fire penetrated more than 10km into Nagorno-Karabakh, and included the use of cluster munitions, which resulted in an estimated 2km² of new CMR contamination in Nagorno-Karabakh.¹ No CMR contamination has been reported on the Azerbaijan-controlled side of the LOC. A ceasefire was agreed on 5 April 2016 (see the separate report on Nagorno-Karabakh).

In 1988, a decision by the parliament of the Nagorno-Karabakh Autonomous Province to secede from Azerbaijan and join Armenia led to hostilities between Armenia and Azerbaijan from 1988 to 1994. Large quantities of cluster munitions were dropped

from the air during the conflict. Armenia continues to occupy around one-fifth of Azerbaijani territory.

In 2007, the Azerbaijan Campaign to Ban Landmines (AzCBL) surveyed CMR contamination in the non-occupied border regions of Azerbaijan. It concluded that cluster munitions (among other ordnance) had been used in the Aghdam and Fizuli regions.² In addition, significant CMR have been identified in and around Nagorno-Karabakh.³ In 2006 and 2007, remnants were found in and around warehouses at a former Soviet ammunition storage area located at Saloglu in Agstafa district, where clearance was completed in July 2011.⁴

Other Explosive Remnants of War and Landmines

Other areas are confirmed or suspected to contain explosive remnants of war (ERW), which include both unexploded ordnance (UXO) and abandoned explosive ordnance (AXO). These include former military testing areas, including the former Soviet firing and training ranges at Jeyranchel in the Agstafa region and in Kirdagh; and a former shooting range in Ganja.⁵

PROGRAMME MANAGEMENT

A 1998 presidential decree established the Azerbaijan National Agency for Mine Action (ANAMA), which reports to the Deputy Prime Minister as head of the State Commission for Reconstruction and Rehabilitation.⁶ In April 1999, ANAMA established the Azerbaijan Mine Action Programme, a joint project of the Government of Azerbaijan and the United Nations Development Programme (UNDP).⁷ A joint working group, established in December 1999 and consisting of representatives from various ministries, provides regular guidance to ANAMA.⁸

ANAMA is tasked with planning, coordinating, managing, and monitoring mine action in the country. It also conducts demining operations, along with two national operators it contracts: Dayag-Relief Azerbaijan (RA) and the International Eurasia Press Fund (IEPF).⁹ No commercial company is active in mine action in Azerbaijan.

ANAMA manages the mine action programme via its headquarters based in Baku, a regional office in Fizuli, a regional training centre in Goygol, and three operational centres, located in Aghjabedi, Agstafa, and Terter.¹⁰

UNDP provides support to ANAMA, and will continue to do so until 2019, as part of a project to support the institutional capacity of ANAMA for mine/UXO clearance, risk education, victim assistance, international networking, and support to other mine-affected countries.¹¹

Strategic Planning

ANAMA is integrated into the State Social and Economic Development programme. The current mine action strategy is for 2013–18.¹² ANAMA's long-term strategy is to clear the occupied territories as and when they become released.¹³

Legislation and Standards

As at June 2017, Azerbaijan was still in the process of adopting a mine action law, with draft legislation under review by the Cabinet of Ministers.¹⁴ Once adopted, it will regulate mine action in Azerbaijan, governing issues such as licensing, accreditation, quality assurance (QA), and tender procedures.¹⁵

Azerbaijan also has its own National Mine Action Standards (NMAS), which were adopted in 2001 and subsequently revised in 2003, 2004, and 2010.¹⁶

Operators

As at the end of 2016, ANAMA employed 619 operational and administrative staff and had 44 mine detection dogs (MDDs) and 6 demining machines.¹⁷ Included in this capacity are two national demining non-governmental organisations (NGOs), IEPF and RA, which are contracted for mine clearance. Together they employ 172 operational and administrative staff. ANAMA also has an MDD breeding and training centre, which was built in 2011.¹⁸

Quality Management

ANAMA established a National Training Quality Assurance Team in 2004. In 2011, this transitioned into ANAMA's training, survey, and QA division (TSQAD), which is responsible for training and QA. The TSQAD also conducts quality control (QC).¹⁹

In 2016, 90 QA monitoring visits were undertaken.²⁰ In addition, external QC inspections were conducted at 89 sites in 2016, with more than 3.46km² of land physically checked. One battle area site required re-clearance (83,125m²), with 29 items of UXO and 87 related components found to have been missed by the original clearance.²¹

Information Management

ANAMA uses an older version of the Information Management System for Mine Action (IMSMA) database.²²

LAND RELEASE

No land containing CMR was reported to have been released by clearance or survey in territory under government control in 2016.²³

Battle Area Clearance in 2016

In 2016, ANAMA completed the second phase of the three-phase Azerbaijan National Action Plan (NAP)/NATO Partnership for Peace (PfP) Trust fund project, at the former Soviet artillery shooting range in Jeyranchel, in the Agstafa region, on the border with Georgia.²⁴ In addition, ANAMA continued to implement the Ganja and Kirdagh UXO clearance projects.

During ERW clearance in 2016, ANAMA cleared 100 sites, totalling 50.5km², during which it destroyed 30,201 items of ERW as well as 17 anti-personnel mines, 1 anti-vehicle mine, and 30,201 items of ERW; IEPF cleared 22 sites, totalling nearly 12km², during which it destroyed 2,237 items of ERW; and RA cleared 24 sites, totalling nearly 3.2km² during which it destroyed 665 items of ERW.²⁵ No submunitions were reported to have been destroyed.

ARTICLE 4 COMPLIANCE

Azerbaijan is neither a state party nor a signatory 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.

Currently, 90% of mine action in Azerbaijan is nationally funded.²⁶ ANAMA's long-term strategy is to be ready to start clearance of the occupied territories as and when this is possible.²⁷

1 Email from Andrew Moore, then Caucasus and Balkans Desk Officer, HALO Trust, 26 May 2016; and The HALO Trust, "HALO Trust begins emergency clearance in Karabakh", 19 April 2016, at: <https://www.halotrust.org/media-centre/news/halo-begins-emergency-clearance-in-karabakh/>.

2 AzCBL, "Information Bulletin", January 2008.

3 Interview with Nazim Ismayilov, Director, ANAMA, Baku, 2 April 2010; see also Human Rights Watch and Landmine Action, Banning Cluster Munitions: Government Policy and Practice, Mines Action Canada, Ottawa, 2009, p. 188.

4 ANAMA, "Saloglu Project", undated, at: www.anama.gov.az.

5 ANAMA, "Azerbaijan National Agency for Mine Action 2017", p. 16.

6 Geneva International Centre for Humanitarian Demining (GICHD), "Transitioning Mine Action Programmes to National Ownership: Azerbaijan", March 2012, Executive Summary.

7 ANAMA, "Azerbaijan National Agency for Mine Action 2017", p. 11.

8 Ibid.

9 Ibid.

10 Ibid.

11 UNDP, "UNDP Mine Action Programme: Azerbaijan", April 2016.

12 Email from Parviz Gidayev, Planning & Development Manager, ANAMA, 20 May 2015; and ANAMA, "Azerbaijan National Agency for Mine Action 2017", p. 10.

13 ANAMA, "Azerbaijan National Agency for Mine Action 2014", p. 5; and GICHD, "Transitioning Mine Action Programmes to National Ownership: Azerbaijan", March 2012, Executive Summary.

14 Email from Sabina Sarkarova, Public Relations Officer, ANAMA, 5 June 2017.

15 Email from Parviz Gidayev, ANAMA, 20 May 2015; and ANAMA, "Azerbaijan National Agency for Mine Action 2014".

16 Email from Tural Mammadov, ANAMA, 19 October 2016.

17 ANAMA, "Azerbaijan National Agency for Mine Action 2017", p. 11.

18 Ibid., pp. 12 and 14.

19 ANAMA, "Azerbaijan National Agency for Mine Action 2016", pp. 28 and 30.

20 ANAMA, "Azerbaijan National Agency for Mine Action 2017", p. 24.

21 Ibid., p. 25.

22 Ibid., p. 32.

23 ANAMA, "Azerbaijan National Agency for Mine Action 2017"; and email from Sabina Sarkarova, ANAMA, 5 June 2017.

24 ANAMA, "Azerbaijan National Agency for Mine Action 2017", p. 16.

25 Ibid.

26 G. Ahmado, "Advocating Mine Action to Government of Azerbaijan", Geneva, 19 February 2016, at: <http://www.mineaction.org/sites/default/files/documents/Gazanfar%20Ahmadov%20Azerbaijan.pdf>.

27 ANAMA, "Azerbaijan National Agency for Mine Action 2014"; and GICHD, "Transitioning Mine Action Programmes to National Ownership: Azerbaijan", March 2012, Executive Summary.



CAMBODIA

PROGRAMME PERFORMANCE	2016	2015
Problem understood	5	7
Target date for completion of cluster munition clearance	5	4
Targeted clearance	6	7
Efficient clearance	5	6
National funding of programme	3	3
Timely clearance	6	5
Land release system in place	6	5
National mine action standards	4	5
Reporting on progress	5	5
Improving performance	5	5
PERFORMANCE SCORE: AVERAGE	5.0	5.2

PERFORMANCE COMMENTARY

Operators' growing experience of tackling Cambodia's cluster munitions contamination has increasingly revealed weaknesses in available survey data and underscored the need for survey, operating standards, and a strategy appropriate to the specific challenge of cluster munition remnants (CMR).

RECOMMENDATIONS FOR ACTION

- Cambodia should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- The Cambodian Mine Action and Victim Assistance Authority (CMAA) should adopt standards for survey and clearance appropriate for dealing with cluster munitions.
- The CMAA should set strategic goals for clearance of explosive remnants of war (ERW), giving priority to CMR.
- The CMAA should establish a technical working group to develop a common response to cluster munitions contamination.
- The Cambodian Mine Action Centre (CMAC) should demonstrate greater transparency in its reporting on survey and clearance, ensuring that clearance of unexploded submunitions is disaggregated from other unexploded ordnance.

CONTAMINATION

Cambodia has extensive contamination from CMR but the full extent is not known. Contamination resulted from intensive bombing by the United States (US) during the Vietnam War, concentrated in north-eastern provinces along the borders with the Lao People's Democratic Republic and Vietnam. The US Air Force dropped at least 26 million explosive submunitions, between 1.9 million and 5.8 million of which are estimated to have not exploded.¹

The CMAA estimated the area affected by CMR as at May 2017 at almost 365km², 30km² more than at the end of 2015 and representing more than three-quarters of total ERW contamination. The estimate was based on a Baseline Survey (BLS) conducted in eight eastern provinces between 2012 and 2015 and continuing survey by operators. Two provinces, Kratie and Stung Treng, accounted for more than half the total (see Table 1).²

Table 1: ERW Survey of Eight Eastern Provinces³

Province	CMR (m ²)	Other UXO (m ²)
Kampong Cham	22,978,978	12,782,696
Kratie	96,733,733	15,906,744
Mondolkiri	18,648,563	10,375,597
Prey Veng	31,560,602	19,123,571
Rattanakiri	39,284,290	1,275,231
Stung Treng	107,021,757	26,363,551
Svay Rieng	32,923,833	12,287,556
Tboung Khmum	15,798,656	6,749,549
Totals	364,950,412	104,864,495

However, the accuracy of the estimate is a matter of debate. The BLS employed a landmine survey methodology, resulting in hugely exaggerated and inaccurate polygons. Operators continue to learn of contamination in areas already covered by the BLS and find contamination outside BLS polygons. CMAA reporting forms are formatted to record mine clearance and do not capture the results of CMR survey.⁴ A draft National Mine Action Strategy circulating in May 2017 further underscored the weakness of understanding of the extent of the problem, reporting that Cambodia has 645km² of area contaminated by CMR.⁵

Much of Cambodia's CMR contamination lies in areas that are heavily forested and which have been sparsely populated. CMAA data identifies five submunition casualties since the start of 2013, one of which was a fatality, but did not record any CMR incidents in 2016. However, demand for land and the large numbers of people moving into the northern provinces raise the threat of casualties while also generating more evidence of the scale of contamination.⁶

PROGRAMME MANAGEMENT

The CMAA, set up in September 2000, regulates and coordinates all activities relating to survey and clearance of ERW, including CMR, responsibilities previously assigned to CMAC.⁷ The CMAA's responsibilities include regulation and accreditation of all operators, preparing strategic plans, managing data, conducting quality control, and coordinating risk education and victim assistance.⁸

Prime Minister Hun Sen is the CMAA President, and in April 2016 he appointed a senior official, Serei Kosal, as first vice president, replacing a senior government minister, Prak Sokhonn, who became foreign minister. In May 2016, he also replaced the CMAA's secretary general, Prum Sophakmonkol, with Ly Thuch, a senior minister formerly responsible for rural development but with no background in mine action.⁹ In October 2016, Hun Sen also appointed Lieutenant-General Sem Sovanny, Director General of the National Centre for Peacekeeping Forces, Mines and ERW Clearance (NPMEC), as a second vice-president of the CMAA.

Strategic Planning

Cambodia has no strategy for survey and clearance of CMR. In 2016, the CMAA pledged to incorporate the Cluster Munition Remnants Survey (CMRS) methodology used by Norwegian People's Aid (NPA) into Cambodia's national mine action standards (NMAS Chapter 15), but as at May 2017, this had still to occur.¹⁰

A draft National Mine Action Strategy for 2017–25, which has been under discussion for more than a year, was due to be released before the end of 2017. Operators had backed the inclusion of a distinct strategy to address survey, clearance, prioritisation, and tasking of

hazardous areas containing CMR and other ERW, but as it stood at May 2017 the draft only set out general goals and objectives.¹¹ These included to:

- Review planning and prioritisation relating to CMR contamination
- Release priority areas
- Review, and by 2021 put in place, institutional arrangements to address residual contamination.

Operators

Survey and clearance of CMR in eastern Cambodia are undertaken mainly by CMAC, the biggest operator with more than 1,200 personnel; Mines Advisory Group (MAG) with 226 staff (of whom 78 work in the east); and NPA with 36.¹² The Royal Cambodian Armed Forces and the NPMEC have conducted clearance in CMR-affected areas, but the extent and results of their operations has not been made public.

LAND RELEASE

Cambodia greatly increased the release of land contaminated with CMR in 2016 compared to the previous year, with clearance output exceeding 22km².

Survey in 2016

NPA, the only operator in Cambodia conducting survey tailored to cluster munitions, completed its non-technical survey of Rattanakiri province in 2016, confirming 20 hazardous areas (CHAs) covering 1.8km² and in the process knocking off nearly 3km² from the baseline survey of contamination. NPA was prepared to continue non-technical survey in 2017 if it became necessary as a result of population movements and community requests, but it preferred to concentrate operations on technical survey and clearance.¹³

Table 2: NPA CMR survey¹⁴

Year	Area surveyed (m ²)	CHAs identified	Area confirmed (m ²)	Area reduced from BLS (m ²)
2015	4,796,761	20	1,459,261	3,337,500
2016	4,687,500	20	1,840,521	2,846,979

CMAC said its survey of suspected hazardous areas in eastern provinces in 2016 confirmed CMR contamination in 455 areas covering 84.73km². Although north-eastern provinces are believed to be among the most heavily affected by CMR, CMAC said it confirmed 145 areas and 34km² in south-eastern Svay Rieng and 115 covering 21.29km² in the neighbouring province of Prey Veng. The Svay Rieng estimate exceeded the total for the province identified in the BLS (see Table 1). CMAC reported reducing 3.19km² through technical survey.¹⁵

Clearance in 2016

Operators reported clearing a total of 22.38km² of CMR-contaminated areas in 2016, a huge increase on the previous year. According to the data available, CMAC accounted for more than 90% of the area cleared in 2016, most of it in Kampong Cham (9.1km²) and Kratie (6.4km²).¹⁶

MAG increased the number of its battle area clearance (BAC) teams from three to four, and tripled the amount of CMR-affected area it cleared in 2016 compared with the previous year, destroying four times the number of submunitions. MAG said use of advanced Scorpion detectors and better use of historical data in selecting tasks had contributed to higher productivity. MAG also nearly doubled the number of roving tasks undertaken in 2016, although this resulted in a sharp increase in the number of items of unexploded ordnance (UXO) destroyed, this included fewer submunitions than in 2015.¹⁷

Table 3: Clearance of CMR-contaminated areas in 2016¹⁸

Operator	Areas cleared	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
CMAC	147	20,381,947	3,471	1,171
MAG	N/R	1,724,547	868	79
NPA ¹⁹	5	276,430	583	26
Totals	152	22,382,924	4,922	1,276

N/R = Not recorded

NPA, focused mainly on survey, cleared slightly more area than it did in 2015 although the number of submunitions destroyed more than doubled, but the number of spot tasks and items destroyed in the course of them dropped sharply as NPA conducted more technical survey and fewer village visits.²⁰

Table 4: Spot/roving clearance and EOD in 2016

Operator	Roving tasks	Submunitions destroyed	UXO destroyed
CMAC	2,618	974	18,445
MAG	2,170	2,892	6,772
NPA	82	64	20
Totals	4,870	3,930	25,237

EOD = Explosive ordnance disposal

ARTICLE 4 COMPLIANCE

Cambodia is neither a state party nor a signatory to the CCM and therefore does not have a specific clearance deadline under Article 4. Nonetheless, Cambodia has obligations under international human rights law to clear CMR as soon as possible.

Cambodia's attitude to the CCM appears to be shifting. In the past, Cambodia said it would not join the treaty before Thailand, with which it has had border disputes, did so. Officials now say that is no longer an issue; that Cambodia is not waiting for Thailand; and that the government only wanted assurance that certain munitions in the Cambodian armed forces' arsenal were not banned by the treaty.²¹ Cambodia's draft NMAS for 2017–25 says it will promote regional and international disarmament and cooperation.

1 South East Asia Air Sortie Database, cited in D. McCracken, "National Explosive Remnants of War Study, Cambodia", NPA in collaboration with CMAA, Phnom Penh, March 2006, p. 15; Human Rights Watch, "Cluster Munitions in the Asia-Pacific Region", April 2008; and Handicap International (HI), *Fatal Footprint: The Global Human Impact of Cluster Munitions*, HI, Brussels, November 2006, p. 11.

2 Data received from CMAA, 2 May 2017.

3 Email from Prom Serey Audom, Assistant to the Secretary General, CMAA, 2 May 2017.

4 Interviews with Aksel Steen-Nilsen, Country Director, NPA; and Greg Crowther, Regional Director, South and South East Asia, MAG, in Phnom Penh, 1 May 2017.

5 Figure 3, National Mine Action Strategy 2017–2025 (Draft), undated but 2017, p. 17.

6 Casualty data received by email from Nguon Monoketya, Deputy Director, Socio-Economic Planning and Database Management Department, CMAA, 17 February 2017.

7 CMAC is the leading national demining operator, but does not exercise the wider responsibilities associated with the term "centre." Set up in 1992, CMAC was assigned the role of coordinator in the mid-1990s. It surrendered this function in a restructuring of mine action in 2000 that separated the roles of regulator and implementing agency and led to the creation of the CMAA.

8 Geneva International Centre for Humanitarian Demining (GICHD), "A Study of the Development of National Mine Action Legislation", November 2004, pp. 64–66.

9 Interviews with Prum Sophakmonkol, Secretary General, CMAA, Phnom Penh, 11 May 2016; and with operators, Phnom Penh, 9–11 May 2016.

10 Email from Aksel Steen-Nilsen, NPA, 31 March 2017.

11 Draft National Mine Action Strategy, 2017–2025, received from Prom Serey Audom, CMAA, 2 May 2017.

12 Emails from Rath Pottana, Information Officer, CMAC, 9 May 2017; Greg Crowther, MAG, 4 April 2017; and Aksel Steen-Nilsen, NPA, 31 March 2017.

13 Interview with Aksel Steen-Nilsen, NPA, Phnom Penh, 1 May 2017.

14 Emails from Aksel Steen-Nilsen, NPA, 27 April 2016; and Zlatko Vezilic, NPA, 7 July 2017. Submunitions cleared during the course of technical survey are reported in Table 3.

15 Email from Rath Pottana, CMAC, 9 May 2017.

16 Ibid.; and email from CMAA, 30 May 2016.

17 Email from Greg Crowther, MAG, 4 April 2017, and interview, Phnom Penh, 1 May 2017.

18 Emails from Rath Pottana, CMAC, 9 May 2017; Greg Crowther, MAG, 10 May 2016; and Aksel Steen-Nilsen, NPA, 27 April 2016.

19 The total of 583 submunitions destroyed includes 349 destroyed in clearance and 234 destroyed during technical survey. Emails from Zlatko Vezilic, NPA, 18 and 19 July 2017.

20 Email from Aksel Steen-Nilsen, NPA, 31 March 2017, and interview, 1 May 2017.

21 Interview with Ly Thuch, CMAA, and Heng Rattana, Director General, CMAC, Phnom Penh, 2 May 2017.



GEORGIA

RECOMMENDATIONS FOR ACTION

- Georgia should accede to the Convention on Cluster Munitions (CCM) as soon as possible.
- Georgia should ensure that all reports of cluster munition remnant (CMR) contamination are investigated as soon as possible, and necessary survey and clearance conducted as required.

CONTAMINATION

Following clearance of a CMR contaminated area in 2014, Georgia, including Abkhazia, was believed to be free of contamination from cluster munition remnants (CMR), with the possible exception of South Ossetia, which is occupied by Russia and inaccessible to both the Georgian authorities and international non-governmental organisation (NGO) clearance operators.

In 2016, however, Georgia reported the discovery of two submunitions, destroyed by the State Security Agency of Georgia, as part of explosive ordnance disposal (EOD) call-outs in the Shida Kartli region.¹ In April and July 2016, local communities in this region of Georgia reported finding several submunitions since clearance was completed.² As at May 2017, The HALO Trust was in the process of conducting non-technical survey to investigate each of the call-outs. Several more submunitions have been discovered so far in 2017 during non-technical survey,³ and technical survey may be needed to determine the nature

of the contamination: whether it exists but in previously undiscovered contaminated areas, results from missed items in cleared areas, or as a result of items being picked up and moved by locals.⁴ Prior to the recently identified submunitions, the last CMR contamination was discovered and cleared in 2014, during HALO Trust operations along the Administrative Boundary Line (ABL), also in the Shida Kartli region.⁵

Furthermore, Georgia has reported that its National Mine Action Authority has not been able to conduct quality assurance (QA)/quality control (QC) in Abkhazia and Tskhinvali (in South Ossetia), and that a conclusion as to whether these regions are indeed free of CMR depends on the quality of earlier clearance.⁶

CMR resulted from the conflict over South Ossetia in August 2008, in which both Georgian and Russian forces used cluster munitions. After the end of the conflict and

through December 2009, The HALO Trust cleared some 37km² in Georgian-controlled territory of submunitions and other explosive remnants of war (ERW).⁷ In May 2010, Norwegian People's Aid (NPA) completed clearance of its tasked areas.⁸

The HALO Trust believes that the August 2008 conflict was likely to have resulted in some CMR in South Ossetia, but it has no way of determining the level of possible contamination, or what, if any, clearance may have been conducted.⁹

Other Explosive Remnants of War and Landmines

Georgia remains contaminated by other unexploded ordnance (UXO) and anti-personnel mines. Following the 2008 conflict with Russia, there was evidence of a problem with UXO in South Ossetia, although its extent remains unclear. In addition, UXO contamination in Georgia persists in former firing ranges.¹⁰

PROGRAMME MANAGEMENT

In 2008, a Memorandum of Understanding was signed between the Georgian Ministry of Defence and international NGO Information Management and Mine Action Programs (iMMAP) to establish the Explosive Remnants of War Coordination Center (ERWCC).¹¹ On 30 December 2010, the Ministry of Defence issued a decree instructing that mine action be included as part of the State Military Scientific Technical Center – known as “DELTA” – an entity within the ministry. The agreement with iMMAP ended on 31 March 2012 and the ERWCC took ownership of the mine action programme.¹²

Through the iMMAP project, ERWCC became the Georgian Mine Action Authority, under DELTA, tasked to coordinate and execute action to address the ERW threat.¹³ The primary task of the ERWCC is to coordinate mine action in Georgia, including QA/QC, and to facilitate the creation and implementation of Georgian National Mine Action Standards, in accordance with the International Mine Action Standards (IMAS).¹⁴

Standards

Georgian National Mine Action Standards and National Technical Standards and Guidelines (NTSG) have been drafted in accordance with IMAS and as at April 2017 were awaiting completion in coordination with the Geneva International Centre for Humanitarian Demining (GICHD).¹⁵ Once finalised, the NTSG will be translated and sent to Parliament for approval.¹⁶

Quality Management

Under the control of DELTA, the ERWCC now conducts QA/QC.¹⁷ iMMAP has also conducted training on QA/QC for the Quality Management section of the ERWCC, the Joint Staff of the Georgian Armed Forces, and DELTA.

Operators

The HALO Trust conducts UXO and mine clearance operations in Georgia, but no CMR clearance was undertaken in 2016.¹⁸ The HALO Trust was, however, conducting CMR survey (both non-technical and technical) in 2017, and would also carry out clearance, as required.¹⁹

At the request of the Government of Georgia, the NATO Partnership for Peace (PfP) Trust Fund has supported Georgia in addressing its ERW problem from the August 2008 conflict. In 2010, a NATO Trust Fund project planned to provide support to establish long-term local capacity for the ERWCC in clearance and victim assistance.²⁰ As part of the project, 66 members of the Georgian Army Engineers Brigade were trained in demining, battle area clearance (BAC), and explosive ordnance disposal (EOD).²¹ Since March 2015, these engineers have been conducting EOD of abandoned explosive ordnance (AXO) and UXO at the former ammunition storage facility at Skra.²²

LAND RELEASE

Two submunitions were discovered and destroyed in 2016, during EOD call-outs in the Shida Kartli region.²³ No CMR had been identified in 2015,²⁴ but in 2014, The HALO Trust cleared 1.3km² of CMR-contaminated area, which had been discovered as a result of improved security along the ABL with South Ossetia, enabling farmers to use previously inaccessible areas within Georgian-controlled territory.²⁵

Progress in 2017

As at May 2017, The HALO Trust was in the process of conducting non-technical survey to investigate EOD call-outs in the Shida Kartli region, during which CMR had been discovered. The HALO Trust believed that technical survey would help to explain the existence of the contamination, some of which was found several hundred metres from HALO Trust's cleared tasks.²⁶

ARTICLE 4 COMPLIANCE

Georgia is neither a state party nor a signatory 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.

It was previously believed that, with the possible exception of South Ossetia, Georgia was now free from CMR contamination. However, HALO Trust non-technical survey in 2017, in response to EOD call-outs, has revealed CMR in the Shida Kartli region. Technical survey is required to determine the nature and extent of the contamination.

Furthermore, Georgia reported that, due to a lack of access to areas outside of its control, it cannot confirm whether or not earlier clearance in these areas was conducted to international humanitarian standards, and with the required QA/QC.²⁷

1 Email from Oleg Gochashvili, Head of Division, DELTA, 20 June 2017.

2 Ibid.

3 Email from Irakli Chitanava, Programme Manager, HALO Trust, 2 May 2017.

4 Ibid.

5 Email from Andrew Moore, HALO Trust, 9 July 2015.

6 Email from Oleg Gochashvili, DELTA, 3 April 2017.

7 Explosive Remnants of War Coordination Centre, "Explosive Remnants of War Coordination Centre (ERWCC) in Facts and Figures", November 2009, p. 17.

8 Email from Jonathon "Gus" Guthrie, Programme Manager, NPA, 27 May 2010.

9 Email from Andrew Moore, HALO Trust, 11 March 2016.

10 Email from Andrew Moore, HALO Trust, 23 June 2015; and interview with Oleg Gochashvili, DELTA, in Geneva, 19 February 2016.

11 iMMAP, "Establishing the New Georgian Explosive Remnants of War Coordination Centre (ERWCC)", Press release, 25 February 2009; and E. M. Hasanov and P. Nevalainen, "Mine-action Challenges and Responses in Georgia", *Journal of ERW and Mine Action*, Issue 15.3, Fall 2011.

12 Ibid.; Decree #897 issued by the Minister of Defense, 30 December 2010; and email from Oleg Gochashvili, DELTA, 20 June 2016.

13 NATO, "NATO/PfP Trust Fund Project in Georgia", January 2012, at: http://www.mzv.cz/file/786123/Georgia_ERW_Fact_Sheet_3_230112.pdf; and email from Oleg Gochashvili, DELTA, 6 July 2015.

14 Email from Oleg Gochashvili, DELTA, 6 July 2015.

15 Email from Oleg Gochashvili, DELTA, 3 April 2017.

16 Interview with Oleg Gochashvili, DELTA, in Geneva, 19 February 2016; and email, 3 April 2017.

17 Response to Cluster Munition Monitor questionnaire by Tom Meredith, Desk Officer, HALO Trust, 21 August 2012.

18 Email from Irakli Chitanava, HALO Trust, 2 May 2017.

19 Ibid.

20 NATO, "NATO/PfP Trust Fund Project in Georgia", January 2012; and emails from Oleg Gochashvili, DELTA, 6 July 2015 and 20 June 2016.

21 Estonia Convention on Certain Conventional Weapons (CCW) Protocol V Article 10 Report, 2 April 2012; NATO/PfP Trust Fund Project in Georgia Fact Sheet, January 2012; and email from Oleg Gochashvili, DELTA, 6 July 2015.

22 Interview with Oleg Gochashvili, DELTA, in Geneva, 19 February 2016; and email, 3 April 2017.

23 Email from Oleg Gochashvili, DELTA, 20 June 2017.

24 Emails from Andrew Moore, HALO Trust, 11 March 2016; and Oleg Gochashvili, DELTA, 23 May 2016.

25 Email from Andrew Moore, HALO Trust, 9 July 2015.

26 Email from Irakli Chitanava, HALO Trust, 2 May 2017.

27 Email from Oleg Gochashvili, DELTA, 3 April 2017.



IRAN

RECOMMENDATIONS FOR ACTION

- Iran should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Iran should report on the threat from cluster munition remnants (CMR) and prepare a plan for their clearance and destruction.

CONTAMINATION

The exact extent of contamination from CMR in Iran is not known. Some contamination is believed to remain from the Iran-Iraq war when cluster munitions were widely used in Khuzestan and to a lesser extent in Kermanshah. Iraqi forces used mostly French- and Russian-made submunitions in attacks on oil facilities at Abadan and Mah-Shahr, and Spanish munitions in attacks on troop positions at Dasht-e-Azadegan. Air Force explosive ordnance disposal (EOD) teams cleared many unexploded submunitions after attacks but contamination remains around Mah-Shahr and the port of Bandar Imam Khomeini, according to a retired Iranian Air Force colonel.¹

Other Explosive Remnants of War and Landmines

Other explosive remnants of war (ERW) continue to inflict casualties, particularly as a result of scavenging for scrap metal, though the extent of the problem is not clear. Unexploded ordnance (UXO) includes grenades, mortar, and artillery shells, and air-dropped bombs. In 2014, Cluster Munition Monitor registered seven ERW incidents that caused 28 casualties. An explosion of UXO that became mixed up with scrap metal killed one man and injured five at a scrap metal factory in Mahmood-Abad (Mazandaran).²

PROGRAMME MANAGEMENT

Taking the place of a Mine Action Committee in the Ministry of Defense, the Iran Mine Action Centre (IRMAC) was established in 2005 and made responsible for planning, data, managing survey, and procurement. It also sets standards, provides training for clearance operators, concludes contracts with demining operators (military or private), and ensures monitoring of their operations. It coordinates mine action with the General Staff of the Armed Forces, the Ministry of Interior, the Management and Planning Organisation of Iran, and other relevant ministries and organisations, and handles international relations.

IRMAC also oversees victim assistance and risk education but has partly delegated these roles to entities such as the Social Welfare Organisation and the Iranian Red Crescent Society.³

IRMAC's future appeared uncertain in 2014 amid debate on institutional reforms. IRMAC's statement that 99% of contaminated lands had been cleared led to proposals to transfer the mandate for remaining work to the Ministry of Interior. At the time of drafting this report, it was still not clear if, to what extent, and when these changes would materialise. According to reports from mine action sources, clearance operations had slowed due to these uncertainties.⁴

LAND RELEASE

No data was available on any CMR clearance in 2016 as in the previous year.

ARTICLE 4 COMPLIANCE

Iran is neither a state party nor a signatory to the CCM and therefore does not have a specific clearance deadline under Article 4. Nonetheless, Iran has obligations under international human rights law to clear CMR as soon as possible.

1 Interview with Air Force Colonel (ret.) Ali Alizadeh, Tehran, 8 February 2014.

2 "Mortar shell explosion in Mahmoud-Abad industrial zone: One killed and 5 injured so far", *Blogh News*, 9 March 2014, at: <http://www.bloghnews.com/>.

3 IRMAC PowerPoint Presentation, Tehran, 9 February 2014; and IRMAC, "Presentation of IRMAC", at: <http://www.irmac.ir/sites/default/files/>.

4 Telephone interview with mine action sector operator, provided on condition of anonymity, 5 April 2015.

LIBYA



RECOMMENDATIONS FOR ACTION

- Libya's Government of National Accord should ensure that forces loyal to it do not use cluster munitions.
- Libya should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Libya should initiate survey and clearance of cluster munition remnants (CMR) as soon as possible.

CONTAMINATION

Contamination in Libya is the consequence of armed conflict in 2011 and since 2015 but the extent of the CMR hazard is unknown. In 2011, armed forces used at least three types of cluster munition, including the Chinese dual-purpose Type 84, which also functions as an anti-vehicle mine, and the Spanish MAT-120, which holds 21 submunitions. In 2012, Mines Advisory Group (MAG) reported tackling Russian PTAB cluster bombs,¹ while international media reported the presence of a fourth type of cluster munition that has remained unidentified.² Additional contamination by CMR occurred as a result of kick-outs from ammunition storage areas bombed by NATO forces in 2011.

In early 2015, fighting between Libya's rival governments saw reported use of cluster munitions, including RBK-250 PTAB-2.5M bombs, in attacks on Bin Jawad near the port of Es-Sidr in February, and in the vicinity of Sirte in March. The Libyan Air Force, controlled by the internationally recognised government of the time, had bombed both locations but denied using cluster bombs.³ According to Cluster Munition Monitor, while the last confirmed use of cluster munitions in Libya was in January 2015, there are indications that additional attacks may have occurred since that time, including in 2016. For example, in March 2016, a defence blog

published photographs that it credited to the Libyan National Army that suggested its forces may have used cluster munitions at least twice that month.⁴

The impact of CMR contamination is unknown.

Other Explosive Remnants of War and Landmines

According to the United Nations Mine Action Service (UNMAS), ongoing conflict has resulted in significant ERW contamination in numerous cities across Libya, impacting on public infrastructure such as schools, universities, and hospitals. The ERW threat is exacerbated by the mines and ERW left from previous conflicts.⁵

PROGRAMME MANAGEMENT

There is no national mine action authority, policy, or strategy for Libya. Mine action exists in a fragmented and violent political context. Following years of armed conflict, a new United Nations-backed "unity" government, the Government of National Accord, was formally installed in a naval base in Tripoli in early

2016. Through early 2017, however, it continued to face opposition from two rival governments and a host of militia forces.

LibMAC was mandated by the Minister of Defense to coordinate mine action in December 2011. As at March 2017, it was operating under the UN-backed Government of National Accord. Its headquarters are in Tripoli, in the west of the country. In 2015 and 2016, it did not have an office in the east, though it coordinated with institutions in Benghazi, and in April 2016, a regional Operations Manager was appointed for the east.⁶ In July 2016, LibMAC also established a small office in Misrata.⁷ The operating costs and salaries for the LibMAC are funded by the United States Department of State and administered by ITF Enhancing Human Security (ITF).⁸

Standards

National standards in English and Arabic, developed with the support of UNMAS, were expected to be finalised by the end of March 2017.⁹ As of late June 2017, the standards had been completed and were awaiting approval for publication by the Prime Minister.¹⁰

Operators

Mine action operations have been conducted by the army engineers, police units, and the Ministry of Interior's National Safety Authority (NSA), also known as Civil Protection.¹¹ These institutions liaise with LibMAC but are not tasked or accredited by them, nor do they provide clearance reports to the Centre. The deteriorating security situation resulted in the withdrawal of UNMAS and international mine action operators from Libya in mid-2014. UNMAS has been operating from Tunis since November 2014, from where it carries out capacity enhancement training courses, support, and advice to LibMAC and coordination of the international mine action response in Libya.¹²

In 2016, DDG was newly accredited for non-technical survey, explosive ordnance disposal (EOD), and risk education, and went on to conduct operations in the south of Libya. By the end of 2016, it had three non-technical survey teams and one EOD team, mainly operating in Sabha, in the south-west of the country.¹³

National NGO Free Fields Foundation (3F) has a formal partnership with DDG for organisational development and technical capacity building but has not yet attained

the requisite standard to carry out non-technical survey and EOD independently. It has, however, been granted permission to operate under DDG's accreditation and under its supervision. 3F, which is mentored and monitored by technical advisors remotely via Skype from Tunis, is operational in the west of Libya, with two EOD teams and two non-technical survey teams.¹⁴

Handicap International (HI) trained two local partners in non-technical survey in 2016: Peace Organisation from Zintan, and World Without War (3W) from Misrata. Both organisations received accreditation for non-technical survey from LibMAC after the training. Following the training, Peace Organization conducted non-technical survey under remote management by HI from Tunis.¹⁵

A number of other Libyan civil society organisations are also reported to carry out mine action operations, but they are not accredited by LibMAC.

Information management

LibMAC received technical support for IMSMA from the Geneva International Centre for Humanitarian Demining (GICHD) and UNMAS in 2016.¹⁶

LAND RELEASE

Libya does not have an active programme for survey or clearance of CMR and there are no reports of CMR clearance during 2016 although a number of operators engaged in small-scale explosive ordnance disposal (EOD) operations. This included DDG and 3F, both of which started EOD operations in late 2016.¹⁷

In addition, battle area clearance (BAC) was reportedly conducted in 2016 by the national authorities and volunteer groups in several locations across the country. However, this clearance was not coordinated with LibMAC, and no land release certificates were issued.

ARTICLE 4 COMPLIANCE

Libya is neither a state party nor a signatory 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.

1 Email from Nina Seecharan, Desk Officer for Iraq, Lebanon and Libya, MAG, 5 March 2012.

2 C. J. Chivers, "Name the Cluster Bomb, an Update", *New York Times*, 2 February 2012.

3 Human Rights Watch, "Libya: Evidence of new cluster bomb use", 15 March 2015, at: <http://www.hrw.org/news/2015/03/14/libya-evidence-new-clusterbomb-use>.

4 Cluster Munition Monitor, "Libya: Cluster Munition Ban Policy", Last updated 3 August 2016, at: <http://www.the-monitor.org/en-gb/reports/2016/libya/cluster-munition-ban-policy.aspx>.

5 UNMAS, "Libya: Humanitarian Mine Action", Last updated February 2016, at: <http://www.mineaction.org/programmes/libya>.

6 Skype interview with Ezzedine Ata Alia, Administration Manager, LibMAC, 20 March 2017.

7 Interview with Col. Turjoman, Director, LibMAC, in Geneva, 10 January 2017.

8 Email from Roman Turšič, Head of Implementation Office Libya/Afghanistan, ITF, 26 February 2017.

9 Skype interview with Ezzedine Ata Alia, Administration Manager, LibMAC, 20 March 2017. See <http://www.lmac.gov.ly/>.

10 Email from Ezzedine Ata Alia, Administration Manager, LibMAC, 28 June 2017.

11 Interview with Col. Turjoman, LibMAC, in Geneva, 10 January 2017.

12 UNMAS, "Programmes: Libya", January 2017, at: <http://www.mineaction.org/programmes/libya>; and email from Dandan Xu, Associate Programme Management Officer, UNMAS, 12 July 2017.

13 Email from Lutz Kosewsky, DDG, 22 February 2017.

14 Ibid.

15 Email from Catherine Smith, Mine Action Desk Officer, HI, 22 February 2017.

16 Email from Lyuba Guerassimova, Programme Officer, UNMAS, 28 February 2017.

17 Email from Lutz Kosewsky, DDG, 22 February 2017.

SERBIA

PROGRAMME PERFORMANCE

	2016	2015
Problem understood	5	5
Target date for completion of cluster munition clearance	4	4
Targeted clearance	4	4
Efficient clearance	4	4
National funding of programme	4	4
Timely clearance	4	4
Land release system in place	4	4
National mine action standards	4	4
Reporting on progress	5	4
Improving performance	4	4
PERFORMANCE SCORE: POOR	4.2	4.1

PERFORMANCE COMMENTARY

In 2016, Serbia cleared a small amount of area contaminated by cluster munition remnants (CMR), but was hindered by a lack of international funding. A re-assessment by the Serbian Mine Action Centre (SMAC) into the potential for increased use of technical survey, taking into account Serbia's context-specific challenges and risk management requirements, is needed to improve land release efficiency and may help Serbia attract greater international support.

RECOMMENDATIONS FOR ACTION

- Serbia should identify funding, including from national sources, for clearance of CMR and then clear all remaining contamination as soon as possible.
- The SMAC should reconsider its decision to conduct full clearance in areas where technical survey would be far more efficient in defining the actual hazardous area.
- Serbia should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.

CONTAMINATION

As at 1 April 2017, Serbia had 10 areas covering a total of 0.83km² confirmed to contain CMR, while a further 13 areas over 2km² are suspected to contain CMR (see Table 1).¹ This compares to reported contamination as at the end of 2015 of 11 confirmed hazardous areas (CHAs) over a total of 0.89km², and 14 suspected hazardous areas (SHAs) over 2.24km².²

Table 1: CMR contamination by municipality (as at 1 April 2017)³

Municipality	CHAs	Area (m ²)	SHAs	Area (m ²)
Raška	1	190,359	0	0
Sjenica	7	427,866	9	511,211
Tutin	0	0	1	514,682
Niš	0	0	1	119,344
Bujanovac	2	210,881	1	272,015
Užice	0	0	1	585,268
Totals	10	829,106	13	2,002,520

CMR contamination results from North Atlantic Treaty Organization (NATO) air strikes in 1999. According to Serbia, NATO cluster munitions struck 16 municipalities: Brus, Bujanovac, Cacak, Gadžin Han, Knic, Kraljevo, Kuršumlja, Leposavic, Niš city-Crveni Krst, Niš city-Medijana, Preševo, Raška, Sjenica, Sopot, Stara Pazova, and Vladimirci.⁴ In late 2014, a suspected area was newly identified in Tutin, a municipality not previously thought to be contaminated by CMR.⁵

Contamination in Serbia has a socio-economic impact as well as posing a humanitarian threat, impeding safe access to forest products, cattle, and mushroom picking. These represent main sources of income in some of the most underdeveloped municipalities, including Bujanovac, Sjenica, and Tutin. In addition, CMR-contamination impacts transport infrastructure, as well as the development of tourism.⁶

Other Explosive Remnants of War and Landmines

Serbia is also contaminated by other unexploded ordnance (UXO), both on land and in its waterways, and by anti-personnel mines.⁷

PROGRAMME MANAGEMENT

According to a Government Decree on Protection against Unexploded Ordnance, the Sector for Emergency Management, under the Ministry of Interior, acts as the national mine action authority (NMAA).⁸ The NMAA is responsible for developing standard operating procedures; accrediting demining operators; and supervising the work of SMAC.⁹

SMAC was established on 7 March 2002, with a 2004 law making it responsible for coordinating demining; 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, license demining organisations, and conduct risk education.¹⁰ A new director of SMAC was appointed by the Serbian government in the autumn of 2015.¹¹

SMAC reported that in 2016, restructuring resulted in a greater proportion of operational posts more related to survey, project development, and quality control.¹²

Standards

According to SMAC, survey and clearance operations in Serbia are conducted in accordance with the International Mine Action Standards (IMAS).¹³

National mine action standards (NMAS) were said to be in the final phase of development as at September 2015.¹⁴ In February 2016, however, the new director of SMAC reported that the NMAS were still being developed, and due to more pressing priorities within SMAC, would not be finalised until 2017.¹⁵ In April 2017, SMAC reported that along with the relevant national authorities, it was in the process of establishing a commission to develop national standards/national standing operating procedures to define methods and techniques for humanitarian demining in Serbia.¹⁶ However, this process has been hindered due to lack of capacity.¹⁷

Under new directorship, SMAC has reassessed its land release methodology to prioritise full clearance over technical survey of hazardous areas.¹⁸ This does not correspond to international best practice, and is an inefficient use of valuable clearance assets. In February 2016, the new director of SMAC reported to Mine Action Review that while SMAC supports the use of high quality non-technical survey to identify areas suspected of containing CMR, it will fully clear these areas, rather than using technical survey to more accurately identify the boundaries of contamination.¹⁹

SMAC's preferred land release methodology, in particular with regard to addressing mine contamination, remained the same as at May 2017. However, in response to the stated preference of international donors for technical survey above clearance, where appropriate, SMAC is prepared to conduct technical survey, in a form adjusted to the context of Serbia.²⁰

Operators

SMAC does not itself carry out clearance or employ deminers but does conduct survey of areas suspected to contain mines, CMR, or other ERW. Clearance is conducted by commercial companies and non-governmental organisations (NGOs), which are selected through public tender procedures executed by ITF Enhancing Human Security.²¹

In 2016, a total of 30 deminers and 4 mine detection dogs (MDDs) were deployed for CMR clearance in Serbia. This comprised one demining team of eight deminers and four MDDs, plus a machine for mechanical preparation in Raska municipality, and two demining teams of 22 deminers deployed in Sjenica municipality.²²

Non-technical survey in 2016 was conducted by SMAC staff.²³ Previously, Norwegian People's Aid (NPA) personnel seconded to SMAC conducted all survey in Serbia,²⁴ but NPA did not conduct any survey in Serbia in 2016.²⁵

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 discovered, and is also responsible for the demolition of items found by SMAC.²⁶

Quality Management

SMAC and its partner organisations undertake quality assurance (QA) and QC of clearance operations in mine- and explosive remnants of war (ERW)-affected areas.²⁷ On every clearance project, SMAC QC and QA officers are said to sample between 5% and 11% of the total project area, depending on project complexity and size.²⁸

Information Management

SMAC does not use the Information Management System for Mine Action (IMSMA) at present, but has been discussing for some time the possibility of the system's future installation with the Geneva International Centre for Humanitarian Demining (GICHD).²⁹

LAND RELEASE

In 2016, a total of 0.25km² of CMR-contaminated area was released by clearance, while 0.09km² was reduced by technical survey.³⁰

Survey in 2016

In 2016, a total of 92,150m² was reduced by technical survey.³¹ This represents a decrease compared to 2015, when 1.4km² was reduced by technical survey and 1km² was cancelled by non-technical survey.³²

Table 2: Clearance of CMR-contaminated areas in 2016³⁵

Operator	Areas cleared	Area cleared (m ²)	Submunitions destroyed
Saturnia, Belgrade Stop Mines, Pale, BiH	1	69,912	9
Saturnia, Belgrade Stop Mines, Pale, BiH	1	177,120	Clearance in progress
Totals	2	247,032	9

Clearance in 2016

In 2016, two areas totalling 247,032m² were cleared by contractors (see Table 2).³³ This represents an increase in output over 2015, when 0.18km² was cleared.³⁴

Deminer Safety

One deminer was injured in August 2016, during a CMR clearance project on Kopaonik mountain in the municipality of Raška.³⁶

ARTICLE 4 COMPLIANCE

Serbia is not a party or signatory to the CCM and therefore does not have a specific clearance deadline under Article 4 of the Convention. Nonetheless, Serbia has obligations under international human rights law to clear CMR as soon as possible.

In 2010–13, significant progress was made in clearing CMR-contaminated areas, but since then progress has stalled. Less than 5km² in total has been cleared in the last five years (see Table 3).

Table 3: Clearance of CMR in 2012–16³⁷

Year	Area cleared (km ²)
2016	0.25
2015	0.18
2014	0.29
2013	2.40
2012	1.42
Total	4.54

Since 2015, Serbia has been allocating funds for demining. In 2016, around €150,000 was allocated to SMAC from the Serbian national budget for salaries and running costs, in addition to its survey activities, in addition to €100,000 for survey and clearance operations.³⁸

According to SMAC, progress in CMR clearance is contingent on funding. In April 2017, Serbia predicted that if adequate funds for implementation of survey and clearance projects were secured, CMR clearance could be finished in three years.³⁹ However, if international funds are not secured for 2017, SMAC will prioritise its national funding towards mine-related survey and clearance operations, rather than CMR.⁴⁰

SMAC is funded by Serbia.⁴¹ According to SMAC, clearance progress is contingent on funding. In March 2015, Serbia predicted that if adequate funds for implementation of survey and clearance projects were secured, CMR clearance could be finished in three years.⁴² However, in February 2016, SMAC's new director declined to predict when CMR clearance would be completed.⁴³

- 1 Email from Slađana Košutić, Planning and International Cooperation Advisor, Serbian Mine Action Centre (SMAC), 6 April 2017.
- 2 Email from Jovica Simonović, Director, SMAC, 26 July 2016.
- 3 Email from Slađana Košutić, SMAC, 6 April 2017.
- 4 Statement of Serbia, Anti-Personnel Mine Ban Convention (APMBC) intersessional meetings (Standing Committee on Mine Clearance), Geneva, 21 June 2011; and interview with Petar Mihajlović, Director, and Slađana Košutić, International Cooperation Advisor, SMAC, Belgrade, 25 March 2011.
- 5 Email from Branislav Jovanovic, then Director, SMAC, 4 May 2015.
- 6 Email from Slađana Košutić, SMAC, 6 April 2017.
- 7 "Mine situation", SMAC, accessed 3 June 2016, at: <http://www.czrs.gov.rs/eng/minska-situacija.php>.
- 8 Official Gazette of the Republic of Serbia, No. 70/13.
- 9 Emails from Darvin Lisica, Regional Programme Manager, Norwegian People's Aid (NPA), 6 May and 12 June 2016.
- 10 "Law of Alterations and Supplementations of the Law of Ministries", Official Gazette, 84/04, August 2004; interview with Petar Mihajlović, and Slađana Košutić, SMAC, Belgrade, 26 April 2010; and SMAC, "About us", accessed 3 June 2016, at: <http://www.czrs.gov.rs/eng/o-nama.php>.
- 11 Interview with Jovica Simonović, SMAC, in Geneva, 18 February 2016.
- 12 Email from Slađana Košutić, SMAC, 6 April 2017; and interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017.
- 13 "About us", SMAC, accessed 3 June 2016, at: <http://www.czrs.gov.rs/eng/o-nama.php>.
- 14 Interview with Branislav Jovanovic, SMAC, in Dubrovnik, 10 September 2015.
- 15 Interview with Jovica Simonović, SMAC, in Geneva, 18 February 2016.
- 16 Email from Slađana Košutić, SMAC, 6 April 2017.
- 17 Interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017.
- 18 Interview with Jovica Simonović, SMAC, in Geneva, 18 February 2016.
- 19 Ibid.
- 20 Interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017.

- 21 Interview with Petar Mihajlović and Slađana Košutić, SMAC, Belgrade, 26 April 2010.
- 22 Email from Slađana Košutić, SMAC, 6 April 2017.
- 23 Ibid.
- 24 Emails from Darvin Lisica, NPA, 13 April and 6 May 2016.
- 25 Email from Darvin Lisica, NPA, 11 April 2017.
- 26 Interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017.
- 27 Email from Branislav Jovanović, SMAC, 4 May 2015.
- 28 Ibid.
- 29 Ibid.
- 30 Email from Slađana Košutić, SMAC, 6 April 2017.
- 31 Ibid.
- 32 Email from Darvin Lisica, NPA, 13 April 2016; and responses to questionnaire by Miroslav Pisarevic, Project Manager, Humanitarian Disarmament Programme, NPA, Serbia, 19 March and 30 June 2015.
- 33 Email from Slađana Košutić, SMAC, 6 April 2017.
- 34 Emails from Jovica Simonović, Director, SMAC, 26 July 2016, and Darvin Lisica, NPA, 13 April 2016.
- 35 Email from Slađana Košutić, SMAC, 6 April 2017; and interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017.
- 36 Email from Slađana Košutić, SMAC, 6 April 2017.
- 37 See Mine Action Review and Cluster Munition Monitor reports on Serbia covering 2012–15.
- 38 Email from Slađana Košutić, SMAC, 6 April 2017; interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017; and "About us", SMAC, accessed 10 April 2017, at: <http://www.czrs.gov.rs/eng/o-nama.php>.
- 39 Email from Slađana Košutić, SMAC, 6 April 2017.
- 40 Interview with Jovica Simonović, SMAC, Belgrade, 16 May 2017.
- 41 Email from Branislav Jovanovic, SMAC, 23 March 2015; and "About us", SMAC, accessed 3 June 2016, at: <http://www.czrs.gov.rs/eng/o-nama.php>.
- 42 Email from Branislav Jovanovic, SMAC, 23 March 2015.
- 43 Interview with Jovica Simonović, SMAC, in Geneva, 18 February 2016.

SOUTH SUDAN



PROGRAMME PERFORMANCE	2016	2015
Problem understood	6	6
Target date for completion of cluster munition clearance	5	4
Targeted clearance	8	7
Efficient clearance	6	6
National funding of programme	4	4
Timely clearance	5	5
Land release system in place	7	7
National mine action standards	8	7
Reporting on progress	6	6
Improving performance	7	6
PERFORMANCE SCORE: AVERAGE	6.2	5.8

PERFORMANCE COMMENTARY

South Sudan's clearance output for cluster munition remnants (CMR) more than doubled in area in 2016, despite ongoing conflict and an escalation of violence in July, which led to many operators suspending their activities. The United Nations Mine Action Service (UNMAS) attributed the significant increase to a shift in the deployment of the bulk of mine action capacity to CMR-related tasks and more efficient land release methodology.

RECOMMENDATIONS FOR ACTION

- South Sudan should ensure that every effort is made to identify and address all CMR on its territory as soon as possible.
- South Sudan should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Operator and national reporting formats should disaggregate submunitions from other unexploded ordnance (UXO). Mine action data should be recorded and reported according to International Mine Action Standards (IMAS) land release terminology.
- South Sudan should develop a resource mobilisation strategy and initiate dialogue with development partners on long-term support for mine action, including a specific focus on CMR.
- South Sudan should increase its financial support for mine action operations. Greater assistance from the government and international partners should be provided to the National Mine Action Authority to strengthen its capacity to develop effective policies to address explosive hazards.

CONTAMINATION

At the end of 2016, South Sudan had a total of 142 areas suspected to contain CMR, with a total size estimated at nearly 4.6km².¹ This compares to the end of 2015, when 116 areas were suspected to contain CMR covering a total of more than 6.5km².² Areas of CMR contamination from decades of pre-independence conflict continued to be identified in 2016, and the threat was compounded by the fighting which broke out in December 2013.³

Despite the signature of the Agreement on the Resolution of the Conflict in the Republic of South Sudan in August 2015, UNMAS reported that sporadic fighting continued across the country in 2016, which it said “continues to litter vast swathes of land, roads and buildings with Explosive Remnants of War (ERW)”.⁴ Ongoing insecurity, particularly in Greater Upper Nile region (Jonglei, Unity, and Upper Nile states), persisted in preventing access to confirm or address CMR contamination.⁵

Eight of the ten states in South Sudan have areas suspected to contain CMR (see Table 1), with Central, Eastern, and Western Equatoria remaining the most heavily contaminated.⁶ CMR have been found in residential areas, farmland, pastures, rivers and streams, on hillsides, in desert areas, in and around former military barracks, on roads, in minefields, and in ammunition storage areas.⁷

From 1995 to 2000, prior to South Sudan’s independence, Sudanese government forces are believed to have air dropped cluster munitions sporadically in southern Sudan. Many types of submunitions have been found, including Spanish-manufactured HESPIN 21, US-manufactured M42 and Mk118 (Rockeyes), Chilean-made PM-1, and Soviet-manufactured PTAB-1.5 and AO-1SCh submunitions.⁸

In 2006–16, at least 746 sites containing CMR were identified across all 10 states in South Sudan, including new contamination as a result of renewed conflict since December 2013.⁹ In 2016, an additional 66 CMR-contaminated areas were identified of which 11 were cleared during the year.¹⁰

UNMAS discovered evidence of new CMR contamination in February 2014, south of Bor in Jonglei state.¹¹ Evidence indicated the cluster munitions had been used in previous weeks during the conflict between opposition forces supporting South Sudan’s former Vice President Riek Machar and the Sudan People’s Liberation Army (SPLA) government forces, which received air support from Uganda.¹² In September 2014, South Sudan reported that a joint government-UNMAS team had investigated the allegations and established that cluster munitions had been used, but could not determine the user.¹³

Table 1: CMR contamination by province (as at end 2016)¹⁴

State	SHAs with CMR	Area (m ²)
Central Equatoria	52	1,350,521
East Equatoria	67	2,500,805
Jonglei	3	60,958
Lakes	1	525
Unity	2	99,000
Upper Nile	2	0
West Bahr El Ghazal	2	120,000
West Equatoria	13	453,134
Totals	142	4,584,943

CMR contamination in South Sudan continues to pose a physical threat to local populations, prevents the delivery of vital humanitarian aid, curtails freedom of movement, and significantly impedes the development of affected communities.¹⁵ In 2016, due to the escalating violence, internally displaced populations were particularly vulnerable to CMR and other explosive hazards as they moved across unfamiliar territory. CMR contamination continued to limit access to agricultural land and increased food insecurity, at a time when nearly four million South Sudanese were facing famine. During the year, UNMAS documented numerous examples of CMR and explosive hazards preventing the delivery of food and other humanitarian aid.¹⁶

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.

At the start of 2017, almost eight million people in South Sudan were living with the constant threat of the presence of ERW, including more than 2.3 million

South Sudanese who have been forced to become internally displaced since the outbreak of fighting in 2013. According to UNMAS, surveys of internally displaced persons identified a fear of ERW as among the most significant reasons for their inability to return home.¹⁷ UNMAS has claimed that the socio-economic cost of mines and ERW in South Sudan in terms of interrupted agricultural production, food insecurity, halted commerce, and the lack of freedom of movement is “incalculable”.¹⁸

PROGRAMME MANAGEMENT

The South Sudan Demining Authority (SSDA) – now named the National Mine Action Authority (NMAA) – was established by presidential decree in 2006 to act as the national agency for planning, coordination, and monitoring of mine action in South Sudan.¹⁹

In 2011, UN Security Council Resolution 1996 tasked UNMAS with supporting South Sudan in demining and strengthening the capacity of the NMAA. UNMAS (with the NMAA) has been overseeing mine action across the country through its main office in Juba, and sub-offices in Bentiu, Bor, Malakal, and Wau. UNMAS is responsible for accrediting mine action organisations, drafting national mine action standards, establishing a quality management system, managing the national database, and tasking operators.²⁰ The NMAA takes the lead on victim assistance and risk education.²¹

While it is planned that eventually the NMAA will assume full responsibility for all mine action activities, South Sudan’s national strategic plan for mine action for 2012–16 notes that the government did “not have the financial and technical capacity to support its mine action program. UN agencies, development partners, and international organizations will need to support the program in providing technical and financial assistance”.²² UN Security Council Resolution 1996 authorised the UN Mission in South Sudan (UNMISS) to support mine action through assessed peacekeeping funds.²³

In May 2014, the UN Security Council adopted Resolution 2155 in response to the conflict that broke out in December 2013. The resolution, which marked a significant change in mine action policy, effectively ended the mission’s mandate to support capacity development of government institutions.

Strategic Planning

In April 2017, UNMAS reported that an exercise to update South Sudan’s national mine action strategic plan was scheduled to take place in the first half of 2017.²⁴ There were no significant changes in 2016 to the existing national mine action strategic plan for 2012–16, which was developed by the NMAA with assistance from the UN and the Geneva International Centre for Humanitarian Demining (GICHD).²⁵ The main objectives of that plan are to ensure that:

- South Sudan is in a position to comply with all international instruments related to mines and ERW and can conduct and manage the national mine action programme.
- The scope and location of the mine and ERW contamination are fully recorded, and all high-impact contaminated areas are identified, prioritised, cleared, and released.
- The national mine action programme contributes to reducing poverty and increasing socio-economic development by being mainstreamed into development programmes.²⁶

Standards

While there were no changes to the National Technical Standards and Guidelines (NTSG) for mine action in South Sudan during 2016, according to UNMAS, revisions to the NTSG which were implemented from October 2015 were a factor which contributed to more efficient land release and a significant increase in CMR clearance output in 2016.²⁷ The NTSGs, which contain provisions specific to CMR survey and clearance, are monitored by UNMAS and the NMAA.²⁸

Quality management

UNMAS reported carrying out external quality assurance (QA) and quality control (QC) operations throughout 2016 on all mine action operators in South Sudan. It stated that at the end of the year the QA/QC system was amended slightly, but QA/QC activities were set to continue with the same level of coverage for all operators in 2017.²⁹

Due to constraints on the movement of UN staff due to increasing security concerns, at the end of 2016, UNMAS contracted a private company, JANUS Global Operations, to conduct external QA/QC on behalf of UNMAS in South Sudan.³⁰

Operators

Four international demining non-governmental organisations (NGOs) operated in South Sudan in 2016: DanChurchAid (DCA), Danish Demining Group (DDG), MAG, and Norwegian People's Aid (NPA). Four commercial companies also conducted demining: G4S Ordnance Management (G4S), Mechem, Dynasafe MineTech Limited (DML) (formerly MineTech International, MTI), and The Development Initiative (TDI). No national demining organisations were involved in clearance in 2016.³¹

According to UNMAS, at its peak in 2016, mine action capacity in South Sudan included 62 technical teams, the bulk of which was in commercial companies, along with six mechanical assets, and one team supported by mine detection dogs (MDDs). However, this capacity lay idle in the second half of 2016, after conflict resurged in Juba and insecurity spread across the country. As at April 2017, survey and clearance capacity had not returned to the levels prior to the July 2016 crisis, and according to UNMAS, remained dependent on the re-establishment of secure operating conditions.³²

UNMAS assigns CMR tasks to operators. DDG began a CMR-clearance task at the end of 2015 and deployed one team of eight deminers on the battle area clearance (BAC) task in January 2016. Following completion of this task, DDG changed its operational focus to responding to explosive ordnance disposal (EOD) call-outs.³³

In 2016, MAG began deploying Multi-Task Teams (MTTs) with mechanical support from a PT-300D mine clearance machine, a MineWolf 330, and three Bozena machines in 2016, which allowed for a sizeable increase in the scale of its operations on large-area clearance tasks, and a corresponding increase in monthly output of BAC. Its staff level rose to a total of 200, a significant increase in capacity from 2015. Two MTT and one MineWolf team under UN contracts were demobilised, however, after the cancellation of the contracts in September 2016 due to insecurity.³⁴

NPA changed its operations to deploy smaller, more mobile teams focusing on non-technical and technical survey, with support from its MDDs, and for emergency EOD. Teams were re-accredited and a new operations base opened in Juba, although the teams could not be deployed because of the security situation.³⁵ NPA reassessed the viability of its programme in South Sudan, with no signs of improvement in the security and in the wake of an internal restructuring following an incident involving missed mines in an area of its operations in 2015, and took the decision to close the programme indefinitely in November 2016.³⁶

LAND RELEASE

Nearly 3.5km² of CMR-contaminated area was released in 2016, more than double the amount in 2015, when just over 1.4km² of CMR-contaminated area was released.³⁷ This was despite a resurgence in violence which resulted in mine action operations being stood down for much of the second half of 2016 and a dramatic reduction in the areas across the country where operations could safely be carried out.³⁸

Survey in 2016

The UNMAS database indicates that just over 0.9km² of land was confirmed as contaminated with CMR in 2016 (see Table 2).³⁹ This compares to 1.35km² confirmed as CMR contaminated and 500m² cancelled by non-technical survey in 2015.⁴⁰

Table 2: CMR survey in 2016⁴¹

Operator	SHAs confirmed	Area confirmed (m ²)
DCA	1	22
DDG	3	45,823
G4S	18	491,525
MECHEM	6	22,500
MAG	18	233,654
NPA	5	26,025
TDI	4	98,673
Totals	55	918,222

Clearance in 2016

Just under 3.5km² of CMR-contaminated area was cleared in 2016, with the destruction of more than 3,000 submunitions, as shown in Table 3.⁴² This is a significant increase from 2015, when almost 1.4km² was cleared with 1,200 submunitions destroyed.⁴³ As stated above, UNMAS attributed the increase to a shift in most mine clearance teams to CMR tasks, an improvement in the efficiency of land release and revisions to the NTSG.⁴⁴ The decision to deploy the bulk of capacity on CMR

tasks was taken in response to a need to clear areas for humanitarian access and for UN mission-directed activities.⁴⁵

In addition, in 2016, seven operators (DCA, G4S, MAG, Mechem, DML, NPA, and TDI) conducted battle area clearance (BAC) of almost 8km² and closed a total of 2,210 spot tasks, destroying nearly 20,200 items of UXO in the process.⁴⁶ This is also a significant increase, compared to an output of 4.5km² of BAC in 2015.⁴⁷

Table 3: Clearance of CMR-contaminated areas in 2016⁴⁸

Operator	Areas cleared	Area cleared (m ²)	Submunitions destroyed
G4S	24	2,599,207	1,378
MAG	7	176,242	603
MECHEM	7	601,242	328
MTI	1	45,210	447
TDI	1	51,035	289
Totals	40	3,472,936	3,045

Deminer Safety

On 12 April 2016, two members of DDG's EOD team were killed by gunmen when their vehicle was ambushed as they travelled to the field from their base in Yei, Central Equatorial state, for a routine EOD call-out.⁴⁹ The outbreak of violence across the Equatorial states in July 2016 affected many operators, including MAG,

which experienced an ambush during evacuation to Nimule, on the Ugandan border, resulting in the death of one national medic and gunshot wounds to three other staff. Two ambulances were set on fire and a large proportion of the team's equipment was lost.⁵⁰

ARTICLE 4 COMPLIANCE

South Sudan is neither a state party nor a signatory to the CCM and therefore does not have a specific clearance deadline under Article 4. Nonetheless, South Sudan has obligations under international human rights law to clear CMR as soon as possible.

Due to the ongoing conflict, it is not possible to predict when South Sudan might complete clearance of CMR on its territory, nor estimate the true extent of contamination.⁵¹ The National Mine Action Strategic Plan 2012–16 included as a specific objective that South Sudan become a state party to the CCM, approve national implementing legislation, and develop policy dialogue with partners to mobilise resources.⁵² While operators raised concerns over the lack of government funding for the NMAA and mine action activities in the country, according to UNMAS, the Transitional Government of National Unity in South Sudan paid the salaries of the staff of the NMAA in 2016.⁵³

As reported above, the surge in conflict in July 2016 had a significant impact on demining activities across the country. Operations south of Juba were suspended due to security concerns for most of the second half of the year. Due to the spread and intensification of conflict in the Equatoria region, DDG was forced to shut down all clearance operations across Western, Central, and Eastern Equatoria April 2016, following the attack on its staff. It resumed operations in Unity and Upper Nile states two weeks later, however, work remained suspended across the Equatoria region as at June 2017.⁵⁴

MAG suspended its operations on 8 July 2016 and all international staff were evacuated soon after. Due to the persistent conflict, operations could only be restarted in November 2016 in the small state of Terekeka, Central Equatoria, north of Juba, after the retraining of three MTT.⁵⁵ After long periods of stand-down of operations due to a combination of restructuring issues, and constantly increasing security threats towards its staff with no sign of improvement, NPA closed its operations in South Sudan indefinitely in November 2016.⁵⁶

In 2017, MAG was continuing to concentrate operations in Terekeka state, Central Equatoria due to ongoing nationwide insecurity, with the aim of declaring Terekeka free from the threat of ERW within five years. It expected that with additional donor funding, it would increase its non-technical survey capacity and deploy five community liaison and five technical teams during the year and expected that correspondingly, the number of suspected and confirmed CMR-contaminated areas identified would increase during the survey process. MAG hoped that it would return to its former staff capacity by mid-2017, provided that it was successful in winning back the UN contracts that had been cancelled due to insecurity in 2016.⁵⁷ DDG expected to continue to focus on EOD call-outs during the year and did not anticipate undertaking CMR clearance as the areas where its teams were deployed did not contain suspected CMR contamination.⁵⁸

- 1 Email from Robert Thompson, Chief of Operations, UN Mine Action Service (UNMAS), 19 April 2017.
- 2 Email from Robert Thompson, UNMAS, 21 April 2016.
- 3 Email from Robert Thompson, UNMAS, 19 April 2017; and UNMAS, "2017 Portfolio of Mine Action Projects: South Sudan", January 2017, at: http://www.mineaction.org/sites/default/files/print/country_portfolio6892-1530-44691.pdf.
- 4 UNMAS, "2017 Portfolio of Mine Action Projects: South Sudan", January 2017.
- 5 Ibid.
- 6 Email from Robert Thompson, UNMAS, 19 April 2017.
- 7 South Sudan, "National Mine Action Strategic Plan 2012–2016", Juba, 2012, pp. 4–6, 9.
- 8 Cluster Munition Monitor, "Country Profile: South Sudan: Cluster Munition Ban Policy", updated 23 August 2014. See also UNMAS, "Reported use of Cluster Munitions South Sudan February 2014", 12 February 2014; and UN Mission in South Sudan (UNMISS), "Conflict in South Sudan: A Human Rights Report", 8 May 2014, p. 26.
- 9 Email from Robert Thompson, UNMAS, 12 May 2014.
- 10 UNMAS also later reported that a total of 69 areas were identified in 2016, and that of these, 14 were cleared during the year. It did not respond to requests for clarification. Emails from Robert Thompson, UNMAS, 19 April and 7 June 2017.
- 11 UNMAS, "Reported use of Cluster Munitions South Sudan February 2014", 12 February 2014. See also UNMISS, "Conflict in South Sudan: A Human Rights Report", 8 May 2014, p. 26.
- 12 On 7 February 2014, UNMAS UXO survey teams discovered remnants of RBK-250-275 cluster bombs and unexploded AO-1SCH submunitions on the Juba-Bor road, south of Bor in Jonglei state. The RBK-type cluster munitions are air-delivered weapons, dropped by fixed-wing aircraft or helicopters. Both Uganda and South Sudanese government forces are believed to possess aircraft that can deliver these weapons, whereas opposition forces do not. UNMISS, "Conflict in South Sudan: A Human Rights Report", 8 May 2014, pp. 26–27; and Cluster Munition Monitor, "Country Profile: South Sudan: Cluster Munition Ban Policy", updated 16 August 2014.
- 13 Statement by South Sudan, CCM Fifth Meeting of States Parties, San José, 3 September 2014.
- 14 Email from Robert Thompson, UNMAS, 19 April 2017.
- 15 Emails from Robert Thompson, UNMAS, 21 April 2016; and Hilde Jørgensen, Desk Officer for Horn of Africa, NPA, 19 May 2016.
- 16 Email from Robert Thompson, UNMAS, 19 April 2017; and UNMAS, "2017 Portfolio of Mine Action Projects: South Sudan".
- 17 Ibid.
- 18 UNMAS, "2016 Portfolio of Mine Action Projects: South Sudan", undated but 2016.
- 19 "South Sudan De-Mining Authority", undated, at: <http://www.goss-online.org/>.
- 20 South Sudan, "South Sudan National Mine Action Strategic Plan 2012–2016", Juba, 2012, p. iv.
- 21 Response to questionnaire by Robert Thompson, UNMAS, 24 May 2013.
- 22 South Sudan, "South Sudan National Mine Action Strategic Plan 2012–2016", Juba, 2012, p. iii.
- 23 UNMISS, "United Nations Mine Action Coordination Centre [UNMACC]", undated, at: <http://unmiss.unmissions.org/Default.aspx?tabid=4313&language=en-US>.
- 24 Email from Robert Thompson, UNMAS, 18 April 2017.
- 25 Email from Robert Thompson, UNMAS, 19 April 2017; and South Sudan, "South Sudan National Mine Action Strategic Plan 2012–2016", Juba, 2012, p. iii.
- 26 South Sudan, "South Sudan National Mine Action Strategic Plan 2012–2016", Juba, 2012, p. v.
- 27 Email from Robert Thompson, UNMAS, 19 April 2017.
- 28 Email from Robert Thompson, UNMAS, 21 April 2016; and responses to questionnaires by Robert Thompson, UNMAS, 30 March 2015; and Augustino Seja, NPA, 11 May 2015.
- 29 Email from Robert Thompson, UNMAS, 18 April 2017.
- 30 Emails from William Maina, Mine Action Operations Manager, DDG, 2 May 2017 and Bill Marsden, Regional Director East and Southern Africa, MAG, 10 May 2017.
- 31 Email from Robert Thompson, UNMAS, 19 April 2017. MTI changed its name to DML on 3 August 2015. Dynasafe, "History of MineTech", at: <http://www.minetech.co.uk/who-we-are/history-of-minetech/>.
- 32 Email from Robert Thompson, UNMAS, 18 April 2017.
- 33 Email from William Maina, DDG, 1 May 2017.
- 34 Email from Bill Marsden, MAG, 10 May 2017.
- 35 Emails from Frédéric Martin, Programme Manager, NPA, 5 April and 4 May 2017.
- 36 Ibid.
- 37 Emails from Robert Thompson, UNMAS, 19 April 2017 and 21 April 2016.
- 38 Emails from Robert Thompson, UNMAS, 19 April 2017; Bill Marsden, MAG, 10 May 2017; and William Maina, DDG, 2 May 2017.
- 39 Email from Robert Thompson, UNMAS, 19 April 2017.
- 40 Email from Robert Thompson, UNMAS, 21 April 2016.
- 41 Emails from Robert Thompson, UNMAS, 19 April and 7 June 2017; Frédéric Martin, NPA, 4 May 2017; William Maina, DDG, 2 May 2017; and Bill Marsden, MAG, 10 May 2017. DDG reported cancelling one CMR-contaminated SHA with a size of 2,119m², confirming one area with a size of 9,616m²; and reducing a further 2,119m² by technical survey in 2016. MAG reported confirming four SHA with a total size of 94,000m². NPA did not report confirming any CMR-contaminated areas.
- 42 Email from Robert Thompson, UNMAS, 19 April 2017.
- 43 Email from Robert Thompson, UNMAS, 21 April 2016.
- 44 Email from Robert Thompson, UNMAS, 19 April 2017.
- 45 Email from Robert Thompson, UNMAS, 7 June 2017.
- 46 UNMAS, "IMSMA Monthly Report December 2016"; and emails from Robert Thompson, UNMAS, 7 June 2017; and William Maina, DDG, 2 May 2017. DDG reported destroying three submunitions and 648 items of UXO, in the course of carrying out 11,735m² of BAC and 530 spot tasks.
- 47 Email from Robert Thompson, UNMAS, 21 April 2016.
- 48 Emails from Robert Thompson, UNMAS, 19 April 2017; Frédéric Martin, NPA, 4 May 2017; William Maina, DDG, 2 May 2017; and Bill Marsden, MAG, 10 May 2017. NPA reported processing 54,773m² of land in 2016, however it said no tasks were completed and no area was released for use. It reported finding and destroying 12 submunitions, nine anti-personnel mines, and two items of UXO. MAG reported clearing eight areas with a size of 523,991m² and destroying 486 CMR and 225 items of UXO.
- 49 Email from William Maina, DDG, 2 May 2017; and Danish Refugee Council, "Two national employees have lost their lives in South Sudan", 12 April 2016, at: <http://reliefweb.int/report/south-sudan/two-national-employees-have-lost-their-lives-south-sudan>.
- 50 Emails from Bill Marsden, MAG, 10 May 2017 and 21 October 2016.
- 51 Response to questionnaire by Robert Thompson, UNMAS, 30 March 2015.
- 52 South Sudan, "South Sudan National Mine Action Strategic Plan 2012–2016", Juba, 2012, p. vi.
- 53 Emails from Robert Thompson, UNMAS, 19 April 2017; Bill Marsden, MAG, 10 May 2017; and William Maina, DDG, 2 May 2017.
- 54 Emails from William Maina, DDG, 2 May 2017 and 5 June 2017.
- 55 Email from Bill Marsden, MAG, 10 May 2017.
- 56 Email from Frédéric Martin, NPA, 4 May 2017.
- 57 Email from Bill Marsden, MAG, 10 May 2017.
- 58 Email from William Maina, DDG, 2 May 2017.

SUDAN



PROGRAMME PERFORMANCE	2016	2015
Problem understood	4	3
Target date for completion of cluster munition clearance	3	3
Targeted clearance	4	4
Efficient clearance	5	5
National funding of programme	5	5
Timely clearance	4	4
Land release system in place	7	7
National mine action standards	7	7
Reporting on progress	5	4
Improving performance	7	6
PERFORMANCE SCORE: AVERAGE	5.1	4.8

PERFORMANCE COMMENTARY

As at May 2017, Sudan's National Mine Action Centre (NMAC) reported that only two areas suspected to contain cluster munition contamination remained to be addressed with a total size of 2km², in South and Western Kordofan states. It is the first time Sudan has acknowledged and reported on cluster munition remnants (CMR) contamination since 2011.

RECOMMENDATIONS FOR ACTION

- Sudan should ensure its armed forces do not use cluster munitions and should urgently address the humanitarian threat from any new CMR. Sudan should investigate and publicly report on the allegations of cluster munition use in 2012 and 2015.
- Sudan should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Sudan should re-establish conditions that allow international demining organisations to operate in Sudan and to determine the extent of CMR contamination.
- Sudan should report transparently and in detail on efforts taken to address any suspected or confirmed hazardous areas.
- Sudan should ensure that reporting disaggregates submunitions from other unexploded ordnance (UXO) and that mine action data is recorded and reported according to International Mine Action Standards (IMAS) land release terminology.

CONTAMINATION

The exact extent of contamination from CMR in Sudan is not known. There have been reports of new use of cluster munitions as recently as 2015, as well as in 2012.¹ According to NMAC, as at May 2017, only two areas were suspected to contain CMR contamination in Sudan, one in South Kordofan and another in West Kordofan state, each with an estimated size of 1km².² In April 2017, UNAMID reported the presence of two AO-1Sch submunitions in North Darfur; Al Mengara village in Al Liet locality. The Government of Sudan undertook to deploy its military to conduct their disposal. The villagers reported that the bombs were dropped in 2008, had been identified by UNAMID at that time, and that the military had stated that they would dispose of the items.³

Previously, the most recent estimate of contamination dated back to June 2011, when the United Nations Mine Action Office (UNMAO) reported nine areas suspected to be contaminated with unexploded submunitions. UNMAO asserted that 81 areas had been released (see Table 1).⁴

Table 1: CMR-contaminated areas (as at June 2011)⁵

State	Open	Closed	Total
Kassala	7	2	9
South Kordofan	2	68	70
Blue Nile	0	9	9
Northern Darfur	0	1	1
Southern Darfur	0	1	1
Totals	9	81	90

In May–June 2017, NMAC, which assumed full national ownership for implementing mine action activities upon UNMAO's closure in June 2011, reported that of the nine open areas reported by UNMAO in 2011, seven were cleared in 2011–13.⁶ UNMAO and NMAC have not, however, reported on the size of any of the areas, nor has NMAC reported how much land was cleared of CMR from 2011 to 2016, or how many submunitions were destroyed in the process. According to NMAC, no new CMR contamination was recorded in 2016.⁷

In the 1990s, Sudanese government forces are believed to have sporadically air dropped cluster munitions in its civil war with the Sudan People's Liberation Movement/Army (SPLM/A). Government forces were reported as having used several types of cluster munitions, including Spanish-manufactured HESPIN 21; US-manufactured M42 and Mk118 (Rockeye), and a Brazilian copy; Chinese Type-81 dual-purpose improved conventional munitions (DPICM); Chilean-made PM-1; and Soviet-manufactured PTAB-1.5 and AO-1Sch submunitions.⁸

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.⁹ In 2013–15, the UN published reports of evidence of previous use of cluster munitions in Darfur, the stockpiling of RBK-500 cluster munitions and AO-2.5RT submunitions by the Sudanese Air Force, and fluctuating stock levels indicative of use for operations or for training.¹⁰

On several occasions, the Government of Sudan has denied using cluster munitions in attacks in South Kordofan.¹¹ The UN Secretary-General called on the Government of Sudan "to immediately investigate the use of cluster munitions".¹² In June 2016, NMAC claimed that Sudan had never used cluster munitions "in operations against rebels".¹³ This is not a factually accurate statement.

Other Explosive Remnants of War and Landmines

Sudan also has a significant problem with anti-personnel mines, anti-vehicle mines, and UXO, primarily as a result of more than 20 years of civil war, which led to the Comprehensive Peace Agreement in 2005 and the independence of South Sudan in July 2011.

As at January 2017, a total of nine of Sudan's 18 states are contaminated with mines and explosive remnants of war (ERW), with Blue Nile, Kassala, and South Kordofan states the most heavily affected. In April 2017, Forobaranga, in West Darfur, became the first locality in the Darfur region to complete clearance of all remaining ERW.¹⁴

In 2002 through to the end of 2016, a total of 2,059 mine and ERW casualties were been recorded, of whom 589 were killed and the other 1,470 were injured. According

to the UN Mine Action Service (UNMAS), the number of victims has risen considerably in the past three years, up by 53% in 2015 from 2013. In 2016, a total of 26 victims were recorded.¹⁵

While limited CMR contamination has, in the past, been identified in Darfur, there is significant contamination from other ERW. ERW pose a serious threat to civilians, to peacekeepers from UNAMID, and to the delivery of humanitarian aid. ERW in Darfur includes unexploded air-delivered bombs, rockets, artillery and mortar shells, and grenades.¹⁶

Since South Sudan's independence, new conflicts in Abyei and in Blue Nile and South Kordofan states have resulted in increased UXO contamination in Sudan.¹⁷ The Information Management System for Mine Action (IMSMA) database does not hold data on contamination in Abyei due to persistent conflict and restrictions on access.¹⁸

PROGRAMME MANAGEMENT

The Sudanese National Mine Action Authority (NMAA) and NMAC manage Sudan's mine action programme. In 2005, UN Security Council Resolution 1590 and the Comprehensive Peace Agreement established the legal framework for UNMAO to manage quality assurance (QA) of all mine action activities in Sudan in the frame of the UN Mission in Sudan (UNMIS).¹⁹ The same year, the NMAC initiated a partnership with UNMAO, the NMAA was set up, and a National Mine Action Policy Framework was developed, revised, and then approved in 2006.²⁰

Following UNMIS and UNMAO's closure in July 2011 upon the independence of South Sudan, NMAC assumed full ownership of national mine action with responsibility for coordinating all mine clearance, including accreditation and certification of mine clearance agencies. In January 2015, UNMAS, which had opened an emergency programme in Sudan in 2002, reassumed its lead in UN mine action efforts in Sudan and its role in providing assistance and technical support to NMAC, after a one-year handover to the UN Development Programme (UNDP) in 2014.²¹

In Darfur, under the umbrella of UNAMID, UNMAS works under the name of the Ordnance Disposal Office (ODO) in direct support of UNAMID priorities.²² In 2017, Dynasafe MineTech Limited (DML), a commercial company, was awarded a new UN contract for the Fiscal Year 2017–18 to conduct ERW rapid-response clearance and to provide mentoring support to national Multi-Task Teams (MTTs) in Darfur.²³ In 2012–15, commercial operator The Development Initiative (TDI) was contracted by UNAMID to assess, survey, identify, mark, and clear contamination in all five Darfur states.²⁴ Mine action in Darfur is funded through assessed peacekeeping funds for UNAMID.²⁵

Strategic Planning

In April 2016, Sudan submitted an updated multi-year National Mine Action Plan for 2016–19 in order to meet its obligations under the Anti-Personnel Mine Ban Convention. The plan does not specifically address CMR. Gadaref state was declared mine and ERW free in May 2016, and according to the plan, when security permits, work will start in South Kordofan and the remainder of Blue Nile, with the aim of completing mine clearance in Blue Nile by December 2017 and South Kordofan by April 2019.²⁶

Standards

In May 2015, NMAC stated that a review of National Mine Action Standards (NMAS) was ongoing and that a new version would be published on its website after their approval.²⁷ In June 2017, NMAC reported that the process of reviewing the NMAS was in its final stages.²⁸ According to NMAC, draft standards are shared with all partners and mine action operators during their accreditation process, but do not contain a specific chapter on cluster munitions.²⁹

Operators

In 2016, no international non-governmental organisation (NGO) was demining in Sudan. Commercial operator DML contracted to clear ERW in Darfur and to provide support for national MTTs, deployed two seven-person rapid response teams and a mentoring capacity of six persons, with a total staff of 29 personnel.³⁰

Since 2015, NMAC has made repeated calls for other international NGO operators to undertake mine action in Sudan.³¹ Previously, two international demining NGOs with programmes in Sudan closed down operations owing to government restrictions that impeded their operations.³² DanChurchAid (DCA) ended its operations in 2012.³³ In June 2012, the Sudanese government's Humanitarian Aid Commission (HAC) ordered Mines Advisory Group (MAG) and six other NGOs that provided humanitarian aid to leave Gadaref, Kassala, and Red Sea states in eastern Sudan.³⁴ Following months of negotiations with HAC and donors, MAG ended its operations in Sudan, leaving in early 2013.³⁵

National demining operators are JASMAR for Human Security, National Units for Mine Action and Development (NUMAD), and FPDO. In 2016, a total of nine MTTs, five manual clearance teams (MCTs), two mine detection dog (MDD) teams, four Mine Action Teams, and one integrated MineWolf team were deployed for mine action operations.³⁶ This was a significant increase from 2015, when a total of six MCTs and one MDD team were deployed.³⁷

Quality Management

NMAC reported that its quality management section regularly monitors all field operations and that 18 monitoring visits and four accreditation visits were carried out in 2016.³⁸ UNAMID confirmed that in addition to its internal quality assurance (QA) procedures, external QA for DML's operations in Darfur was carried out jointly by UNMAS and NMAC during the year.³⁹

Information Management

In March 2017, NMAC's national IMSMA database was upgraded to the latest version of IMSMA software, with the assistance of the Geneva International Centre for Humanitarian Demining (GICHD).⁴⁰ As at June 2017, NMAC reported that database clean-up was ongoing.⁴¹ Previously, the IMSMA geographic information system (GIS) function had been subject to United States (US) import restrictions.⁴² The embargo issue was finally resolved in 2016 with the support of the US Embassy in Khartoum and the GICHD.⁴³ The database does not contain information on the disputed Abyei area.⁴⁴

LAND RELEASE

NMAC reported that no CMR specific survey or clearance took place in 2016.⁴⁵ NMAC does not distinguish between different types of ERW in its reporting on clearance and is unable to confirm how much land was cleared of CMR since it was established in 2011, nor how many submunitions were destroyed. In May–June 2017, however, NMAC reported that seven areas containing CMR contamination had been cleared in 2011–13.⁴⁶

ARTICLE 4 COMPLIANCE

Sudan is neither a state party nor a signatory to the CCM and therefore does not have a specific clearance deadline under Article 4. Nonetheless, it has obligations under international human rights law to clear CMR as soon as possible. In May 2017, NMAC informed Mine Action Review that Sudan was “with the spirit of the Convention on Cluster Munitions” and that the national authorities were aware of the convention and Sudan’s current status as not yet having joined.⁴⁷

In 2016, NMAC stated that a number of international NGOs had expressed an interest in working in Sudan, which it said would further strengthen national capacity and deliver standardised quality of survey and clearance activities.⁴⁸ However, ongoing conflict and reports of new contamination, along with a lack of any recent data or records of CMR contamination disaggregated from UXO, make it extremely difficult to estimate when Sudan could complete CMR survey and clearance.

In February 2017, UNMAS reported that Sudan was on track to complete clearance of mine and ERW contamination in Red Sea and Kassala states in 2017. Ongoing peace talks and the possibility of a six-month extension to the ceasefire in South Kordofan and

Blue Nile states could allow for the start of clearance activities, it said.⁴⁹ On 24 April 2017, Forobaranga, in West Darfur, became the first locality in the Darfur region to be declared free of ERW, after nine years of clearance, and sometimes re-clearance, of the area. A pilot survey aimed at addressing any potential residual ERW was also launched.⁵⁰

The Government of Sudan contributed US\$2 million to mine action operations in 2016.⁵¹ In May 2016, NMAC reported funding for the mine action programme had become a key item within the Sudanese national budget, and in June 2017, it stated that the Government had promised to fund the programme with a further US\$2 million in 2017.⁵²

In January 2016, Italy donated €250,000 to UNMAS for mine action in Sudan for a survey, clearance, and risk education project in Kassala state.⁵³ In March 2016, Japan contributed US\$2.1 million to UNMAS to survey and clear mines and explosive hazards in Kassala, Red Sea, South Kordofan, and Blue Nile states, in coordination with NMAC. UNMAS expected release of more than 1.5km² of hazardous area as a result of the donation.⁵⁴

1 See Cluster Munition Monitor, “Country Profile: Sudan: Cluster Munition Ban Policy”, updated 23 August 2014; 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.

2 Email from Ali Abd Allatif Ibrahim, Chief of Operations, NMAC, 18 May 2017.

3 Email from Dandan Xu, Associate Programme Management Officer, UNMAS, 12 July 2017.

4 The locations are based on a review of sites in the UNMAO database by Mine Action Review.

5 Email from Mohamed Kabir, Chief Information Officer, UNMAO, 27 June 2011.

6 Emails from Hatim Khamis Rahama, Technical Advisor, NMAC, 14 June 2017; and Ali Abd Allatif Ibrahim, NMAC, 18 May 2017. NMAC previously reported in June 2016, however, that no CMR-contaminated areas were “recorded as remaining hazards to be cleared” and that no separate survey or clearance operations for CMR occurred in 2015 and stated that no cluster munitions had been found in all mine action activities “to date”. Email from Ahmed Elser Ahmed Ali, Chief of Operations, NMAC, 8 June 2016.

7 Email from Ali Abd Allatif Ibrahim, NMAC, 18 May 2017.

8 V. Wiebe and T. Peachey, “Clusters of Death: The Mennonite Central Committee Cluster Bomb Report”, Chapter 4, July 2000; Handicap International, Circle of Impact: The Fatal Footprint of Cluster Munitions on People and Communities, May 2007, p. 55; and Cluster Munition Monitor, “Country Profile: Sudan: Cluster Munition Ban Policy”, updated 23 August 2014. See also UNMAS, “Reported use of Cluster Munitions South Sudan February 2014”, 12 February 2014; and UN Mission in South Sudan (UNMISS), “Conflict in South Sudan: A Human Rights Report”, 8 May 2014, p. 26, at: <http://unmiss.unmissions.org/Portals/unmiss/Human Rights Reports/UNMISS Conflict in South Sudan - A Human Rights Report.pdf>.

9 See Cluster Munition Monitor, “Country Profile: Sudan: Cluster Munition Ban Policy”, updated 23 August 2014. In 2012, use of cluster munitions was alleged in Troji and Ongolo villages, in South Kordofan, in February and April. In 2015, Human Rights Watch published evidence that Sudanese government forces used RBK-500 cluster munitions in attacks on villages in Delami and Um Durein counties in South Kordofan’s Nuba mountains in February and March. In May 2015, the Sudanese Air Force was reported to have used cluster bombs, whose submunitions failed to explode as intended, in an attack on the town of Kauda in South Kordofan. The munitions used in all of the attacks contained AO-2.5 RT submunitions.

10 “Report of the Panel of Experts on Sudan established pursuant to resolution 1591 [2005]”, UN doc. S/2014/87, 11 February 2014, pp. 23 and 91; and “Report of the Secretary-General on the African Union-United Nations Hybrid Operation in Darfur”, UN doc. S/2015/378, 26 May 2015, p. 12.

11 “Sudan denies use of cluster bombs”, United Press International, 28 May 2012; and “Sudan denies using cluster bombs in South Kordofan”, World Bulletin, 17 April 2015, at: <http://www.worldbulletin.net/world/158004/sudan-denies-using-cluster-bombs-in-south-kordofan>.

12 UN Security Council Resolution 2228 [2015]; and UN, “Prioritizing Civilian Protection, Drawdown Benchmarks, Security Council Adopts Resolution 2228 (2015) Renewing Mandate of Darfur Mission until 30 June 2016”, Press release SC/11951, 29 June 2015, at: <http://www.un.org/press/en/2015/sc11951.doc.htm>.

13 Email from Ahmed Elser Ahmed Ali, NMAC, 8 June 2016.

14 UNAMID, “Milestone Achieved in Clearance of Explosive Remnants of War in West Darfur”, Press release, 27 April 2017, at: <https://unamid.unmissions.org/milestone-achieved-clearance-explosive-remnants-war-west-darfur>.

15 NMAC, “IMSMA Monthly Report”, March 2017; and UNMAS, “UNMAS in Sudan”, January 2017, at: <http://www.mineaction.org/programmes/sudan>.

16 UNMAS, “About UNMAS in Darfur”, February 2016, at: <http://www.mineaction.org/programmes/darfur>.

17 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.

- 18 UNMAS, "2017 Portfolio of Mine Action Projects, Sudan", at: http://www.mineaction.org/sites/default/files/print/country_portfolio7029-1530-80354.pdf; and email from Javed Habibulhaq, UNDP, 11 May 2015.
- 19 Revised Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, 30 July 2013, p. 6.
- 20 Ibid.
- 21 Email from Javed Habibulhaq, Programme Manager, UNMAS, 13 June 2016.
- 22 UNMAS, "2017 Portfolio of Mine Action Projects, Sudan", at: http://www.mineaction.org/sites/default/files/print/country_portfolio7029-1530-80354.pdf.
- 23 Email from Dandan Xu, UNMAS, 12 July 2017.
- 24 UNMAS, "About UNMAS in Sudan", updated August 2014.
- 25 UNMAS, "About UNMAS in Sudan", updated January 2016, at: <http://www.mineaction.org/programmes/sudan>.
- 26 NMAC, "Updated Work Plan to Meet Anti-Personnel Mine Ban Convention Article Five Extended Deadline by April 2019", 29 April 2016, at: <https://www.apminebanconvention.org/states-parties-to-the-convention/sudan/>.
- 27 APMBC Article 7 Report (for 2014), Form A, p. 12.
- 28 Email from Ali Abd Allatif Ibrahim, NMAC, 4 June 2017.
- 29 Emails from Ahmed Elser Ahmed Ali, NMAC, 9 May and 8 June 2016.
- 30 Email from Jeffrey McMurdo, UNAMID, 14 June 2017.
- 31 Article 7 Report (for 2016), p. 22; NMAC, "Updated Work Plan to Meet Anti-Personnel Mine Ban Convention Article Five Extended Deadline by April 2019", 29 April 2016, at: <https://www.apminebanconvention.org/states-parties-to-the-convention/sudan/>; and APMBC Article 7 Report (for 2014), Form A, p. 16.
- 32 ICBL, "ICBL Comments on Sudan's Article 5 Extension Request", May 2013.
- 33 DCA, "Previous Programmes: Sudan", undated, at: <http://www.danchurchaid.org/what-we-do/mine-action/previous-programmes>.
- 34 "Sudan causes frustration among NGOs", *News 24*, 13 June 2012.
- 35 MAG, "MAG departs Sudan after six years of work to remove remnants of conflict", 7 March 2013.
- 36 Email from Hatim Khamis Rahama, NMAC, 14 June 2017.
- 37 Emails from Ahmed Elser Ahmed Ali, NMAC, 9 May 2016; and Javed Habibulhaq, UNDP, 11 May 2015.
- 38 Email from Hatim Khamis Rahama, NMAC, 14 June 2017.
- 39 Email from Jeffrey McMurdo, UNAMID, 14 June 2017.
- 40 NMAC, "IMSMA Monthly Report", March 2017.
- 41 Email from Ali Abd Allatif Ibrahim, NMAC, 4 June 2017.
- 42 Interview with Javed Habibulhaq, UNDP, in London, 25 February 2015.
- 43 Email from Javed Habibulhaq, UNMAS, 2 June 2016.
- 44 Email from Javed Habibulhaq, UNDP, 11 May 2015.
- 45 Email from Ali Abd Allatif Ibrahim, NMAC, 18 May 2017.
- 46 Emails from Ali Abd Allatif Ibrahim, NMAC, 18 May 2017; and Hatim Khamis Rahama, NMAC, 14 June 2017.
- 47 Email from Ali Abd Allatif Ibrahim, NMAC, 18 May 2017.
- 48 Email from Ahmed Elser Ahmed Ali, NMAC, 9 May 2016.
- 49 Presentation by Javed Habibulhaq, UNMAS, 20th Meeting of National Mine Action Director and United Nations Advisers, Geneva, 9 February 2017. Notes by Mine Action Review.
- 50 UNAMID, "Milestone Achieved in Clearance of Explosive Remnants of War in West Darfur", Press release, 27 April 2017.
- 51 Email from Ali Abd Allatif Ibrahim, NMAC, 4 June 2017; and UNMAS, "2017 Portfolio of Mine Action Projects, Sudan".
- 52 Emails from Ahmed Elser Ahmed Ali, NMAC, 9 May 2016; and Ali Abd Allatif Ibrahim, NMAC, 4 June 2017.
- 53 UNMAS, Ministry of Foreign Affairs and International Cooperation of Sudan, Italian Development Cooperation Agency Section of the Embassy of Italy in Khartoum joint Press Release, "Italy Contributes to UN Mine Action Work in Sudan", Khartoum, 21 January 2016.
- 54 UNMAS, Embassy of Japan in Khartoum, and Government of Sudan joint Press Release, "Japan Contributes to UN Mine Action Work in Sudan Enabling Clearance, Risk Education and Victim Assistance Work", Khartoum, 3 March 2016.



SYRIA

RECOMMENDATIONS FOR ACTION

- Syria should ensure that its armed forces do not use cluster munitions.
- Other states engaged in the armed conflicts in Syria should ensure that their armed forces and any armed groups they support do not use cluster munitions.
- Syria should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Syria should initiate survey and clearance of cluster munition remnants (CMR) as soon as possible and take other measures to protect civilians from explosive remnants of war (ERW).

CONTAMINATION

CMR contamination in Syria is the consequence of ongoing armed conflicts since 2012. Syrian government forces have used cluster munitions extensively in the four-year-old conflict while Islamic State (IS) has reportedly used them in a number of instances, but the extent of contamination is not known.

In 2014, Human Rights Watch reported that it had identified 224 separate locations in 10 of Syria's 14 governorates that had been attacked with cluster munitions by the Syrian government, many of them more than once.¹ Use continued in 2015 and 2016. Between 30 September (when Syria and Russia began a joint military offensive) and 14 December 2015, cluster munitions were reportedly used on at least 20 occasions. At least 35

civilians, including five women and seventeen children, were killed, and dozens more were injured by cluster munitions, according to a report by Human Rights Watch.² In January and February 2016, the Syrian-Russian joint military operation included use of cluster bombs in at least 14 attacks that killed or injured dozens of civilians.³

In February 2017, the Commission of Inquiry on Syria released its latest report on respect for international law in the armed conflicts in the country. The Commission reported that from September 2016 onwards, "an alarming number of incidents involving cluster munitions were also reported. Although the Syrian Arab Republic is not a party to the Convention on Cluster Munitions, the use of cluster munitions in densely populated areas

is inherently indiscriminate (given the typically wide dispersal pattern and high dud rate, which continues to endanger civilians years after a cessation of hostilities) and therefore prohibited by customary international humanitarian law. For this reason, their use in cities such as eastern Aleppo constitutes the war crime of indiscriminate attacks in a civilian populated area.”⁴

One of its recommendations was that the international community: “Curb the supply of weapons to warring parties and their proliferation, particularly cluster munitions..., which are indiscriminate when used in civilian-inhabited areas and pose a threat to civilians for years after the cessation of hostilities.”⁵

Other Explosive Remnants of War and Landmines

According to the UN Mine Action Service (UNMAS), contamination from the armed conflicts across Syria include landmines, improvised explosive devices (IEDs), locally produced mines (some of which are connected to booby-traps), and other ERW.⁶

PROGRAMME MANAGEMENT

There is no national mine action programme in Syria, no national mine action authority, and no mine action centre.

On the basis of UN Security Council Resolution 2165 (2014), UNMAS was asked to provide assistance for mine action in Syria. In 2015, at the request of the UN Regional Humanitarian Coordinator, UNMAS established an office in Gaziantep, Turkey, to coordinate the international mine action response in Syria. UNMAS deployed a team to southern Turkey in August 2015. In addition to coordinating humanitarian mine action operations, UNMAS has supported direct implementation of risk education and survey of the impact of contamination.⁷

LAND RELEASE

Syria does not have an active civilian programme for survey or clearance of CMR as a result of generalised violence and ongoing armed conflicts. UNMAS reported in early 2016 that conflict in many governorates has prevented access by mine action organisations. The extent and impact of contamination has resulted in Syrians without formal training conducting “ad hoc clearance without the technical ability to do so. The capacity of some local teams conducting clearance has been reduced by half as a result of casualties occurring during operations.”⁸

Russian deminers arrived in Syria in March 2016. In April, the Russian military reported completing demining of the ancient part of the city of Palmyra, recaptured by Syrian and Russian forces in late March from IS militants.⁹

ARTICLE 4 COMPLIANCE

Syria is neither a state party nor a signatory 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.

- 1 Human Rights Watch, “Technical Briefing Note: Use of cluster munitions in Syria”, 4 April 2014. The governorates were Aleppo, Damascus City and Rural Damascus, Daraa, Deir al-Zour, Hama, Homs, Idlib, Latakia, and Raqqah.
- 2 Human Rights Watch, “Russia/Syria: Extensive Recent Use of Cluster Munitions. Indiscriminate Attacks despite Syria’s Written Guarantees”, 20 December 2015, at: <https://www.hrw.org/news/2015/12/20/russia/syria-extensive-recent-use-cluster-munitions>.
- 3 Cluster Munition Coalition, “The injured were mostly women and children”, 8 February 2016, at: <http://www.stopclustermunitions.org/en-gb/media/news/2016/russia-syria-cluster-bomb-attacks-feb-2016.aspx>.
- 4 Report of the Commission of Inquiry on Syria, UN doc. A/HRC/34/64, 2 February 2017, §57. In an annex to the report on the applicable law the Commission again asserts that: “When used in densely-populated areas such weapons [cluster munitions] are inherently indiscriminate.” Ibid., Annex 1, §44.
- 5 Report of the Commission of Inquiry on Syria, UN doc. A/HRC/34/64, 2 February 2017, §109(c).
- 6 UNMAS, “Programmes: Syria”, last updated March 2016, at: <http://www.mineaction.org/programmes/syria>.
- 7 Email from Dandan Xu, Associate Programme Management Officer, UNMAS, 12 July 2017.
- 8 UNMAS, “Programmes: Syria”, last updated March 2016.
- 9 “Russia completes demining of archaeological site in Palmyra, Syria”, *Euronews*, 22 April 2016, at: <http://www.euronews.com/2016/04/21/russia-completes-demining-of-archeological-site-in-palmyra-syria/>.



TAJIKISTAN

RECOMMENDATIONS FOR ACTION

- Tajikistan should accede to the Convention on Cluster Munitions (CCM) as soon as possible.
- Tajikistan should ensure timely clearance and release of the sole remaining known area contaminated with cluster munition remnants (CMR).

CONTAMINATION

At the end of 2016, one known area of CMR contamination remained in Tajikistan, in the Darvoz district of the Central Region. The hazardous area, covering approximately 170,000m², was confirmed by non-technical survey conducted by Norwegian People's Aid (NPA) in August 2016. It had been previously been earmarked for further investigation during battle area clearance (BAC) of an adjacent valley in 2015.¹ The remaining area of CMR contamination, which is mainly used for pasture and the grazing of livestock, is approximately 4km from the nearest village, Sagirdasht.²

The area has been tasked by the Tajikistan National Mine Action Centre (TNMAC) for clearance by NPA in 2017.³ Once released, no known CMR contamination will exist.⁴ However, TNMAC has stated that submunitions may still be encountered in the future during other survey and clearance operations.⁵

Cluster munitions were used during Tajikistan's civil war in the 1990s, though it is not known who dropped them. In total, since the start of the mine action programme in 2003 until the end of 2015, it is reported that approximately 750 submunitions were identified and destroyed in Tajikistan.⁶

In 2014, based on information provided by a member of the local Sagirdasht community, TNMAC's quality assurance (QA)/quality control (QC) team found one AO-2.5RT submunition in Darvoz district. The team subsequently found other submunitions, across a total area they estimated at 400,000m².⁷ During a subsequent field visit by NPA in July 2015, containers for two AO-2.5RT strikes, evidence of submunition detonations, and nine unexploded submunitions were seen in the same area.⁸ Subsequently two further empty cluster munition containers were found inside the strike area.⁹ Prior to 2014, an unexploded submunition was last found in 2011.¹⁰

Other Explosive Remnants of War and Landmines

Tajikistan also has hazardous areas containing other unexploded ordnance (UXO) and anti-personnel mines.

PROGRAMME MANAGEMENT

The Commission for the Implementation of International Humanitarian Law (CIIHL) acts as Tajikistan's national mine action authority, responsible for mainstreaming mine action in the government's socio-economic development policies.¹¹

In June 2003, the Government of Tajikistan and the United Nations Development Programme (UNDP) established the Tajikistan Mine Action Centre (TMAC) with a view to it becoming a nationally owned programme in the short term,¹² though this did not happen until more than ten years afterwards. TMAC was made responsible for coordinating and monitoring all mine action activities.¹³ Since then, TMAC has acted as the secretariat for the CIIHL to which it reports.¹⁴

On 3 January 2014, a government decree established TNMAC.¹⁵ Prior to this, lack of legal recognition had presented problems for TMAC,¹⁶ including, for example, its inability to open a bank account to receive and disburse funds.¹⁷ The importance of clarifying TMAC's status had been highlighted in the 2012 evaluation of UNDP support to mine action in Tajikistan.¹⁸ TNMAC reports to the First Deputy Prime Minister of Tajikistan, who chairs the CIIHL. Since its nationalisation TNMAC believes its cooperation with national ministries and agencies has improved.¹⁹

Strategic Planning

The current national mine action strategic plan (NMA SP) 2010–15 expired at the end of 2015.²⁰ A new national mine action strategy for 2017–20 was approved by the Government of Tajikistan on 25 February 2017.²¹

Legislation and Standards

In 2015, Tajikistan drafted a humanitarian demining law, which covers all aspects of mine action. However, relevant non-governmental organisations (NGOs) are not believed to have been consulted during its drafting.²² The law, which was ratified by Tajikistan's Parliament on 23 July 2016,²³ was presented to mine action stakeholders in Tajikistan in September 2016, during a workshop hosted by TNMAC.²⁴

Tajikistan's National Mine Action Standards (TNMAS) have been revised, and were approved by the Government of Tajikistan on 1 April 2017. The new standards have been translated into Russian and English.²⁵

Operators

The Swiss Foundation for Mine Action (FSD) and NPA are the two international demining operators in Tajikistan. FSD started operations in 2003, since when it has conducted major surveys (in 2004–05 and 2007–09) and clearance; provided technical assistance to TMAC; and, by November 2012, had supported the development of the Union of Sappers of Tajikistan's capacity.²⁶ FSD did not conduct any CMR survey or clearance in 2016.²⁷

NPA started operations in Tajikistan after signing a Memorandum of Understanding with the government in 2010. NPA's arrival significantly increased the demining capacity of Tajikistan's mine action programme and its clearance output.²⁸

Quality Management

TNMAC coordinates and monitors the Quality Management (QM) process in Tajikistan, and the TNMAS cover all QM requirements, both from a process and from a final product (released land) perspective.²⁹

LAND RELEASE

No CMR-contaminated area was released by BAC in 2016. However, approximately 170,000m² was confirmed as CMR-contaminated through non-technical survey.³⁰

Survey in 2016

In August 2016, NPA conducted non-technical survey of an area suspected to contain CMR-contamination. The area, located in Darvoz district in the Central Region of Tajikistan, had been identified as requiring further investigation during BAC in the adjacent valley in 2015.³¹ During the 2016 survey, approximately 170,000m² was confirmed as contaminated with type AO-2.5RT submunitions,³² and one AO-2.5RT submunition was found, along with other evidence of contamination, including pieces of cluster bomb containers, remnants of further AO-2.5RT submunitions, and several recognisable blast locations.³³

The single submunition found during the 2016 non-technical survey was not destroyed at the time of discovery, as TNMAC QA/QC instructed NPA not to destroy any items until the task was actually opened by NPA for clearance in 2017. The submunition was clearly marked and left in place, as was the entire area/task, in accordance with the TNMAS.³⁴

Clearance in 2016

No CMR-contaminated area was released by BAC in 2016. The onset of winter, and adverse weather conditions at the high-altitude, prevented NPA from conducting clearance in 2016 of the 170,000m² area.³⁵ NPA planned to conduct clearance of this area in the course of 2017,³⁶ and as at June 2017, NPA had received the task order from TNMAC and planned to deploy a BAC team the following month.³⁷

ARTICLE 4 COMPLIANCE

Tajikistan is neither a state party nor a signatory 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.

Once the remaining hazardous area is released, no known CMR contamination will exist in Tajikistan,³⁸ though TNMAC has stated that submunitions may still be encountered in the future during other survey and clearance operations.³⁹ Tajikistan has reported that if any such contamination is found, it will be swiftly addressed by TNMAC and NPA through BAC.⁴⁰

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- 1 Emails from Sasa Jelacic, Operations Manager, NPA, 17 February 2017; and Aubrey Sutherland, Country Director, NPA, 14 March 2017.
 - 2 Email from Aubrey Sutherland, NPA, 14 March 2017.
 - 3 Emails from Sasa Jelacic, NPA, 17 February 2017; and Aubrey Sutherland, NPA, 14 March 2017.
 - 4 Interview with Muhabbat Ibrohimzoda, TNMAC, in Geneva, 10 February 2017; and email from Sasa Jelacic, NPA, 17 February 2017.
 - 5 Interview with Muhabbat Ibrohimzoda, TNMAC, in Geneva, 10 February 2017.
 - 6 Statement of Tajikistan, Anti-Personnel Mine Ban Convention (APMBC) Fourteenth Meeting of States Parties, Geneva, 1 December 2015.
 - 7 Email from Muhabbat Ibrohimzoda, TNMAC, 3 April 2015.
 - 8 Emails from Daler Mirzoaliev, Operations Manager, NPA, 14 July 2015; and Aubrey Sutherland-Pillai, NPA, 9 July 2015.
 - 9 Email from Aubrey Sutherland-Pillai, NPA, 12 May 2016.
 - 10 Response to Cluster Munition Monitor questionnaire by Abdulmain Karimov, TMAC, 11 June 2013.
 - 11 APMBC Article 5 deadline Extension Request, 31 March 2009, p. 4.
 - 12 Rebecca Roberts, "Evaluation of UNDP Support to the Tajikistan Mine Action Programme", p. 12, at: [http://www.mineaction.tj/docs/plans/Evaluation of UNDP STMAP - Jan 2011.pdf](http://www.mineaction.tj/docs/plans/Evaluation%20of%20UNDP%20STMAP%20-%20Jan%202011.pdf).
 - 13 Article 5 deadline Extension Request, 31 March 2009, p. 1; and TMAC, "About TMAC", 2012, accessed 10 March 2014 at: <http://www.mineaction.tj/about>.
 - 14 Roberts, "Evaluation of UNDP Support to the Tajikistan Mine Action Programme", p. 12.
 - 15 Email from Muhabbat Ibrohimzoda, TNMAC, 3 April 2015.
 - 16 Roberts, "Evaluation of UNDP Support to the Tajikistan Mine Action Programme", pp. 12–13; and UNDP Users Guide, "Programme and Operations Policies and Procedures", at: http://www.undp.org.af/Projects/Direct_Implementation.pdf.
 - 17 Roberts, "Evaluation of UNDP Support to the Tajikistan Mine Action Programme", pp. 12–13.
 - 18 Ibid., pp. 27–29.
 - 19 Email from Muhabbat Ibrohimzoda, TNMAC, 12 May 2015.
 - 20 Interview with Muhabbat Ibrohimzoda, TNMAC, and Ahad Mahmoudov, UNDP, Geneva, 23 June 2015.
 - 21 Email from Muhabbat Ibrohimzoda, TNMAC, 22 May 2017.
 - 22 Email from Aubrey Sutherland-Pillai, NPA, 18 October 2016.
 - 23 Emails from Muhabbat Ibrohimzoda, TNMAC, 19 August 2016 and 22 May 2017.
 - 24 Email from Aubrey Sutherland-Pillai, NPA, 18 October 2016.
 - 25 Ibid.
 - 26 GICHD, "Strategic Planning in Mine Action Programmes: Tajikistan", Geneva, October 2013, p. 3; and FSD, "The First MoU signed between the Swiss Foundation for Mine Action and the Union of Sappers in Tajikistan", November 2012.
 - 27 Email from Chris Rennick, Operations Manager, FSD, 20 March 2017.
 - 28 GICHD, "Strategic Planning in Mine Action Programmes: Tajikistan", Geneva, October 2013, p. 4.
 - 29 TNMAC, "Draft Article 5 Completion Plan 2016–20", 4 October 2016.
 - 30 Emails from Sasa Jelacic, NPA, 17 February 2017; and Aubrey Sutherland, NPA, 14 March 2017.
 - 31 Emails from Aubrey Sutherland-Pillai, NPA, 12 May 2016; and Sasa Jelacic, NPA, 15 and 16 June 2016.
 - 32 Emails from Sasa Jelacic, NPA, 17 February 2017; and Aubrey Sutherland, NPA, 14 March 2017.
 - 33 Email from Sasa Jelacic, NPA, 17 February 2017.
 - 34 Email from Aubrey Sutherland, NPA, 22 June 2017.
 - 35 Email from Sasa Jelacic, NPA, 17 February 2017.
 - 36 Ibid.
 - 37 Email from Aubrey Sutherland, NPA, 22 June 2017.
 - 38 Interview with Muhabbat Ibrohimzoda, TNMAC, Geneva, 10 February 2017; and email from Sasa Jelacic, NPA, 17 February 2017.
 - 39 Interview with Muhabbat Ibrohimzoda, TNMAC, Geneva, 10 February 2017.
 - 40 Emails from Aubrey Sutherland-Pillai, NPA, 6 April 2016; and Muhabbat Ibrohimzoda, TNMAC, 19 May 2016.

UKRAINE

PROGRAMME PERFORMANCE

	2016	2015
Problem understood	4	4
Target date for completion of cluster munition clearance	3	4
Targeted clearance	5	5
Efficient clearance	5	5
National funding of programme	6	6
Timely clearance	5	5
Land release system in place	6	5
National mine action standards	6	6
Reporting on progress	4	4
Improving performance	5	5
PERFORMANCE SCORE: AVERAGE	4.9	4.9

PERFORMANCE COMMENTARY

While survey and clearance of areas contaminated with cluster munition remnants (CMR) did take place in 2016, the full extent of operations is not known due to the absence of sufficiently detailed information from the Ukrainian authorities. Furthermore, the overall effectiveness and efficiency of mine action in Ukraine is being impeded by a delay in the adoption of a mine action law, necessary to clarify and strengthen the coordination of work among the different ministries and agencies, and to facilitate progress in strategic planning, information management, and national mine action standards.

RECOMMENDATIONS FOR ACTION

- Ukraine should accede to, and abide by, the Convention on Cluster Munitions (CCM).
- Ukraine should enact mine action legislation as soon as possible and formally establish a national mine action authority and a functioning national mine action centre to support clearance of explosive hazards.
- Ukraine should systematically collect data on contamination from mines, CMR, and other explosive remnants of war (ERW), as well as progress in survey and clearance, and establish a centralised database for planning purposes.

CONTAMINATION

The extent of contamination from CMR in Ukraine is not known. Amid the violence that erupted in Ukraine in 2014, evidence suggests that both government and anti-government forces have used cluster munitions. These have included surface-fired Smerch (Tornado) and Uragan (Hurricane) cluster munition rockets, which deliver 9N210 and 9N235 anti-personnel fragmentation submunitions.¹

Evidence of ground-launched cluster munition use in eastern Ukraine first emerged in early July 2014, indicating that 300mm 9M55K cluster munition rockets with 9N235 fragmentation submunitions had been used in Kramatorsk and Slavyansk, in the Donetsk region of eastern Ukraine. These rockets are fired from the 9K58 Smerch multiple-barrel rocket launchers over a maximum range of 90km.²

On 11 July 2014, photographs taken by the Associated Press at an insurgent base at Slavyansk showed remnants of at least eight 220mm 9M27K-series cluster munition rockets and at least three submunitions that were either of type 9N210 or 9N235. The rockets are fired from the 9K57 Uragan multi-barrel rocket launcher, which has a maximum range of 35km.³ According to Associated Press, the remnants at Slavyansk were collected and destroyed by Ukrainian government explosive ordnance disposal (EOD) teams.

In October 2014, Human Rights Watch (HRW) documented widespread use of cluster munitions in fighting between government forces and pro-Russian rebels in more than a dozen urban and rural locations in the provinces of Donetsk (central Donetsk, Starobesheve, Makiyivka, and Ilovaisk) and Luhansk (Novosvitlivka).⁴

In early 2015, the Special Monitoring Mission (SMM) in Ukraine of the Organization for Security and Co-operation in Europe (OSCE) reported finding CMR in the Artemivskiy district of Luhansk city, resulting from two attacks on 27 January. The attacks killed two civilians and injured two others.⁵ The OSCE SMM also reported evidence of CMR in Komsomolske, south-east of Donetsk, resulting from an attack on 2 February,⁶ and in Kramatorsk, in the north of the Donetsk region, on 10 February.⁷ In addition, the *Kiev Post* reported cluster munitions had been fired on the cities of Mariupol and Kramatorsk in 2015.⁸

During a ten-day investigation in eastern Ukraine, HRW found evidence that cluster munition rockets had been used in at least seven localities between 23 January and 12 February 2015, with some hit multiple times. Three of the areas were in government-controlled territory while the other four were in rebel-held territory. Thirteen civilians were reportedly killed during these attacks, including at least two children.⁹ HRW has not documented any cluster munition use in Ukraine since the ceasefire went into effect on 16 February 2015.¹⁰

Ukraine has claimed that many unexploded submunitions contaminate the Donetsk and Luhansk regions,¹¹ with the most intensive use of cluster munitions in and around the city of Debalcevo in Donetsk oblast.¹² In 2017, Ukraine estimated, highly improbably, that total contamination by mines and ERW (including CMR) could extend over 7,000km².¹³ Ukraine cannot reliably estimate the overall extent of CMR contamination until surveys have been completed.¹⁴ The heaviest mine and ERW contamination is believed to be inside the 15km buffer zone between the warring parties, but access to this area for survey and clearance operations is severely limited.¹⁵

The HALO Trust's mine action operations are limited to government-controlled areas outside the 15km buffer zone. Within its area of responsibility in the Nykolskyi district of Donetsk and the Svativskyi district of Luhansk, The HALO Trust identified 0.6km² of CMR contamination through non-technical survey in 2016.¹⁶

Danish Demining Group (DDG), which collects casualty data from open media sources, recorded a total of 1,198 casualties (399 killed and 799 injured) from mines, CMR, and other ERW between June 2014 and May 2017.¹⁷ The HALO Trust also collects casualty data, and recorded more than 1,653 mine and ERW casualties since the start of the conflict in 2014, of whom 40% were civilians.¹⁸

Ukraine has stated that between 16 February and 15 May 2017, 36 civilians died and 157 were wounded in Donbas from explosive hazards. This is 70% more than was reported for the same period the previous year, and in 40% of cases people died from mines and unexploded ordnance (UXO).¹⁹

The Global Protection Cluster for Ukraine also reports that “the presence or suspicion of ERW and mines contamination hamper[s] freedom of movement, agricultural activities and disrupt[s] essential services provision. Contamination at both formal and informal civilian crossing points is a particular concern.”²⁰ Cluster munition use in urban and rural areas of eastern Ukraine is blocking access to family allotments and collective farms, which has a serious impact in an area where many rely on agriculture.²¹ Those living in conflict-affected areas, especially around the contact line, are among the most vulnerable; particularly the elderly, persons with disabilities, and the poor. To heat homes in the winter, people go into the forest, facing significant risks from explosive hazards as a result. This is said to have resulted in many fatalities and injuries.²²

In addition, explosive hazards pose a humanitarian risk to the internally displaced and returning refugees, especially in areas fought over previously and which are now away from the front line.²³

Other Explosive Remnants of War and Landmines

Ukraine is contaminated by other ERW and by anti-personnel and anti-vehicle mines used during the current conflict. It is also affected by UXO and abandoned explosive ordnance (AXO) remaining from World Wars I and II²⁴ and Soviet military training and stockpiles. In February 2016, Ukraine claimed that 32 former military firing ranges and the many other areas contaminated with explosive objects from past wars covered 1,500km².²⁵ These figures are the same as those put forward in April 2015.²⁶

PROGRAMME MANAGEMENT

An interministerial working group was set up by the Cabinet of Ministers in February 2006. On 25 December 2009, the Cabinet of Ministers of Ukraine issued an order that tasked the Ministry of Defence (MoD), Ministry of Emergency Situations, and Ukroboronservice (a state-owned commercial company), to put forward proposals for a national body to oversee demining.²⁷ On 2 September 2013, Presidential Decree No. 423 on the “Mine Action National Authority” was signed, authorising the authority’s establishment.²⁸ Following the decree, the MoD’s “Department of Environmental Safety and Mine Action” was tasked with coordinating demining nationally and serving as the secretariat to the national mine action authority in Ukraine.²⁹

As at June 2017, Ukraine was in the process of passing mine action legislation that would identify the executive bodies involved in mine action in Ukraine, “regulate” the national mine action authority, and mandate the development of a priority action plan.³⁰

Two draft bills were submitted to the parliament’s Committee on National Security and Defense. One of the drafts (no. 5189), is dated 28 September 2016 and was put forward by a member of parliament. The Committee recommended its rejection in April 2017.³¹

The other draft (no. 5189-1), dated 12 October 2016, from the Cabinet of Ministers of Ukraine, is in the process of being finalised.³² This draft was originally sent to the Cabinet in late 2015, endorsed in February 2016, and then submitted by the Cabinet for parliamentary approval.³³ A Cabinet reshuffle in April 2016 resulted in the Bill needing re-endorsement, after which it will be re-submitted for parliamentary approval.³⁴ In 2016, the draft law faced opposition in the committee stage in parliament.³⁵ It was sent back for improvements in April 2017.³⁶ As at June 2017, the latest draft had been passed by the independent Defence Anti-Corruption Committee, but had yet to be passed by the Committee on National Security and Defense, but it was hoped parliament would soon adopt the necessary resolution.³⁷ The lack of a legal framework for mine action has the potential to deter

donors from funding activities, and also has a bearing on the legal status of demining organisations in the country in terms of registration as well as application for end-user certificates for demining equipment and explosives.³⁸

Some demining operators operational in Ukraine have been consulted as part of the legislative process of setting up institutions for mine action in Ukraine.³⁹ The HALO Trust reported that it has actively participated in roundtables and public hearings on mine action legislation, organised by the MoD, the OSCE Project Co-coordinator, and the Defence and Security Committee of the Verkhovna Rada. During these meetings, The HALO Trust supported the adoption of national legislation, and shared best practices and lessons learned from other affected countries.⁴⁰

The Geneva International Centre for Humanitarian Demining (GICHD) has been working with the OSCE Project Co-ordinator in Ukraine to help foster mine action institutions.⁴¹ A timeline for the establishment of a national mine action centre under the national mine action authority will be addressed once the mine action legislation has been adopted.⁴²

While all areas of mine action in the Donetsk and Luhansk region, including humanitarian demining operations, are planned, coordinated, and controlled by the MoD,⁴³ several other ministries are also involved in the sector, including the Ministry of Internal Affairs (under which sits the State Emergency Services of Ukraine (SESU), formerly known as the Ministry of Emergencies); the Security Services; the Ministry of Temporarily Occupied Territories and Internally Displaced Persons; the State Special Transport Services of the Ministry of Infrastructure; and the State Border Service.⁴⁴

The demining centre of the Ukrainian Armed Forces, in Kamyanyets-Podilsky, focuses on building the military's capacity for explosive ordnance disposal (EOD), including training and testing of methods and equipment, quality assurance (QA), and provision of EOD, counter-IED, and demining specialists.⁴⁵ Experts from the North Atlantic Treaty Organization (NATO) provide training and advice at the centre.⁴⁶ The Canadian government is helping to build Ukraine's humanitarian demining capacity in eastern Ukraine, as part of a two-year project to support the development of policies, practices, and institutions; the provision of training; the creation of a digital map showing hazards and cleared areas; and the procurement of modern equipment.⁴⁷

All Ukrainian Armed Forces engineering units are involved in demining in eastern Ukraine and not solely EOD spot tasks. The units are also responsible for destroying all ERW and mines detected by SESU and clearance NGOs.⁴⁸

SESU has organisational control of humanitarian demining and is generally responsible for clearance. It established a "Special Humanitarian Demining Centre" in 2015 in Kiev. The centre's remit includes coordination of SESU pyrotechnical teams (akin to rapid-response EOD teams) involved in technical and non-technical survey, demining, internal QC of SESU units, information management, and handover of land cleared by SESU to local authorities, as well as risk education.⁴⁹

In addition, SESU has a training centre near Merefa, in the Kharkiv region, and the Special Transport Service has a centre in Chernihiv, both of which are focused largely on EOD and battle area clearance (BAC).⁵⁰ SESU has begun to build a Regional Centre for Humanitarian Demining, based in Lysychansk in Luhansk region. The new centre will deploy trained SESU deminers to affected areas in Donetsk and Luhansk that are under Ukrainian control.⁵¹

The Ministry of Temporarily Occupied Territories and Internally Displaced Persons was established by the Cabinet of Ministers of Ukraine in resolution 376, which was adopted on 8 June 2016. The Ministry's tasks include implementation of a set of measures aimed at reducing the social, economic, and environmental impact of explosive objects; and coordination of the implementation of mine action activities aimed at reducing harm to civilians from the use of explosive objects (including CMR and mines).⁵²

The OSCE has a strong presence in Ukraine, with two separate missions each having its own mandate: the SMM and the OSCE Project Co-ordinator. The SMM is mandated to help reduce tensions in the country and to support peace, stability, and security. As part of this role, it gathers information and reports on alleged violations of fundamental OSCE principles.⁵³ The OSCE Project Co-ordinator is mandated to plan, implement, and monitor projects that help Ukraine enhance its security, and develop its legislation, institutions, and practices in line with democratic standards.⁵⁴

In 2016–18, the Project Co-ordinator, with GICHD assistance, was planning to provide policy and legal support to Ukraine, including for the establishment of a national mine action programme overseen by a national mine action authority and centre and underpinned by national standards.⁵⁵ The OSCE Project Co-ordinator has also been supporting, again with GICHD assistance, Ukraine's use of the Information Management System for Mine Action (IMSMA). The OSCE Project Co-ordinator, with the support of the donors (Canada, EU, United Kingdom, and United States), is implementing two projects, which are working to enhance the training capacities of mine action training centres by revising the training curriculum, training national instructors, and supporting modernisation of demining equipment.⁵⁶

At the request of the Government of Ukraine, the UN conducted a mine action needs assessment mission on 23 January–5 February 2016. The aim of the mission was to assess the impact of mines and ERW and make technical recommendations for further humanitarian responses. The joint mission was composed of technical experts from the UN Development Programme (UNDP), the UN Children's Fund (UNICEF), and the UN Mine Action Service (UNMAS).⁵⁷ The key findings of the UN mission were that:

- The humanitarian impact of ERW is high, with two to five accidents each week and the ERW contamination covers a huge area⁵⁸
- ERW clearance capacities exist in Ukraine, but they need to be re-oriented away from their current activities of responding to call-outs for World War II bombs. They now need to undertake activities like surveys and information management⁵⁹
- The understanding of humanitarian mine action needs to be addressed at all levels of government. At present the focus is only on military mine clearance but it needs to be extended to risk education, surveys, victim assistance and information management⁶⁰
- The establishment of a civilian oversight and policy-making body for national mine action activities.⁶¹

Strategic Planning

The Cabinet of Ministers Decree No. 131 of 18 February 2009 adopted the State Programme for Demining by the Ministry of Emergency Situations for 2009–14.⁶² The programme planned for clearance of 15km² over five years with the destruction of 500,000 items of ERW.

Following an order from the Prime Minister of Ukraine on 30 November 2015, the Department of Environmental Protection and Mine Action developed a draft order of the Cabinet of Ministers of Ukraine, “On Approval of the Concept of the State Programme for Mine Action in Ukraine for 2017–2021”. This concept was announced by the MoD in February 2016,⁶³ and as at July 2017, was on hold pending progress with the draft mine action law.⁶⁴ In the meantime, Ukraine continues to work from an annual plan.⁶⁵

In October 2016, GICHD organised the first workshop on strategic planning, in partnership with the OSCE Project Co-ordinator and the Democratic Control of Armed Forces (DCAF).⁶⁶ As at June 2017, next steps in strategic planning were under consideration, related to progress in the draft mine action law.⁶⁷

Ukraine has developed a plan for humanitarian demining in the Donetsk and Luhansk regions, in areas it can access safely. The main goals for 2015 were demining of populated areas, security during rehabilitation of infrastructure, and clearance of UXO from agricultural areas.⁶⁸ These remained Ukraine’s goals for 2016, and in addition, local government authorities have been helping to prioritise clearance tasks based on humanitarian criteria.⁶⁹

Standards

A special instruction for the identification, render-safe, and disposal of explosive items, based on the International Mine Action Standards (IMAS), was approved by the General Staff of the Ukrainian Armed Forces on 1 August 2014.⁷⁰ Development of national standards in Ukraine has taken place with support from GICHD, the OSCE Project Co-ordinator, and DCAF.⁷¹ On 27 January 2016, during the UN needs assessment mission, the Ukrainian MoD expressed its support for IMAS to serve as national mine action standards.⁷² In Ukraine, all national standards must be approved by the Ukrainian Scientific and Research Training Center of Standardization, Certification and Quality, which is the National Standardisation Authority in Ukraine.⁷³ Ukraine subsequently adopted IMAS as “trial national regulatory acts” on 1 September 2016, under National Standardization Authority Order 230 of 8 August 2016.⁷⁴ As at November 2016, Ukraine reported that it had adopted 42 international standards as national standards, with the support of GICHD, the OSCE, and UNICEF.⁷⁵

In January 2017, a subcommittee of mine action standardisation was created to help elaborate national mine action standards,⁷⁶ and in April 2017, the National Standardisation Authority in Ukraine announced that an organising committee had been formed, comprising the Ministry for Temporarily Occupied Territories and Internally Displaced Persons together with other relevant ministries and departments, to establish a Technical Standardisation Committee.⁷⁷ As at June 2017, the Committee had not yet been officially established, and discussions among key ministries were reported to be ongoing.⁷⁸ In the meantime, the MoD is preparing drafts of national mine action standards in accordance with international best practice and drawing on the experience of other mine action programmes.⁷⁹

Operators

Following a presidential decree in September 2013, the MoD is the central coordinating body for demining in Ukraine. However, a number of other ministries continue to deploy units that undertake clearance and destruction of mines and ERW, including the Ministry of Internal Affairs (through the SESU), the Security Service, the State Special Transport Service, and the State Border Service.⁸⁰

A Commission on Humanitarian Demining of SESU coordinates the activities of SESU pyrotechnic teams and determines SESU’s priorities.⁸¹ In December 2015, Ukraine reported that during the ongoing conflict SESU had suffered severe losses to its buildings and vehicles.⁸² Since then, DDG has secured equipment for four SESU pyrotechnic teams, which includes vehicles, detectors, and personal protective equipment (PPE). DDG trained the four teams to use the demining equipment and how to conduct operations in accordance with IMAS, in addition to providing life-support training to SESU medics associated with the teams.⁸³ A similar project is also being implemented by the OSCE Project Co-ordinator⁸⁴ and by NATO.⁸⁵

In addition to overall coordination of humanitarian demining in the Donetsk and Luhansk region, the MoD is also responsible for all areas where the military are permanently stationed as well as for the Anti-Terrorist Operation (ATO) zone in Donbass. The Ministry’s Engineering Division conducts UXO spot clearance. The State Border Service conducts demining in areas under its control on land and in the sea. The Ministry of Infrastructure’s Special Transportation Service is responsible for demining national infrastructure (e.g. railways and roads). The Ministry of Internal Affairs has an engineering department that conducts EOD, in particular of IEDs.⁸⁶

As at February 2016, in eastern Ukraine, SESU was deploying 30 pyrotechnic/demining teams (150 people, 60 vehicles); the Armed Forces of Ukraine were deploying 52 EOD teams (260 people; 86 vehicles), and the State Transport Service were deploying 5 EOD teams (25 people; 10 vehicles).⁸⁷ Ukroboronservice, a state enterprise whose activities include arms manufacture, also has a “humanitarian demining” section.⁸⁸ As at June 2017, Ukroboronservice was not known to be conducting clearance operations in Ukraine.⁸⁹

Three international demining organisations – DDG, the Swiss Foundation for Mine Action (FSD), and The HALO Trust – are operating in Ukraine.⁹⁰ DDG began risk education in late 2014 in Donbass and in February 2016 it began to conduct non-technical survey in government-controlled areas of the Donetsk and Luhansk regions. It received formal approval from the authorities to conduct survey at the beginning of April.⁹¹ As at May 2017, DDG was deploying one Multi-Task Team (MTT) capable of non-technical survey and visual, surface BAC. DDG was planning to train two demining teams in June 2017.⁹² DDG Ukraine currently primarily runs its operations out of offices in Severodonetsk, but also from Mariupol, and has its head office in Kiev.⁹³ As at May 2017, DDG had commenced non-technical survey in six regions of Ukraine, in order to assess the presence, nature, and extent of mines and ERW in conflict-affected communities in these areas. Information gathered by the teams will be used to analyse and plan where follow-on clearance is most urgently needed.⁹⁴ In 2017, DDG was planning to train and deploy capacity in both BAC and manual demining, in addition to building support for the SESU in terms of equipment and training.⁹⁵

The HALO Trust launched its programme in November 2015 and began with a rapid assessment of mine and UXO contamination in Donetsk and Luhansk regions (oblasts).⁹⁶ In early 2016, The HALO Trust began conducting non-technical survey, mine clearance, and BAC in government-controlled areas of Luhansk and Donetsk regions, more than 15km from the contact line.⁹⁷ HALO Trust’s capacity as at end of 2016 was 91 deminers, which, by 24 May 2017, had increased to 143 deminers, with a further 26 deminers forecast to join the organisation by the end of May.⁹⁸ All HALO Trust teams are trained and equipped for both mine clearance and BAC, and for all expected threats in the conflict zone, as non-technical survey has yet to determine the proportion of different types of hazard.⁹⁹ Having previously faced issues hiring female deminers in 2016, due to Ukraine’s labour law, The HALO Trust consulted with lawyers and was informed that no law prevents women from working as deminers. Since the first quarter of 2017, The HALO Trust has recruited women interested in working as deminers, who have subsequently completed their training and become the first female humanitarian deminers in Ukraine.¹⁰⁰

The HALO Trust did not procure any mechanical assets for clearance purposes in 2016. As at May 2017, however, it was working with the Ukrainian authorities to import one armoured Volvo BM4400 loader, which will be used to clear both anti-personnel and anti-vehicle mines.¹⁰¹

The HALO Trust planned to expand its operations in eastern Ukraine in 2017, by increasing the number of demining teams (each team consists of thirteen personnel) from seven to thirteen, adding two technical survey teams, and deploying one mechanical team. HALO Trust’s non-technical survey capacity was expected to remain largely the same in 2017 as the previous year, i.e. three teams.¹⁰² In addition, following a successful EOD course, it was expected that by the end of summer 2017, subject to the granting of permission and licences to use explosives and pyrotechnics, HALO Trust teams would be able to conduct EOD without the need for SESU support.¹⁰³

FSD started operations in Ukraine in early 2015 with a small grant for risk education in conflict-affected areas in the east of the countries, run from its operational headquarters in Slaviansk and supported from its administrative headquarters in Kiev. FSD subsequently gained accreditation for survey and clearance operations, and has survey teams operating in eastern Ukraine since early 2017, including a full mine clearance and EOD capacity, which works closely with regional security forces to clear explosive hazards from conflict-affected areas.¹⁰⁴

In addition, a Ukrainian organisation, “Demining Team of Ukraine” is active in demining in eastern Ukraine.¹⁰⁵

It has been claimed that Emercom, Russia’s state agency for emergencies, has planned to begin clearance in areas under the control of separatists in the Donetsk and Luhansk regions.¹⁰⁶

Quality Management

The draft mine action law envisages a national mine action centre with a QA function.¹⁰⁷ In the meantime, quality management (QM) of government clearance operations is overseen by the demining centre of the Ukrainian Armed Forces.¹⁰⁸ Both DDG and The HALO Trust are conducting internal QM. For DDG, team leaders and senior mine action personnel conduct QM tasks, while in The HALO Trust team leaders and supervisors conduct QC during clearance while a roving officer conducts QA.¹⁰⁹

The HALO Trust is planning to deliver QM training to the future national mine action authority.¹¹⁰ Janus Global Operations (JGO) carried out a two-month project for The HALO Trust in 2017, during which it trained 12 members of the demining centre of the Ukrainian Armed Forces, in Kamianets-Podilsky on QM techniques, including QA of humanitarian demining using manual and mechanical methods as well as mine detection dogs; battle area clearance; and EOD. The dozen Ukrainian military members and employees trained by JGO will now be able to perform QA for the national mine action authority/centre.¹¹¹

Information Management

In cooperation with OSCE Project Co-ordinator and GICHD, SESU has begun using the IMSMA database.¹¹² In 2015, IMSMA was piloted by GICHD and SESU in four regions of Ukraine.¹¹³ In November and December 2015, IMSMA training was conducted for 10 regional operators, and SESU plans to expand use to 24 regional operators, grouped into eight regional centres (Carpathian, Central, Dniprovskiy, Eastern Poliskiy, Podolsky, Tauric, Volyn, and the Operational Centre in Kiev).¹¹⁴ GICHD reported that it has provided subsequent IMSMA training to staff from the various government ministries and agencies and international NGOs.¹¹⁵ The HALO Trust is also supporting the OSCE Project Co-ordinator to set up IMSMA, and will assist OSCE to develop technical and structural recommendations for an IMSMA system and work with the MoD and other mine action stakeholders to develop standardised IMSMA-compatible reporting templates.¹¹⁶

As at October 2016, three government departments in Ukraine were using IMSMA: SESU, the MoD, and the State Special Transport Services of the Ministry of Infrastructure. There are two functioning IMSMA databases for internal and external operational planning, monitoring, reporting, and archiving of contamination and clearance data in Ukraine. One is managed by SESU and the other by the MoD, which collects and analyses all mine action data from national operators and NGOs.¹¹⁷ The databases are reportedly complementary, as they are separated based on region, thematic area, and operational purpose.¹¹⁸ The MoD reported that it plans to create a national IMSMA server.¹¹⁹

In June 2017, GICHD reported that it had conducted an Information Management assessment which will serve as basis to develop a roadmap for future collaboration with the SESU and MoD.¹²⁰

LAND RELEASE

Since the outbreak of fighting in eastern Ukraine, clearance of ERW has been undertaken by both Ukrainian government authorities and separatist groups.¹²¹ Clearance in the Donetsk and Luhansk regions is typically reactive, taking place soon after attacks or when a report of contamination is received from the local community.¹²² Once identified, ERW are marked on the ground and their position fixed and reported to the local authorities.¹²³ ERW are either destroyed in situ or removed to storage areas or compounds for destruction later.¹²⁴

SESU clearance has been slower in rural areas than in towns and cities.¹²⁵ In February 2016, SESU claimed that, since the beginning of fighting in 2014, it had cleared around 140km² across the whole country, and disposed of more than 202,000 explosive objects.¹²⁶ Non-technical survey is helping to identify contaminated land, especially in liberated areas.¹²⁷ The Ukrainian Armed Forces are responsible for clearing ERW in areas close to the front-lines and former military positions.¹²⁸ In December 2015, the working group of the Trilateral Contact Group on Ukraine agreed 12 priority areas for humanitarian demining.¹²⁹

In areas controlled by pro-Russian groups, separatists are said to be also clearing ERW and mines. In areas of Donetsk that are not under the control of the Ukrainian government, former SESU personnel, now organised under the separatist Donetsk People's Republic, are undertaking the bulk of clearance around Donetsk city. Personnel are organised into regular shifts, with clearance conducted both day and night.¹³⁰

The Ukrainian authorities and the pro-Russian separatists are, to varying degrees, recording written logs of emergency call-outs and clearance operations,¹³¹ but data is not always disaggregated into weapon type.¹³² Clearance data is not available from pro-Russian separatist groups, and an accurate picture is not available of the scale of ERW clearance being undertaken in eastern Ukraine and of remaining CMR contamination.

Survey in 2016

According to Ukraine, in 2016, non-technical survey in eastern Ukraine was conducted by international NGOs DDG, FSD, and The HALO Trust.¹³³

According to the Global Protection Cluster report published in November 2016, “non-technical survey is being conducted together with international partners on the territory of approximately 3,000,000 hectares, out of which 460 hectares [4.6km²] have been identified as Suspected Hazardous Areas and 620 hectares [6.2km²] as Confirmed Hazardous areas. 294 dangerous explosives have been identified so far.”¹³⁴ The 4.6km² of suspected hazardous area and 6.2km² of confirmed hazardous area are the same size areas as those recorded by Ukraine through non-technical survey in 2016, for “suspicious territory” and “dangerous territory” respectfully.¹³⁵ In addition, Ukraine claimed that in 2016, non-technical survey was conducted on 12,500km² overall, during which 394 explosive objects were found and neutralised.¹³⁶

In early 2016, The HALO Trust began conducting non-technical survey in government-controlled areas of Ukraine around the contact line, and up to 15km from the front-line.¹³⁷ These are primarily areas where conflict occurred in 2014 and early 2015, before the contact line settled in its current position. Access closer to the contact line will depend on the security situation.¹³⁸ Through its non-technical survey in 2016, The HALO Trust confirmed a total of 572,958m² as contaminated with CMR. This comprised 95,692m² confirmed in one area in Zoria village in Nykolski district in the Donetsk region and 477,266m² confirmed in two areas in Svatove village, Svativskyi district, in the Luhansk region.¹³⁹

DDG also began non-technical survey in government-controlled areas in the Donetsk and Luhansk regions in early 2016 up to 60km from the current contact line, depending on the location of suspected hazardous areas (SHAs) and access granted by the relevant authorities.¹⁴⁰ No CMR were encountered during DDG’s non-technical survey in 2017.¹⁴¹ DDG had initially hoped to commence clearance operations in 2016.¹⁴² However, due to lack of funding, and the fact that Ukraine has not yet adopted national mine action legislation, clearance operations were postponed until the next operational season in 2017.¹⁴³

Clearance in 2016

As at May 2017, only relevant data on BAC from The HALO Trust and DDG had been made available to Mine Action Review for 2016. Thus, it was not known how much CMR-contaminated land was cleared by the various Ukrainian authorities.

According to the November 2016 Global Protection Cluster report, “thus far, partners cleared 18,500 hectares from UXOs and mines and more than 210,000 pieces of explosives have been destroyed. However, large areas in both GCA and NGCA are believed to remain mine-contaminated.”¹⁴⁴

The HALO Trust began mine clearance and BAC in March 2016. Planned clearance is prioritised in consultation with local stakeholders, but generally its clearance is in response to requests from village and district councils.¹⁴⁵ The HALO Trust’s primary concern is to reduce the number of mine and ERW incidents, and tasks are prioritised based on the greatest level of humanitarian threat. Any history of incidents is assessed, along with the extent of contamination and the proximity of the CMR to the closest population.¹⁴⁶

Through its CMR clearance operations in 2016, The HALO Trust cleared a total area of 199,639m². This comprised 80,917m² cleared, with four submunitions destroyed, in one area in Zoria village in Nykolski district in the Donetsk region; and 118,722m² cleared, with 46 submunitions and 86 other items of UXO destroyed, in two areas in Svatove village, in the Svativskyi district of the Luhansk region.¹⁴⁷

All clearance sites were surveyed by The HALO Trust prior to the start of work, to ensure there is an IMSMA hazard report for each site.¹⁴⁸ The HALO Trust expects to receive additional access to areas within the buffer zone that are believed to have high levels of mine and ERW contamination. According to The HALO Trust, technical survey will be conducted for the first time in order to confirm or reject the presence of mines and ERW.¹⁴⁹

Items discovered by The HALO Trust are destroyed by the MoD, as only the Ukrainian Armed Forces are permitted to use explosives in the conflict zones.¹⁵⁰ HALO Trust’s demining in Ukraine is conducted in coordination with the Ukrainian authorities and international organisations.¹⁵¹

DDG did not conduct BAC in 2016.¹⁵²

Update in 2017

Since the beginning of 2017, FSD has also initiated non-technical survey in eastern Ukraine, in addition to clearance operations approximately 40km from the contact line.¹⁵³ FSD had not encountered any CMR during its operations, as at the beginning of June 2017.¹⁵⁴

Non-technical survey has begun in the buffer zone where permissions and security allow, but the process is slow due to security restrictions, which is partly related to frequent cease-fire violations.¹⁵⁵

ARTICLE 4 COMPLIANCE

Ukraine is not a state party or signatory 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. Russia has similar obligations in any areas of Ukraine over which it exercises effective control.

National funding is provided for clearance of ERW and mines, and the Department of Environmental Safety and Mine Action is a division of the MoD, from which it is funded.¹⁵⁶ Ukraine also receives assistance from foreign partners (OSCE and NATO) for demining equipment.¹⁵⁷

With regards to international funding of humanitarian operators in 2017, The HALO Trust reported fewer donors, but increased overall funding.¹⁵⁸ DDG reported that the funding outlook was slightly tighter in 2017, due to donors moving from emergency aid to development aid, which resulted in gaps in funding before these kick in.¹⁵⁹

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VIETNAM

PROGRAMME PERFORMANCE

	2016	2015
Problem understood	5	5
Target date for completion of cluster munition clearance	4	4
Targeted clearance	5	5
Efficient clearance	6	5
National funding of programme	6	7
Timely clearance	5	5
Land release system in place	6	6
National mine action standards	5	5
Reporting on progress	3	3
Improving performance	5	6
PERFORMANCE SCORE: AVERAGE	5.0	5.1

PERFORMANCE COMMENTARY

International operators showed continuing and significant improvements in productivity but Vietnam's army engineers and affiliated companies constitute by far the greatest capacity and the inability of the Ministry of Defence or Army Engineering Command to report on their activities in 2016 reflected persistent weaknesses in management of the sector.

RECOMMENDATIONS FOR ACTION

- Vietnam should accede to the Convention on Cluster Munitions as a matter of priority.
- Vietnam should prepare a strategic plan giving priority to clearance of CMR and widening application of the survey methodology applied in Quang Tri province.
- Vietnam should accelerate development of a national database and make data available to operators on a timely basis.
- Vietnam should publish comprehensive annual reports on the results of survey and clearance by all operators, national and international.

CONTAMINATION

Vietnam is massively contaminated by CMR but no accurate estimate exists, even to the nearest hundred square kilometres. The United States (US) dropped 413,130 tons of submunitions over Vietnam between 1965 and 1973, striking 55 provinces and cities, including Haiphong, Hanoi, Ho Chi Minh City, Hue, and Vinh. Vietnam's Military Engineering Command has recorded finding 15 types of US-made submunition.¹ Most types used by the US were air-dropped, but artillery-delivered submunitions were also used in central Quang Binh and provinces to the south of it.²

The Military Engineering Command said in 2011 it had encountered substantial amounts of cluster munitions abandoned by the US military, notably at or around old US air bases, including eight underground bunkers found in 2009, one of them reportedly covering an area of 4,000m² and containing some 25 tons of munitions.³ These abandoned cluster munitions are believed to have been destroyed.

Other Explosive Remnants of War and Landmines

Vietnam has huge UXO contamination and a serious, but as yet unquantified, mine problem.

PROGRAMME MANAGEMENT

Vietnam's mine action programme has moved from military management to civilian oversight but operations continue to depend largely on the armed forces. A Prime Minister's Decision in 2006 assigned the Ministry of National Defence to oversee mine action at the national level with clearance undertaken by the Army Engineering Corps of the People's Army of Vietnam (PAVN).⁴ BOMICEN, part of the Ministry of National Defence, has acted as a central coordinating body for clearance and survey by national operators.⁵

In 2013, Vietnam announced a Prime Minister's decision to establish a national mine action centre (VNMAC) to strengthen the direction of mine action and provide a focal point for mine action operations.⁶ A decree issued in 2014 gave VNMAC responsibility to propose policy, draw up plans, serve as the focal point for international cooperation, lead fundraising, and "preside over" mine action information management. It is also responsible for organising and implementing quality assurance.⁷ VNMAC has four departments (Planning, Coordination, Technical Affairs and Finance) and three subordinate centres (Training, National Database, and Consulting Centre for Quality Monitoring and Management). The government appointed VNMAC's director and two deputy directors in 2014 and the centre became officially operational in February 2015.⁸

Although VNMAC reports to the Prime Minister's office, the decision assigned responsibility for managing and coordinating the national mine action programme to the Ministry of Defence. Provincial authorities also work with a high level of autonomy in managing local mine action activities. In 2016, VNMAC and government ministries worked on a decree intended to clarify its mandate and define the role of all state agencies involved in mine action to eliminate overlap. The decree has been submitted to the Prime Minister's Office for consideration.⁹

Strategic Planning

Vietnam does not have a strategy specifically targeting cluster munitions. Decision 504 approved by the Prime Minister in April 2010 set out a National Mine Action Plan for 2010 to 2025. The plan aimed to "mobilize domestic and international resources in making efforts to minimize and finally create impact-free environment for social economic development". It called for clearance of 8,000km² of explosive remnants of war (ERW) contamination between 2016 and 2025.¹⁰

Operators

Most clearance in Vietnam is conducted by the Army Engineering Corps. Its current strength and deployment are unknown. Officials have previously reported that it had 250 mine and battle area clearance teams, including around 50 military companies.¹¹

International operators conclude agreements to work in Vietnam with the People's Aid Coordinating Committee but negotiate their programme of operations separately with the authorities of each province. International operators active in 2016 included Danish Demining Group (DDG, in Quang Nam province), Mines Advisory Group (MAG, in Quang Binh and Quang Tri provinces), and Norwegian People's Aid (NPA, in Quang Tri and Thu Thie Hue provinces). PeaceTrees Vietnam reportedly worked in Vietnam in 2016 but did not provide information on its activities.

Quang Tri province, which includes the former demilitarised zone that separated North and South Vietnam and is one of the most heavily contaminated regions, approved the creation of a Legacy of War Coordination Centre (LWCC) in February 2015. The LWCC, established by the province's Department of Foreign Affairs with funding and technical support provided by NPA, is responsible for drawing up an annual workplan, coordinating operations of NPA and MAG.¹²

Information Management

Quang Tri province has its own database unit, which was set up by NPA towards the end of 2013 and taken over by provincial authorities in 2016, who have installed it in the LWCC. The centre receives data from all operators in the province and uses it to task explosive ordnance disposal (EOD) and area clearance. Quang Binh has yet to establish a database unit and MAG maintains its own Information Management System for Mine Action (IMSMA)-compatible programme database. In Quang Nam province, which also lacks a database, DDG similarly maintains its own programme database.¹³

On a national level, data remains a challenge. Results of non-technical survey held in a BOMICEN database have proved inaccessible to international operators. VNMAC is in the process of setting up an information management unit intended to combine data on operations and victim assistance held by other national agencies. The project is supported by NPA, which provided software, hardware, and training in 2016. VNMAC also started drafting national legislation that would provide for the sharing of information and was revising the national standards for information management. Priority tasks in 2017 included populating the database with results of survey and other operations and getting the draft legislation approved.¹⁴

LAND RELEASE

The total extent of land released through survey and clearance in 2016 is unknown. VNMAC provided no information on operations conducted by BOMICEN and the Army Engineering Corps which is the biggest operator. International NGOs cleared a total of almost 17.5km² of CMR-contaminated area.

Survey in 2016

In Quang Tri, ranked as Vietnam's most heavily contaminated province, NPA continued to conduct CMR survey in a partnership with MAG, which clears the resulting confirmed hazardous areas (CHAs). In 2016, NPA confirmed 46.52km², more than four times the area confirmed the previous year. Impact and evidence points are first assessed, that are then investigated by technical survey teams, which define CHAs for clearance.¹⁵

Table 1: Cluster munition remnants survey¹⁶

Operator	Province	Areas confirmed	Area confirmed (m ²)
MAG	Quang Binh	423	5,465,996
NPA	Quang Tri	66	46,521,355
Totals		489	51,987,351

In Quang Binh province, MAG did not conduct technical survey but its community liaison teams collected GPS locations of submunitions cleared in earlier EOD roving tasks and used these in a system of evidence point mapping to plot "initial CHAs".¹⁷

DDG, working in Duy Xuyen and Dien Ban districts of Quang Nam province, conducted non-technical survey with two two-strong teams working from village to village to identify and prioritise hazardous areas before EOD or battle area clearance (BAC) teams conduct spot tasks or area clearance. In 2016, survey teams identified 33 suspected hazardous areas (SHAs) covering 161,567m².¹⁸

Clearance in 2016

Most clearance is undertaken by army engineers but VNMAC provided no information on results of operations. The amount of land cleared by international operators was 77% higher in 2016 than the previous year, reflecting in particular the progress of the US-funded collaboration in Quang Tri province between NPA, conducting technical survey, and MAG clearing the resulting polygons.

MAG's clearance of 13.4km² in Quang Tri in 2016 more than doubled the area it cleared in that province during the previous year. This was partly due to increasing capacity with the addition of another Mine Action Team, two vegetation cutting teams, and two EOD teams, but higher clearance rates per team also contributed to the improvement. In Quang Binh, a province with one of the highest levels of cluster munition contamination, MAG cleared 8% more area but over 30% more submunitions.¹⁹

Table 2: Clearance of CMR in 2016

Operator	Province	Areas cleared	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
DDG	Quang Nam	33	216,665	222	76
MAG	Quang Binh	31	3,217,822	3,372	143
	Quang Tri	112	13,413,461	5,936	4,554
NPA	Thua Thien Hue	28	557,940	417	323
Totals		204	17,405,888	9,947	5,096

DDG, which started BAC focused on cluster munitions in December 2015, accelerated operations to clear 0.2km² by the end of August, but had to suspend clearance and spot EOD operations for the last four months of the year due to bureaucratic delays. DDG had extended its Memorandum of Understanding (MoU) with Quang Nam provincial authorities for 28 months until the end of 2018, but could not conduct survey or clearance until it received approval for the extension from the prime minister's office.²⁰

NPA conducted only survey in Quang Tri province, where it works in partnership with MAG, but it carried out

clearance in Thua Thien Hue province in 2016 working on CHAs in two of seven districts in which it had conducted technical survey in 2014–15. With two clearance teams and a total of 20 deminers, NPA cleared 0.56km², destroying 417 submunitions, nearly 10 times the number destroyed in the previous year.²¹

The number of roving tasks conducted by international NGOs was 21% lower in 2016 than the previous year yet the number of submunitions and other ERW destroyed still rose, mainly as a result of MAG's operations in Quang Binh, where teams encountered a number of tasks with large numbers of items located in a small area.²²

Table 3: Spot/Roving Clearance and EOD in 2016²³

Operator	Province	Roving tasks	Submunitions destroyed	Other UXO destroyed
DDG	Quang Nam	251	1	603
MAG	Quang Binh	3,321	1,528	8,283
	Quang Tri	1,693	110	2,602
	Quang Tri	1,608	184	3,918
NPA	Thua Thien Hue	106	102	472
Totals		6,979	1,925	15,878

Deminer Safety

In May 2016, an NPA searcher died in an incident during technical survey operations which injured a second deminer. Internal and external investigations of the incident could not determine any error on their part. NPA assessed that the submunition's time-delay fuse might have been activated by exposure to heat when it was uncovered, causing the gel controlling its time delay mechanism to melt, releasing the trigger. The injured deminer made a full recovery.²⁴

ARTICLE 4 COMPLIANCE

Vietnam is neither a state party nor a signatory 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.

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YEMEN

PROGRAMME PERFORMANCE

	2016	2015
Problem understood	4	4
Target date for completion of cluster munition clearance	4	3
Targeted clearance	4	3
Efficient clearance	3	3
National funding of programme	3	3
Timely clearance	4	2
Land release system in place	2	2
National mine action standards	5	5
Reporting on progress	4	2
Improving performance	4	3
PERFORMANCE SCORE: VERY POOR	3.7	3.0

PERFORMANCE COMMENTARY

New use of cluster munitions in air strikes by the Saudi-led coalition in 2016 and 2017, including in densely populated civilian areas, added significantly to the scale of Yemen's contamination at the same time as the conflict reduced the ability of the Yemen Mine Action Centre (YEMAC) to conduct survey or clearance. Humanitarian access for clearance is limited by the ongoing armed conflicts.

RECOMMENDATIONS FOR ACTION

- Yemen should accede to the Convention on Cluster Munitions as a matter of priority.
- YEMAC should allow *and* facilitate survey and clearance by international operators.
- YEMAC and its international supporters should prioritise training teams in survey and clearance of cluster munition remnants (CMR).
- YEMAC should report on its activities and publish, at a minimum, annual reports on programme capacity, the progress of survey and clearance operations, and funding.

CONTAMINATION

Yemen was already contaminated with explosive remnants of war (ERW), including CMR, before 2015, but the escalation of armed conflict since 26 March 2015 has significantly increased both its extent and the threat to the civilian population, mainly as a result of airstrikes by the Saudi Arabia-led coalition.¹ YEMAC reported in 2014 it had identified some 18km² of suspected CMR hazards in the northern Saada governorate bordering Saudi Arabia. It also knew of other areas of contamination in north-western Hajjah governorate that it had not been able to survey.²

Since the start of the latest round of hostilities in March 2015, international observers and researchers reported that Saudi coalition land and aerial bombardments using a variety of cluster munitions had struck many areas of north-western and central Yemen. YEMAC has identified heavy CMR contamination in Saada and al-Jawf governorates as well as additional CMR contamination in Amran, Hodeida, Mawit, and Sana'a governorates, including in Sana'a city.³

Human Rights Watch has documented Saudi air strikes using cluster munitions dating back to 2009.⁴ In 2015,

after reviewing photographs and citing witness accounts, it reported finding air-dropped BLU-97 and CBU-105 sensor-fused cluster munitions as well as artillery-fired ZP-39 dual-purpose improved conventional munition (DPICM) submunitions in Saada governorate. It also reported finds of CBU-105 submunitions in Amran and Sana'a governorates. In 2016, it documented the presence of BLU-63 submunitions in Sana'a city after an air strike on the capital in January, and CBU-105 submunitions after an attack on the port town of Hodeida.⁵

Amnesty International also reported the presence of Brazilian Astros II submunitions in Saada, and British-made BL755 submunitions in Hayran in Hajjah governorate.⁶ In December 2016, Saudi Arabia confirmed it had used BL755 submunitions and said it had decided to stop using them.⁷ In March 2017, Amnesty corroborated new evidence that a member of the Saudi Arabia-led coalition had recently fired Brazilian rockets containing Astros II submunitions striking three residential areas and surrounding farmland in the middle of Sa'da city, injuring two civilians and causing material damage.⁸

PROGRAMME MANAGEMENT

Yemen established a National Mine Action Committee (NMAC) in June 1998 by prime ministerial decree to formulate policy, allocate resources, and develop a national mine action strategy.⁹ NMAC, chaired by the Minister of State (a member of the cabinet), brings together representatives of seven concerned ministries and a number of non-government organizations.

YEMAC was established in Sana'a in January 1999 as NMAC's implementing body with responsibility for coordinating mine action in the country.¹⁰ It works through two Regional Executive Mine Action Branches (REMABs) in Sana'a and Aden and a national training centre in Aden also set up in 1999 and another REMAB in al-Mukalla (Hadamout governorate) added in March 2004. REMABs are responsible for field implementation of the national mine action plan. However, escalating political turmoil and conflict in Yemen since 2014, together with lack of funding, have severely limited YEMAC's abilities to discharge its responsibilities.¹¹

Communication and coordination between YEMAC headquarters and its Aden branch have been hampered by Yemen's de facto division between the Saudi-led coalition, which supports the internationally recognised government based in Aden, and Houthi rebels who control the capital Sana'a and operate in much of the north.¹²

The United Nations has supported mine action in Yemen since 1999 through a programme implemented by the UN Office for Project Services (UNOPS) but from 2003 the programme came under national management. The UN Development Programme (UNDP) deployed an international adviser to YEMAC at the end of 2014 to support planning and programme management and in 2016 added a second international staff member as well as recruiting national staff in Aden, Saada, and Sana'a.¹³

Strategic Planning

Yemen has no strategic plan for tackling CMR. In late 2015, UNDP said it introduced a new focus giving priority to reducing the emergency threat of explosive weapons and providing relief to heavily-affected communities. In 2017, UNDP was working with NMAC and YEMAC to prepare a new plan for Yemen's mine action sector.¹⁴

Operators

All survey and clearance of ERW is conducted by YEMAC. By the start of 2016, it had some 850 staff, of whom between 350 and 400 were said to be active, under the management of offices in Sana'a and Aden. These included three unexploded ordnance (UXO) clearance teams set up at the end of 2015 to focus on contamination in cities.¹⁵ At the peak of its activities in November 2016, YEMAC had some 550 deminers engaged in field operations.¹⁶

Danish Demining Group (DDG) has offices in Sana'a and Aden, and in 2016 provided risk education and explosive ordnance disposal training and equipment for YEMAC, mainly through its Aden office. DDG said it was in discussion with UNDP about expanding support to include training in non-technical survey and information management.¹⁷

LAND RELEASE

YEMAC did not conduct systematic area clearance in 2016. UNDP reported that teams working in nine governorates cleared a total of 3,072,181m² but operations concentrated on tackling high-threat, high-impact spot tasks. UNDP reported that YEMAC cleared a total of 262,810 ERW, including 2,196 submunitions. It also reported YEMAC destroyed 180,414 of these ERW, but did not disaggregate the total by device.¹⁸

Progress is hampered by lack of equipment or training in cluster munitions clearance. YEMAC reported that in areas where weather conditions have resulted in submunitions becoming covered with sand, its teams are conducting CMR clearance using mine detectors. Demolitions are carried out placing cleared items inside old vehicle tyres and setting fire to them. UNDP planned to bring in thermite torches as a safe alternative to explosives. YEMAC reported bringing the torches into the country was blocked by Saudi coalition screening, and the items were being held in storage in Djibouti. YEMAC said it would send 12 staff for training by The HALO Trust in Jordan in August 2017.¹⁹

Safety

Three YEMAC deminers died in April 2016 when working on submunition clearance in Hajjah governorate. The precise cause of the detonation has not been confirmed.²⁰

ARTICLE 4 COMPLIANCE

Yemen is neither a state party nor a signatory 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.

1 United Nations Development Programme (UNDP), Grant Progress Report for 1 October–31 December 2015, 25 January 2016.
2 Email from Ali al-Kadri, General Director, YEMAC, 20 March 2014.
3 Interview with Ahmed Alawi, YEMAC, 17 February 2016, and Stephen Bryant, Chief Technical Adviser, UNDP, in Geneva, 6 February 2017.
4 Human Rights Watch, "Yemen: Cluster munitions harm civilians", 31 May 2015.
5 Human Rights Watch, "Yemen: Saudi-Led Airstrikes Used Cluster Munitions", 3 May 2015; "Yemen: Cluster munitions harm civilians", 31 May 2015; and "Yemen: Coalition Drops Cluster Bombs in the Capital", 7 January 2016.
6 Amnesty International, "Yemen: children among civilians killed and maimed in cluster bomb 'minefields'", 23 May 2016.
7 "Coalition Forces supporting legitimacy in Yemen confirm that all Coalition countries aren't members to the Convention on Cluster Munitions", Saudi Press Agency, 19 December 2016.
8 Amnesty International, "Yemen: Saudi Arabia-led coalition uses banned Brazilian cluster munitions on residential areas", 9 March 2017, at: <https://www.amnesty.org/en/latest/news/2017/03/yemen-saudi-arabia-led-coalition-uses-banned-brazilian-cluster-munitions-on-residential-areas/>.
9 Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report, Form I, 31 March 2009.

10 APMBC Article 5 deadline Extension Request, 31 March 2008, p. 2.
11 Interviews with mine action stakeholders who declined to be identified, February–June 2015.
12 Interview with Ahmed Alawi, YEMAC, and Stephen Bryant, Chief Technical Adviser, UNDP, both in Geneva, 17 February 2016.
13 UNDP, Support to Eliminate Mines and Explosive Remnants of War, Annual Progress Report 2016, Yemen, undated but 2017, p. 6.
14 Ibid., p. 7.
15 Interview with Ahmed Alawi, YEMAC, and Stephen Bryant, UNDP, in Geneva, 17 February 2016.
16 Ibid; and UNDP, Support to Eliminate Mines and Explosive Remnants of War, Annual Progress Report 2016, Yemen, undated but 2017, p. 8.
17 Email from Megan Latimer, Programme and Operations Coordinator (Afghanistan, Colombia, Ukraine), DDG, 29 May 2017.
18 UNDP, Support to Eliminate Mines and Explosive Remnants of War, Annual Progress Report 2016, Yemen, undated but 2017, p. 8; and "YEMAC productivity February – December 2016", received from UNDP by email, 5 April 2017.
19 Interviews with Stephen Bryant, UNDP, Geneva, 6 February 2017 and Ahmed Alawi, YEMAC, in Geneva, 9 June 2017.
20 Interview with Stephen Bryant, UNDP, in Geneva, 6 February 2017; and email, 6 April 2017.

OTHER AREAS

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

KOSOVO

PROGRAMME PERFORMANCE

	2016	2015
Problem understood	7	7
Target date for completion of cluster munition clearance	6	6
Targeted clearance	7	7
Efficient clearance	7	7
National funding of programme	3	3
Timely clearance	6	6
Land release system in place	7	7
National mine action standards	7	7
Reporting on progress	5	5
Improving performance	6	6
PERFORMANCE SCORE: AVERAGE	6.1	6.1

PERFORMANCE COMMENTARY

In 2016, Kosovo focused on clearance of cluster munition remnants (CMR), having completed the first non-technical survey in 2015 of CMR contamination in the four northern municipalities. This led to increased CMR clearance output in 2016.

RECOMMENDATION FOR ACTION

→ Kosovo should commit to respect and implement the Convention on Cluster Munitions (CCM) and to clear all CMR as soon as possible.

CONTAMINATION

At the end of 2016, contamination from CMR in Kosovo was estimated to cover a total of 15km² across 53 areas, according to the Kosovo Mine Action Centre (KMAC).¹ This compares to the KMAC estimate of 16km² over 55 areas at the end of 2015.²

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 the North Atlantic Treaty Organization (NATO) in 1999.³ 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.⁴ Forces of the FRY also used cluster munitions during the 1998–99 conflict in Kosovo.⁵ The failure rate of the submunitions was typically between 10% and 15%, resulting in tens of thousands of unexploded submunitions lying on and under the ground. A large clearance programme followed in 1999 under a United Nations (UN) mandate, but this ended prematurely in 2001, leaving many CMR-contaminated areas still needing to be cleared.⁶

In 2013, The HALO Trust and KMAC conducted a joint non-technical survey of cluster munition strikes and minefields across Kosovo, with the exception of four districts in the north. The survey identified 130 CHAs: 51 cluster munition strikes, covering 7.63km², and 79 mined areas over 2.76km².⁷

In 2015, Norwegian People's Aid (NPA), in coordination with KMAC and local municipality authorities, conducted non-technical survey of the four northern municipalities, which were not covered in the 2013 HALO Trust/KMAC survey.⁸ The NPA survey confirmed 8.9km² of CMR contamination in three of the four municipalities surveyed (Leposavic, Zubin Potok, and Zvecan). No CMR contamination was found in the fourth (Mitrovica North).⁹ On the basis of available evidence, NPA believes that 83 cluster bombs were dropped in this region, dispersing a total of 17,041 submunitions.¹⁰

Cluster munition contamination in Kosovo impedes and endangers use of the land for agriculture, pasture, tourism, and firewood collection, and most directly affects the rural poor.¹¹ Kosovo is a small country with a relatively large population, and CMR often exists in close proximity to human activity.¹² In 2016, at the Doganaj CMR clearance task in Kaçanik municipality, Ferizaj region, The HALO Trust reported clearing BLU-97 submunitions around houses, farming land, grazing land, and woodland, as well as near a football pitch.¹³

NPA's 2015 non-technical survey in northern Kosovo revealed that of the confirmed CMR-contaminated area, 43% is mountainous, in area intended for tourism (a key developmental potential for the region), 25% is agricultural land, and 23% forests.¹⁴ In the three CMR-contaminated provinces in northern Kosovo, NPA identified 995 local inhabitants as being directly vulnerable, and a further 1,027 as indirectly vulnerable.¹⁵

Other Explosive Remnants of War and Landmines

Kosovo is contaminated with anti-personnel mines. It also remains affected by explosive remnants of war (ERW) other than CMR. Most ERW consists of unexploded aircraft bombs (located mainly in the west of the province) and items of abandoned explosive ordnance (AXO). However, explosive ordnance disposal (EOD) teams continue to encounter items of unexploded ordnance (UXO) dating back to World War II.¹⁶ Kosovo Protection Force (KFOR) explosive ordnance disposal (EOD) teams regularly dispose of items of AXO in response to information provided by the public and demining organisations.¹⁷

PROGRAMME MANAGEMENT

In January 2011, the EOD Coordination Management Section became KMAC under the Ministry of the Kosovo Security Forces (KSF). KMAC is responsible for managing clearance of mines and ERW. It prepares an annual workplan in cooperation with demining non-governmental organisations (NGOs) and coordinates operations of both the NGOs and KFOR. It also coordinates survey, quality assurance, risk education, public information, and victim assistance.¹⁸

Strategic Planning

A 2015–18 multi-year strategic plan for the Kosovo Mine Action Programme aims to reduce the social, economic, and environmental impact of mines, submunitions, and other UXO in Kosovo.¹⁹ Clearance of CMR is not expected to be completed before 2024.²⁰

Legislation and Standards

Kosovo has a law on humanitarian demining, which was adopted on 11 April 2012, in addition to other relevant regulations.²¹ Kosovo does have mine action standards in place, which are said to conform to the International Mine Action Standards (IMAS).²²

Quality Management

KMAC has two Quality Assurance (QA) officers, who conduct site visits to ensure work is conducted in accordance with IMAS and standing operating procedures (SOPs).²³

Operators

The KSF provide clearance capacity in Kosovo, including round-the-clock EOD emergency response.²⁴ In addition, humanitarian operators The HALO Trust and NPA also conducted battle area clearance (BAC) in 2016.²⁵ Overall capacity increased in Kosovo in 2016, due to US funding to The HALO Trust and NPA.²⁶

In 2016, The HALO Trust deployed two BAC teams totalling 20 operational staff,²⁷ which was a similar capacity to 2015.²⁸ The HALO Trust expected its BAC capacity to remain constant in 2017.²⁹

NPA deployed one BAC team totalling eight operational staff from Bosnia and Herzegovina, in 2016.³⁰ NPA planned to increase this capacity from July 2017, to two national teams, totalling 17 operational staff.³¹ Neither explosive/special detection dogs (EDDs/SDDs) nor machines are currently used in BAC operations in Kosovo.³² In 2017, however, NPA planned to conduct a three-month pilot project using special detection dogs for targeted technical survey.³³

KSF operated three platoons with 75 deminers also trained for BAC, and a fourth platoon with 25 clearance personnel trained solely to conduct EOD rapid response tasks.³⁴

LAND RELEASE

A total of almost 0.47km² of CMR-contaminated area was cleared in 2016, and almost 0.12km² was reduced by technical survey.³⁵ No area was reported as cancelled by non-technical survey.³⁶

Survey in 2016

In November 2016, NPA started technical survey in Boljetin, Zvecan municipality, in northern Kosovo, reducing 118,500m² prior to suspending the task for the year on 7 December, due to winter weather. During the survey one submunition was discovered, on 6 December 2016. Follow-on clearance commenced on 28 February 2017, at the start of the new demining season, and a further nine submunitions were found and destroyed.³⁷

Clearance in 2016

KSF and The HALO Trust collectively cleared almost 0.47km² in 2016 with the destruction of 33 submunitions (see Table 1),³⁸ an increase over the 0.34km² cleared in 2015.³⁹

In 2016, KSF released two confirmed hazardous areas (CHAs) by clearance and worked on three others that were suspended at the end of the demining season, clearing 247,213m² in total. In the course of clearance, 15 submunitions as well as 396 other items of UXO, 7 anti-personnel mines, and 25 anti-vehicle mines were destroyed.⁴⁰

The HALO Trust cleared 217,830m² of area containing CMR in 2016, during which 18 submunitions were destroyed.⁴¹

Table 1: Clearance of CMR-contaminated areas in 2016⁴²

Operator	Areas cleared	Area cleared (m ²)	Submunitions destroyed	AP mines destroyed	AV mines destroyed	UXO destroyed
KSF	2	247,213	15	7	25	396
The HALO Trust	1	217,830	18	0	0	0
Totals	3	465,043	33	7	25	396

AP = Anti-personnel AV = Anti-vehicle

According to KMAC, CMR-contaminated areas with high impact are prioritised for clearance, based on the number, location, and livelihoods of communities at risk, and also taking into consideration risk education and development. Clearance operations focus on areas confirmed as CMR-contaminated rather than on suspected hazardous areas (SHAs).⁴³

A 2014 evaluation of Kosovo's mine action programme, conducted on behalf of the International Trust Fund (ITF) Enhancing Human Security, concluded that KSF and The HALO Trust, would not be able to complete clearance

operations until 2026 using their existing capacity and procedures. The evaluation report suggested that if both organisations, with existing capacity, had access to HSTAMIDS (Handheld Standoff Mine Detection Systems) and adopted NPA's cluster munition remnants survey (CMRS) methodology, clearance could be completed in nine years. Since the 2014 evaluation, HSTAMIDS has been introduced, and the clearance capacity has grown, but The HALO Trust remains unconvinced that CMRS methodology presents advantages in the context of Kosovo.⁴⁴

ARTICLE 4 COMPLIANCE

Kosovo is neither a state party nor a signatory 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.

With adequate funding, KMAC and The HALO Trust now predict that clearance of CMR will be completed by 2024.⁴⁵ This would be 25 years after the end of the conflict between the FRY forces and NATO and more than 20 years after the UN claimed that the clearance of the province was largely complete.

The Kosovo government provides approximately €125,000 in financial support to KMAC and €960,000 to the KSF for mine and CMR clearance.⁴⁶ KMAC expected to maintain the same level of donor funding in 2017.⁴⁷ In 2016, The HALO Trust and NPA were awarded a joint tender to clear a total of seven CMR tasks.⁴⁸

Unfortunately the misperception that CMR and mine clearance in Kosovo was completed in 2001 persists, whereas the reality is that significant contamination remains to be cleared. Kosovo is a poor country and needs economic assistance to help it complete cluster munition clearance in a timely manner, otherwise completion risks being prolonged for decades after the end of the conflict.⁴⁹

- 1 Email from Ahmet Sallova, Head, KMAC, 20 February 2017.
- 2 Email from Ahmet Sallova, KMAC, 12 April 2016.
- 3 See United Nations Mission in Kosovo (UNMIK), "UNMIK OKPCC EOD Management Section Annual Report 2005", Pristina, 18 January 2006, p. 2; and International Committee of the Red Cross (ICRC), *Explosive Remnants of War, Cluster Bombs and Landmines in Kosovo*, Geneva, rev. June 2001, p. 6.
- 4 ICRC, *Explosive Remnants of War, Cluster Bombs and Landmines in Kosovo*, rev. June 2001, Geneva, pp. 4 and 6; and The HALO Trust, "Action on cluster munitions in Kosovo", 10 September 2015, at: <https://www.halostrust.org/media-centre/news/action-on-cluster-munitions-in-kosovo/>.
- 5 Human Rights Watch (HRW) and Landmine Action, *Banning Cluster Munitions Government Policy and Practice*, Mines Action Canada, Ottawa, 2009, p. 238; and ICRC, *Explosive Remnants of War, Cluster Bombs and Landmines in Kosovo*, rev. June 2001, Geneva, p. 6.
- 6 A. Moore, The HALO Trust, "Action on cluster munitions in Kosovo", Side event, First CCM Review Conference, Dubrovnik, 10 September 2015.
- 7 Ibid.
- 8 NPA, *Cluster Munition Remnants in Northern Kosovo: non-technical survey of contamination and impact*, September 2015; and email from Goran Peršić, NPA Bosnia and Herzegovina, 13 May 2016.
- 9 Ibid.
- 10 NPA, *Cluster Munition Remnants in Northern Kosovo: non-technical survey of contamination and impact*, September 2015.
- 11 Email from Ahmet Sallova, KMAC, 20 February 2017; and The HALO Trust, "Kosovo", webpage accessed 5 May 2017 at: <https://www.halostrust.org/where-we-work/europe-and-caucasus/kosovo/>.
- 12 A. Moore, "Action on cluster munitions in Kosovo", Side event, First CCM Review Conference, Dubrovnik, 10 September 2015.
- 13 Email from Ash Boddy, HALO Trust, 29 April 2017.
- 14 NPA, *Cluster Munition Remnants in Northern Kosovo: non-technical survey of contamination and impact*, September 2015, pp. 7 and 18.
- 15 Ibid.
- 16 UNMIK, "OKPCC EOD Management Section Annual Report 2008", Pristina, 12 January 2009, p. 4.
- 17 Email from Ahmet Sallova, KMAC, 1 August 2012.
- 18 Ibid.
- 19 Emails from Ahmet Sallova, KMAC, 20 February 2017; and Andrew Moore, then Caucasus and Balkans Desk Officer, HALO Trust, 2 June 2016.
- 20 Emails from Ahmet Sallova, KMAC, 20 February 2017; and Ash Boddy, HALO Trust, 29 April 2017.
- 21 Emails from Ahmet Sallova, KMAC, 16 June and 3 July 2017.
- 22 Emails from Ahmet Sallova, KMAC, 12 April 2016; and Andrew Moore, Former Caucasus and Balkans Desk Officer, HALO Trust, 2 June 2016.
- 23 Emails from Ahmet Sallova, KMAC, 20 February 2017; and Ash Boddy, HALO Trust, 29 April 2017.
- 24 A. Moore, HALO Trust, "Action on cluster munitions in Kosovo", Side event, First CCM Review Conference, Dubrovnik, 10 September 2015.
- 25 Email from Ahmet Sallova, KMAC, 20 February 2017.
- 26 Ibid.
- 27 Email from Ash Boddy, HALO Trust, 29 April 2017.
- 28 Email from Admir Berisha, Kosovo Programme Manager, HALO Trust, 24 May 2016.
- 29 Email from Ash Boddy, HALO Trust, 29 April 2017.
- 30 Email from Terje Eldøen, Country Director, NPA Kosovo, 4 May 2017.
- 31 Ibid.
- 32 Ibid.
- 33 Ibid.
- 34 Email from Ahmet Sallova, KMAC, 7 June 2016.
- 35 Emails from Ahmet Sallova, KMAC, 20 February 2017; and Terje Eldøen, NPA, 4 May 2017.
- 36 Email from Ahmet Sallova, KMAC, 20 February 2017.
- 37 Emails from Terje Eldøen, NPA, 4 May and 5 May 2017.
- 38 Email from Ahmet Sallova, KMAC, 20 February 2017.
- 39 Email from Ahmet Sallova, KMAC, 12 April 2016.
- 40 Email from Ahmet Sallova, KMAC, 20 February 2017.
- 41 Email from Ash Boddy, HALO Trust, 23 June 2017.
- 42 Email from Ahmet Sallova, KMAC, 20 February 2017. Of the 362,916m² reported by KMAC for HALO, 217,830m² was BAC and the remainder was manual mine clearance. Email from Ash Boddy, HALO Trust, 23 June 2017.
- 43 Emails from Ahmet Sallova, KMAC, 20 February 2017; and Terje Eldøen, NPA, 4 May 2017; and Ash Boddy, HALO Trust, 29 April 2017.
- 44 Email from Ash Boddy, HALO Trust, 5 May 2017.
- 45 Emails from Ahmet Sallova, KMAC, 20 February 2017; and Ash Boddy, HALO Trust, 29 April 2017.
- 46 Email from Ahmet Sallova, KMAC, 20 February 2017.
- 47 Ibid.
- 48 Email from Ash Boddy, HALO Trust, 29 April 2017.
- 49 A. Moore, The HALO Trust, "Action on cluster munitions in Kosovo", Side event, First CCM Review Conference, Dubrovnik, 10 September 2015.

NAGORNO-KARABAKH

PROGRAMME PERFORMANCE

	2016	2015
Problem understood	6	6
Target date for completion of cluster munition clearance	3	3
Targeted clearance	6	6
Efficient clearance	6	6
National funding of programme	2	2
Timely clearance	5	5
Land release system in place	7	7
National mine action standards	7	7
Reporting on progress	5	5
Improving performance	3	3
PERFORMANCE SCORE: AVERAGE	5.0	5.0

PERFORMANCE COMMENTARY

Cluster munitions were used in 2016 during conflict in Nagorno-Karabakh. During survey in 2016, legacy contamination from cluster munition remnants (CMR) was also discovered by The HALO Trust in Stepanakert, a district not previously reported as affected. Clearance output of almost 3.3km² in 2016 showed an increase over the previous year's results, mainly due to emergency clearance of new CMR contamination resulting from the April 2016 conflict.

RECOMMENDATIONS FOR ACTION

- The Nagorno-Karabakh authorities should make a formal commitment to respect and implement the Convention on Cluster Munitions (CCM) and to clear all CMR.
- The Nagorno-Karabakh authorities should provide funding for CMR survey and clearance.

CONTAMINATION

The exact extent of contamination from CMR in Nagorno-Karabakh is not known, but it is significant and widespread.¹ As at end 2016, CMR contamination (both surface and subsurface) was estimated to be almost 72km² across 212 confirmed hazardous areas (CHAs), in seven of a total of eight districts (see Table 1).²

Table 1: CMR contamination by district (as at end 2016)³

District	CHAs	Area (km ²)
Askeran	54	20.61
Hadrut	28	10.54
Lachin	17	8.50
Martakert	46	12.18
Martuni	58	15.59
Shushi	8	4.00
Stepanakert	1	0.50
Totals	212	71.92

This represents a significant increase on the 67km² across 202 CHAs in six districts, as at the end of 2015,⁴ and results from CMR survey confirming 7.59km² of CMR contamination, including in Stepanakert district, which was not previously reported as CMR-contaminated. The contamination in Stepanakert district was discovered by The HALO Trust during survey in 2016.⁵

In 1988, a decision by the parliament of the Nagorno-Karabakh Autonomous Province to secede from Azerbaijan and join Armenia resulted in armed conflict from 1988 to 1994 between Armenia and Azerbaijan. Large numbers of cluster munitions were dropped from the air during the conflict. Nagorno-Karabakh declared independence in 1991 but this has not been internationally recognised.

On 1 April 2016, intense fighting broke out in Nagorno-Karabakh along the front line between Armenian and Nagorno-Karabakh forces and the armed forces of Azerbaijan. While ground fighting was confined to areas close to the Line of Contact (LOC), artillery fire penetrated more than 10km into Nagorno-Karabakh, and included the use of cluster munitions. A ceasefire was agreed on 5 April 2016.⁶ The HALO Trust estimated that the four days of hostilities added 2km² of new CMR contamination;⁷ the Nagorno-Karabakh authorities put the figure at 3.14km².⁸

Nagorno-Karabakh has CMR in most regions, but particularly Askeran, Martakert, and Martuni, where more than three-quarters of remaining contamination is located. The presence of submunitions does not, in most instances, deny access to land, and many CMR-contaminated areas have been cultivated continuously for 20 years or more. Between 1996 and 2016, The HALO Trust recorded 17 incidents from submunitions (approximately 6% of all recorded incidents), including seven fatalities. The last recorded incident involving CMR was in November 2015, which resulted in a farmer suffering fragmentation injuries.⁹

Other Explosive Remnants of War and Landmines

Nagorno-Karabakh is also contaminated by other explosive remnants of war (ERW) and landmines.¹⁰

PROGRAMME MANAGEMENT

A mine action coordination committee is responsible for liaising between the local authorities and The HALO Trust.¹¹ Regular coordination committee meetings are held between the local authorities, The HALO Trust, and the International Committee of the Red Cross (ICRC).¹²

In 2000, The HALO Trust established the Nagorno-Karabakh Mine Action Centre (NKMAL), which consolidates all mine action-related information and responds to requests from the government ministries, non-governmental organisations (NGOs), and local communities.¹³ The NKMAL maintains maps and a database of all suspected hazardous areas surveyed, all areas cleared of mines and ERW, locations of all mine- and ERW-related incidents, and a record of all risk education given.¹⁴

Standards and Quality Management

No national standards exist in Nagorno-Karabakh, and The HALO Trust follows its own standing operating procedures (SOPs).

Similarly, The HALO Trust uses its own quality management systems, with quality assurance (QA) and quality control (QC) applied by four levels of management.¹⁵

Operators

Since 2000, The HALO Trust has been the sole organisation conducting land release in Nagorno-Karabakh. HALO Trust's Nagorno-Karabakh operations cover both CMR clearance and mine clearance, and The HALO Trust does not field separate teams dedicated solely to either. Operational staff are trained and experienced in working in both capacities.¹⁶ After the April 2016 conflict, HALO Trust's survey teams collaborated with the local authorities' Service of Emergency Situations to survey new contamination rapidly, and destroy submunitions close to populated areas.¹⁷

In 2016, The HALO Trust employed an average of 142 personnel, an increase compared to over the 123 staff average for 2015.¹⁸ Between January and December 2016, its total capacity for mine and CMR operations grew from nine operational teams to fifteen.¹⁹

Over the course of 2016, HALO Trust battle area clearance (BAC) teams were employed for 209 days, compared to 162 the previous year. This reflected the increased time spent in 2016 conducting subsurface clearance of contamination resulting from the April 2016 combat.²⁰

LAND RELEASE

A total of almost 3.3km² of area contaminated with CMR was released by clearance in 2015,²¹ compared with 2.9km² in 2015.²² No land was reported to have been reduced by technical survey.

Survey in 2016

No area was reduced by technical survey or cancelled by non-technical survey in 2016. The HALO Trust did however, confirm 14 areas totalling almost 7.6km² as CMR-contaminated.²³

In order to determine whether a strike requires further clearance, The HALO Trust initially surveys a 500,000m² area around evidence of submunitions. Clearance starts from the centre of the area of known evidence and extends outwards, employing a buffer. If no further evidence of CMR is found, the remaining area is reduced.²⁴

Clearance in 2016

Just over 3.28km² of land across two completed tasks was released by clearance by The HALO Trust in 2016, during which 83 submunitions were destroyed, along with 1 other item of unexploded ordnance (UXO).²⁵ Of this, 2.73km² was released by surface BAC and 0.55km² by subsurface BAC.²⁶

The total clearance for the year included clearance of CMR contamination in the villages of Nerkin Horatagh and Mokhratagh in the north-east Martakert region, which resulted from the April 2016 fighting.²⁷ Surface contamination clearance of these two tasks was completed in 2016 by two United States Agency for International Development (USAID)-funded HALO Trust teams. Subsurface CMR clearance of the agricultural land in the two tasks which was conducted by one HALO Trust survey team funded by the private Swiss Foundation, World Without Mines, was completed in February 2017. In total, 79 M095 submunitions were destroyed during surface and subsurface clearance in these two tasks in the Martakert area.²⁸ The Nagorno Karabakh authorities reported that the State Service of Emergency Situations destroyed a further 187 submunitions, during joint clearance operations with The HALO Trust in the Martakert region.²⁹ The HALO Trust began addressing the new contamination in the two villages as soon as the April 2016 fighting stopped, both because of the sensitivity of the M095 submunitions and their proximity to people's homes as well as the impact on their livelihoods.³⁰

In addition to planned clearance, The HALO Trust was called out to 170 EOD tasks in 2016, during which 85 submunitions were destroyed along with 510 other items of UXO, stray ammunition and air-dropped bombs, 90 anti-personnel mines, and 21 anti-vehicle mines.³¹

The 2016 clearance output was a slight increase over the previous year, when The HALO Trust cleared 2.9km² of land.³² The main reason for the increase was the emergency clearance of the April 2016 contamination, but overall HALO Trust's CMR clearance operations continue to remain a "secondary" activity, as per the donors' request to prioritise mine clearance.³³ Since most reported accidents in Nagorno-Karabakh are the result of mines/UXO, and not CMR, The HALO Trust continues to believe this prioritisation is justified.³⁴ Most submunition clearance is conducted on days when minefields cannot be accessed safely due to the adverse weather during the winter months.³⁵

Prioritisation of mine clearance in Nagorno-Karabakh was further strengthened by an anonymous private donor offering matching funding for completion of all confirmed mined areas in the green areas of Nagorno-Karabakh (those between the traditional Soviet Oblast boundary, the existing militarised line of contact with Azerbaijan, and the internationally recognised borders of Azerbaijan, Armenia, and Iran).³⁶

Progress in 2017

As at April 2017, The HALO Trust was investigating CMR contamination resulting from the April 2016 conflict, in the Jabrail (also spelt Jabrayil) region of Hadrut province, in the south-east of Nagorno-Karabakh.³⁷ The Nagorno-Karabakh authorities reported that in the Hadrut region, the State Service for Emergency Situations and The HALO Trust jointly surveyed almost 1.42km² and destroyed five unexploded submunitions (9N210 and 9N235).³⁸

ARTICLE 4 COMPLIANCE

Nagorno-Karabakh is neither a state party nor a signatory 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. No target date has been set to complete clearance of CMR.

The Nagorno-Karabakh authorities do not provide The HALO Trust with any funding for clearance of CMR-contaminated or mined areas.³⁹

Progress in clearance of CMR has fluctuated over the last five years, as shown in Table 2. The HALO Trust is currently prioritising clearance of mine contamination, as part of its efforts to complete clearance of all accessible mined areas by 2020, and The HALO Trust deploys teams to conduct BAC only in a reserve capacity.⁴⁰

Table 2: Clearance of CMR-contaminated area in 2012–16⁴¹

Year	Area cleared (km ²)
2016	3.28
2015	2.91
2014	13.01
2013	4.65
2012	7.6
Total	31.45

In October 2013, The HALO Trust secured a grant of US\$5 million from USAID for the next two and a half years of operations.⁴² In October 2014, however, HALO Trust's USAID budget in Nagorno-Karabakh was reduced by 25% for the fiscal year 2015, resulting in redundancy for 43 operational staff.⁴³ The HALO Trust saw its expected

USAID funding reduced for the 2016/17 financial year, but its operational capacity has not been impacted.⁴⁴

USAID has requested that funds be used for clearance operations within the former Soviet-era Nagorno-Karabakh Autonomous Oblast (NKAO), and that The HALO Trust focus on mine clearance.⁴⁵ USAID is, however, continuing to fund one HALO Trust team to conduct survey of cluster munition contamination throughout 2017.⁴⁶ Overall, though, CMR surface clearance is funded by USAID as a secondary activity, to be conducted when access to minefields is limited during winter months.⁴⁷

In addition, The HALO Trust received funding from the Armenian Diaspora organisation "Landmine Free Artsakh" (LFA), and a private donor.⁴⁸ Funding to The HALO Trust from the United Kingdom Foreign and Commonwealth Office (FCO), through its conflict, stability and security fund (CSFF), ended on 31 March 2017.⁴⁹

While surface clearance of legacy CMR contamination within the NKAO boundaries of Nagorno-Karabakh could potentially be completed within a few years, this would still leave subsurface contamination within the NKAO boundaries of Nagorno-Karabakh, in addition to CMR contamination in areas outside the NKAO which are under the control of the Nagorno-Karabakh forces. The HALO Trust hopes to clear Nagorno-Karabakh of all mines by 2020, but no equivalent target date exists for CMR.⁵⁰

The international isolation of Nagorno-Karabakh also makes it difficult for The HALO Trust to raise funds to work in the region, and funds raised are often subject to territorial restrictions.⁵¹ Almost no CMR is conducted outside the NKAO.⁵² Funding is needed to prevent Nagorno-Karabakh's communities being blighted by mines and CMR for decades to come.⁵³

- 1 Email from Andrew Moore, Caucasus and Balkans Desk Officer, HALO Trust, 29 May 2015.
- 2 Email from Ash Boddy, Regional Director Nagorno-Karabakh, HALO Trust, 13 April 2017.
- 3 Ibid.
- 4 Email from Andrew Moore, HALO Trust, 26 May 2016.
- 5 Email from Ash Boddy, HALO Trust, 27 April 2017.
- 6 The HALO Trust, "HALO Trust begins emergency clearance in Karabakh", 19 April 2016, at: <https://www.halotrust.org/media-centre/news/halo-begins-emergency-clearance-in-karabakh/>.
- 7 Email from Andrew Moore, HALO Trust, 26 May 2016.
- 8 Email to Mary Wareham, Human Rights Watch, from Armine Aleksanyan, Nagorno-Karabakh Ministry of Foreign Affairs, 30 May 2017.
- 9 Email from Ash Boddy, HALO Trust, 13 April 2017.
- 10 The HALO Trust, "Nagorno-Karabakh", accessed 13 April 2017 at: <https://www.halotrust.org/minefreenk/>.
- 11 Email from Andrew Moore, HALO Trust, 28 June 2013.
- 12 Email from Andrew Moore, HALO Trust, 26 May 2016.
- 13 Email from Andrew Moore, HALO Trust, 28 June 2013.
- 14 United States Agency for International Development (USAID), "De-mining Needs Assessment in Nagorno-Karabakh", September 2013, p. vii.
- 15 Email from Andrew Moore, HALO Trust, 26 May 2016.
- 16 Email from Andrew Moore, HALO Trust, 22 May 2015.
- 17 Email from Andrew Moore, HALO Trust, 26 May 2016.
- 18 Email from Ash Boddy, HALO Trust, 13 April 2017.
- 19 Emails from Ash Boddy, HALO Trust, 27 and 29 April 2017.
- 20 Email from Ash Boddy, HALO Trust, 13 April 2017.
- 21 Ibid.
- 22 Email from Andrew Moore, HALO Trust, 26 May 2016.
- 23 Ibid.
- 24 Ibid., and email from Ash Boddy, HALO Trust, 13 April 2017.
- 25 Email from Ash Boddy, HALO Trust, 13 April 2017.
- 26 Ibid.
- 27 HALO Trust, "HALO Trust begins emergency clearance in Karabakh", 19 April 2016; and email from Ash Boddy, HALO Trust, 13 April 2017.
- 28 Email from Ash Boddy, HALO Trust, 13 April 2017. The Nagorno-Karabakh authorities reported that 86 submunitions were destroyed by The HALO Trust. Email to Mary Wareham, Human Rights Watch, from Armine Aleksanyan, Nagorno-Karabakh Ministry of Foreign Affairs, 30 May 2017. This comprises 79 submunitions destroyed during clearance and a further 7 destroyed during EOD call-outs.
- 29 Email to Mary Wareham, Human Rights Watch, from Armine Aleksanyan, Nagorno-Karabakh Ministry of Foreign Affairs, 30 May 2017.
- 30 Ibid.
- 31 Ibid.
- 32 Emails from Andrew Moore, HALO Trust, 26 May and 7 June 2016.
- 33 Email from Andrew Moore, HALO Trust, 7 June 2016.
- 34 Ibid., and email from Ash Boddy, HALO Trust, 13 April 2017.
- 35 Email from Andrew Moore, HALO Trust, 7 June 2016.
- 36 Email from Ash Boddy, HALO Trust, 13 April 2017.
- 37 Email from Ash Boddy, HALO Trust, 27 April 2017.
- 38 Email to Mary Wareham, Human Rights Watch, from Armine Aleksanyan, Nagorno-Karabakh Ministry of Foreign Affairs, 30 May 2017.
- 39 Email from Ash Boddy, HALO Trust, 13 April 2017.
- 40 Ibid.
- 41 See Cluster Munition Monitor and Mine Action Review reports on Nagorno-Karabakh covering 2012–16.
- 42 See Cluster Munition Monitor reports on Nagorno-Karabakh covering 2011–14; and email from Andrew Moore, HALO Trust, 19 March 2014.
- 43 Email from Andrew Moore, HALO Trust, 26 May 2016.
- 44 Email from Ash Boddy, HALO Trust, 13 April 2017.
- 45 Emails from Andrew Moore, HALO Trust, 26 May 2016 and 11 June 2015.
- 46 Email from Ash Boddy, HALO Trust, 13 April 2017.
- 47 Email from Andrew Moore, HALO Trust, 26 May 2016.
- 48 USAID, "De-mining Needs Assessment in Nagorno-Karabakh", September 2013; and email from Andrew Moore, HALO Trust, 19 March 2014.
- 49 Email from Ash Boddy, HALO Trust, 27 April 2017.
- 50 Emails from Andrew Moore, HALO Trust, 26 May 2016, and Ash Boddy, HALO Trust, 14 April 2017.
- 51 HALO Trust website, accessed 27 May 2015, at: <http://www.halotrust.org/where-we-work/nagorno-karabakh>.
- 52 Email from Andrew Moore, HALO Trust, 11 June 2015.
- 53 HALO Trust website, accessed 27 May 2015.

WESTERN SAHARA



PROGRAMME PERFORMANCE	2016	2015
Problem understood	7	7
Target date for completion of cluster munition clearance	4	4
Targeted clearance	8	7
Efficient clearance	6	6
National funding of programme	4	4
Timely clearance	5	5
Land release system in place	7	7
National mine action standards	9	8
Reporting on progress	5	5
Improving performance	6	6
PERFORMANCE SCORE: AVERAGE	6.1	5.9

PERFORMANCE COMMENTARY

Progress to address remaining cluster munition contamination in Western Sahara was hindered in 2016 by a six-month shutdown of United Nations Mine Action Service (UNMAS)-contracted demining operations due to a political issue with Morocco. At the same time, despite a resulting decrease in the amount of cluster munition remnants (CMR) clearance, new funding for an additional team towards the end of the year and deployment on high density cluster munition-contaminated areas meant the number of CMR destroyed in 2016 increased by more than 40% compared to 2015. According to UNMAS, clearance of remaining CMR contamination could be completed by 2019.

RECOMMENDATIONS FOR ACTION

- The Saharawi Arab Democratic Republic (SADR) should make a formal commitment to respect and implement the Convention on Cluster Munitions (CCM) and to clear all CMR east of the Berm as soon as possible.
- Morocco should ensure freedom of access and unhindered movement of all civilian UN Mission for the Referendum in Western Sahara (MINURSO) and UNMAS staff and take all necessary measures to facilitate the conduct of demining.
- Morocco is strongly encouraged to provide cluster strike data to other relevant stakeholders to facilitate survey and clearance of CMR.

CONTAMINATION

Western Sahara had 4.5km² of confirmed hazardous areas (CHAs) containing CMR east of the Berm as at the end of 2016.¹ Of this, six cluster munition strike areas with a total size of 0.5km² are located inside the buffer strip and are inaccessible for clearance.² Confirmed CMR contamination has decreased from the 55 areas totalling 4.89km² recorded at the end of 2015.³

Both the north and south of Western Sahara still contain confirmed CMR-contaminated areas, as set out in Table 1.⁴

Table 1: CMR contamination east of the Berm (as at end 2016)⁵

Region	CHAs	Area (km ²)
North	18	0.92
South	26	3.58
Totals	44	4.50

The Royal Moroccan Armed Forces (RMAF) used both artillery-fired and air-dropped cluster munitions against Polisario Front forces during their conflict in Western Sahara from 1975 to 1991. According to SADR, BLU-63, M42, and Mk118 submunitions were used by the RMAF at multiple locations in Bir Lahlou, Dougaj, Mehaires, Mijek, and North Wadis.⁶

While CMR clearance had been projected to be completed by the end of 2012,⁷ discovery of previously unknown contaminated areas meant this target date was not met. New contaminated areas have continued to be identified, with an additional five cluster munition strike areas with a total size of nearly 0.26km² discovered in 2016.⁸ New strike areas are expected to be found in the future as mine action activities continue and additional information is received from local populations.⁹

The six cluster munition strike areas located inside the buffer strip, with an estimated total size of 520,609m², may increase if restrictions on access to the buffer strip are lifted, allowing survey and clearance to be conducted.¹⁰ However, clearance of the buffer strip of mines and ERW is not foreseen in MINURSO mission agreements, which according to the UN, considerably limits the ability of MINURSO military observers to patrol and verify developments.¹¹

Other Explosive Remnants of War and Landmines

Western Sahara also remains significantly affected by mines and explosive remnants of war (ERW) other than CMR due to the conflict. The contamination remains a daily threat to the local and nomadic populations, as well as to UN personnel and humanitarian actors.¹²

In 2016, UNMAS reported that CMR contamination continued to block access to arable land and water sources for the local population and impeded the free movement of UN personnel, due to the close proximity of unexploded submunitions to patrol routes and areas of UN operations.¹³

PROGRAMME MANAGEMENT

MINURSO manages a Mine Action Coordination Centre (MACC), which was upgraded from a mine “cell” in February 2008. MINURSO MACC supports mine action activities, which were implemented by commercial contractor Dynasafe MineTech Limited (DML) and NGO Norwegian People’s Aid (NPA) in 2016.¹⁴

In 2013, the Polisario Front established a local mine action coordination centre (the Saharawi Mine Action Coordination Office, SMACO), which is responsible for coordinating mine action activities in Western Sahara east of the Berm and for land release activities.¹⁵ SMACO, which was established with UN support, started its activities in January 2014.

Strategic Planning

MINURSO MACC’s activities are conducted in accordance with the Strategy of the United Nations on Mine Action 2013–18 and the International Mine Action Standards (IMAS). UNMAS planned to develop a mine action strategy specific to Western Sahara in the second half of 2015.¹⁶ As at April 2017, the strategy was still considered a draft and not publicly available. However, according to UNMAS, it identifies priorities for tackling CMR contamination and sets a target to release all recorded cluster munition strike areas east of the Berm by the end of 2019.¹⁷ It also foresees the completion of non-technical survey in 2017/2018 and a 50% reduction in the total number of recorded suspected and confirmed hazardous areas remaining on the territory of Western Sahara by the end of 2022.¹⁸

In 2016, UNMAS, together with SMACO, finalised the development of local mine action standards applicable east of the Berm, in coordination with mine action partners, which include provisions specific to the survey and clearance of cluster munition remnants. In May 2017, UNMAS reported that the standards had been disseminated to all mine action stakeholders and that their implementation was jointly monitored by MINURSO MACC and SMACO, pending their official certification by SMACO.¹⁹ According to NPA, the standards were in the process of being translated into Arabic.²⁰

UNMAS reported that the MACC identifies priorities for clearance of both cluster munition strike areas and minefield clearance to the east of the Berm in conjunction with SMACO and MINURSO. Priorities for CMR clearance are strike areas that restrict MINURSO from carrying out its mandate and areas established with SMACO that hinder the safety of movement of local communities.²¹

Operators

DML (formerly Mine Tech International, MTI) was the only implementing operator tasked with conducting CMR survey and clearance during 2016.²² NPA did not have any tasks related to CMR contamination. It deployed two Multi-Task Teams (MTTs) to conduct mine clearance.²³

In January–November 2016, there were a total of five MTTs in Western Sahara (three Dynasafe MineTech Limited (DML) teams and two NPA teams), with one DML team deployed to conduct CMR survey and clearance. In November 2016, new funding from Germany allowed three additional DML teams to be deployed, making a total of eight operational MTTs, with a second DML team assigned to CMR survey and clearance.²⁴

Quality Management

An external quality management system is in place and is implemented by MINURSO MACC, which consists of inspection visits for the accreditation of MTT teams as well as during clearance. UNMAS reported that, during 2016, a total of nine quality assurance (QA) visits were conducted to assess cluster munition clearance tasks.²⁵

According to NPA, SMACO also conducted external QA and quality control (QC) activities. However, in April–September 2016, no external QA/QC was carried out on demining activities owing to the expulsion of UNMAS and MINURSO staff from Western Sahara by Morocco.²⁶

Information Management

UNMAS claimed that significant improvements were made to the Information Management System for Mine Action (IMSMA) database for Western Sahara in 2016 as a result of an ongoing data audit initiated at the end of 2015, which filtered out duplicate information. Revised standing operating procedures for data management were also introduced with a stronger emphasis on the verification of information, it said.²⁷

UNMAS and NPA initiated a project, funded by Germany, to build SMACO's capacity for information management, which included the training of a local Information Management Officer in 2016. NPA reported that the management of the IMSMA database by MINURSO MACC and SMACO had improved, with better access, coordination, and communication between the two entities following the relocation of the MACC to Tindouf, Algeria, in September 2016.²⁸

LAND RELEASE

Total CMR-contaminated area released by clearance in 2016 was just over 1.21km², a decrease on the 1.84km² cleared in 2015, which UNMAS reported was due to the suspension of mine action activities in March–September 2016.²⁹

Survey in 2016

In 2016, DML identified five previously unrecorded cluster munition strike areas totalling 256,735m² through its survey activities.³⁰

Clearance in 2016

In 2016, UNMAS reported that DML cleared 17 CMR-contaminated areas with a total size of 1,208,930m² to the east of the Berm, destroying 335 submunitions and another 95 items of UXO.³¹ This compares to the clearance of 11 CMR-contaminated areas totalling 1,841,225m² in 2015.³² While the six-month suspension of its activities during the year accounted for the decrease in the total amount of CMR-contamination cleared by DML, the number of cluster munition remnants it destroyed increased by more than 40% compared to the previous year. This resulted from the addition of a second MTT focusing on CMR contamination in November 2016, and the deployment of both teams on heavily contaminated areas.³³

ARTICLE 4 COMPLIANCE

Western Sahara is neither a state party nor a signatory to the CCM and therefore does not have a specific clearance deadline under Article 4. However, the SADR submitted a voluntary CCM Article 7 transparency report to the UN in 2014, stating that “By submitting its voluntary report, the SADR would like to reaffirm its commitment to a total ban on cluster munitions as well as its willingness to accede to the Convention on Cluster Munitions and be bound by its provisions”.³⁴ The SADR also has obligations under international human rights law to clear CMR as soon as possible.

As noted above, in 2016, the six-month suspension of operations negatively affected UNMAS’ yearly operational targets. Additionally, UNMAS reported that delays to clearing confirmed CMR-contaminated areas continued, the result of restrictions on accessing certain areas of the buffer strip established by various MINURSO mission agreements.³⁵ NPA cited other challenges to operations, including working in a remote desert environment allied to serious difficulties with the procurement of certain equipment and materials.³⁶ Temperatures of up to 60 degrees Celsius, strong winds, sandstorms, and heavy rain during the wet season can also cause mine action activities to be suspended.³⁷

Under Western Sahara’s new draft mine action strategic plan, all recorded cluster munition strike areas to the east of the Berm should be released by 2019.³⁸ UNMAS expected to complete clearance of all 10 recorded strike areas outside the buffer strip in the Bir Lahlou, Mehaires, and Tifariti districts by the end of 2017.³⁹ It predicted that the increase in capacity in November 2016 would be maintained throughout the year as operational funding for the additional teams had been secured for 24 months.⁴⁰

In 2017, NPA planned to deploy an additional MTT with the capacity to carry out battle area clearance (BAC), explosive ordnance disposal (EOD), and survey, alongside its mine clearance operations. As at April 2017, it was planning to begin EOD training for the team, with the aim of conducting BAC on cluster munition strike areas in the future.⁴¹

Table 2: Five-year summary of clearance

Year	Area cleared (m²)
2016	1,208,930
2015	1,841,225
2014	1,756,566
2013	985,000
2012	819,122
Total	6,610,843

In keeping with previous estimates, UNMAS estimated that all high and medium hazardous areas in Western Sahara east of the Berm, including mined areas, could be released by 2025.⁴²

Following a visit by former UN Secretary-General Ban Ki-moon to Sahrawi refugee camps in southern Algeria in March 2016 and his use of the term “occupation” to describe the political status of Western Sahara, Morocco ordered the expulsion of 84 civilian staff members of MINURSO, including the international staff of UNMAS. This resulted in the suspension of UNMAS-contracted demining activities in Western Sahara east of the Berm from 20 March to 15 September 2016.⁴³

On 29 April 2016, the UN Security Council voted to extend MINURSO’s mandate in Western Sahara for one year until 30 April 2017. In doing so, it emphasised strongly “the urgent need for the mission to return to full functionality”, noting that MINURSO had been unable to fully carry out its mandate as the majority of its civilian component had been prevented from performing their duties.⁴⁴ The mandate was subsequently updated for a further year until the end of April 2018.⁴⁵

UNMAS reported that mine action operations returned to full capacity in September 2016, when it relocated to Tindouf, Algeria. In March 2017, it stated that there were no restrictions on movement in UNMAS’s areas of operations east of the Berm.⁴⁶ NPA raised concerns, however, that the events of 2016 could complicate access to the Berm and negatively affect donor interest in Western Sahara.⁴⁷

- 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 The buffer strip is an area 5km wide, east of the Berm. UN Mission for the Referendum in Western Sahara (MINURSO), "Ceasefire Monitoring Overview", undated, accessed 1 June 2016, at: <https://minurso.unmissions.org/Default.aspx?tabid=11421&language=en-US>.
- 3 Emails from Graeme Abernethy, UNMAS, 27 May 2016; and Sarah Holland, Programme Officer, UNMAS, 23 May 2016.
- 4 Email from Virginie Auger, Associate Programme Officer, UNMAS, 15 March 2017.
- 5 Emails from Virginie Auger, UNMAS, 17 May, 10 May, and 15 March 2017. UNMAS previously reported that there were 55 confirmed hazardous areas remaining at the end of 2015. However, it informed Mine Action Review that there was one suspected cluster munition strike area that was pending survey and not reported in the total, which accounts for the apparent discrepancy in its reporting of contamination remaining at the end of 2015 and progress in release in 2016. Bir Lahlou (also spelled Bir Lehlou), Mehaires [also spelled Meharrize] and Tifariti are considered to make up the north, and Mijek and Agwanit the south. Email from Graeme Abernethy, Programme Manager, UNMAS, 9 June 2015.
- 6 SADR Voluntary CCM Article 7 Report, Form F, 20 June 2014; and Cluster Munition Monitor, "Cluster Munition Ban Policy: Western Sahara", updated 12 August 2014, at: http://www.the-monitor.org/index.php/cp/display/region_profiles/theme/.
- 7 Email from Karl Greenwood, Chief of Operations, AOA/V/Mechem Western Sahara Programme, AOA/V, 18 June 2012.
- 8 Email from Virginie Auger, UNMAS, 15 March 2017.
- 9 Emails from Sarah Holland, UNMAS, 23 May 2016; and Gordan Novak, AOA/V Western Sahara, 25 July 2014.
- 10 Emails from Virginie Auger, UNMAS, 15 March 2017; Sarah Holland, UNMAS, 23 May 2016; and Graeme Abernethy, UNMAS, 27 May 2016. The six areas were identified in a 2008 survey.
- 11 "Report of the Secretary-General on the situation concerning Western Sahara", UN doc. S/2017/307, 10 April 2017, p. 8, at: <http://reliefweb.int/sites/reliefweb.int/files/resources/N1709720.pdf>.
- 12 Email from Virginie Auger, UNMAS, 15 March 2017.
- 13 Ibid.
- 14 Ibid.
- 15 Response to questionnaire by Sarah Holland, UNMAS, 24 February 2014, and email, 25 February 2014.
- 16 Email from Sarah Holland, UNMAS, 5 June 2015.
- 17 Emails from Virginie Auger, UNMAS, 24 April 2017 and 29 March 2017.
- 18 Email from El Hadji Mamadou Kebe, Programme Manager, NPA, 8 April 2017.
- 19 Email from Virginie Auger, UNMAS, 17 May 2017.
- 20 Email from El Hadji Mamadou Kebe, NPA, 8 April 2017.
- 21 Email from Virginie Auger, UNMAS, 15 March 2017.
- 22 The company changed its name on 3 August 2015 to Dynasafe MineTech Limited. Dynasafe website, "History of MineTech", accessed 10 May 2016, at: <http://www.minetech.co.uk/who-we-are/history-of-minetech/>.
- 23 Email from El Hadji Mamadou Kebe, NPA, 8 April 2017.
- 24 Email from Virginie Auger, UNMAS, 10 May 2017.
- 25 Email from Virginie Auger, UNMAS, 15 March 2017.
- 26 Email from El Hadji Mamadou Kebe, NPA, 8 April 2017.
- 27 Emails from Virginie Auger, UNMAS, 24 April 2017 and 29 March 2017.
- 28 Email from El Hadji Mamadou Kebe, NPA, 8 April 2017.
- 29 Emails from Virginie Auger, UNMAS, 15 March 2017; and Sarah Holland, UNMAS, 21 April 2016 and 18 May 2015.
- 30 Emails from Virginie Auger, UNMAS, 15 March 2017; and Sarah Holland, UNMAS, 21 April 2016. DML declined to provide data directly to Mine Action Review and requested that UNMAS data be used instead. Email from Melanie Villegas, Project Executive, DML, 3 March 2017.
- 31 Email from Virginie Auger, UNMAS, 15 March 2017.
- 32 Email from Sarah Holland, UNMAS, 21 April 2016.
- 33 Email from Virginie Auger, UNMAS, 10 May 2017.
- 34 SADR Voluntary CCM Article 7 Report, Form F, 20 June 2014; and Cluster Munition Monitor, "Cluster Munition Ban Policy: Western Sahara", updated 12 August 2014.
- 35 Email from Virginie Auger, UNMAS, 15 March 2017.
- 36 Email from El Hadji Mamadou Kebe, NPA, 8 April 2017.
- 37 UNMAS, "About UNMAS in Western Sahara", updated January 2017, at: <http://www.mineaction.org/programmes/westernsahara>
- 38 Email from Virginie Auger, UNMAS, 29 March 2017.
- 39 Email from Virginie Auger, UNMAS, 15 March 2017.
- 40 Ibid.
- 41 Email from El Hadji Mamadou Kebe, NPA, 8 April 2017.
- 42 Emails from Virginie Auger, UNMAS, 10 May and 29 March 2017; and Sarah Holland, UNMAS, 21 April and 18 May 2016.
- 43 "Report of the Secretary-General on the situation concerning Western Sahara", UN doc. S/2017/307, 10 April 2017, p. 8; R. Gladstone, "Morocco Orders U.N. to Cut Staff in Disputed Western Sahara Territory", *New York Times*, 17 March 2016, at: http://www.nytimes.com/2016/03/18/world/africa/morocco-orders-un-to-cut-staff-in-disputed-western-sahara-territory.html?_r=0; and What's in Blue: Insights on the work of the UN Security Council, "Western Sahara: Arria-formula Meeting, Consultations, and MINURSO Adoption", 26 April 2016, at: <http://www.whatsinblue.org/2016/04/western-sahara-arria-formula-meeting-consultations-and-minurso-adoption.php>.
- 44 UN Security Council Resolution 2285 (2016), 29 April 2016.
- 45 UN Security Council Resolution 2351 (2017), 28 April 2017.
- 46 Email from Virginie Auger, UNMAS, 29 March 2017.
- 47 Email from El Hadji Mamadou Kebe, NPA, 8 April 2017.

ANNEXES



ANNEX 1: ARTICLE 4 OF THE CONVENTION ON CLUSTER MUNITIONS

ARTICLE 4: CLEARANCE AND DESTRUCTION OF CLUSTER MUNITION REMNANTS AND RISK REDUCTION EDUCATION

1. Each State Party undertakes to clear and destroy, or ensure the clearance and destruction of, cluster munition remnants located in cluster munition contaminated areas under its jurisdiction or control, as follows:

- (a) Where cluster munition remnants are located in areas under its jurisdiction or control at the date of entry into force of this Convention for that State Party, such clearance and destruction shall be completed as soon as possible but not later than ten years from that date;
- (b) Where, after entry into force of this Convention for that State Party, cluster munitions have become cluster munition remnants located in areas under its jurisdiction or control, such clearance and destruction must be completed as soon as possible but not later than ten years after the end of the active hostilities during which such cluster munitions became cluster munition remnants; and
- (c) Upon fulfilling either of its obligations set out in sub-paragraphs (a) and (b) of this paragraph, that State Party shall make a declaration of compliance to the next Meeting of States Parties.

2. In fulfilling its obligations under paragraph 1 of this Article, each State Party shall take the following measures as soon as possible, taking into consideration the provisions of Article 6 of this Convention regarding international cooperation and assistance:

- (a) Survey, assess and record the threat posed by cluster munition remnants, making every effort to identify all cluster munition contaminated areas under its jurisdiction or control;
- (b) Assess and prioritise needs in terms of marking, protection of civilians, clearance and destruction, and take steps to mobilise resources and develop a national plan to carry out these activities, building, where appropriate, upon existing structures, experiences and methodologies;

- (c) Take all feasible steps to ensure that all cluster munition contaminated areas under its jurisdiction or control are perimeter-marked, monitored and protected by fencing or other means to ensure the effective exclusion of civilians. Warning signs based on methods of marking readily recognisable by the affected community should be utilised in the marking of suspected hazardous areas. Signs and other hazardous area boundary markers should, as far as possible, be visible, legible, durable and resistant to environmental effects and should clearly identify which side of the marked boundary is considered to be within the cluster munition contaminated areas and which side is considered to be safe;
- (d) Clear and destroy all cluster munition remnants located in areas under its jurisdiction or control; and
- (e) Conduct risk reduction education to ensure awareness among civilians living in or around cluster munition contaminated areas of the risks posed by such remnants.

3. In conducting the activities referred to in paragraph 2 of this Article, each State Party shall take into account international standards, including the International Mine Action Standards (IMAS).

4. This paragraph shall apply in cases in which cluster munitions have been used or abandoned by one State Party prior to entry into force of this Convention for that State Party and have become cluster munition remnants that are located in areas under the jurisdiction or control of another State Party at the time of entry into force of this Convention for the latter.

- (a) In such cases, upon entry into force of this Convention for both States Parties, the former State Party is strongly encouraged to provide, inter alia, technical, financial, material or human resources assistance to the latter State Party, either bilaterally or through a mutually agreed third party, including through the United Nations system or other relevant organisations, to facilitate the marking, clearance and destruction of such cluster munition remnants.
- (b) Such assistance shall include, where available, information on types and quantities of the cluster munitions used, precise locations of cluster munition strikes and areas in which cluster munition remnants are known to be located.

5. If a State Party believes that it will be unable to clear and destroy or ensure the clearance and destruction of all cluster munition remnants referred to in paragraph 1 of this Article within ten years of the entry into force of this Convention for that State Party, it may submit a request to a Meeting of States Parties or a Review Conference for an extension of the deadline for completing the clearance and destruction of such cluster munition remnants by a period of up to five years. The requested extension shall not exceed the number of years strictly necessary for that State Party to complete its obligations under paragraph 1 of this Article.

6. A request for an extension shall be submitted to a Meeting of States Parties or a Review Conference prior to the expiry of the time period referred to in paragraph 1 of this Article for that State Party. Each request shall be submitted a minimum of nine months prior to the Meeting of States Parties or Review Conference at which it is to be considered. Each request shall set out:

- (a) The duration of the proposed extension;
- (b) A detailed explanation of the reasons for the proposed extension, including the financial and technical means available to and required by the State Party for the clearance and destruction of all cluster munition remnants during the proposed extension;
- (c) The preparation of future work and the status of work already conducted under national clearance and demining programmes during the initial ten year period referred to in paragraph 1 of this Article and any subsequent extensions;
- (d) The total area containing cluster munition remnants at the time of entry into force of this Convention for that State Party and any additional areas containing cluster munition remnants discovered after such entry into force;
- (e) The total area containing cluster munition remnants cleared since entry into force of this Convention;
- (f) The total area containing cluster munition remnants remaining to be cleared during the proposed extension;
- (g) The circumstances that have impeded the ability of the State Party to destroy all cluster munition remnants located in areas under its jurisdiction or control during the initial ten year period referred to in paragraph 1 of this Article, and those that may impede this ability during the proposed extension;
- (h) The humanitarian, social, economic and environmental implications of the proposed extension; and
- (i) Any other information relevant to the request for the proposed extension.

7. The Meeting of States Parties or the Review Conference shall, taking into consideration the factors referred to in paragraph 6 of this Article, including, inter alia, the quantities of cluster munition remnants reported, assess the request and decide by a majority of votes of States Parties present and voting whether to grant the request for an extension. The States Parties may decide to grant a shorter extension than that requested and may propose benchmarks for the extension, as appropriate.

8. Such an extension may be renewed by a period of up to five years upon the submission of a new request, in accordance with paragraphs 5, 6 and 7 of this Article. In requesting a further extension a State Party shall submit relevant additional information on what has been undertaken during the previous extension granted pursuant to this Article.

ANNEX 2: REPORTING TEMPLATES

Annex 2 provides templates for reporting accurately and meaningfully on cluster munition remnants (CMR) contamination and identification and release of land confirmed or suspected to contain CMR.

Table 1: CMR contamination by province as at the end of [2016]

Province/Region	No. of CHAs with CMR	Area (km ²)	No. of SHAs with CMR	Area (km ²)
Totals				

CHAs = Confirmed hazardous areas SHAs = Suspected hazardous areas

Table 2: Non-technical survey in [2016]

Operator	No. of SHAs cancelled	Area cancelled (km ²)	No. of SHAs confirmed as CMR contaminated	Area confirmed (km ²)
Totals				

Table 3: Technical survey of CMR-suspected area in [2016]

Operator	Area covered (km ²)	No. of CHAs identified	Area confirmed (km ²)	Area reduced (km ²)
Totals				

Table 4: Clearance of CMR-contaminated areas in [2016]

Operator	No. of areas cleared	Area cleared (km²)	Submunitions destroyed	Other UXO destroyed	APM destroyed	AVM destroyed
Totals						

APM = Anti-personnel mine AVM = Anti-vehicle mine UXO = Unexploded ordnance

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

APM	Anti-personnel	NGO	Non-governmental organization
APM	Anti-personnel mine	NMAA	National Mine Action Authority
APMBC	Anti-Personnel Mine Ban Convention	NMAS	National Mine Action Standards
AV	Anti-vehicle	NPA	Norwegian People's Aid
AVM	Anti-vehicle mine	NTS	Non-technical survey
AXO	Abandoned explosive ordnance	NTSG	National Technical Standards and Guidelines
BAC	Battle area clearance	QA	Quality assurance
BLS	Baseline survey	QC	Quality control
CHA	Confirmed hazardous area	RACC	Route Assessment and Clearance Capacity (team)
CCM	Convention on Cluster Munitions	SHA	Suspected hazardous area
CCW	Convention on Certain Conventional Weapons	TS	Technical survey
CMR	Cluster munition remnants	UK	United Kingdom
CMRS	Cluster Munition Remnants Survey	UN	United Nations
DCA	DanChurchAid	UNDP	United Nations Development Programme
DDG	Danish Demining Group	UNICEF	United Nations Children's Fund
DRC	Democratic Republic of Congo	UNMAS	United Nations Mine Action Service
EOD	Explosive ordnance disposal	US	United States
ERW	Explosive remnants of war	UXO	Unexploded ordnance
EU	European Union		
FSD	Swiss Foundation for Mine Action		
HALO	The HALO Trust		
HI	Handicap International		
ICC	Integrated Clearance Capacity (team)		
IED	Improvised explosive devices		
IMAS	International Mine Action Standards		
IMSMA	Information Management System for Mine Action		
Lao PDR	Lao People's Democratic Republic		
LOC	Line of contact		
MAC	Mine action centre		
MACCA	Mine Action Coordination Centre of Afghanistan		
MAG	Mines Advisory Group		
MAPA	Mine Action Programme of Afghanistan		
MDD	Mine detection dog (team)		
MoU	Memorandum of Understanding		
MTT	Multi-Task Team		
NATO	North Atlantic Treaty Organization		

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