The rapid and efficient clearance of cluster munition remnants (CMR) around the world is a priority for Norwegian People’s Aid’s Department for Humanitarian Disarmament. We believe that, in most affected states, the problem can be addressed in just a few years or even months through an effective and targeted response.

Over the past two years, we have been conducting survey, and where necessary, clearance of CMR in a dozen states: Bosnia and Herzegovina, Cambodia, Grenada, Lao People’s Democratic Republic, Lebanon, Libya, Mauritania, Montenegro, Mozambique, Serbia, South Sudan, and Vietnam. While priority is given to survey and clearance in affected states parties to the Convention on Cluster Munitions (CCM), we offer support and technical assistance to all states and territories that wish to address CMR on their territory in a timely fashion.

The solution to the CMR problem is, however, not only an operational one. Monitoring and advocacy are also both critical to ensuring that the necessary political will is generated to effectively tackle CMR contamination. For this reason, NPA has supported the work of the International Campaign to Ban Landmines-Cluster Munition Coalition’s Cluster Munition Monitor since its inception and continues to do so, accepting primary responsibility for objective research into CMR survey and clearance around the world.

Based on the success of its publication Clearing the Mines, which was presented to the Third Review Conference of the Anti-Personnel Mine Ban Convention in 2014, Norwegian People’s Aid (NPA) decided to support the creation of Mine Action Monitor.

Mine Action Monitor is an independent research and monitoring endeavour which aims to facilitate the implementation of survey and clearance obligations laid down in the Anti-Personnel Mine Ban Convention (APMbC) and the CCM. The present publication, Clearing Cluster Munition Remnants, is the first product of this new initiative, focusing on implementation of Article 4 of the CCM. NPA acknowledge the need to work closely with other operators, to improve the sector but also to put weight behind arguments on how to reach Article 4 (and APMBC Article 5) completion. NPA acknowledges the inputs of all organisations to this publication, and in particular those of Mines Advisory Group and The HALO Trust.

Although NPA directly supports the work of Mine Action Monitor, with funding kindly provided by the Royal Norwegian Ministry of Foreign Affairs, all of the Monitor’s editorial decisions are taken independently of NPA, governments, and other non-governmental organisations (NGOs). This editorial independence is, we believe, critical to its credibility and effectiveness. We hope that Clearing Cluster Munition Remnants will prove an invaluable resource to states parties and signatories to the CCM, as well as to other states and donors, the United Nations, and NGOs. The publication and all individual country reports are available for download at www.mineactionmonitor.org, and comments on any aspect of the publication may be sent by email to feedback@mineactionmonitor.org.
CLEARING CLUSTER MUNITION REMNANTS

A REPORT BY MINE ACTION MONITOR FOR THE FIRST REVIEW CONFERENCE OF THE CONVENTION ON CLUSTER MUNITIONS

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OVERVIEW OF PROGRESS

In the five years since the entry into force of the Convention on Cluster Munitions (CCM), solid, though unspectacular, progress has been made towards ridding the world of unexploded submunitions and other cluster munition remnants (CMR).

Since the CCM’s adoption in 2008, nine states have completed CMR survey and, where necessary, clearance: Albania, the Republic of Congo, Grenada, Guinea-Bissau, Mauritania, Norway, Thailand, Uganda, and Zambia. Since 1 January 2018 and through to the end of 2014, more than 255km² of land has been cleared of CMR, with the destruction of more than 295,000 submunitions. Furthermore, due to huge under-reporting, these figures do not by any means reflect the achievements of the international community in addressing this particularly hazardous form of contamination.

Yet, in too many contaminated states, particularly those that are party or signatory to the CCM, progress is either sluggish or non-existent, due largely to lack of political will, poor survey, and insufficient funding. Among others, states parties Chad, Chile, and Germany should already have completed requisite survey and be carrying out full clearance of hazardous areas. Montenegro and Mozambique, both also states parties, should have declared completion of clearance by now, while signatories Angola and Colombia may be in a position to do so as soon as the requisite survey is conducted. Time is of the essence. For while recorded casualties from submunitions remain low, the impact of CMR on broader human security and on development is substantial.
GLOBAL CMR CONTAMINATION

As of August 2015, Mine Action Monitor believed or strongly suspected that at least 29 states and three areas were still affected by CMR.1 Of these, 12 were states parties to the CCM, four were signatories, and 13 were not party (see Table 1).

Table 1: Global contamination from CMR

<table>
<thead>
<tr>
<th>States parties</th>
<th>Signatory states</th>
<th>States not party</th>
<th>Other areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>Angola*</td>
<td>Azerbaijani**</td>
<td>Kosovo</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>Colombia*</td>
<td>Cambodia</td>
<td>Nagorno-Karabakh</td>
</tr>
<tr>
<td>Chad</td>
<td>DR Congo</td>
<td>Georgia**</td>
<td>Western Sahara</td>
</tr>
<tr>
<td>Chile</td>
<td>Somalia</td>
<td>Iran</td>
<td></td>
</tr>
<tr>
<td>Croatia</td>
<td>Libya</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany*</td>
<td>Serbia</td>
<td>South Sudan</td>
<td></td>
</tr>
<tr>
<td>Iraq</td>
<td>Sudan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lao PDR</td>
<td>Sudan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lebanon</td>
<td>Syria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Montenegro</td>
<td>Tajikistan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mozambique*</td>
<td>Ukraine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United Kingdom*</td>
<td>Vietnam</td>
<td>Yemen</td>
<td></td>
</tr>
</tbody>
</table>

* Contamination may be found not to exist once appropriate survey has been conducted.
** Contamination only believed to exist in areas not under the control of the government.

As Table 1 indicates, two states have cleared all CMR in areas under their control, but do not have access to other areas under their jurisdiction in which contamination is confirmed or strongly suspected. Furthermore, as many as five states may be able to declare that they no longer have CMR in areas under their jurisdiction or control once appropriate survey has been undertaken.

EXTENT OF CONTAMINATION

In many affected states, contamination is relatively limited and the problem manageable within a few months or years. The Lao People’s Democratic Republic (Lao PDR) and Vietnam, however, are massively contaminated (defined as contamination across more than 1,000km²), while heavy contamination exists in Cambodia and Iraq (covering more than 100km²). Most other states have considerably less, although in a number of cases the extent of contamination is simply unknown or unclear. Furthermore, inadequate earlier surveys in a number of contexts, notably Kosovo and Lebanon, mean that despite ongoing clearance efforts the overall assessment of contamination is not reducing, as previously unknown areas of contamination continue 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 Monitor based on available evidence, as opposed to the claims of governments or mine action programmes, which are sometimes unsubstantiated or improbable.

Table 2: Mine Action Monitor assessment of the extent of contamination

<table>
<thead>
<tr>
<th>Massive (&gt;1,000km²)</th>
<th>Heavy (100–1,000km²)</th>
<th>Medium (5–100km²)</th>
<th>Light (&lt;5km²)</th>
<th>Unclear*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lao PDR</td>
<td>Cambodia</td>
<td>Afghanistan</td>
<td>Angola</td>
<td>Azerbaijan</td>
</tr>
<tr>
<td>Vietnam</td>
<td>Iraq</td>
<td>Bosnia and Herzegovina</td>
<td>Colombia</td>
<td>Chad</td>
</tr>
<tr>
<td>Iraq</td>
<td>Chile</td>
<td>Kosovo</td>
<td>DR Congo</td>
<td>Somalia</td>
</tr>
<tr>
<td>Lebanon</td>
<td>Lebanon</td>
<td>German</td>
<td>Syria</td>
<td>Uganda</td>
</tr>
<tr>
<td>Montenegro</td>
<td>Nagorno-Karabakh</td>
<td>South Sudan</td>
<td>Libya</td>
<td></td>
</tr>
<tr>
<td>United Kingdom*</td>
<td>Yemen</td>
<td>Mozambique</td>
<td>Iran</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Serbia</td>
<td>Sudan</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tajikistan</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Unclear means that no credible estimate for contamination can be given although it is certain that CMR contamination remains.

During the Indochina Wars of the 1960s and 1970s, Lao PDR experienced the heaviest aerial bombardments in history, leaving it with the world’s worst contamination from unexploded submunitions. The United States of America dropped more than 270 million submunitions on Lao PDR, dozens of millions more on Vietnam, and at least 26 million on Cambodia, leaving tens of millions of unexploded submunitions that continue to kill and maim today.

In Iraq, the highway between Kuwait and Basra was heavily targeted by cluster bomb strikes in the 1991 Gulf War and cluster munitions were also used extensively during the 2003 invasion of Iraq, particularly around Basra, Nasiriyah, and the approaches to Baghdad. In 2004, Iraq’s National Mine Action Authority identified 2,208 areas containing CMR along the Tigris and Euphrates river valleys.

Most of Lebanon’s contamination is from the 2006 invasion by Israel (though some dates back to the 1980s), while Libya’s CMR threat is largely the consequence of use by the Gaddafi regime in 2011. To the extent Georgia is still affected, an issue that will only become clear if and when access is granted to South Ossetia, this is the result of the internal violence and external armed conflict with Russia in 2008. But while much of the global threat from CMR is the consequence of conflicts in earlier decades dating back to 1960, new contamination continues to occur, notably amid ongoing armed conflicts in Libya, South Sudan, Sudan, Syria, Ukraine, and Yemen.

Although the overwhelming majority of CMR result from armed conflict, contamination in Chile and Germany is purely the consequence of the deployment of cluster munitions on testing and training ranges.
Forty-five percent of all submunitions destroyed in 2014 were blown up during roving rather than planned operations. In terms of operators, UXO Lao, operating only in Lao PDR, led the way with the destruction of 25,689 submunitions during the year. Norwegian People's Aid (NPA) destroyed 16,601 submunitions in Bosnia and Herzegovina, Cambodia, Lao PDR, Lebanon, South Sudan, and Vietnam. Mines Advisory Group (MAG) destroyed 12,833 submunitions in Cambodia, the Democratic Republic of Congo (DRC), Lao PDR, Lebanon, South Sudan, and Vietnam. HALO Trust destroyed 5,254 submunitions in Georgia, Lao PDR, and Nagorno-Karabakh.  

All other states, however, whether or not they are signatories to the CCM, are bound by their obligations under international human rights law to protect life, which demand that clearance be completed as soon as possible, with preventive measures to protect civilians in the meantime. For instance, in the case of Albekov and others v. Russia, which concerned a failure to conduct mine clearance, 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.” Russia was not (and is not) a party to the Anti-Personnel Mine Ban Convention.
The quality of programmes for the survey and clearance of CMR varies widely among states parties and signatories (as it does among others). To help states parties and their partners focus their capacity building and technical assistance efforts on areas of weakness, a performance scoring system has been developed by Mine Action Monitor. Ten areas have been identified that have a particularly strong influence on the effectiveness and efficiency of a CMR survey and clearance programme, as shown in the table below.

A score of between 0 and 10 is accorded for each of the ten criteria and an average performance score calculated. Average scores above 8.0 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 below.

### Table 7: Programme performance in states parties with Article 4 obligations

<table>
<thead>
<tr>
<th>State</th>
<th>Performance score</th>
<th>Performance rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Croatia</td>
<td>7.0</td>
<td>Good</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>6.5</td>
<td>Average</td>
</tr>
<tr>
<td>DR Congo (signatory)</td>
<td>6.2</td>
<td>Average</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>6.1</td>
<td>Average</td>
</tr>
<tr>
<td>Mozambique</td>
<td>6.0</td>
<td>Average</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>5.9</td>
<td>Average but improving</td>
</tr>
<tr>
<td>Lebanon</td>
<td>5.6</td>
<td>Average</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>5.5</td>
<td>Average</td>
</tr>
<tr>
<td>Germany</td>
<td>5.4</td>
<td>Average</td>
</tr>
<tr>
<td>Montenegro</td>
<td>5.0</td>
<td>Average</td>
</tr>
<tr>
<td>Somalia (signatory)</td>
<td>4.9</td>
<td>Poor</td>
</tr>
<tr>
<td>Iraq</td>
<td>4.3</td>
<td>Poor</td>
</tr>
<tr>
<td>Chad</td>
<td>4.2</td>
<td>Poor</td>
</tr>
<tr>
<td>Chile</td>
<td>4.1</td>
<td>Poor</td>
</tr>
</tbody>
</table>

* Signatories DR Congo and Somalia are included as both have been tackling CMR contamination. The situation of CMR in Angola and Colombia is less clear, as noted below.

#### QUALITY OF SURVEY AND CLEARANCE PROGRAMMES

Survey and clearance of CMR differs from approaches used to tackle both landmines and other forms of unexploded ordnance (UXO).1 Unexploded submunitions, the mainstay of the CMR threat, are always found in cluster munition strike zones. Such contamination, whether delivered by ground-based systems or from the air, will always have a “footprint” (the area covered by the submunitions when they hit the ground),1 though informal or emergency clearance without careful recording of individual submunitions that have been removed may have distorted it.

Multiple overlapping footprints may impede accurate identification of each of the footprints. The size of each footprint in a strike zone will depend on factors such as the type and age of the cluster munition used, methods of delivery, soil conditions, vegetation, and terrain fluctuations. Unlike mines, all submunitions contain a high amount of metal.

**Efficient release of areas suspected or confirmed to contain CMR demands a tailored and systematic approach that privileges survey and information management over clearance in areas suspected to contain unexploded submunitions.**

Bombing data has proven fairly accurate in some contexts but less accurate or even non-existent in others. Other variables that differ from one context to another include the type and age of cluster munitions, deployment methods, topography, vegetation, and ground conditions. It is thus not possible to develop a single response that would work everywhere. Generic survey and land release principles must be adapted to suit the local context. There is typically confusion about the difference between suspected hazardous areas (SHAs) and confirmed hazardous areas (CHAs). SHAs are all too often presented, incorrectly, as a useful measure of the scope of an explosive threat; this inflates the real problem presented, incorrectly, as a useful measure of the scope of an explosive threat; this inflates the real problem.

CHAs should be established only on physical evidence of the presence of CMR. This is especially important in countries with historical contamination and where other information (such as bombing data) may be highly unreliable and inaccurate.
Non-technical survey describes detailed evidence-based survey activities that involve collecting and analysing information about CMR in an area. The objectives are to:

- confirm whether or not there is evidence of CMR;
- identify the type and extent of remnants and other hazards; and
- define, as far as possible, the perimeter of the contaminated area.

Technical survey describes a detailed survey intervention with assets that can detect or reveal CMR. It is usually integrated into the wider survey process. When applied outside a CHA its purpose is to assist the definition of specific CHAs and/or cancel land that was wrongly suspected to contain contamination. When applied inside a CHA its principal purpose is to indicate the absence of CMR, which will justify release of the survey, or the presence of such remnants, which indicates a requirement for clearance.

In sparsely vegetated areas, or if unexploded submunitions have been in the ground for many years, access by foot into contaminated areas is normally considered safe. While safety distances are always applied during subsurface clearance, the risk of accidental detonation during visual search is considered negligible. Surveyors may thus walk next to each other in a marked lane to ensure that the entire area is searched adequately.

The burial depth of unexploded submunitions is a function of specific CHAs and several external factors, including soil properties, vegetation, and topographic fluctuations. Some armed submunitions may be buried deeply while most are likely to be found on the surface or at shallow depths below it. It is unreasonably slow and costly to search systematically down to depths beyond 15–25cm (and occasionally below 100cm) to ensure that all submunitions are cleared.

Surface-located submunitions may become invisible over time. Instrument-aided surface search (e.g. using metal detectors tuned to low sensitivity) or explosive ordnance disposal (EOD) teams has the ability to search areas at shallow depths below it. It is unreasonably slow and costly to search systematically down to depths beyond 15–25cm (and occasionally below 100cm) to ensure that all submunitions are cleared.

Surface-located submunitions may become invisible over time. Instrument-aided surface search (e.g. using metal detectors tuned to low sensitivity, bomb locators tuned to low sensitivity, and large loop detectors) can reinforce surface search during technical survey. This process must be conducted with clearance. It is designed to help define a more accurate footprint.

In stark contrast with mine clearance, clearance of cluster munition remnants is typically attempted to work from the centre of the strike outwards. "Fadeout" is the distance to which search will continue after finding what is perceived as the last target item in a footprint or the last box (a defined and marked area to assist systematic clearance of a strike) with evidence points. The perceived maximum distance between two items (submunitions or fragments) should equal the minimum fadeout distance (which, in practice, will typically be 30–50 metres).

In states with historical contamination, a specific cluster munition remnant survey (CMRS) approach may be warranted. The CMRS methodology, which was developed by NPA in south-east Asia, includes systematic search over 50 by 50 metre boxes to confirm presence of contamination and thereby identify confirmed hazardous areas.

Mortar, rocket, and air-dropped cluster munitions that have failed to disperse submunitions and have impacted the ground loaded with unarmored submunitions should be dealt with like any other UXO items and not as a cluster strike. These are known as "failed cluster munitions" in the CCM.

**REPORTING ON SURVEY AND CLEARANCE**

It remains astonishing how poorly (and how infrequently) states report on their efforts to tackle CMR. Some of these states are the recipients of significant amounts of international cooperation and assistance, while others complain about lack of funding, but far too many are 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.

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

The Mine Action Standards (IMAS). They cover contamination, survey, and clearance, and are set out opposite. 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 Monitor has encountered in reports by states and operators are:

- Lack of understanding of what a suspected hazardous area (SHA) as compared to a confirmed hazardous area (CHA), and failure to distinguish between the two in reporting;
- 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;
- reporting cancellation of an SHA as clearance, or claiming the land has been "released";
- an inability (or refusal) to distinguish mine clearance from battle area clearance (BAC), and
- failure to disaggregate submunitions from other forms of UXO in clearance figures.

**MODEL REPORTING TEMPLATES FOR STATES AND OPERATORS**

### Table 8: CMR contamination by province (as of end 2014)

<table>
<thead>
<tr>
<th>Province</th>
<th>No. of confirmed areas</th>
<th>Area (km²)</th>
<th>No. of suspected areas</th>
<th>Area (km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As discussed, in reporting on survey the aim is to report on CHAs and to cancel or confirm SHAs using an appropriate combination of non-technical and technical survey. CHAs and SHAs must be clearly distinguished in reporting.

### Table 9: Survey of CMR-contaminated areas in (2014)

<table>
<thead>
<tr>
<th>Name of operator</th>
<th>No. of areas released</th>
<th>Area cleared (km²)</th>
<th>Submunitions destroyed</th>
<th>Other UXO destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Land previously classified as an SHA will be cancelled if a follow-on survey concludes that no hazards exist in these areas. Released land describes all or parts of a CHA where a legitimate claim of CMR has been eliminated through technical survey and/or clearance. Area released by technical survey is also called reduced land in the IMAS.

### Table 10: Clearance of CMR-contaminated area in (2014)

<table>
<thead>
<tr>
<th>Name of operator</th>
<th>No. of areas released</th>
<th>Area cleared (km²)</th>
<th>Submunitions destroyed</th>
<th>Other UXO destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
OUTLOOK AND RECOMMENDATIONS

Quality survey is the basis for all effective mine action, including clearance of CMR, but continues to be executed poorly in many affected countries. A thorough understanding of land release techniques and terminology, including among operators who should know better, is long overdue. With respect to CMR, Information Management System for Mine Action (IMSMA) templates should be changed to ensure that submunitions are systematically disaggregated from other UXO in clearance reports.

Finally, considerable human and financial resources have been dedicated to capacity building, especially for personnel in national mine action centres and other local mine action institutions. Given the continuing problems in understanding and applying land release approaches and then reporting on them to donors, states, and others, one is entitled to ask whether this work was carried out effectively; and thus whether it has been money well spent. It has been 20 years since the landmark United Nations Department of Humanitarian Affairs’ reports on the development of indigenous mine action capacities (covering Afghanistan, Angola, Cambodia, and Mozambique, together with a summary study report); perhaps it is time for the mine action community to take another hard look at its efforts to build capacity?

ENDNOTES

1 CMR are defined in the Convention on Cluster Munitions as comprising unexploded submunitions and bomblets and abandoned and failed cluster munitions. Failed cluster munitions are those where the container or dispenser has failed to open and/or disperse the submunitions. Abandoned cluster munitions are those that have not been used but have been effectively abandoned by the owner on foreign soil.

2 The UK is affected by cluster munition remnants that remain on the Falkland Islands/Malvinas. There is a sovereignty dispute with Argentina, which also claims jurisdiction over the islands. In addition, the following states are suspected still to have CMR on their territory: Eritrea, Ethiopia, Jordan, Kuwait, Russia, Saudi Arabia.

3 These are obligations of “due diligence” according to which a state must make all reasonable, good faith efforts to protect the lives of everyone under its jurisdiction or control.

4 European Court of Human Rights, Albakov and Others v. Russia, Judgment (Final), 6 April 2009; ¶90. See also Pasa and Erim Erdal v. Turkey, Judgment, 12 December 2009.

5 This section is based on NPA’s August 2014 publication, Cluster Munition Remnants, Methods of Survey and Clearance, available at www.npaid.org and www.mineactionmonitor.org.

6 The number of submunitions may to some degree determine the size of the footprint. A footprint from one cluster bomb will normally not exceed a length of 300 metres and a width of 200 metres.

7 Art. 2(6), CCM.

8 Art. 5(6) and 9, CCM.
CONTAMINATION
The Mine Action Coordination Centre of Afghanistan (MACCA) reported that at the end of 2014 there were 18 areas containing CMR covering a total of more than 7.26km²; a modest reduction from the 22 areas covering 7.64km² recorded in its Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request submitted in March 2012. By late April 2015, MACCA stated that total CMR contamination had dropped to 6.86km² covering four provinces. These areas are said to block access to grazing and agricultural land.

However, contamination by CMR appears more widespread than reported, as demining operators say they continue to find random submunitions on demining tasks. The extent of those finds is unclear as operators' standard reporting forms only provide for recording of UXO.

PROGRAMME MANAGEMENT
The Mine Action Programme of Afghanistan (MAPA) is coordinated by MACCA with the support of a UN Mine Action Service (UNMAS) project office.

STRATEGIC PLANNING
Afghanistan stated that it planned to release 66% of its CMR hazards by the end of 2015. The remaining hazardous areas would be tackled "later" because they were located in areas of insecurity. However, in its latest CCM Article 7 Report (for calendar year 2014), Afghanistan said it would clear CMR hazards in Nangarhar and Takhar provinces totalling 5km², nearly three-quarters of the remaining contamination, during Afghan year 1395 (which ends on 20 March 2017). It planned to clear a further three hazards totalling 0.8km² in Afghan year 1397, and the last known two hazards covering 1.06km² in Afghan year 1400 (which ends in March 2022, Afghanistan’s Article 4 clearance deadline).

LAND RELEASE
The MACCA recorded release of one CMR-contaminated area in 2014. MDC cleared 6,300m² destroying 20 submunitions. HALO Trust did not work on CMR hazards in 2014 but reported that it destroyed 12 submunitions in the course of mine clearance operations, and a further 93 in spot/roving explosive ordnance disposal and in the course of battle area clearance.

ENDNOTES
1. Email from MACCA, 30 April 2015; Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, 29 March 2012, p. 165.
2. CCM Article 7 Report for 2014, from F. The provinces are Maydan Wardak, Nangarhar, Paktya, and Takhar.
7. CCM Article 7 Report for 2014, from F.
8. Email from MACCA, 30 April 2015.
10. APMBC Article 5 deadline Extension Request, 29 March 2012, p. 164.
11. CCM Article 7 Report for 2014, from F.
BOSNIA AND HERZEGOVINA

CONTAMINATION

Bosnia and Herzegovina is contaminated with CMR, with 17 areas over a total of 0.78km² confirmed to contain CMR, while a further 400 areas over 8.76km² are suspected to contain CMR (see Table 1).1

Table 1: CMR contamination in BiH as of April 2015

<table>
<thead>
<tr>
<th>Administrative area</th>
<th>Suspected areas (km²)</th>
<th>Confirmed areas (km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uzician-Sanski canton</td>
<td>0.58</td>
<td>0.09</td>
</tr>
<tr>
<td>Posavski canton</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tuzlanski canton</td>
<td>1.45</td>
<td>0</td>
</tr>
<tr>
<td>Zeniće-Dobojanski canton</td>
<td>1.19</td>
<td>0</td>
</tr>
<tr>
<td>Bosansko-Podrinjanski canton</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Srednje-Bosanski canton</td>
<td>2.83</td>
<td>0.16</td>
</tr>
<tr>
<td>Hercegovska-Neretvanski canton</td>
<td>0.24</td>
<td>0</td>
</tr>
<tr>
<td>Zapadno-Hercegovska canton</td>
<td>0.13</td>
<td>0.04</td>
</tr>
<tr>
<td>Sarajevo canton</td>
<td>0.37</td>
<td>0.04</td>
</tr>
<tr>
<td>Canton 10</td>
<td>0.79</td>
<td>0.17</td>
</tr>
<tr>
<td>Total Federation BiH</td>
<td>7.58</td>
<td>0.50</td>
</tr>
<tr>
<td>Total Republika Srpska</td>
<td>1.18</td>
<td>0.28</td>
</tr>
<tr>
<td>Brčko district</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTALS</td>
<td>8.76</td>
<td>0.78</td>
</tr>
</tbody>
</table>

The BiH Mine Action Center (BHMAC) reported no casualties from submunitions for 2014.2

PROGRAMME MANAGEMENT

Established by a 2002 Decree of the Council of Ministers, BHMAC is responsible for regulating mine action and implementing BiH’s demining plan, including accreditation of all mine action organisations.3

STRATEGIC PLANNING

The BiH Mine Action Strategy for 2009–19 guides mine action in BiH but does not mention CMR clearance. BHMAC conducted the first of three planned revisions of the strategy in 2012–13, with the other two due in 2015 and 2017 respectively. The 2012 revision does refer to CMR clearance, but the revision was not formally adopted by the Council of Ministers, indicating a lack of political attention to mine action in BiH.4 BHMAC reported that its second planned revision would be completed by the end of 2015.5

OPERATORS

During 2014, three organisations were specifically accredited for cluster munition clearance and destruction: Norwegian People’s Aid (NPA), Civil Protection of the BiH Federation, and the BiH armed forces.4

STANDARDS

In 2015, BHMAC accepted NPA’s standing operating procedures for non-technical survey of areas suspected to contain CMR. National standards on technical survey and clearance of areas with CMR were already adopted in February 2013.6

RECOMMENDATIONS FOR ACTION

➔ Bosnia and Herzegovina (BiH) should accelerate clearance of cluster munition remnants (CMR) to fulfil its Article 4 obligations by the end of 2017, in advance of its treaty deadline.
➔ BiH should improve the accuracy and timeliness of its Convention on Cluster Munitions (CCM) Article 7 transparency reports on CMR contamination and clearance.
➔ BHMAC should revise its fade-out distances in accordance with best international practice to avoid unnecessary clearance.
LAND RELEASE

BiH released a total of more than 1.7 km² containing CMR in 2014. A total of 0.41 km² suspected to contain CMR was cancelled by non-technical survey and 1.07 km² was released by technical survey (see Table 2), while 0.26 km² of contaminated area was cleared (see Table 3).

SURVEY IN 2014

In 2014, NPA non-technical survey teams seconded to BHMAC regional offices conducted a survey of areas suspected to contain CMR. In this year, NPA demining teams also conducted seven technical survey and clearance tasks.10

Clearance in 2014

Three operators cleared a total of 0.26 km² containing CMR in 2014, destroying 581 submunitions (see Table 3).

Table 2. Survey in 2014

<table>
<thead>
<tr>
<th>Operator</th>
<th>SHA’s cancelled</th>
<th>Area cancelled (km²)</th>
<th>Areas confirmed to contain CMR</th>
<th>Confirmed area (km²)</th>
<th>Area released by technical survey (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHMAC</td>
<td>91</td>
<td>0.41</td>
<td>17</td>
<td>0.78</td>
<td>0</td>
</tr>
<tr>
<td>NPA</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>758,084</td>
</tr>
<tr>
<td>Armed Forces</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>270,509</td>
</tr>
<tr>
<td>Civil Protection</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>44,208</td>
</tr>
<tr>
<td>Federation BiH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>106</td>
<td>0.41</td>
<td>17</td>
<td>0.78</td>
<td>1,074,801</td>
</tr>
</tbody>
</table>

CLEARANCE IN 2014

Three operators cleared a total of 0.26 km² containing CMR in 2014, destroying 581 submunitions (see Table 3).

Table 3. Clearance of CMR-contaminated area in 201411

<table>
<thead>
<tr>
<th>Operator</th>
<th>Areas released (km²)</th>
<th>Submunitions destroyed</th>
<th>Other UXO destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPA</td>
<td>7</td>
<td>241,956</td>
<td>394</td>
</tr>
<tr>
<td>Civil Protection</td>
<td>3</td>
<td>18,261</td>
<td>57</td>
</tr>
<tr>
<td>Federation BiH</td>
<td></td>
<td>2,504</td>
<td>130</td>
</tr>
<tr>
<td>Totals</td>
<td>15</td>
<td>262,721</td>
<td>581</td>
</tr>
</tbody>
</table>

During 2014, NPA implemented a pilot project using special detection dogs (SSD) for technical survey and clearance of CMR-contaminated areas. According to NPA, the results of this project “gave important inputs for further definition of the process for using SSD in targeted technical survey in areas contaminated with cluster munition remnants.” This will enable “identification of footprints of a cluster munition strike… without established evidence points through previous non-technical survey.”12 In 2015, NPA was continuing to release CMR-contaminated areas through non-technical survey, technical survey and clearance. However, from May 2015 the number of NPA teams engaged in technical survey and clearance of CMR-contaminated areas contaminated was decreased from two to one.13

ENDNOTES

1 Email from Tarik Serak, Head, Department for Mine Action Management, BHMAC, 23 April 2015; and Amela Balic, Operations Manager, Norwegian People’s Aid (NPA) Bosnia, 15 April 2015.

2 Email from Tarik Serak, BHMAC, 23 April 2015.

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


6 UNDP, Draft Mine Action Governance and Management Assessment for Bosnia and Herzegovina, 13 May 2015, p. 17.

7 Email from Darvin Lisica, Programme Manager BiH, NPA, 11 August 2015.

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

9 Email from Darvin Lisica, Programme Manager BiH, NPA, 11 August 2015.

10 Email from Tarik Serak, BHMAC, 23 April 2015, and Amela Balic, NPA Bosnia, 15 April 2015.

11 Ibid, BHMAC’s CCM Article 7 Report for 2014 wrongly totals the number of submunitions destroyed as 251. See Form F(3).

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

13 Email from Darvin Lisica, Programme Manager BiH, NPA, 11 August 2015.

14 Email from Tarik Serak, BHMAC, 23 April 2015.

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


17 Email from Darvin Lisica, Programme Manager BiH, NPA, 11 August 2015.

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 on track to meet this deadline.

BHMAC has stated that they “do not expect any obstacles” in meeting their Article 4 deadline.14 NPA believes that “considering the scope of the problem of CMR contamination”, BiH could meet its clearance obligations under the CCM before its deadline if it were to include “engagement of national organizations (BiH Armed Forces and Civil Protection)” in the work.15 The 2012 Mine Action Strategy Revision had expected that BiH would “completely eliminate” all CMR-contaminated areas by 2015.16

NPA funding for CMR-related activities in BiH from a Norwegian TV appeal in 2011 ended in April 2015. Release of contaminated areas was continuing in 2015 supported by the Norwegian Ministry of Foreign Affairs.17
CHAD

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

PROGRAMME PERFORMANCE

<table>
<thead>
<tr>
<th>Item</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem understood</td>
<td>4</td>
</tr>
<tr>
<td>Target date for completion of clearance of cluster munition remnants</td>
<td>4</td>
</tr>
<tr>
<td>Targeted clearance</td>
<td>4</td>
</tr>
<tr>
<td>Efficient clearance</td>
<td>4</td>
</tr>
<tr>
<td>National funding of programme</td>
<td>4</td>
</tr>
<tr>
<td>Timely clearance</td>
<td>4</td>
</tr>
<tr>
<td>Land release system in place</td>
<td>6</td>
</tr>
<tr>
<td>National mine action standards</td>
<td>6</td>
</tr>
<tr>
<td>Reporting on progress</td>
<td>2</td>
</tr>
<tr>
<td>Improving performance</td>
<td>4</td>
</tr>
</tbody>
</table>

PERFORMANCE SCORE: 4.2 POOR

RECOMMENDATIONS FOR ACTION

- Chad should submit its two missing Article 7 transparency reports as soon as possible.
- Chad should provide information on the threat from cluster munition remnants (CMR) and any clearance it has conducted, and set out plans to address CMR as soon as possible.

CONTAMINATION

The extent of the remaining threat from CMR in Chad is unknown. Following the end of armed conflict with Libya in 1987, unexploded submunitions and cluster munition containers were found in the three northern provinces, in the Bitrine department in Wadi Fira region (north-eastern Chad), and east of the capital, N’Djamena.1 Mines Advisory Group (MAG) found unexploded Soviet antitank PETAB-1.5 submunitions during survey in an area close to Faya Largeau.2

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 a mine action centre, the National Demining Centre (Centre National de Déminalage, CND).

In late 2014, MAG, which had been Chad’s sole international demining operator in 2013 but had to withdraw from the country due to lack of funding, was contracted as part of a European Union-funded project (Projet d’appui au secteur du déminage au Tchad, PADEMIN) to conduct clearance, especially in the northern regions of Borkou, Ennedi, and Tibesti.3 MAG resumed demining operations in late 2014 with the new funds allocated by the European Union (EU).

Chad also reported in April 2015 that Handicap International, with funding from the PADEMIN project, had provided support to build CND’s capacity in 2014. The operator will also be conducting non-technical survey in the southern region Moyen-Chari.4

STRATEGIC PLANNING

In May 2013, the Government of Chad approved a new strategic mine action plan for 2013-17. This was aimed, among other things, at developing and maintaining an effective data collection and management system, strengthening national mine action capacities, and clearing contaminated areas.5 Following the request of the Thirteenth Meeting of States Parties to the Anti-Personnel Mine Ban Convention, the CND elaborated, with technical support from United Nations Development Programme (UNDP), a national mine action plan for 2014-19. The plan notes that Chad adhered to the CCM but does not detail plans to clear CMR.6

Since 2008, Chad’s mine action programme has suffered from a lack of international funding, weak government oversight, and persistent mismanagement within the CND, resulting in little or no demining until October 2012 when the EU provided funding to MAG.7 In 2012, management problems at the CND resulted in the dismissal of its director and hundreds of employees, resulting in a reduction in personnel from 720 to 320.8

A new director was appointed in 2013.9 CND demining operations have also been plagued by poor equipment and lack of funding. In an update to states parties in June 2014, Chad acknowledged difficulties faced by its national mine action centre and called for resumption of technical and operational assistance.10

LAND RELEASE

Chad has not submitted either its initial CCM Article 7 transparency report (due on 28 February 2014) or its annual report for 2014 (due by 30 April 2015). It is therefore in violation of the CCM.

In 2014, MAG was conducting clearance in Tibesti but has not reported in detail on its survey and clearance operations.11

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.

ENDNOTES
2. E-mail from Liebeschitz Rodolphe, UNDP, 21 February 2011; and Bruno Bouchardy, MAG Chad, 11 March 2011.
4. Statement of Chad, Third Meeting of States Parties to the CCM, Doha, 13 September 2012.
13. APMBC Article 7 Report, 1 April 2015, Form G.
POOR

RECOMMENDATIONS FOR ACTION

⇒ Chile should take the necessary measures to identify more accurately the extent of contamination and then address its areas contaminated with cluster munition remnants (CMR) in a timely manner.

⇒ Chile should submit its Convention on Cluster Munitions (CCM) Article 7 transparency reports in a timely manner.

CONTAMINATION

Chile has up to 97km² of CMR-contaminated area. It is also affected, to a limited extent, by other unexploded ordnance (UXO), with some 13km² of mined areas to release.

Three of 15 regions in Chile still contain areas with CMR as set out in Table 1. Contaminated areas are all located at military training bases where ammunition and munitions were used during training exercises. The contaminated area reported by Chile represents the total size of the training areas where cluster munitions were used. The precise extent of CMR contamination within the training area may well be smaller and will be determined through technical survey and clearance.

Table 1. CMR contamination by province as of June 2015

<table>
<thead>
<tr>
<th>Province</th>
<th>Confirmed areas</th>
<th>Area (km²)</th>
<th>Submunitions expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arica and Parinacota</td>
<td>1</td>
<td>33.71</td>
<td>608</td>
</tr>
<tr>
<td>Tarapacá</td>
<td>2</td>
<td>56.65</td>
<td>20</td>
</tr>
<tr>
<td>Magallanes and Antártica Chilena</td>
<td>1</td>
<td>6.52</td>
<td>20</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>4</strong></td>
<td><strong>96.88</strong></td>
<td><strong>648</strong></td>
</tr>
</tbody>
</table>

ENDNOTES

3  Email from Juan Pablo Rosso, Ministry of Foreign Affairs, 16 June 2015.

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. It has still to take concrete action to implement this obligation.
CONTAMINATION

Croatia is contaminated with cluster munition remnants (CMR). Five areas covering more than 2.8km² across five counties are confirmed to contain CMR (see Table 1). Croatia has calculated that 4,776 unexploded submunitions remain in these areas.

The Croatian Mine Action Centre (CROMAC) reports that this contamination has a socio-economic impact as many of these areas “are used for cattle breeding and are close to settlements.”

According to CROMAC, 2014 saw a “slight increase in the size” of certain areas suspected to contain CMR compared with the previous year. During clearance in the Krka National Park, operators spotted “bomblets outside of the project borders”. CROMAC prepared an additional clearance project in the extended boundaries, resulting in the destruction of 39 submunitions and 1 item of unexploded ordnance (UXO). While Croatia was affected by the 2014 Balkan floods, none of the CMR-affected areas was flooded.

<table>
<thead>
<tr>
<th>County</th>
<th>Contaminated area (km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karlovac</td>
<td>20,111</td>
</tr>
<tr>
<td>Lika-Senj</td>
<td>705,208</td>
</tr>
<tr>
<td>Split-Dalmacia</td>
<td>765,490</td>
</tr>
<tr>
<td>Šibenik-Knin</td>
<td>278,580</td>
</tr>
<tr>
<td>Zadar</td>
<td>1,047,720</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,817,109</strong></td>
</tr>
</tbody>
</table>

PROGRAMME MANAGEMENT

CROMAC was established on 19 February 1998 as the umbrella organisation for mine action coordination. The CROMAC Council, an oversight and strategic planning body, consists of a president, appointed by the nation’s Prime Minister, and 10 members, appointed from the Ministries of Defense, Finance, and Interior, as well as eminent persons. The CROMAC Council (now called the CROMAC Board), which used to meet at least four times a year, is meeting on an almost-monthly basis to discuss progress in implementing the annual workplan and other topical issues, such as a new law on mine action.

In April 2012, the government created the Office for Mine Action (OMA), reporting to the Prime Minister’s office, to function as a focal point for mine action, strengthening coordination among stakeholders and funding agencies, and raising public awareness about mine and cluster munition hazards.

In September 2015, Croatia was hosting the First Review Conference of the CCM in Dubrovnik.

STRATEGIC PLANNING

There is no strategic plan for the release of all areas containing CMR. According to Miljenko Vahtaric, CROMAC’s Assistant Director for International Cooperation and Education, “All these areas are cleared in accordance with the county and state priorities, of course taking in consideration obligations in accordance with signed conventions.”

STANDARDS

According to one authority, Croatia does not have standing operating procedures (SOPs) for non-technical survey, technical survey, or clearance of areas contaminated with CMR. The problem is addressed through procedures more suited to mined areas, with unexploded submunitions treated as would be any other items of UXO. More broadly, Croatia has not yet developed a land release system specific for CMR, which is reflected in relatively poor clearance outputs as technical survey is not used to release land efficiently.

RECOMMENDATION FOR ACTION

Croatia should adopt and present a strategic plan for completion of its clearance obligations under the Convention on Cluster Munitions (CCM).
LAND RELEASE
Croatia released 0.66 km² of area containing CMR in 2014, all through clearance, destroying 306 submunitions and 11 other items of UXO (see Table 2). A further 341 KB-1 submunitions were found and destroyed in the course of mine clearance tasks during 2014. Croatia released no CMR-contaminated land through survey in 2014.

The majority of clearance was conducted by MUNGOS, a state-owned company. Other tasks were conducted by commercial demining companies.

Table 2: Clearance of CMR-contaminated area in 2014

<table>
<thead>
<tr>
<th>Operator Areas released</th>
<th>Area cleared [km²]</th>
<th>Submunitions destroyed</th>
<th>Other UXO destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUNGOS razminiranje</td>
<td>4</td>
<td>0.26</td>
<td>130</td>
</tr>
<tr>
<td>FAS</td>
<td>1</td>
<td>0.03</td>
<td>35</td>
</tr>
<tr>
<td>Tornado</td>
<td>1</td>
<td>0.02</td>
<td>39</td>
</tr>
<tr>
<td>DOK-ING razminiranje</td>
<td>1</td>
<td>0.30</td>
<td>95</td>
</tr>
<tr>
<td>Detektor</td>
<td>1</td>
<td>0.01</td>
<td>1</td>
</tr>
<tr>
<td>Heksogon</td>
<td>1</td>
<td>0.04</td>
<td>1</td>
</tr>
<tr>
<td>Totals</td>
<td>9</td>
<td>0.66</td>
<td>306</td>
</tr>
</tbody>
</table>

SAFETY
According to CROMAC, no accidents occurred during demining or explosive ordnance disposal in 2014.

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.

Croatia reported seeing “no obstacles” in meeting its Article 4 deadline; in fact, it has predicted “that the problem will be solved by the end of 2018”. CROMAC expected clearance capacity to increase in 2015 due to greater European Union funding for demining.

ENDNOTES
1 Email from Miljenko Vahtaric, Assistant Director for International Cooperation and Education, Croatian Mine Action Centre (CROMAC), 10 June 2015.
2 Ibid.
3 Email from Miljenko Vahtaric, CROMAC, 27 April 2015.
4 CCM Article 7 Report (for 2014), Form F.
5 Email from Miljenko Vahtaric, CROMAC, 27 April 2015.
6 Ibid.
8 Interview with Nataša Matea Matekovic, 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.
9 Email from Miljenko Vahtaric, CROMAC, 10 June 2015.
10 Interview with Sijara Plešić, Director, CRI, in Gornje, 23 May 2012 and 10 April 2014, and email from Miljenko Vahtaric, CROMAC, 4 July 2013.
11 Email from Miljenko Vahtaric, CROMAC, 10 June 2015.
12 Email from Darvin Licać, Programme Manager, Bosnia and Herzegovina, Norwegian People’s Aid, 3 March 2015.
13 CCM Article 7 Report (for 2014), Form F.
14 Emails from Miljenko Vahtaric, CROMAC, 27 April and 10 June 2015. Croatia’s CCM Article 7 Report for 2014 contains a mathematical error in the total for area cleared.
15 Email from Miljenko Vahtaric, CROMAC, 27 April 2015.
16 Ibid.
17 Ibid.
CONTAMINATION
Germany has 11km² of area suspected to contain CMR\(^1\) at a former Soviet military training area at Wittstock, Brandenburg, in former East Germany. Soviet-era ShOAB-0.5 submunitions contaminating Wittstock result from testing of the weapon in 1952–93.\(^2\) The area is also contaminated by other unexploded ordnance (UXO).\(^3\)

In its initial Convention on Cluster Munitions (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 Standing Committee meeting, Germany declared that the area at Wittstock was suspected to contain CMR.\(^5\) It 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 to Cluster Munition Monitor that the area suspected as contaminated was 11km², considerably higher than previously reported.\(^8\)

PROGRAMME PERFORMANCE

<table>
<thead>
<tr>
<th>Problem understood</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target date for completion of clearance of cluster munition remnants</td>
<td>4</td>
</tr>
<tr>
<td>Targeted clearance</td>
<td>4</td>
</tr>
<tr>
<td>Efficient clearance</td>
<td>5</td>
</tr>
<tr>
<td>National funding of programme</td>
<td>8</td>
</tr>
<tr>
<td>Timely clearance</td>
<td>4</td>
</tr>
<tr>
<td>Land release system in place</td>
<td>7</td>
</tr>
<tr>
<td>National mine action standards</td>
<td>8</td>
</tr>
<tr>
<td>Reporting on progress</td>
<td>3</td>
</tr>
<tr>
<td>Improving performance</td>
<td>5</td>
</tr>
<tr>
<td><strong>PERFORMANCE SCORE: 5.4</strong></td>
<td><strong>AVERAGE</strong></td>
</tr>
</tbody>
</table>

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.\(^9\) Activities included marking the perimeter and preventing civilian access to the area.\(^10\) It was planned to conduct an initial survey of access routes and areas of suspected UXO contamination in neighbouring locations, and, subsequently, technical survey.\(^11\) The cost of any clearance will 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 network.\(^12\)

LAND RELEASE

No CMR-contaminated land was released by clearance or technical survey in 2014.\(^13\)

SURVEY IN 2014

At the CCM intersessional meetings in April 2012 (Clearance and Risk Reduction Session), 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.\(^14\) By August 2014, however, it was stated only that preparations for a “technical investigation” were “underway”.\(^15\)

ENDNOTES

\(^1\) Convention on Cluster Munitions (CCM) Article 7 Report, Form F, April 2015.
\(^2\) Ibid.
\(^4\) CCM Article 7 Report, Form F, 27 January 2011.
\(^7\) Ibid; Statement of Germany, Third Meeting of States Parties, to the CCM (APMBC) Standing Committee on Mine Action, Geneva, 27 May 2013.
\(^8\) CCM Article 7 Report, Form F, 30 April 2014.
\(^9\) Email from Silke Bellmann, Desk Officer for Conventional Arms Control, German Federal Foreign Office, 4 August 2014.
\(^11\) CCM Article 7 Report, Form G, 4 April 2012.
\(^13\) APMBE Article 5 deadline Extension Request, 15 April 2013, p. 7.
\(^14\) CCM Article 7 Report Brr 2014, Form F.
\(^15\) Statement of Germany, CCM Intersessional Meetings (Clearance and Risk Reduction Session), 17 April 2012.
\(^16\) Email from Silke Bellmann, Federal Foreign Office, 4 August 2014.
\(^17\) Interview with Volker Boehm, German Mission to the Conference on Disarmament, Geneva, 26 June 2015.
Cluster munition remnants (CMR) contaminate significant areas of central and southern Iraq, a legacy of the 1991 Gulf War and the 2003 invasion of Iraq. In 2004, Iraq's national mine action authority identified 2,200 sites of CMR contamination along the Tigris and Euphrates river valleys. However, latest estimates identify 168 CMR-contaminated areas in nine central and southern governorates, including Baghdad, totalling 236km² with more than half in Muthanna governorate (see Table 1). However, Iraq's Directorate of Mine Action has also identified more than 1,000km² of battle area that may also include some CMR contamination.

Table 1: CMR contamination in central and southern Iraq

<table>
<thead>
<tr>
<th>Governorate</th>
<th>Confirmed areas</th>
<th>Area (km²)</th>
<th>Suspected areas</th>
<th>Area (km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Babylon</td>
<td>2</td>
<td>0.08</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Baghdad</td>
<td>2</td>
<td>0.29</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Basrah</td>
<td>86</td>
<td>23.00</td>
<td>3</td>
<td>0.12</td>
</tr>
<tr>
<td>Kerbala</td>
<td>6</td>
<td>2.00</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Missan</td>
<td>11</td>
<td>0.90</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Muthanna</td>
<td>30</td>
<td>135.70</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Najaf</td>
<td>6</td>
<td>5.30</td>
<td>1</td>
<td>1.30</td>
</tr>
<tr>
<td>Thi-Qar</td>
<td>17</td>
<td>48.50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wasit</td>
<td>8</td>
<td>21.2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>168</strong></td>
<td><strong>236.97</strong></td>
<td><strong>4</strong></td>
<td><strong>1.42</strong></td>
</tr>
</tbody>
</table>

The highway between Kuwait and Basra was heavily targeted by cluster bomb strikes in the 1991 Gulf War 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.

In the north, coalition air strikes around Dohuk in 1991 left contamination that posed a serious hazard to residents seeking to return to the area. In 2010, a Mines Advisory Group (MAG) survey of Dibis, an area north-west of Kirkuk, identified 20 previously unknown cluster strikes with contamination from unexploded BLU-97 and BLU-63 submunitions. Kurdish authorities report a total of 796,593m² of CMR contamination, 95% of it in Erbil governorate.

**RECOMMENDATIONS FOR ACTION**

- Iraq should strengthen the authority, management, personnel, and resources of the Department of Mine Action (DMA).
- The DMA should recruit international technical assistance to enable it to discharge its sector management responsibilities effectively and transparently.
- The DMA and the Iraqi Kurdistan Mine Action Authority (IKMAA) should formulate multi-year plans setting out policy, priorities, and objectives.
- Iraq should develop institutional links between IKMAA, the DMA, and the Regional Mine Action Centre in the south.
- Iraq should develop the capacity and improve operating standards of national demining/explosive ordnance disposal operators.
- The DMA and IKMAA should formulate multi-year plans setting out policy, priorities, and objectives.
- Iraq should develop institutional links between IKMAA, the DMA, and the Regional Mine Action Centre in the south.
- In Iraq, the DMA has also identified more than 1,000km² of battle area that may also include some CMR contamination.

**PERFORMANCE SCORE: 4.3**

**POOR**

**PROGRAMME PERFORMANCE**

<table>
<thead>
<tr>
<th>Area understood</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target date for completion of clearance of cluster munition remnants</td>
<td>3</td>
</tr>
<tr>
<td>Targeted clearance</td>
<td>4</td>
</tr>
<tr>
<td>Efficient clearance</td>
<td>5</td>
</tr>
<tr>
<td>National funding of programme</td>
<td>5</td>
</tr>
<tr>
<td>Timely clearance</td>
<td>3</td>
</tr>
<tr>
<td>Land release system in place</td>
<td>5</td>
</tr>
<tr>
<td>National mine action standards</td>
<td>5</td>
</tr>
<tr>
<td>Reporting on progress</td>
<td>4</td>
</tr>
<tr>
<td>Improving performance</td>
<td>5</td>
</tr>
</tbody>
</table>

**RECOMMENDATIONS FOR ACTION**

- In the north, coalition air strikes around Dohuk in 1991 left contamination that posed a serious hazard to residents seeking to return to the area.
- In 2010, a Mines Advisory Group (MAG) survey of Dibis, an area north-west of Kirkuk, identified 20 previously unknown cluster strikes with contamination from unexploded BLU-97 and BLU-63 submunitions. Kurdish authorities report a total of 796,593m² of CMR contamination, 95% of it in Erbil governorate.
PROGRAMME MANAGEMENT

The mine action programme in Iraq is managed along regional lines as follows:

IRAQI KURDISTAN REGION

Mine action in Iraq’s northern governorates under the Iraqi Kurdistan Mine Action Agency (IKMMA). It coordinates four directorates in Duhok, Erbil, Sarian, and Slemani.

CENTRAL AND SOUTHERN IRAQ

In central and southern Iraq, responsibility for mine action was transferred in 2008 to the Ministry of Environment, which set up a Directorate of Mine Action (DMA) to coordinate and manage the sector.1 The DMA, however, implements policy set by a Higher Council for Mine Action (HCMA) created by, and reporting to the prime minister, in which the ministries of defence, interior, and oil are major actors. The HCMA is supported by a Technical Committee, functioning as its secretariat.2

The DMA oversees four regional mine action centres (RMACs) for the north (covering the governorates of Anbar, Kirkuk, Mosul, and Saladin), the centre (Baghdad, Diyaia, and Wasili), an area identified as “ME” (Babylon, Karbala, Basra, Missan, Najaf, and Wasit), and the south (Basrah, Missan, Muthanna, and Thi-Qar).3,4 but the extent to which the RMACs were active in 2014 is unclear.

OPERATORS

Clearance of ERW, including CMR, was conducted in 2014 by a small number of international humanitarian operators and a larger group of national and international commercial operators as follows:

IRAQI KURDISTAN REGION

MAG was the only active humanitarian demining operator in this region. Commercial operators included Ararat, ASA, Chamy Razan, EODT, General Safety, Khabat, RONCO, Sardal Company for Demining, Shannica, and Valmara.

CENTRAL AND SOUTHERN IRAQ

In central and southern Iraq, the humanitarian agencies operating in 2014 included Danish Demining Group (DDG), Iraq Mine Clearance Organization (IMCO), and Norwegian People’s Aid (NPA). Commercial operators, many contracted by oil companies, included Arabian Gulf, al-Saﬁsa, al-WAHA, G4S Ordnance Management, and Green Land. The army and civil defence were also active conducting explosive ordnance disposal and battle area clearance.

INMAPP, a United States non-proﬁt non-governmental organisation, provided information management technical support to IKMMA and the DMA in Baghdad and Basrah.6

STRATEGIC PLANNING

Iraq has not produced a strategic plan for clearance of CMR.

LAND RELEASE

Escalating conﬂict between Iraq and Islamic State in the second half of 2014 severely affected mine action, forcing temporary suspension of operations in some areas, drawing army demining and explosive ordnance disposal (EOD) capacity away from operations in the south, and diverting attention to the immediate needs of hundreds of thousands of internally displaced people, particularly in the KRG, and the humanitarian agencies seeking to assist them. Operators in central and southern Iraq say land release has become increasingly hampered by the unavailability of military teams, who alone are authorised to conduct demolitions resulting in accumulation of cleared items on task sites posing a growing security hazard.

IKMMA reported that MAG released 119.983m² of cluster munition-affected land in 2014, destroying 920 submunitions and that IKMMA had destroyed another 267 CMR. MAG reported releasing a total of 7.04km² but asserted that it did not tackle any CMR contamination and data presented to a sector planning workshop in May 2015 did not record any clearance of CMR.7

The DMA reported clearance of 21 CMR-contaminated areas covering 12.89km² in 2014, resulting in destruction of 906 submunitions. This included 10.9km² attributed to DDG, 0.4km² by IMCO, and the remaining 1.59km² by civil defence teams in Basra, Missan, Najaf, and Thi-Qar.8

DMA data also varied sharply from results reported by operators. DDG reported clearing 9.18km² of battle area but said it did not tackle any cluster munition hazards or destroy any CMR.9 DDG closed its Basra-based programme at the end of 2014, citing lack of donor interest in funding operations in the south and relocating to the KRG where it started in 2015 it started registration and accreditation procedures with IKMMA.10

IMCO, among the biggest of the operators working with total staff of 162, said it released 20.8km² of CMR-contaminated areas in Basra and Wasita governorates in 2014, destroying only 254 submunitions.11 IMCO was set up in 2003 with US support that in 2014 amounted to close to US$10 million. However, IMCO was unable to resolve long-running issues over registration and accreditation with the DMA. In May 2015, it received a grant termination order from the US and was due to cease operating at the end of June 2015.12

NPA deployed a post-clearance sampling and survey team, supporting and tasked by RMAC-South in Basra governorate, where it reported releasing more than 9km². In mid-2014, NPA started operating in Missan governorate with two battle area clearance ICA and two impact assessment (non-technical survey) teams as well as a risk education team. As of mid-2015, NPA teams had identified six suspected hazardous areas and 46 confirmed hazardous areas in Missan, including substantial amounts of CMR contamination in Maimar, Matar, and Qalat Sali districts. It was recruiting two additional teams to work in Basra governorate.13

ENDNOTES

8. Email from Isam Ghareeb, Country Representative, iMMAP, 8 July 2015.
9. Email from Nina Seecharan, Country Director, MAG, 23 July 2011.
13. Email from Isam Ghareeb, Country Representative, iMMAP, 8 July 2015.
17. Data provided by Ahmed al-Jasim, DMA, 8 July 2015. Slightly different figures were provided in Iraq’s CCM Article 7 report totaling 236.6km².18
20. Email provided by Ahmed al-Jasim, Head, Information Management, DMA, 8 July 2015.
21. Email from Isam Ghareeb, Country Representative, iMMAP, 8 July 2015.

ARTICLE 4 COMPLIANCE

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

It is hard to assess the progress of Iraq against its Article 4 obligations in the absence of comprehensive survey and clearance data. Prospects for Iraq fulfilling its treaty obligations are overshadowed by conflict and insecurity. However, mine/UXO sector planning and implementation are also severely constrained by political instability, institutional weakness, dysfunctional bureaucracy, and corruption, in addition to a shortage of trained personnel.
LAO PEOPLE’S DEMOCRATIC REPUBLIC

CONTAMINATION
Lao PDR experienced the heaviest aerial bombardments in history during the Indochina War of the 1960s and 1970s, which left it with the world’s worst contamination from unexploded submunitions. The United States of America dropped 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 24 types of submunition, including most commonly BLU 26, 24/66, and 63.2 Lao PDR has claimed that cluster munition remnants (CMR) contaminate approximately 8,470km² and overall contamination from UXO covers up to 87,000km² (around 35% of Lao PDR’s territory).3 Such estimates, however, are based on bomb targeting data that bears little relation to actual contamination, do not reflect results of clearance, and are considered obsolete by many stakeholders in the UXO sector. The NRA reports that 14 of Lao PDR’s 17 provinces and a quarter of all villages are contaminated by UXO,4 but insufficient survey has been conducted to provide a credible estimate of total contamination. A new survey methodology approved by the NRA at the end of 2014 is expected to generate the first estimates based on evidence of contamination. Unexploded submunitions accounted for close to two-thirds (63%) of all items cleared in 2014, a significant increase in the proportion that coincides with operators’ greater application of evidence-based clearance.5 UXO Lao, Lao PDR’s largest clearance operator, reported in 2011 that during 15 years of operations, submunitions had accounted for 49% of all items cleared.6

The NRA identifies submunitions as the most common form of remaining explosive remnants of war (ERW) contamination and responsible for close to 30% of all incidents.7 Submunitions are also said to be the type of ERW most feared by the population.8 UNDP has reported that as a result of submunition contamination “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.”9 The extent of their impact has led to calls for a survey and clearance strategy that gives priority to tackling CMR.10

OTHER EXPLOSIVE REMNANTS OF WAR
Extensive contamination from other ERW includes both air-dropped and ground-fired UXO, though the extent of residual contamination from ERW is not known. Clearance operators have reported the presence of at least 186 types of munitions in Lao PDR.11 These reportedly 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 Lao PDR’s Deputy Prime Minister and composed of representatives from 11 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. A further decree in November 2011 appointed Deputy Prime Minister Asang Laosy as President of the NRA board.15 In November 2012, Bounheuang Douangphachanh, a minister in the Prime Minister’s Office and chairman of the National Committee for Rural Development and Poverty Eradication, was appointed chairman of the NRA Board.16

Further change occurred with a new decree issued in February 2015 increasing the size of the board to 22 members, including, for the first time, a permanent deputy chairman expected to take care of the daily business of the board. The decree also specifies that the NRA “has a government budget included in the general budget” of the Board’s president.17

The NRA’s structure and role was set out in an “agreement” released in November 2012 defining it as the “secretariat for the Party Politburo and the Lao government for the overall management and consideration of policy matters, planning, projects and coordination of the implementation of the Lao PDR National Strategy for the UXO sector for the entire country.”20 Its role includes setting policy, coordinating, and regulating the sector, accrediting operators, setting standards, and conducting quality management. It also has the mandate to serve as the technical focal point for matters relating to international weapons treaties.21

The NRA has four sections: Administration and Finance, Planning and Cooperation, Quality and Standards, and Operations and Information. This includes a single quality management team. In 2014, the United Nations Development Programme (UNDP) supported a technical advisor to the NRA and UXO Lao, and a programme and finance advisor. Sterling International, funded by the US Department of State, provided a technical advisor supporting quality management and operations at the NRA, a second supporting national operator UXO Lao and a third advisor providing support to both organisations as required.18 In 2015, however, UNDP was expected to appoint one technical advisor to serve both the national regulator and the national operator.19

STRATEGIC PLANNING
Lao PDR embarked in 2010 on a plan for 2010–2020 known as “Safe Path Forward 2” (SPF), a revised version of which was approved by the government on 22 June 2012. The strategy identified six general goals, including reducing the number of casualties each year from 300 to less than 75,19 and the release of an average of 200km² a year, more than triple the 2013 rate of clearance and land release. It called for release of priority land through data analysis, general survey, technical survey, roving response “and/or, finally, full clearance.”20

36 37
In 2010, the government adopted UXO clearance as a ninth Millennium Development Goal, targeting removal of all UXO from priority agricultural land by 2020.\(^{30}\) Announcement 93, published by the government in November 2012, said all provincial and district development projects affected by UXO must undergo survey and clearance before implementation and must also allocate funding to cover the cost.\(^{31}\) The government identified 64 priority areas planned to become small rural communities, 147 focus sites to consolidate and “stabilise” remote rural communities, and more than 1,680 priority projects.\(^{32}\)

In December 2014, after more than two years of debate in the mine action sector and conducted in 2014 in Xieng Khouang and Savannakhet provinces, the NRA board approved new standards for evidence-based survey, which came into effect on 1 January 2015.\(^{33}\) It stated that all organisations must implement these survey procedures. The decision was welcomed by many in the sector as a milestone towards defining the extent of Lao PDR’s ERW contamination challenge, increasing efficiency of clearance operations, and shifting the mentality from clearing square metres to clearing contamination. Initial priority in survey would be given to 64 priority development areas and 167 resettlement areas, but it was also considering options for a national survey.\(^{34}\)

In the meantime, however, tasks continue to be decided at a provincial level and operators observed that few of the confirmed hazardous areas recorded in the NRA’s Information Management System for Mine Action (IMMSAI) database had been tasked for clearance.\(^{35}\) UXO Lao reported little integration of mine action into rural development and poverty eradication plans.

### LAND RELEASE

The amount of land released by clearance rose only marginally (4.5%) to nearly 68 km\(^2\) in 2014, but the increase came mainly from humanitarian operators (see Table 1). Moreover, when conducting a natural survey of all ERW in the next three years to assist preparation of a new strategic plan for the period after 2020,\(^{36}\) NRA reported clearing by 11 commercial companies in 2014 and while long-established operators such as MISearch, MMG, and BACTEC worked on tasks related to mining ventures and dam construction, many commercial operators appeared to have engaged in site verification. Their contribution to tackling Lao PDR’s contamination as measured by items cleared remained minimal.

### SURVEY IN 2014

Prolonged discussions between the NRA and operators yielded agreement by the NRA board at the end of 2014 to adopt a survey methodology based on the Cluster Munition Remnants Survey (CMRS), described as a form of quick technical survey, which NRA had developed in Laos since 2011 and is now pursuing in Cambodia and Vietnam. The approach was seen as a breakthrough towards quantifying the extent of Lao PDR’s contamination and shifting from request-based to evidence-based clearance, focusing clearance on confirmed hazards. Many operators had started to apply this or similar survey approaches.\(^{37}\) MAG, working in Xieng Khouang, is now using CMRS results and evidence-based clearance on previously investigated US bomb strike data. MAG has also worked to improve evidence-based non-technical survey by developing a GIS-based information management system (Evidence Point Polygon Mapping) that uses historical operations data to map and define contaminated areas.

### OPERATORS

UXO Lao, the biggest operator with about 1,000 personnel, operates in nine provinces. Other humanitarian operators in 2014 included APOPO, HALO Trust, Handicap International, Mines Advisory Group (MAG), and Norwegian People’s Aid (NPA). International commercial operators included AusAid UXO Clearance, BACTEC, MISearch and MMG. National commercial operators include ASA Power Engineering, Lao BSL UXO Clearance, Lao Uncoed Cooperation, UOMA UXO Clearance, PSD, SBH, and XTD UXO Clearance.

Lao PDR is also in the process of developing the role of its army in mine action. It set up a 15-strong humanitarian demining unit in February 2012 in line with a government directive to develop a humanitarian mine action capacity. The unit received explosive ordnance disposal (EOD) training at the UXO Lao training centre funded by the US Department of State. The NRA said it would receive accreditation and operate subject to NRA quality assurance, but the team was subsequently reported to have stood down.\(^{38}\) However, the NRA reported in 2015 that five army teams had completed training, funded by the US (one team) and the government (four teams), and that another five teams would receive training in 2015–16, funded by South Korea. The government provided 100 million kip (US$12,500) for training an additional army EOD team in humanitarian clearance in 2014 and 500 million kip (US$63,000) to conduct survey in Kaisomboun province. The NRA expected army teams to start operating in the course of 2015 once they had been received.\(^{39}\)

Operators believed further analysis and discussion was needed on fade-out distances, strike densities, and depth of contamination. The NRA expressed interest in conducting a national survey of all ERW in the next three years to assist preparation of a new strategic plan for the period after 2020.\(^{40}\) NPA, working in three southern provinces of Attapeu, Saravane, and Sekong, increased the number of survey teams from 15 to 18 after cutting team size from six people to five, and surveyed a total of 114 km\(^2\) in 2014, 71% more than the previous year and of which only one-third (almost 39 km\(^2\)) was confirmed as hazardous. In the process, NPA reported destroying 13,530 submunitions and 718 other ERW.\(^{41}\) In 2015, NPA expected to conduct more in the same capacity in 2014, but with additional funding available in 2015 it was planning to add 10 mine action teams and two additional mechanical assets, mainly for cutting vegetation. MAG was also working with NPA to develop a joint, five-year proposal for collaborating in survey and clearance of Boulap district of Khammouane province with a view to taking it to end state.\(^{42}\)

The NRA recorded clearance by 11 commercial companies in 2014 and while long-established operators such as MISearch, MMG, and BACTEC worked on tasks related to mining ventures and dam construction, many commercial operators appeared to have engaged in site verification. Their contribution to tackling Lao PDR’s contamination as measured by items cleared remained minimal.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Submunitions destroyed</th>
<th>Mines destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOPO</td>
<td>840</td>
<td>3</td>
</tr>
<tr>
<td>HALO</td>
<td>1,347</td>
<td>273</td>
</tr>
<tr>
<td>HI</td>
<td>395</td>
<td>652</td>
</tr>
<tr>
<td>MAG</td>
<td>7,288</td>
<td>532</td>
</tr>
<tr>
<td>NPA</td>
<td>127</td>
<td>4</td>
</tr>
<tr>
<td>UXO Lao</td>
<td>15,763</td>
<td>15,708</td>
</tr>
<tr>
<td>ASA</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>AUSLAD</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BACTEC</td>
<td>107</td>
<td>199</td>
</tr>
<tr>
<td>Lao BSL</td>
<td>303</td>
<td>3</td>
</tr>
<tr>
<td>LAUNC</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MISearch</td>
<td>77</td>
<td>41</td>
</tr>
<tr>
<td>MMG</td>
<td>153</td>
<td>211</td>
</tr>
<tr>
<td>OUMMA</td>
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<tr>
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<tr>
<td>SBH</td>
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<td>0</td>
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<tr>
<td>Subtotals</td>
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<td>927</td>
</tr>
<tr>
<td>TOTALS</td>
<td>27,048</td>
<td>17,699</td>
</tr>
</tbody>
</table>

### RESULTS FOR 2014

Lao PDR cleared BAC over a reported 67.8 km\(^2\) in 2014, destroying in the process 27,048 submunitions as well as many other UXO items (see Table 1). Roving clearance saw operators destroy a further 31,450 submunitions in 2014 (see Table 2).

Results for mine action in Lao PDR are shaped by the performance of UXO Lao, much the biggest operator and funded from the US Department of State and from the UK’s Department for International Development (DFID). It recorded sharp increases in both the area surveyed (from 54 km\(^2\) in 2013 to 147 km\(^2\) in 2014), confirming 105 areas as hazardous and doubling the amount of land released through clearance. HALO attributed higher productivity to increased experience of teams and digitised reporting of technical survey from teams in the field using tablet computers.\(^{43}\) MAG, working in two districts of Xieng Khouang province and the districts of Khammouane and Saravane, operated with roughly the same capacity in 2014, but with additional funding available in 2015 it was planning to add 10 mine action teams and two additional mechanical assets, mainly for cutting vegetation.

### CLEARANCE IN 2014

Lao PDR conducted BAC over a reported 67.8 km\(^2\) in 2014, destroying in the process 27,048 submunitions as well as many other UXO items (see Table 1). Roving clearance saw operators destroy a further 31,450 submunitions in 2014 (see Table 2).

<table>
<thead>
<tr>
<th>Operator</th>
<th>Area cleared (km(^2))</th>
<th>Submunitions destroyed</th>
<th>Mines destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOPO</td>
<td>0.08</td>
<td>840</td>
<td>3</td>
</tr>
<tr>
<td>HALO</td>
<td>1.09</td>
<td>1,347</td>
<td>273</td>
</tr>
<tr>
<td>HI</td>
<td>0.49</td>
<td>395</td>
<td>652</td>
</tr>
<tr>
<td>MAG</td>
<td>2.97</td>
<td>7,288</td>
<td>532</td>
</tr>
<tr>
<td>NPA</td>
<td>0.26</td>
<td>127</td>
<td>4</td>
</tr>
<tr>
<td>UXO Lao</td>
<td>30.68</td>
<td>15,763</td>
<td>15,708</td>
</tr>
</tbody>
</table>

Subtotals: 35.57, 25,670, 17,172, 75.

Commercial

<table>
<thead>
<tr>
<th>Operator</th>
<th>Submunitions destroyed</th>
<th>Mines destroyed</th>
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</thead>
<tbody>
<tr>
<td>ASA</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AUSLAD</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BACTEC</td>
<td>0.44</td>
<td>107</td>
</tr>
<tr>
<td>Lao BSL</td>
<td>3.54</td>
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<tr>
<td>LAUNC</td>
<td>9.75</td>
<td>0</td>
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<td>MISearch</td>
<td>0.22</td>
<td>77</td>
</tr>
<tr>
<td>MMG</td>
<td>1.94</td>
<td>153</td>
</tr>
<tr>
<td>OUMMA</td>
<td>3.57</td>
<td>343</td>
</tr>
<tr>
<td>PSD</td>
<td>1.57</td>
<td>93</td>
</tr>
<tr>
<td>SBH</td>
<td>5.10</td>
<td>282</td>
</tr>
<tr>
<td>XTD</td>
<td>1.54</td>
<td>0</td>
</tr>
</tbody>
</table>

Subtotals: 32.21, 1,378, 927, 3.

TOTALS: 67.78, 27,048, 17,699, 78.
In the meantime, along with increasing survey, operators are also conducting more roving EOD operations (see Table 2). The NRA reported that operators destroyed 31,450 submunitions in 2014, more than double the number destroyed the previous year.4

Table 3: Five-year summary of battle area clearance

<table>
<thead>
<tr>
<th>Operator</th>
<th>Submunitions destroyed</th>
<th>Bombs destroyed</th>
<th>Other UXO destroyed</th>
<th>Mines destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPA50</td>
<td>13,868</td>
<td>22</td>
<td>900</td>
<td></td>
</tr>
<tr>
<td>HALO48</td>
<td>3,258</td>
<td>49</td>
<td>11,199</td>
<td>0</td>
</tr>
<tr>
<td>HI</td>
<td>754</td>
<td>59</td>
<td>344</td>
<td>0</td>
</tr>
<tr>
<td>MAG46</td>
<td>2,842</td>
<td>17</td>
<td>976</td>
<td>1</td>
</tr>
<tr>
<td>Milesearch</td>
<td>37</td>
<td>0</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>UXO Lao</td>
<td>10,416</td>
<td>185</td>
<td>16,743</td>
<td>73</td>
</tr>
<tr>
<td>Total</td>
<td>31,450</td>
<td>332</td>
<td>16,743</td>
<td>73</td>
</tr>
</tbody>
</table>

ENDNOTES

3 Convention on Cluster Munitions (CCM) Article 7 Report (for 2013), Form F.
4 Presentation by Phoukhieo Chanthasomboune, Director, National Regulatory Authority, to CCM Intersessional Meeting (Clearance and Risk Reduction Seminar, Geneva, 7 April 2014, CCM Article 7 Report (for 2013), Form F.
7 HALO Trust survey in Lao PDR © Tim Chivers, The HALO Trust.

ARTICLE 4 COMPLIANCE

Under Article 4 of the Convention on Cluster Munitions (CCM), Lao PDR is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 August 2020.

As the country with the world’s heaviest CMR contamination, it is clear that Laos PDR will not complete clearance within its Article 4 deadline and will need to apply for an extension. However, while the need for an extension is now shown, Lao PDR will need to show progress towards defining the extent of its CMR contamination and providing a baseline for measuring progress in implementing its targets.

In the past five years, the amount of land cleared annually has almost doubled (see Table 3). However, much of that clearance, based on requests rather than evidence of contamination, has targeted land with few items and has made a proportionately modest contribution to tackling the national problem. The NRA has observed that “targets expressed in hectares are not realistic and have been a major cause of inefficient clearance in the past” and endorsed evidence-based clearance focusing on areas with confirmed contamination.12

Table 3: Five-year summary of battle area clearance

<table>
<thead>
<tr>
<th>Year</th>
<th>Area cleared (km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>67.78</td>
</tr>
<tr>
<td>2013</td>
<td>64.86</td>
</tr>
<tr>
<td>2012</td>
<td>54.42</td>
</tr>
<tr>
<td>2011</td>
<td>38.74</td>
</tr>
<tr>
<td>2010</td>
<td>34.98</td>
</tr>
<tr>
<td>Total</td>
<td>260.78</td>
</tr>
</tbody>
</table>

ENDNOTES

3 Convention on Cluster Munitions (CCM) Article 7 Report (for 2013), Form F.
4 Presentation by Phoukhieo Chanthasomboune, Director, National Regulatory Authority, to CCM Intersessional Meeting (Clearance and Risk Reduction Seminar, Geneva, 7 April 2014, CCM Article 7 Report (for 2013), Form F.
7 HALO Trust survey in Lao PDR © Tim Chivers, The HALO Trust.
8 HALO Trust reported clearing 9,797 km² by clearance destroying 1,292 submunitions and 272 other UXO items, and destroying a further 1,136 items and detonations and 710 other UXO items during technical survey. Email from Matthew Howell, HALO Trust, 6 May 2015.
9 Handicap International (HI) reported clearing 16,099 km² through clearance and technical survey in 2014, destroying 51,488 submunitions and 794 UXO items. Email from Melanie Biaupret, Head of Mission, HI Sector, Vientiane, 9 October 2011.
10 MAG reported destroying 3,061 km² by clearance destroying 2,260 submunitions and 421 UXO items of UXO. Email from Simon Ross, MAG, Vientiane, 15 May 2015.
11 HALO Trust reported clearing 1,242 km² by clearance destroying 144 UXO submunitions and additional UXO items. Email from Simon Ross, MAG, Vientiane, 15 May 2015.
12 HALO Trust reported clearing 16.7 km² by clearance destroying 107 UXO submunitions and additional UXO items. Email from Simon Ross, MAG, Vientiane, 15 May 2015.
14 Email from Matthew Howell, HALO Trust, 6 May 2015.
15 MAG reported conducting 3,166 mining tasks, destroying 3,323 submunitions, and 1,530 other items of UXO. Email from Simon Ross, MAG, Vientiane, 15 May 2015.
16 MAG reported conducting 116 mining tasks, destroying 3,123 submunitions, and 1,530 other items of UXO. Email from Simon Ross, MAG, Vientiane, 15 May 2015.
17 MAG reported conducting 1,031 submunitions and 719 other UXO items in mining operations in 2014. Email from Matthew Howell, HALO Trust, 6 May 2015.
18 MAG reported conducting 1,752 submunitions and 719 other UXO items of UXO. Email from Simon Ross, MAG, Vientiane, 15 May 2015.
19 MAG reported conducting 1,752 submunitions and 719 other UXO items of UXO. Email from Simon Ross, MAG, Vientiane, 15 May 2015.
20 MAG reported conducting 1,752 submunitions and 719 other UXO items of UXO. Email from Simon Ross, MAG, Vientiane, 15 May 2015.
CONTAMINATION

Lebanon has 799 areas confirmed or suspected to contain CMR, totalling 17.85km². Of this, 51 areas over 1.71km² were due to be cancelled by LMAC, which would reduce the contamination estimate to 16.14km². A further 178 “dangerous areas” totalling 8.2km² are suspected to contain either CMR or mine contamination. Four regions of the country still contain CMR contamination, as set out in Table 1.

Table 1: CMR contamination as of end 2014

<table>
<thead>
<tr>
<th>Province</th>
<th>No. of areas</th>
<th>Area (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al Beqaa</td>
<td>36</td>
<td>1,146,340</td>
</tr>
<tr>
<td>Al Janoub</td>
<td>251</td>
<td>5,855,899</td>
</tr>
<tr>
<td>Al Nabatiyeh</td>
<td>504</td>
<td>10,580,080</td>
</tr>
<tr>
<td>Jabal Lubnun</td>
<td>8</td>
<td>264,000</td>
</tr>
<tr>
<td>Totals</td>
<td>799</td>
<td>17,846,219</td>
</tr>
</tbody>
</table>

CMR contamination is mainly the result of the conflict with Israel in July–August 2006, although some remnants are from conflicts in the 1980s. After the 2006 war, contamination was initially estimated to be 55km². This estimate was later increased, based on surveys conducted, to 57.8km² across 1,484 areas over the three regions of Beqaa, Mount Lebanon, and southern Lebanon. In 2014, as part of a 2013 milestone review to the 2011–20 mine action strategy, LMAC reported the total number of strike locations as 1,707.

At the end of 2014, contamination was reported to cover 17.85km² across 799 areas, compared to reported contamination of 17km² over 748 areas as of June 2014. LMAC’s director explained that the June 2014 estimate referred to confirmed, rather than suspected, CMR contamination. The increase in reported contamination between June and December 2014 was due to the discovery of 24 new CMR-contaminated areas.

LMAC initially records each new cluster bomb strike as contaminating an estimated area of 33,000m². Upon subsequent survey and clearance, the precise area of contamination may found to be lesser or greater, depending on the type of cluster munition used, and whether the weapon was ground launched or dropped from an aircraft. According to LMAC, some areas contain contamination resulting from both ground-launched and air-dropped cluster munitions, which can further complicate accurate determination of the footprint of the strike.

During clearance, operations tasks may be subdivided by LMAC into: the main cluster strike area, the “fadeout” area; a “disclaimed” area (which refers to areas for which permission is not granted for clearance, and which require signed release papers); and the “uncleared” area, for which mechanical assets are required for clearance. If clearance of the whole task does not take place at the same time, the fadeout, disclaimed and/or uncleared areas are marked as separate tasks, which helps explain the fluctuation in number of hazardous areas between reporting periods.

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 goals were met in 2009 and clearance of agricultural areas is now the priority target. Indeed, CMR continue to affect the agricultural community, particularly in Beqaa and southern Lebanon. A survey by Mines Advisory Group (MAG) of 347 tasks recommended for clearance revealed that in four-fifths, contamination had made access to resources unsafe or had blocked access altogether. Yet significant numbers of landowners and workers still enter contaminated areas, declaring they have no choice.

Post-clearance surveys concerning cluster strike areas, carried out by LMAC in collaboration with clearance operators, have revealed that 78% of land was used for agriculture, 15% for pasture, and the remainder for residential and infrastructure development. Lebanon is also contaminated by other unexploded ordnance (UXO), booby-traps, and anti-personnel mines. In December 2014, LMAC reported 93 areas totalling 2.89km² suspected to contain booby-traps, and 54 areas over 3.1km² suspected to contain UXO. These figures are the same as those previously reported for June 2014.

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

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 goals were met in 2009 and clearance of agricultural areas is now the priority target. Indeed, CMR continue to affect the agricultural community, particularly in Beqaa and southern Lebanon. A survey by Mines Advisory Group (MAG) of 347 tasks recommended for clearance revealed that in four-fifths, contamination had made access to resources unsafe or had blocked access altogether. Yet significant numbers of landowners and workers still enter contaminated areas, declaring they have no choice.

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Lebanon should clarify the extent of remaining contamination from cluster munition remnants (CMR) and mobilise the necessary resources to finish clearance.

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contaminated areas were also identified. Fewer operating teams, while previously unreported slow, suffering from underfunding and consequently and to adjust the 2016 and 2020 milestones accordingly. A review to the strategy was conducted in January–March, to lack of funding. The Swiss Foundation for Mine Action (FSD) stated it was reviewing MAG’s recommendations for clearance on areas with strong evidence of contamination. During the same meeting, Lebanon stated that as a result of the survey, 1.48km2 of land out of 14.5km2 had been released and formally released to the owners. After reviewing the 96 tasks recommended by MAG for cancellation, LMAC has decided to cancel 51 tasks, totalling an area of 1.7km2. LMAC does not intend to cancel the remaining 45 tasks as recommended by MAG, as following a review, LMAC believes these areas do contain CMR contamination. Furthermore, between June and December 2014, LMAC confirmed 24 new areas as CMR contaminated. The new tasks were the result of call-outs from the public, alerting LMAC to previously undiscovered explosive remnants of war (ERW). LMAC community liaison officers visited each call-out, followed by LMAC’s chief of operations when necessary. New hazardous areas were recorded for those call-outs where CMR contamination was confirmed.

CLEARANCE IN 2014
Lebanon reported clearance of 2.1km2 of CMR-contaminated land in 2014 across 51 areas, with the destruction of 2,750 submunitions, 610 other items of UXO, and 390 anti-personnel mines (see Table 2). The 0.37km2 decrease in 2014 clearance compared to the previous year was ascribed to the lower number of BAC teams and increased operational difficulty of clearance in the new areas. Clearance operators similarly reported that operational efficiency became harder in 2014, as tasks assigned by LMAC included challenging ground conditions, areas of extremely high metal contamination, thick vegetation, laterite or mineralised soil, and difficult relief and topography.

PROGRAMME MANAGEMENT
Established in 1998 by the Council of Ministers, the Lebanon Mine Action Authority (LMAA) is the responsibility of the Ministry of Defense and is chaired by the Minister of Defense. 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.

LMAC, part of the Lebanese Armed Forces, is based in Beirut. Since 2009, a regional base in Nabatiyeh has overseen operations in southern Lebanon. LMAC also manages risk education and victim assistance.

STRATEGIC PLANNING
In September 2011, LMAC adopted a strategic mine action plan for 2011–20. 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 and progress has fallen well short of planning targets. A 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, suffering from underfunding and consequently fewer operating teams, while previously unreported contaminated areas were also identified.

OPERATORS
In 2014, CMR clearance was conducted by international operators DanChurchAid (DCA), Mines Advisory Group (MAG), and Norwegian People’s Aid (NPA); national operator Peace Generation Organisation for Demining (PDD); and the Lebanese Armed Forces. MAG is the only international operator in Lebanon with mechanical assets to support manual clearance operations. In 2014, three battle area clearance (BAC) teams were deployed by DCA, six by MAG, and seven by NPA. Lebanon’s overall BAC capacity dropped from 28 teams at the start of 2013 to 23 teams in 2014.

Subject to funding, NPA expected to maintain its capacity in 2015. MAG reported that if sufficient funding is not secured for 2015 it may have to reduce staff numbers in Lebanon. LMAC has consistently raised concerns over lack of survey and clearance capacity to address mine and CMR contamination, which it ascribes to inadequate funding. The Swiss Foundation for Mine Action (FSM) closed its CMR clearance programme in March 2013 due to lack of funding.

STANDARDS
Lebanon developed National Mine Action Standards (NMAS) in 2013. LMAC is currently working with the United Nations Development Programme (UNDP) and other partners to revise the NMAS, with a view to ensuring enhanced efficiency while respecting the International Mine Action Standards (IMAS). LMAC expected to finish the revision by the end of 2015.

QUALITY MANAGEMENT
Between 10% and 40% sampling is conducted during clearance operations by the organisation site supervisor and quality assurance (QA) officer; 10% sampling is conducted by the LMAC QA/QC (quality control) officer during work; and 30% sampling is conducted by LMAC’s sampling team at the end of the task. Sampling was conducted in all areas released during 2014.
SAFETY OF CLEARANCE PERSONNEL

In 2016, three accidents occurred during CMR survey and clearance. In January 2016, an NPA searcher accidentally detonated an M42 submunition with the end of a saw during vegetation removal drills. The detonation injured himself and the site supervisor who was standing nearby. In May 2016, an NPA searcher accidentally detonated a T-72 submunition while conducting operations near a village. The injuries were minor.52

CLUSTER MUNITION REMNANTS - STATES PARTIES

ENDNOTES

8 Email from Brig.-Gen. Imad Odiemi, LMAC, 2 June 2014.
10 Ibid.
12 Ibid.
15 Statement of Lebanon, Fifth Meeting of States Parties to the CCM, Costa Rica, September 2014.
16 Email from Brig.-Gen. Imad Odiemi, LMAC, 2 July 2014.
22 Response to Cluster Munition Monitor questionnaire by Brig.-Gen. Imad Odiemi, LMAC, 2 May 2014.
24 Response to Cluster Munition Monitor questionnaire by Brig.-Gen. Imad Odiemi, LMAC, 2 May 2014.
27 Ibid., 12 May 2015.
29 Statement of Lebanon, Fourth Meeting of States Parties to the CCM, Costa Rica, September 2013; Mine Action Support Group meeting, 18 October 2013; and CCM Article 7 Report (for 2013), Form F.
30 CCM Article 7 Report (for 2013) Form F.
35 Ibid.
36 Ibid.
38 Response to Cluster Munition Monitor questionnaire by Brig.-Gen. Imad Odiemi, LMAC, 2 May 2014. However, NPA's data did not tally with LMAC figures, which reported a higher amount for clearance to Cluster Munition Monitor (205m2) compared to UNDP figures of 0m2. Response to Cluster Munition Monitor questionnaire by Oussama Merhi, Country Director, NPA, 29 May 2014.
40 Ibid., 12 May and 2 July 2015.
43 Statement of Lebanon, Fifth Meeting of States Parties to the CCM, Costa Rica, 2-4 September 2014.
44 Ibid.
46 Ibid.
49 Response to Mine Action Monitor questionnaire by Brig.-Gen. Elie Nassif, LMAC, 12 May 2015. Clearance data reported by MAG and NPA contained inconsistencies with the data reported by LMAC, MAG reported clearing eight areas in 2014, totaling 745,870m2, destroying 356 submunitions, 210 other deactivations, 2,085 anti-personnel mines. According to a UNDP advisor to LMAC, the difference in the number of UXO reported destroyed is likely due to a lack of disaggregation of MAG’s UXO data into UXO destroyed by MAG and UXO identified by MAG for destruction by LAF. Interview with Dussama Merhi, UNDP, LMAC, in Geneva, 26 June 2015. NPA reported clearing ten areas totaling 350,000m2 in 2014, destroying 290 submunitions and 19 other items of UXO. According to LMAC, the difference in the number of UXO reported by NPA and LMAC is likely due to the fact that one of the tasks reported by NPA was a re-clearance task (i.e. an area previously cleared by an operator but where CMR were subsequently found), which may not be included in LMAC data. DCA and POD declined to provide clearance data to Mine Action Monitor so cross-verification was not possible.
56 CCM Article 7 Report (for 2013), Form F.
Mauritania is no longer contaminated by cluster munition remnants (CMR), having completed clearance in 2013. Mauritania formally declared compliance with Article 4 of the Convention on Cluster Munitions (CCM) in September 2014.

CMR contamination in Mauritania resulted from use of MK118, BLU-63, and M42 cluster munitions during the 1975–78 conflict over Western Sahara. Contamination was located in the northern border areas, around the village of Bir Moghrein in the region of Tiris Zemmour. In Mauritania’s first CCM Article 7 report, submitted in 2013 and covering 2012, it was reported that CMR contamination totalled 10,765m², covering eight areas north of the village of Bir Moghrein in the north-east of the country. Following survey by Norwegian People’s Aid (NPA) in 2013, the estimated area of contamination was substantially revised downwards.

Based on its technical and non-technical survey, NPA revealed that after cancellation by non-technical survey of 70,000m² of area suspected to contain CMR in 2012, the total area confirmed to contain CMR was 2,404,016m² in 2013 and covering nine sites: Agwachin, Aldouik, Aydiyatt, Bir Moghrein, Gharet el Hemeid, Bir Mariam, Teghert, Oum Edhbaït, and Eweineget. While Mauritania reported a slightly lower figure of 1,97m² for total area subsequently cleared, NPA records show that 2,404,016m² was in fact cleared during operations in 2013.

Under Article 4 of the CCM, Mauritania was required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 August 2022. Mauritania completed clearance almost nine years before its treaty deadline.

In its declaration of Article 4 compliance, Mauritania stated that as of 9 September 2013 it had made every effort to identify all areas under its jurisdiction or control contaminated by CMR, and that as of that date it had cleared and destroyed all CMR found, in accordance with Article 4(1)(a) of the CCM.

### Table 1. Clearance of CMR-contaminated area in 2013

<table>
<thead>
<tr>
<th>Location</th>
<th>Areas released</th>
<th>Area cleared (m²)</th>
<th>Submunition type</th>
<th>Submunitions destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bir Mariam</td>
<td>1</td>
<td>223,834</td>
<td>BLU-63</td>
<td>48</td>
</tr>
<tr>
<td>Gharet el Hemeid</td>
<td>1</td>
<td>521,740</td>
<td>MK118</td>
<td>481</td>
</tr>
<tr>
<td>Teghert</td>
<td>1</td>
<td>290,477</td>
<td>MK118</td>
<td>91</td>
</tr>
<tr>
<td>Oum Edhbaït</td>
<td>1</td>
<td>44,487</td>
<td>BLU-63</td>
<td>200</td>
</tr>
<tr>
<td>Agwachin</td>
<td>1</td>
<td>351,277</td>
<td>MK118</td>
<td>1</td>
</tr>
<tr>
<td>Eweineget</td>
<td>1</td>
<td>112,847</td>
<td>MK118</td>
<td>1</td>
</tr>
<tr>
<td>Oudeyt Bezeyan</td>
<td>1</td>
<td>386,544</td>
<td>BLU-63, M42</td>
<td>44</td>
</tr>
<tr>
<td>Aldouik</td>
<td>1</td>
<td>322,573</td>
<td>M42</td>
<td>347</td>
</tr>
<tr>
<td>Aydiyatt</td>
<td>1</td>
<td>150,217</td>
<td>MK118</td>
<td>6</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>9</strong></td>
<td><strong>2,404,016</strong></td>
<td><strong>1,246</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Programme Management

The National Humanitarian Demining Programme for Development (Programme National de Déminage Humanitaire pour le Développement, PNDHD) coordinates mine action operations in Mauritania. Since August 2007, the Programme has been the responsibility of the Ministry of Interior and Decentralisation, with oversight from an interministerial Steering Committee, set up by decree in September 2007. The PNDHD is headquartered in the capital, Nouakchott, with a regional mine action centre in Nouadhibou.

### Standards

National mine action standards and standing operating procedures have been developed and adopted in Mauritania. The standards, which were revised with the help of the Geneva International Centre for Humanitarian Demining (GICHD) in 2010, were translated into Arabic in 2011.

### Operators

In accordance with a 2006 decree, all clearance activities have been conducted by the Army Engineer Corps operating under the PNDHD. In March 2011, NPA signed an agreement with Mauritania’s Defence Ministry to support the Army Engineer Corps in its efforts to clear mine and battle area clearance (BAC) in the country. NPA has since been working in Mauritania both as an operator and in a capacity-building role.

At the end of 2013, NPA released its civilian capacity deminers, and from 2014 onwards has been working with demining staff seconded from the Engineers Corps who are rotated every six months. The seconded personnel are working to complete clearance of mine-contaminated areas in Nouadhibou province. The aim is also to develop the Engineer Corps’ capacity to respond to residual threats after completion of planned clearance operations.

### Quality Management

NPA has developed systems for quality assurance (QA) and quality control (QC) activities for both internal and external control. The PNDHD conducts QC before the cleared land is handed over to the community.

### Land Release

In 2012, NPA conducted non-technical survey, resulting in cancellation of 70,000m² of area suspected to contain CMR, and confirmed 2,404,016m² as CMR contaminated. Clearance began in February 2013 with the deployment of 23 NPA deminers and was completed on 30 June 2013. The total area released by clearance in 2013 was 2,404,016m².

### Article 4 Compliance

Under Article 4 of the CCM, Mauritania was required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 August 2022. Mauritania completed clearance almost nine years before its treaty deadline.

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

### Endnotes

1. Declaration of Compliance with Art. 4(1)(a) of the CCM, submitted by Mauritania, 3 September 2014.
2. Ibid.
3. CCM Article 7 Report 2012, Form F.
4. CCM Article 7 Report 2012, Form F, and Declaration of Compliance with Art. 4(1)(a) of the CCM, 3 September 2014.
6. Ibid.
8. Decree No. 001358/MDAT establishing the Steering Committee of the PNDHD, 3 September 2007.
14. NPA, Annual Report 2012 to the PNDHD.
16. Ibid.
17. Email from Melissa Andersson, NPA, 8 June 2015.
18. Declaration of Compliance with Art. 4(1)(a) of the CCM, submitted by Mauritania, 3 September 2014.
Montenegro has estimated that 1.7km² of land contains CMR. Contaminated areas are located in two municipalities and one urban municipality (of a total of 23 municipalities). According to Montenegro’s most recent Convention on Cluster Munitions (CCM) Article 7 transparency reports, the contaminated areas are located at: Golubovci airport and a suburb of Podgorica in the urban municipality of Golubovci; the villages of Besnik, Jablanica, and Njeguši in the municipality of Rožaje; and Cakor mountain and the village of Bjelaje in the municipality of Plav.

However, there are differences between this list of areas and the areas that Norwegian People’s Aid (NPA) identified as suspected or confirmed to contain CMR in its detailed non-technical survey conducted in December 2012 to April 2013. During the survey, NPA made 87 polygons of suspected or confirmed hazardous areas over 11 locations across three municipalities. Contamination was found to affect five communities. The results of the survey are summarised in Table 1.

Table 1. Contamination by municipality as of April 2013

<table>
<thead>
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<th>Municipality</th>
<th>Community</th>
<th>Area (km²)</th>
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<tbody>
<tr>
<td>Golubovci</td>
<td>Mataguži (suburb of Podgorica)</td>
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<td></td>
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<td><strong>Total</strong></td>
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<td><strong>1.715</strong></td>
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</table>

In addition, the NPA survey indicated that CMR might also be present in two areas of Plav municipality: Bogajice and Murino. Due to snow, however, NPA was unable to survey these areas.

The differences between Montenegro’s CCM Article 7 report data and NPA’s survey data are due largely to the fact that the Article 7 report includes the additional villages of Besnik (in the municipality of Rožaje), and Cakor mountain and Bjelaje (in the municipality of Plav), which are suspected of CMR contamination, but where non-technical survey has yet to be conducted due to bad weather conditions. In addition, it seems that Sipacanik, in the municipality of Tuzi, may have been unintentionally missed in the Article 7 report.

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 Bakans 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. Following Montenegro’s independence, CMR removal was conducted by the Ministry of Internal Affairs in response to notifications from the general public.

Montenegro’s initial Article 7 report had claimed that, as of 27 January 2011, “there are no contaminated areas in Montenegro.” 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. After the air strikes in 1999, military units reportedly collected more than 1,800 submunitions, but Montenegro informed a CCM intersessional meeting that clearance had not been conducted “fully according to humanitarian mine action standards” and that it planned to conduct a survey. This led to the 2012-13 NPA survey described above.

The NPA survey found a total of 1.72km² suspected or confirmed to contain CMR as of 30 April 2013. Montenegro reported a slightly lower figure of 1.7km² in its CCM Article 7 report, which was subsequently reduced by 6,500m² in 2014 following a small amount of clearance resulting from discovery of two unspecified items of unexploded ordnance (UXO) during construction work.

Montenegro became contaminated with explosive remnants of war (ERW), mainly UXO, as a result of conflicts during the break-up of the former Socialist Federal Republic of Yugoslavia in the 1990s. NATO air strikes in Montenegro between March and June 1999 saw the use 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 three different types: BLU-97A/B, BL755, MK-1, and MK118. Some unexploded submunitions were collected by units of the Yugoslav army immediately after the air strikes. This initial clearance was carried out in haste, without applying international standards for ERW clearance, and for the most part only submunitions visible on the ground were destroyed.

Montenegro’s initial Article 7 report had claimed that, as of 27 January 2011, “there are no contaminated areas in Montenegro.” 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. After the air strikes in 1999, military units reportedly collected more than 1,800 submunitions, but Montenegro informed a CCM intersessional meeting that clearance had not been conducted “fully according to humanitarian mine action standards” and that it planned to conduct a survey. This led to the 2012-13 NPA survey described above.

Montenegro should clarify the location and extent of suspected and confirmed cluster munition remnants (CMR) contamination.

Montenegro should identify and apply as soon as possible the resources necessary to fulfil its Article 4 clearance obligations.
PROGRAMME MANAGEMENT

In 2004, the Ministry of Internal Affairs and Public Administration established a Department for Emergency Situations and Civilian Safety. However, it lacks human resources and equipment. Due to a shortage of funds, responsibility for explosive ordnance disposal (EOD) has remained with the police9 who set up an EOD team that currently has three trained members conducting demolitions.10

RCUD performs the role of national mine action centre.11 This was set up in 2002 by the government, which tasked the Ministry of Internal Affairs and Public Administration to “develop [the centre’s] organization and its specification.”12

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, the 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.13 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 2014,14 was not secured and as of writing this phase has yet to commence.15

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 complete the remaining clearance well before this deadline. With funding from the Norwegian Ministry of Foreign Affairs, the non-technical survey completed in April 2013 resulted in a baseline of CMR contamination in Montenegro. In April 2013, Montenegro said it planned to complete clearance of all contaminated areas in 2014 “if the funds are provided.”16 In early 2014, Montenegro indicated that clearance would be complete by “the end of 2014,” subject to funds.17 In June 2015, RCUD reported that if sufficient funding were secured in 2015, CMR clearance in Montenegro would be completed by the end of 2017.18 As of June 2015, however, neither national nor international funding had been secured for CMR clearance in Montenegro.19 Montenegro continues to seek international cooperation and assistance to fulfill its survey and clearance obligations under the CCM.20

LAND RELEASE

No planned land release operations took place in 2014, but 6,500m² of land suspected or confirmed to contain CMR was cleared after two unspecified items of UXO were found in Golubovci during construction work.21

SURVEY IN 2014

No survey has taken place since NPA’s non-technical survey was completed in April 2013.22

CLEARANCE IN 2014

No planned CMR clearance took place in either 2014 or 2013. In 2013, NPA, in cooperation with RCUD, had prepared 10 technical survey and clearance projects covering 8,346,300m² 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 24,150m².23 As noted above, however, lack of funding has meant the work has not yet begun.24 The only clearance in 2014 was of an area of 6,500m² during construction work in Golubovci.25

ENDNOTES

1 Convention on Cluster Munitions (CCM) Article 7 Report (for 2014), Form F.
2 Ibid., and CCM Article 7 Report (for 2013), Form F.
4 Ibid.
5 Email from Veselin Mijajlovic, Director, Regional Centre for Divers’ Training and Underwater Demining (RCUD), Podgorica, 16 March 2007.
6 Email from Veselin Mijajlovic, RCUD, 3 July 2015.
8 CCM Article 7 Report (for 2013), Form F.
9 CCM Article 7 Report (for 2014), Form F.
10 Interview with Veselin Mijajlovic, RCUD, 16 March 2007.
12 Ibid., p. 22
13 Ibid., p. 21
14 Ibid., p. 23
15 CCM Article 7 Report (for 1 August 2010 to 31 January 2011), Form F.
16 Telephone interviews with Veselin Mijajlovic, RCUD, 19 and 25 July 2011.
17 Statement of Montenegro, CCM Intersessional Meetings, Geneva, 17 April 2012.
20 Email from Zoran Begovic, Ministry of Interior Affairs and Public Administration, 28 June 2012.
21 Email from Veselin Mijajlovic, RCUD, 29 July 2012.
22 Sluberski et al RCG (Official Gazette of Montenegro), No. 66, pp. 28–30.
24 Ibid., p. 6.
25 Email from Darren Lusia, Programme Manager, Boora and Herzegovina, NPA, 3 March 2015.
26 CCM Article 7 Report (for 2014), Form F.
27 Email from Darren Lusia, NPA, 3 March 2015.
29 Email from Darren Lusia, NPA, 3 March 2015.
30 CCM Article 7 Report (for 2014), Form F.
31 CCM Article 7 Report (for 30 April 2012 to 30 April 2013), Form F.
32 CCM Article 7 Report (for 2013), Form F.
33 Email from Veselin Mijajlovic, RCUD, 16 June 2015.
34 Ibid.
MOZAMBIQUE

ARTICLE 4 DEADLINE: 1 SEPTEMBER 2021 [ON TRACK TO MEET DEADLINE]

PROGRAMME PERFORMANCE

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<td>Efficient clearance</td>
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<td>National funding of programme</td>
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<tr>
<td>Timely clearance</td>
<td>4</td>
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<tr>
<td>Land release system in place</td>
<td>8</td>
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<td>National mine action standards</td>
<td>8</td>
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<tr>
<td>Reporting on progress</td>
<td>4</td>
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<tr>
<td>Improving performance</td>
<td>7</td>
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</tbody>
</table>

PERFORMANCE SCORE: 6.0

RECOMMENDATIONS FOR ACTION

- Mozambique should complete survey and verification of cluster munition remnants (CMR) contamination to declare itself in compliance with Article 4 of the Convention on Cluster Munitions (CCM) at the earliest possible date and no later than the end of 2016.
- Mozambique should ensure the national mine action database is accurate, up to date, and effectively managed by national authorities.
- Greater efforts should be made to ensure reporting and recording of mine action data according to International Mine Action Standards (IMAS) land release terminology.

CONTMATION

Mozambique had no specific areas confirmed to contain CMRs as of 31 December 2014. However, Mozambique’s National Demining Institute (Instituto Nacional de Desminagem, IND) requested Norwegian People’s Aid (NPA) to undertake a detailed CMR survey from June to December 2015 in Gaza, Manica, and Tete provinces, targeting specific communities. Operations were being carried out by small, flexible roving teams as any tasks identified were expected to be small and widely dispersed.

Cluster munitions are reported to have been used on “a limited scale” during the war in Mozambique. In its initial CCM Article 7 transparency report in 2013, Mozambique indicated that the extent of areas contaminated by CMRs was not known, although it reported that cluster munitions had been used in seven provinces: Gaza, Manica, Maputo, Niassa, Sofala, Tete, and Zambezia. A small number of CMRs, including both RBK-250 containers and unexploded submunitions such as Rhodesian-manufactured Alpha bomblets, were found in 2005-12 in Guro district of Manica province, Boane district of Maputo province, Mabalane district of Gaza province, and Changara and Chifunde districts in Tete province. All these CMRs were destroyed.

In September 2014, Mozambique informed states parties to the CCM of its belief that most of the resultant contamination had already been cleared as part of Mozambique’s ongoing mine and explosive remnants of war (ERW) clearance efforts.

In September 2014, Mozambique informed states parties to the CCM of its belief that most of the resultant contamination had already been cleared as part of Mozambique’s ongoing mine and explosive remnants of war (ERW) clearance efforts. According to the IND, the risk posed by CMRs to the civilian population is limited and there have been no reports of any accidents from submunitions.

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Mozambique also has residual contamination from mines and unexploded ordnance (UXO), and ERW incidents have occurred in rural areas in the course of everyday community activities. The IND’s 2015 annual workplan included an objective to “establish and implement mechanisms for the management of risks from residual UXO and other ERW.”

PERFORMANCE SCORE: 6.0
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. Since 1999, the United Nations Development Programme (UNDP) has provided technical assistance; currently, support is provided under a three-year programme due to expire in 2015.11

LEGISLATION AND STANDARDS

In September 2013, the IND reported that it was revising its national mine action standards to include specific guidance on clearance of CMR.9 In April 2015, the IND reported requesting assistance from NPA to revise its national mine action standards, information management system, and quality management system specific to CMR survey and clearance in June and September 2014.10

OPERATORS

Mozambique has four international mine clearance operators in country: Belgian non-governmental-organisation (NGO) APOPO, HALO Trust, Handicap International, and NPA. Demining has also been conducted by the Mozambican Army and a number of commercial operators.

In 2014, APOPO and NPA were the only operators involved in CMR survey and clearance. APOPO deployed one manual clearance team with embedded survey capacity to an area of CMR contamination identified by an NPA survey.12 NPA’s survey team in Tete consisted of four personnel.12

QUALITY MANAGEMENT

According to APOPO, personnel from the IND conducted external quality assurance through routine assessments and checks of clearance activities and procedures in 2014. APOPO reported having an internal quality management system in place regarding its CMR-contamination-related activities and that all measures were taken to ensure that all standards and procedures were implemented in accordance with its standing operating procedures and the IMAs.13

LAND RELEASE

The total CMR-contaminated area released by clearance and technical survey in 2014 was approximately 355,000m². In June 2014, NPA’s survey teams identified a confirmed hazardous area with at least six visible Alpha bomblets in Cahora-Bassa district in Tete province. The contaminated area was estimated to total approximately 240,000m². APOPO was tasked by the IND to clear the area by the end of 2014.17 Following survey and clearance in October and November, APOPO cleared a total of 349,453m², destroying 12 Alpha submunitions.18

Following survey and clearance in 2014, no other confirmed areas requiring clearance or suspected areas requiring survey had been identified as of May 2015. The IND has reported that a mix of additional non-technical and technical survey would be used to confirm that areas already cleared do not contain any CMR as a process of verification in order to ensure compliance with Article 4 “by no later than 2014”.19

SAFETY OF CLEARANCE PERSONNEL

No accidents involving CMR clearance personnel were recorded in Mozambique for 2014.20

ARTICLE 4 COMPLIANCE

Under Article 4 of the CCM, Mozambique is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 September 2021. Mozambique should fulfil its Article 4 obligations well in advance of its treaty deadline. In April 2015, the IND reiterated the government’s commitment to ensure compliance with Article 4 of the CCM by “no later than the end of 2016”, and declare CMR clearance complete following additional non-technical survey and verification. After further CMR survey work by NPA and submission of a final report on the results in December 2015, the IND will decide on the clearance of any reported areas.22

Mozambique initially stated that it might need until 2021 to clear all CMR as the full extent of the problem was unknown.21 At the Fourth Meeting of States Parties to the CCM, however, Mozambique reported its belief that it could complete its clearance obligations by the end of 2016, depending on further survey.22 It has since reiterated that it is on track to complete CMR clearance on several occasions by the end of 2016, including at the Fifth Meeting of States Parties in September 2014 and in a recent communique to Mine Action Monitor in April 2015.20

Mozambique was expected to receive less funding for mine action in 2015, commensurate with the expected fulfilment of its obligations under the Anti-Personnel Mine Ban Convention to clear all anti-personnel mine contamination. Nonetheless, the IND has reported that sufficient capacity exists to address any remaining CMR. The IND stated in April 2015 its belief that sufficient funding existed to complete necessary survey in 2015.23 APOPO and NPA did not report receiving any government funding or in-kind support for CMR survey and clearance-related activities.24

APOPO has reported that its operations did not include CMR survey or clearance in 2015. However they stood ready to deploy assets to suspected areas of contamination if requested by the IND.25 An NPA “Self-Help Ammunition Destruction Options Worldwide” (SHADOW) project to destroy a stockpile of RBK 250 cluster munitions held by the Mozambique Armed Forces in Nacala started in 2014 and was due to be completed in 2015.26

ENDNOTES

1 Response to Mine Action Monitor questionnaire by Abdirahab Ibra, Advisor, Capacity Building Project Mozambique, NPA, 4 June 2015. NPA reported it would require two small teams to complete the surveys and a significantly reduced budget in comparison to previous funding for mine clearance operations.


3 Statement by Alberto Maverengue Augusto, Director, IND, Fifth Meeting of States Parties to the CCM, Maputo, 5–6 November 2012, p. 6.

4 CCM Article 7 Report (for 1 September 2011–31 May 2012), Form F.

5 Ibid.

6 Statement by Alberto Maverengue Augusto, IND, Fifth Meeting of States Parties, 4 September 2014.

7 CCM Article 7 Report (for 1 September 2014 and CCM Article 7 Report (for 1 January 2015)–31 July 2014), Form F. These submunitions were reported as destroyed through explosive ordnance disposal (EOD) and battle area clearance (BAC), but were not properly surveyed and no square metres for clearance of CMR were recorded. Email from Hans Risser, Chief Technical Advisor, Mine Action, APOPO, 4 June 2015.

8 Statement by Alberto Maverengue Augusto, IND, Fifth Meeting of States Parties, 4 September 2014.


12 Statement of Mozambique, Fourth Meeting of States Parties to the CCM, Lusaka, 12 September 2013.

13 Response to Mine Action Monitor questionnaire by the IND, 30 April 2015.

14 Response to Mine Action Monitor questionnaire by the IND, 30 April 2015.


17 Response to Mine Action Monitor questionnaire by the IND, 30 April 2015; APOPO, 11 May 2015; and Mario Nuñes, NPA, Country Director, NPA, 30 April 2015; APOPO reported that the initial figure for its survey task was 246,400m².


19 Response to Mine Action Monitor questionnaire by the IND, 30 April 2015 and Statement by Alberto Maverengue Augusto, IND, Fifth Meeting of States Parties, 4 September 2014.

20 Response to Mine Action Monitor questionnaire by the IND, 30 April 2015.

21 Ibid.


23 CCM Article 7 Report (for 1 September 2011–31 May 2012), Form F.

24 Statement of Mozambique, Fourth Meeting of States Parties to the CCM, Lusaka, 12 September 2013.

25 Response to Mine Action Monitor questionnaire by the IND, 30 April 2015.

26 Ibid.


29 Response to Mine Action Monitor questionnaire by the IND, 30 April 2015, and email from Hans Risser, UNDP, 8 June 2015; NPA was asked by the IND to conduct verification and feasibility for the destruction of the RBK 250 cluster munitions stockpiled in 2013.
NORWAY

CONTAMINATION

Norway has fulfilled its Convention on Cluster Munitions (CCM) Article 4 obligations to clear cluster munition remnants (CMR), having completed clearance of the sole confirmed area containing CMR in September 2013.1

The area that was contaminated is on the Norwegian mainland, part of the former Hjerkinn shooting range in the Dovre mountain area, in Oppland county. The hazardous area, known as “HKF-sletta”, was used for test firing artillery-delivered cluster munitions (DM 1383 and DM 1385) in the period 1986–2007. It covered a total area of 617,300m². The shooting range is in the process of being decommissioned, and CMR clearance was part of a larger explosive ordnance disposal operation conducted by the Norwegian defence forces.2

In its initial CCM Article 7 report in 2011, and in subsequent Article 7 reports in 2012 and 2013, Norway reported that the contaminated area contained an estimated 30 unexploded submunitions.3 However, upon completion of CMR survey and clearance, Norway declared that only two bomblets had been destroyed between the start of operations in 2008 and completion in 2013.4

In March 2014, Norway reported under the Convention on Certain Conventional Weapons, that clearance of CMR contamination had been completed in late 2013 and that the remaining area contaminated by other unexploded ordnance (UXO) was expected to be cleared by 2020.5 At the CCM intersessional meetings in April 2014, Norway announced completion of CMR clearance,6 and its April 2014 Article 7 transparency report declared that clearance had been completed by the third quarter of 2013.7 CMR clearance was conducted by a dedicated explosive detection dog (EDD) unit comprising three dog handlers and eight dogs engaged in searching “boxes” of 10m².8

At the Fifth Meeting of States Parties in September 2014, Norway announced it had submitted its formal Declaration of Article 4 Compliance to the United Nations on 29 August 2014, and, as such, had completed its clearance obligations under the CCM.9

ARTICLE 4 COMPLIANCE

Under Article 4 of the CCM, Norway was required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 August 2020. Norway completed CMR clearance nearly seven years before its deadline.

In its declaration of Article 4 compliance, Norway stated that as of 9 September 2013 it had made every effort to identify all areas under its jurisdiction and control contaminated by cluster munitions, and that as of that date it had cleared and destroyed all CMR found in accordance with Article 4 of the CCM.10

ENDNOTES

1 Declaration of compliance with Article 4.1(a) of the CCM, submitted by Norway, 1 September 2014.
2 Ibid.
4 Declaration of compliance with Article 4.1(a) of the CCM, submitted by Norway, 1 September 2014.
6 Statement of Norway, CCM Intersessional Meetings, Geneva, April 2014.
7 CCM Article 7 Report, Form F, 30 April 2014.
8 Declaration of compliance with Article 4.1(a) of the CCM, submitted by Norway, 1 September 2014.
10 Norway’s declaration of compliance with CCM Art. 4.1(a) mistakenly states “jurisdiction and control”, instead of “jurisdiction or control”, which is the wording in Article 4.
11 Declaration of compliance with CCM Art. 4.1(a), submitted by Norway, 1 September 2014.
### PROGRAMME PERFORMANCE

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**PERFORMANCE SCORE: 5.5**  
**AVERAGE**

### PROGRAMME MANAGEMENT

A National Mine Action Authority (NMAA) was established in 2009 to oversee clearance of mined areas. The Foreign and Commonwealth Office (FCO) chairs the NMAA, and the Falkland Islands government and project contractors are also represented.

#### 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 Ltd. (BACTEC) was awarded the land release contract, which will involve survey of SHA and removal of any contamination, while Fenix Insight will be responsible for the Demining Project Office, which ensures quality management of the demining operations. While the announcement by the Governor’s Office asserted that 108 minefields existed at the start of Phase 4, the FCO subsequently confirmed that the correct figure was in fact 107. It was envisaged that over the course of Phase 4, at least 23 mineral areas as well as one battle area would be cleared.

To implement Phase 4, which began in January 2015, BACTEC has a team of 46 demining staff, along with other support and management personnel. BACTEC is using three mechanical assets during the project: two flails and a tiller.

### CONTAMINATION

An unknown number of CMR remain on the Falkland Islands as a result of use of BL 755 cluster bombs by the UK 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 BL 755 submunitions and using the 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 BL 755s 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.”

In 2015, the UK affirmed to Cluster Munition Monitor that no known areas of CMR contamination exist outside suspected hazardous areas (SHAs) on the islands, in particular mined areas, all of which are fenced and marked. 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 were searched and unexploded ordnances were considered to be cleared. The UK 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 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.

In 2010, the UK reported destruction of two submunitions in Stanley Area 3, during clearance operations across four mined areas in 2009–10. In June 2015, the UK reported destruction of 19 submunitions during Phase 4(a) clearance operations, in January to April 2015, also in Stanley Area 3. UK records suggest that four cluster bombs were dropped in this area.

The UK conducted CMR clearance in the aftermath of the Falklands conflict, all of which 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.

In 2015, the UK reported that 3.67km² of land had been released through cancellation from the threat of landmines, and clearance of UXO, during Phases 2 and 3 of the project. Of this total, 3.49km² was released in Phase 2 (January–March 2012), with the destruction of 79 UXO items, and 0.18km² in Phase 3 (January–March 2013), destroying a further six items of UXO, all in the “Stanley common fence” area. An additional 27 items of UXO, including the two submunitions mentioned above, were destroyed during clearance in January to April 2015.

The UK has predicted that almost 1.2km² of battle area will be cleared in Phase 4(b) (September to December 2015), in the Elizabeth Cove area.

### RECOMMENDATIONS FOR ACTION

- The UK should acknowledge it has outstanding Convention on Cluster Munitions (CCM) Article 4 obligations to survey and, where contamination is found, to clear cluster munition remnants (CMR) in the Falkland Islands.
- The UK should present detailed plans and timelines for clearance of all known or suspected cluster strike areas in mined and other suspected hazardous areas in the Falkland Islands in accordance with its international legal obligations.
LAND RELEASE

No submunitions were destroyed in 2014, but, as noted above, 19 submunitions were destroyed during clearance operations in January to April 2015 in Stanley Area 3. 21

ARTICLE 4 COMPLIANCE

Under Article 4 of the 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. The UK is not on track to meet this deadline.

The UK 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. 22

However, Article 4(2)(a) of the CCM stipulates that, “as soon as possible”, each state party shall: “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”. Mine Action Monitor believes that the UK 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. The decision to discontinue clearance of mined areas in the 1980s means that several cluster strike areas located within these mined areas have not been surveyed. Accordingly, an assertion that the remaining threat from CMR is only residual is purely speculative.

ENDNOTES

1  There is a sovereignty dispute with Argentina, which also claims jurisdiction over the islands.
3  Email from Jeremy Wilmshurst, FCO, 1 July 2015.
4  Ibid.
5  Ibid.
7  Email from Jeremy Wilmshurst, Foreign and Commonwealth Office, 11 June 2015.
8  Ibid, 1 July 2015.
12  Email from Jeremy Wilmshurst, FCO, 1 July 2015.
18  Governor’s Office, “Falkland Islands demining contracts awarded”, 28 October 2014.
19  In total, 74 staff are said to have been employed on the project.
21  Email from Jeremy Wilmshurst, FCO, 11 June 2015.
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 the National Demining Institute (Instituto Nacional de Desminagem, INAD), which is responsible for demining and training operations under the auspices of MINARS.

OPERATORS
Five international non-governmental organisations (NGOs) conduct demining for humanitarian purposes in Angola: DanChurchAid (DCA), HALO Trust, Menschen gegen Minen (MgM), Mines Advisory Group (MAG), and NPA. A number of national commercial companies, accredited by CNIDAH and mostly employed by the state or other private companies, also operate in Angola.

ARTICLE 4 COMPLIANCE
As of July 2015, Angola was a signatory but not a state party to the Convention on Cluster Munitions. Nonetheless, Angola has obligations to clear CMR as soon as possible under international human rights law, in particular by virtue of its duty to protect the right to life of every person under its jurisdiction.4

ENDNOTES
1 According to reports from NGO operators in the national database at the Intersectoral Commission for Demining and Humanitarian Assistance (CNIDAH), as of February 2008, Norwegian People’s Aid (NPA) reported clearing (i) submunitions in Kwanza Sul province; Mines Advisory Group (MAG) reported clearing (ii) submunitions in Moxico province; and HALO Trust reported clearing (iii) submunitions in Bié province. Email from Mohammad Qasim, UNDP/CNIDAH, 23 February 2008.
2 Response to questionnaire by Gerhard Zank, Programme Manager, HALO Trust, 19 March 2013.
3 Interviews with Jose Antonio, Site Manager, Kuando Kubango, HALO Trust, and with Coxe Sucama, Director, INAD, in Menongue, 24 June 2011.
4 Email from Fredrik Holmegaard, Country Director, Humanitarian Disarmament – Angola, NPA, 26 June 2015.
5 Response to questionnaire by Gerhard Zank, HALO Trust, 19 March 2013.
6 Angola is a state party to the 1966 International Covenant on Civil and Political Rights, Article 6(1) of which stipulates that “Every human being has the inherent right to life”. It is also a state party to the 1981 African Charter on Human and Peoples’ Rights, Article 6(4) of which provides that “Every human being shall be entitled to respect for his life and the integrity of his person.”

RECOMMENDATIONS FOR ACTION
➔ Angola should conduct a cluster munition remnants (CMR) survey as soon as possible to confirm whether or not it is still affected by CMR and take appropriate action based on the results.
➔ Angola should ratify the Convention on Cluster Munitions (CCM) as soon as possible.

CONTAMINATION
The extent to which Angola is affected by CMR remains unclear. There is no confirmed contamination, but a small residual threat from either abandoned cluster munitions or unexploded submunitions may exist. As of July 2015, an appropriate survey has yet to be conducted in order to establish whether Angola is still affected by CMR. CMR contamination is a result of more than four decades of armed conflict that ended in 2002, although it is unclear when, or by whom, cluster munitions were used in Angola.

As of July 2015, clearance operators had not found CMR in more than seven years,1 apart from HALO Trust, which reported finding and destroying 12 unexploded submunitions in 2012.2 In 2011, HALO and the National Institute for Demining (Instituto Nacional de Desminagem, INAD) affirmed that unexploded submunitions remained in Kuando Kubango.3 In June 2015, Norwegian People’s Aid (NPA) reported finding no CMR during its operations in northern Angola, with the exception of a small number of submunitions found in 2008.4 Indeed, since 1994, very few cluster bomb strikes have been identified by HALO, which has concluded that the impact of submunitions is minimal. Clearing submunitions has been mainly through explosive ordnance disposal (EOD) call-out/spot tasks. More typical is the destruction of old or unserviceable cluster munitions identified by HALO’s Weapons and Ammunition Disposal (WAD) teams in military storage areas, some of which have already been earmarked for subsequent disposal by the Angolan Armed Forces. Between 2005 and 2012, HALO Trust WAD teams reported destroying a total of 7,284 submunitions.5

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES
Angola is heavily contaminated with landmines and explosive remnants of war (ERW) other than CMR.
COLOMBIA

RECOMMENDATIONS FOR ACTION

> Colombia should ratify the Convention on Cluster Munitions (CCM) as a matter of priority.
> Colombia should ensure the national mine action database disaggregates data on submunitions and other cluster munition remnants (CMR).
> Colombia should assess extent of CMR contamination as soon as possible.

CONTAMINATION

The extent to which Colombia is affected by CMR is unclear. In May 2009, Colombia’s Minister of Defense, Juan Manuel Santos, acknowledged that the Colombian Armed Forces have 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.”

In 2010, the Ministry of National Defense 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.” In November 2012, the Inter-American Court on 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. A helicopter dropped an AN-M1A2 cluster munition containing six submunitions, killing 17 civilians, including six children, injuring a further 27 civilians, including nine children, and displacing the village’s inhabitants. Colombia sought to attribute the deaths to a bomb placed by Revolutionary Armed Forces of Colombia (FARC) guerrillas.

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. The Presidential Programme for Comprehensive Mine Action (Programa Presidencial para la Acción Integral contra Minas Antipersonal, PAICMA) is the technical secretary for CINAMAP, responsible for coordinating implementation of the 2009–2019 Integrated Mine Action Plan, which seeks to minimise the socio-economic impact of mines, improvised explosive devices (IEDs), and unexploded ordnance (UXO), and to implement sustainable development programmes in affected communities.

LAND RELEASE

There are no reports of any submunitions being destroyed during demining operations in 2014.

ARTICLE 4 COMPLIANCE

Colombia is a signatory to the CCM but as of June 2015 it had still to ratify. Nonetheless, Colombia 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.

ENDNOTES

1 Carlos Osorio, “Colombia destroza sus últimas bombas de tipo racimo” (“Colombia destroys its last cluster bombs”), Agence France-Presse, 7 May 2009.
3 Inter-American Court on Human Rights, Caso Masacre de Santo Domingo e Colombia, Official Summary in Spanish, 30 November 2012; and Inter-American Commission on Human Rights, Memoria de Santo Domingo, Colombia, Case No. 12-48, 22 April 2011.
5 Acta CINAMAP 02/2013, 18 December 2013, pp. 3–4.
6 Presidency of Colombia, Decree 2150 of 2007.
7 It is a state party to the 1966 International Covenant on Civil and Political Rights, Article 6 of which stipulates that: “Every human being has the inherent right to life.” It is also a state party to the 1966 American Convention on Human Rights, Article 4 of which provides that “Every person has the right to have his life respected.”
CONTAMINATION
As of end of 2014, the DRC had 17,590 m² of area confirmed to contain CMR (see Table 1). The contamination is located in two of the DRC’s 11 provinces: Equateur and Katanga in the south. The DRC identified the five areas, all of which are believed to contain BL755 submunitions, in a national survey conducted in 2013. 2

Table 1. CMR contamination by province as of end 2014 2

<table>
<thead>
<tr>
<th>Province</th>
<th>Confirmed areas</th>
<th>Area (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equateur (Blolomba)</td>
<td>4</td>
<td>12,340</td>
</tr>
<tr>
<td>Katanga (Kirungu/Moba)</td>
<td>1</td>
<td>5,250</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>17,590</td>
</tr>
</tbody>
</table>

It is not known who used cluster munitions in DRC, nor when. In April 2014, the DRC stated that cluster munitions had been used by unspecified foreign armies, both those invited by the government and those “not invited” 2. Since 2009, small numbers of unexploded submunitions have been found in Equateur, Katanga, North and South Kivu, Maniema, and Oriental provinces 1. Submunition types reportedly include BL755, BLU-63, BLU-55, ShAOB, and PM-1.

Of the five remaining areas confirmed to contain CMR, contamination in the four areas in Equateur province was said to impact agricultural activities. 1 The area in Katanga consisted of a cluster munition strike close to a hospital in Moba. In 2014, Mines Advisory Group (MAG) carried out clearance on the strike, but work had to be halted to prevent the closure of the hospital, the only one in Moba. MAG reported that its teams were clearing CMR in more heavily populated areas in 2014 compared to 2013. 3

OTHER EXPLOSIVE REMNANTS OF WAR
The DRC is also 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 left the DRC with unexploded ordnance (UXO) as well as significant quantities of abandoned explosive ordnance. In January 2015, the United Nations Mine Action Service (UNMAS) reported that a total of 2,539 ERW victims were registered in its database, including nearly 30 new victims in 2014 alone. 4

STRATEGIC PLANNING
The DRC’s national mine action strategic plan for 2012-16 sets the goal of clearance of all areas contaminated with anti-personnel mines or unexploded submunitions by the end of 2016, as well as for transition of the mine action programme from UN management to full national ownership. 5

OPERATORS
Five international operators are accredited for mine action in the DRC. DanChurchAid (DCA), Handicap International (HI), MAG, Mine Tech International (MTI), Mcenheim, and Norwegian People’s Aid (NPA). MAG was the only operator to conduct CMR survey and clearance activities in the DRC in 2014. It deployed two teams to clear CMR, one in Equateur and the other in Katanga. All deminers and the two team leaders were personnel from the Congolese Armed Forces (Forces Armées de la République Démocratique du Congo, FARDC), seconded to MAG by CCLAM. 9

STANDARDS
No developments were reported regarding mine action standards or guidelines specific to CMR survey or clearance in 2014. As of May 2015, National Technical Standards and Guidelines for mine action had been developed but had not yet been finalised. The draft version does not contain CMR-specific provisions. 19

PROGRAMME PERFORMANCE

<table>
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<td>Land release system in place</td>
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<td>National mine action standards</td>
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<td>Reporting on progress</td>
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<tr>
<td>Improving performance</td>
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</table>

PERFORMANCE SCORE: 6.2

RECOMMENDATIONS FOR ACTION

→ The Democratic Republic of Congo (DRC) should complete clearance of all areas contaminated by cluster munition remnants (CMR) before the deadline of the end of 2016 which it has set for itself.

→ The DRC should ratify the Convention on Cluster Munitions (CCM) as a matter of priority.

→ The quality of the national mine action database should be significantly improved. The DRC should ensure that the database is accurate, up to date, and effectively owned by national authorities.

→ Greater efforts should be made to ensure reporting and recording of mine action data according to International Mine Action Standards (IMAS) land release terminology.

RECOMMENDATIONS FOR ACTION

→ Greater efforts should be made to ensure reporting and recording of mine action data according to International Mine Action Standards (IMAS) land release terminology.
QUALITY MANAGEMENT
MAG, Mechem, and NPA reported that external quality management activities were very limited in the DRC in 2014.14 UNMAS claimed that a quality management system was in place and that quality assurance (QA) activities were normally carried out on a monthly basis per team/organisation in 2014. However, it said that in 2015 very few QA activities were carried out in the field “due to both logistics and funding constraints”.15

LAND RELEASE

The total amount of CMR-contaminated area released in 2014 was 45,510m². In May 2015, MAG reported that the CMR-contaminated areas it worked on in 2014 had yet to be completed and therefore the land cleared in 2014 had not yet been released by the coordinating authorities.26

SURVEY IN 2014

No CMR survey activity was carried out in 2014. Non-technical survey was conducted by MAG in Katanga and Equateur provinces as part of the National Landmine Contamination Survey in 2013, which was completed by NPA, HI, DCA, and MAG, in cooperation with national non-governmental organisations (NGOs). The areas where MAG deployed teams to clear CMR in 2014 had previously been confirmed as contaminated and no further technical survey was conducted.26

CLEARANCE IN 2014

MAG cleared a total of 45,510m² of CMR-contaminated area in 2014. Most (46,280m²) was in Equateur province, with 19,230m² in Katanga province (see Table 2).27

As noted above, the Katanga team was deployed to a cluster munition strike at Moba hospital. The area had to be extended from the original suspected area as more submunitions were found. A total of 30 submunitions and 21 items of UXO were destroyed during the year and all suspect areas were cleared. Other areas were covered by non-technical survey and visual search. It was agreed that the hospital was cleared, but a report on further suspicious items spotted in non-suspect areas in the future.27 In June 2015, MAG reported that its team would continue to work in the same province for several months and was ready to return and clear any explosive hazards, should the hospital request it or if assigned by UNMAS.28

Work on CMR clearance was halted for three months following a devastating explosion in an ammunition depot in the city of Mbuji Mayi, Kasaï Oriental province in January 2014. MAG, which was asked to provide emergency assistance, redeployed the team working on CMR clearance in Katanga to Mbuji Mayi for three months.29

Table 2. Clearance of CMR-contaminated area in 2014

<table>
<thead>
<tr>
<th>Operator</th>
<th>Areas released (m²)</th>
<th>Area cleared (m²)</th>
<th>Submunitions destroyed</th>
<th>UXO destroyed</th>
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<tbody>
<tr>
<td>MAG (Equateur)</td>
<td>0*</td>
<td>46,280</td>
<td>8</td>
<td>422</td>
</tr>
<tr>
<td>MAG (Katanga)</td>
<td>0*</td>
<td>19,230</td>
<td>30</td>
<td>21</td>
</tr>
<tr>
<td>0*</td>
<td>65,310</td>
<td>38</td>
<td>443</td>
<td></td>
</tr>
</tbody>
</table>

* MAG reported that the land had yet to be formally released.

MAG reported destroying a total of 38 submunitions during CMR clearance in 2014.30 CCLAM reported the destruction of a further 17 submunitions in 2014 as a result of explosive ordnance disposal (EOD) tasks in areas No incidents were reported involving CMR clearance in 2014.37

SAFETY OF CLEARANCE PERSONNEL

No incidents were reported involving CMR clearance in 2014.37

ARTICLE 4 COMPLIANCE

As of 1 July 2015, the DRC was a signatory but not yet a state party to the CCM. As such, it does not have a treaty-mandated deadline for clearance. Nonetheless, the DRC 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.39

The DRC’s national mine action strategic plan for 2012–16 sets the goal of clearance of all areas contaminated with anti-personnel mines or unexploded submunitions by the end of 2016.39 The Government of the DRC, through CCLAM, which operates under the Ministry of Interior, is seconding members of the armed forces to MAG for CMR survey and clearance.40 MAG stated these two teams would continue to work in CMR-contaminated areas in Equateur and Katanga provinces and that no change in its CMR survey or clearance capacity was expected in 2015.40

ENDNOTES

2 Convention on Cluster Munitions (ECDM) Article 7 Report (for 2012 and 2013), Form F.
3 Ibid., and Response to Mine Action Monitor questionnaire by Colin Williams, UNMAS, 19 May 2015.
5 Email from Charles Fineby, former UN Advisor, UNMACC, 19 March 2011; Statement of the DRC, Luanda Regional Seminar on the Universalisation of the CCM, Luanda, 25 May 2013; Notes by Ada HAM, First Meeting of States Parties to the CCM, Vientiane, Laos, 11 November 2016 (notes by the Cluster Munition Coalition, CMC), and CCM International Meetings, Geneva, 28 June 2011.
6 See the meeting of the DRC, Regional Seminar on the Universalisation of the CCM, Luanda, 25 May 2013 (notes by Ada HAM), First Meeting of States Parties to the CCM, Vientiane, 11 November 2016 (notes by the CMC) and CCM International Meetings, Geneva, 28 June 2011.
13 UNMAS, “Democratic Republic of the Congo (DRC), Support to UN Country Team and the Government”.
15 Response to Cluster Munition Monitor questionnaire by...
**CONTAMINATION**

The extent of contamination from cluster munition remnants (CMR) in Somalia is unknown. In 2013, dozens of unexploded PTAB-2.5M submunitions and several unexploded AO-1SCh submunitions were found within a 30km radius of the town of Dolow (also spelled Doolow) on the Somali-Ethiopian border, in the southern Gedo region of south-central Somalia. CMR contamination was also identified around the town of Galgogob (also spelled Goldogob), in the north-central Mudug province of Puntland, further north on the border with Ethiopia. At the time, more contamination was expected to be found in south-central Somalia’s Lower and Upper Juba regions.

According to the United Nations Mine Action Service (UNMAS), the Ethiopian National Defence Forces used cluster munitions in clashes with Somali armed forces along the Somali-Ethiopian border during the 1977–78 Ogaden War. 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.

While the extent of CMR contamination along the Somali border with Ethiopia is not known, in September 2014 a Somalia Explosive Management Authority (SEMA) official claimed it posed an ongoing threat to the lives of nomadic people and their animals.

**OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES**

Somalia is heavily contaminated with explosive remnants of war (ERW) other than CMR, a result of more than two decades of civil war 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).

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

In 2015, UNMAS reported that explosive hazards, including residual ERW contamination, explosive stockpiles and ammunition caches, presented a daily threat to communities along the main supply routes across south-central Somalia and along the Ethiopian border. In 2011–15, the vast majority of deaths and injuries from explosive hazards in south-central Somalia (93%) were caused by IEDs, while the number of victims of ERW fell from 70 in 2010 to 41 in 2013. Few mine victims were recorded.

Landmines along the border with Ethiopia, mainly as a result of legacy minefields, also continued to affect civilians in south-central Somalia. The humanitarian imperative to address ERW contamination in Somalia is heightened significantly by the movement of large numbers of internally displaced persons (IDPs) due to ongoing conflict in the country. In March 2015, it was estimated that 1.1 million Somalis, or one tenth of the population, were IDPs. Contamination from mines and ERW in south-central Somalia remains a particular threat to their well-being.

**PROGRAMME MANAGEMENT**

**PROGRAMME PERFORMANCE**

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**PERFORMANCE SCORE: 4.9**

POOR BUT IMPROVING

**RECOMMENDATIONS FOR ACTION**

- Somalia should ratify the Convention on Cluster Munitions (CCM) as a matter of priority.
- Continued efforts should be made to ensure reporting and recording of mine action data according to International Mine Action Standards (IMAS) land release terminology.
- Somalia should develop a resource mobilisation strategy and initiate policy dialogue with development partners on long-term support for mine action, including consideration of cluster munition contamination.
- Somalia should provide resources to support operational mine action.
The UN supports mine action activities in Somalia according to the three geographical regions: south-central Somalia, Puntland, and Somaliland. The respective centres responsible for mine action in each of these areas are SEMA, the Puntland Mine Action Centre (PMAC), and the Somaliland Mine Action Centre (SMAC).

**SOUTH-CENTRAL SOMALIA**

SEMA was established in August 2013 as the mine action centre for south-central Somalia, replacing the Somalia National Mine Action Authority (SNMAA), which had been created two years earlier. In 2015, SEMA was seeking to coordinate the work of international and local mine action operators. SEMA’s goal was to assume full responsibility for all explosive hazard coordination, regulation, and management by December 2015. As of June 2015, however, SEMA was not yet fully operational and lacked critical capacities to perform its mine action responsibilities. SEMA’s director reported that with support from the Japanese government, UNMAS was assisting SEMA to better integrate within the Ministry of Internal Security. Discussions were also underway between donors and Norwegian People’s Aid (NPA) and the Geneva International Centre for Humanitarian Demining (GICHD) to establish a joint capacity development project to strengthen SEMA’s institutional capacity.

In 2016, the African Union Mission in Somalia (AMISOM) deployed 12 explosive ordnance disposal (EOD) teams to each sector and 30 explosive dog detection (EDD) teams. In 2014, SEMA was responsible for collecting and destroying explosive ordnance, and for development and management of an EOD capacity, as a source of employment for local people and former combatants, and to contribute to stabilisation.

In 2015, UNMAS developed a draft Explosive Hazard Management Strategic Framework for Somalia for 2015–19 (including Somaliland and Puntland), seeking to promote a comprehensive response to explosive threats with community participation. The draft Framework contains objectives specific to CMR and cluster munition victims. As of June 2015, the document was awaiting final approval from SEMA and the Federal Government of Somalia. UNMAS stated the draft was serving as guidelines for implementers until the end of September 2015, when SEMA was expected to hold an initial workshop with all stakeholders to develop its national strategy.

UNMAS reported that in 2015, Puntland would work to develop a ‘comprehensive mine action programme’ and review existing structures with a view to long-term stability.

Somaliland has a five-year strategic plan for mine action for 2011–16 with goals focusing on strengthening national coordination capacity, operationalisation of the Information Management System for Mine Action (IMSMA) database, clearance of high-priority minefields, and systematic victim support.

**STANDARDS**

UNMAS has developed National Technical Standards and Guidelines (NTSGs) for Somalia, including Puntland, which were used by implementers in 2014. The NTSGs do not include specific guidance for CMR survey or clearance. There were no updates to national mine action standards during the year.

**OPERATORS**

**NON-GOVERNMENTAL ORGANISATIONS**

DDG began operations in the country in 1999 with mine and ERW clearance in Somaliland and has since undertaken mine action programmes in Mogadishu, Puntland, and Somaliland. In 2014, DDG did not conduct any manual or mechanical mine clearance operations. It carried out EOD spot tasks, non-technical survey, and ERW workshops in Galgudug, in Mudug province in Puntland; Abudwaq, in the central Galgudug region of south-central Somalia; and across Somaliland. It employed 270 personnel and, at the start of 2014, deployed seven EOD teams. This was reduced to four teams in March 2014 to focus on funding. One EOD team continued to operate in Puntland, two teams in Somaliland, and one team in south-central Somalia.

HALO Trust’s mine clearance programme in Somaliland was established in 1999. In 2014, HALO was the only mine action provider in the programme employing 452 operational and 129 support national staff. It deployed three mechanical teams with front end loaders for the majority of 2014, carrying out survey, mine clearance, battle area clearance (BAC), and EOD spot tasks. In the first half of 2015, HALO opened a new programme in south-central Somalia aiming to begin survey and clearance along the Somaliland border with Ethiopia. It reported funding for this purpose had been secured until the beginning of 2016.

In 2014, MAG continued its arms management and destruction (AMD) programme across south-central Somalia, Puntland, and Somaliland, handing over a total of 20 armories after construction and rehabilitation work. It also continued its work in Finsen, in Puntland. At its maximum capacity in 2014, MAG employed 43 national and eight international staff. 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 2014 in agreement with donors due to changes in strategy and a worsening security situation.

In 2014, NPA was invited by the Somali authorities to initiate a programme in south-central Somalia for survey, BAC, and capacity-building assistance to the SEMA. It deployed three multitask teams (MTTs) in south-central Somalia to carry out BAC, starting in November 2014, employing a total of 41 personnel.

COMMERCIAL COMPANIES

The Development Initiative (TDI) was operational in 2012–13 until operations ended in December 2013 due to lack of funds.

In 2014, UNMAS continued to contract the Ukrainian commercial operator UKROboronService to undertake mine action-related tasks in south-central Somalia.

**QUALITY MANAGEMENT**

SEMA reported that it carried out external quality assurance (EQA) activities in 2014 with support from UNMAS, as well as internal QA of the Puntland police EOD teams. SMAC also conducted QA activities in 2014, comprising of random QA of ongoing clearance work and prior to handover checks of completed tasks. NPA, HALO, and DDG all reported that internal QA processes were in place.

**INFORMATION MANAGEMENT**

In 2014, an IMSMA database was in use by SEMA covering south-central Somalia. PMAC was responsible for a separate IMSMA database in Puntland. In Somaliland, HALO Trust led a project to assist SMAC to repopulate its IMSMA database with HALO’s historic country data. It was completed in June 2015, with support from UNMAS.
BEGINNING in August 2015, an UNMAS contractor was set to conduct a survey along the four main routes in Somaliland in 2014. SEMA reported that DDG had destroyed a submunition that was identified in a private stockpile in a home in Galdogob district, Puntland, which had been harvested and kept by the owner.

CLEARANCE IN 2014

No CMR clearance occurred in Somalia in 2014. All clearance operations in south-central Somalia were implemented primarily on a response/call-out basis. HALO continued mines clearance, non-technical and technical survey, and EOD spot tasks in Somaliland, along with BAC.

Approximately 5.25km² of BAC occurred in south-central Somalia and Somaliland in 2014, a slight decrease from the reported 6.32km² in 2013. In 2014, an UNMAS commercial contractor and NPA conducted limited BAC in specific districts in Bay, Galguduud, Gedo, Hiraan, and Lower Shabeelluh in south-central Somalia. A total of 4,077,769m² of BAC was completed in south-central Somalia in 2014. NPA reported its BAC covered 180,000m² of surface BAC in November and December 2014. UNMAS reported that commercial contractor Uberoserve conducted 4,077,769m² of surface BAC, destroying 163 UXO items. In Somaliland, HALO Trust reported releasing five battle areas and clearing 673,520m². It destroyed 102 items of UXO, two anti-personnel mines, and 43 anti-vehicle mines during clearance, and a further 112 UXO items, two anti-personnel mines, and five anti-vehicle mines during spot tasks. It did not find or destroy any CMR.

MAG did not find any CMR in its operations across south-central Somalia in 2014. Likewise, DDG did not report finding any CMR in its EOD spot tasks activities in south-central Somalia, Puntland, or Somaliland in 2014. SEMA reported that DDG had destroyed a submunition that was identified in a private stockpile in a home in Galdogob district, Puntland, which had been harvested and kept by the owner.

ENDNOTES


2 Shareholder Meeting minutes. Source: Mohammad Abdullah Ahamed, Director, Somali Explosive Management Authority (SEMA), 19 June 2015.

3 Presentation by Mohammad Abdullah Ahamed, “Somalia Weapons Contamination: Addressing Key Challenges to Meeting Clearance Deadlines.”


5 The Savaii Unions, along with Cuba, both stockpilers of cluster munitions, also fought in support of Europe during the conflict. Email from Mohammed Abdullah Ahamed, SNMAA, 17 April 2015, in Cluster Munition Monitor, Somalia Cluster Munition Ban Policy, updated 23 August 2014.


8 Ibid., and email from Kjell Ivar Breili, UNMAS, 12 July 2015.


10 Ibid., pp. 5 and 12. Minefields have only been identified in south-central Somalia near crossing points and military barracks along the Ethiopian border.


13 Interviews with Mohammad Abdullah Ahamed, SEMA, in Geneva, 9 April 2014; and email from Kjell Ivar Breili, UNMAS, 12 July 2015.


15 SEMA’s director reported that towards this goal, SEMA would focus on four main activities. 1. Enable adherence to relevant laws and establish new laws as required; 2. Enable adherence to international instruments; 3. Identify and understand the problems in Somalia and provide solutions in line with the FGS (Federal Government of Somalia) recovery and development strategies, and; 4. Licensing and accreditation of implementing partners to ensure adherence to Somali national laws, norms, and regulatory frameworks”. Response to Mine Action Monitor questionnaire by Mohammad Abdullah Ahamed, SEMA, 19 June 2015.

16 Ibid.


18 Ibid.

19 Ibid.


21 Ibid., pp. 1 and 9.

22 Response to Mine Action Monitor questionnaire by Mohammad Abdullah Ahamed, SEMA, 19 June 2015. It was the only EOD team operational in Puntland in 2014.


24 Ibid.


28 Ibid., and email to Mine Action Monitor questionnaire by Mohammad Abdullah Ahamed, SEMA, 19 June 2015.


35 Intended that the reason for the reduction in number of EOD teams was due to international donors moving away from funding traditional EOD teams towards funding MT and ARO projects. The government in Somaliland and south-central Somalia had also reached sufficient capacity to provide their own national EOD teams. Response to Mine Action Monitor questionnaire by Jamie McFie, Site Operations Manager, DDS, 27 May 2015.


38 Response to Mine Action Monitor questionnaire by Tom Griffiths, HALO Trust, 20 May 2015 and email from 22 June 2015. As of May 2015, HALO employed 35 community members from Cad Badoor, Biloweyne, Maratob, and Abuduk, trained and supported by six visiting staff members re-tasked from its Somaliland programme.

39 Response to Mine Action Monitor questionnaire by Zaine Wili, Regional Director – Angela, HALO Trust, 1 May 2014.

40 Response to Mine Action Monitor questionnaire by Heroma Cheema, Deal Officer Somalia, MAG, 28 April 2014.


42 Response to Mine Action Monitor questionnaire by Terje Elden, NPA, 1 May 2014.


44 Ibid.

45 Email from Lasha Lomidzem, Programme Operations Officer, HALO Trust, 1 May 2014.
NPA reported that internal QA was performed on all its operations after they commenced in November. HALO likewise reported that a QA system was in place and that its programme had begun assessing deminers and section commanders using new training and QA officer teams to assess, refresh, and retrain any staff that needed it. DDG stated it complied with all UNMAS and national mine action authority external QA activities in 2014.


Email from Kjell Ivar Breili, UNMAS, 7 July 2015.


As of June 2015, the teams had visited 67 communities in 51 recorded villages across four target areas. Of the 67 communities visited, 45 believed their communities were impacted by mines and ERW, while the remaining 22 did not. Email from Tom Griffiths, HALO Trust, 22 June 2015.

In June 2015, HALO reported finding significant mixed contamination at the border but it would not be able to reliably estimate the scale of contamination until June 2016. Email from Tom Griffiths, HALO Trust, 22 June 2015.


Ibid.


Response to Mine Action Monitor questionnaire by Tom Griffiths, HALO Trust, 20 May 2015; HALO reported canceling 556,505m² through non-technical survey, release of 101,221m² through technical survey, and clearance of 2,207,065m² of mined areas.


A total of 4,582,396m² of BAC was recorded in the IMSMA database in 2014, but it recorded NPA as conducting 170,000m² of BAC whereas NPA reported clearing only 170,000m². UNMAS later clarified that NPA’s reported figure of 170,000m² was correct; marking the total BAC 4,532,796m². Email from Terje Eldøen, NPA, 28 May 2015; UNMAS Somalia, “IMSMA Report 2014 South Central”, undated, and email from Kjell Ivar Breili, UNMAS, 7 July 2015.

The teams found three fuzes but did not begin finding UXO until 2015. Email from Terje Eldøen, NPA, 28 May 2015.


Response to Mine Action Monitor questionnaire by Dave Willey, MAG, 7 May 2015.


Somalia is a state party to the 1966 International Covenant on Civil and Political Rights, Article 6(1) of which stipulates that “Every human being has the inherent right to life”. It is also a state party to the 1981 African Charter on Human and Peoples’ Rights, Article 4 of which provides that “Every human being shall be entitled to respect for his life and the integrity of his person.”
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.1

In 1998, 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 quantities of cluster munitions were dropped from the air during the conflict, which led to Armenia occupying some 26% of the territory of Azerbaijan. 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 ordinance) had been used in the Aghdam and Fuzuli regions.1 In addition, significant CMR contamination has been identified in and around Nagorno-Karabakh [see the report on Nagorno-Karabakh].1 In 2006 and 2007, CMR 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. No CMR have since been encountered.

**OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES**

Other areas are confirmed or suspected to contain explosive remnants of war (ERW), both unexploded ordnance (UXO) and abandoned explosive ordnance. Despite ongoing clearance efforts, significant contamination remains in and around warehouses at the former Soviet ammunition storage area in Guzdek village in Garadax district, close to the capital, Baku. In 1991, 20 warehouses were blown up in Guzdek village resulting in tens of thousands of items of ordnance being scattered over a large area.²

**CONTAMINATION**

**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.3

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).4 A joint working group, established in December 1999 and consisting of representatives from various ministries, provides regular guidance to ANAMA.5

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: Dayaz-Relief Azerbaijan (RAI) and the International Eurasia Press Fund (IEPF).6 No commercial company is active in mine action in Azerbaijan.

**STRATEGIC PLANNING**

ANAMA is integrated into the State Social and Economic Development programme of Azerbaijan. The current mine action strategy is for 2014–18.7 ANAMA’s long-term strategy is to clear the occupied territories as and when they become released.8

**LEGISLATION AND STANDARDS**

Azerbaijan is in the process of adopting a mine action law, with draft legislation currently under revision by other state institutions. Once adopted, it will regulate and determine the conditions of mine action in Azerbaijan, such as licensing, accreditation, quality assessment, and tender procedures.9

**OPERATORS**

In 2014, ANAMA employed approximately 600 staff, covering both operational and administrative functions, and 45 mine detection dogs. Six demining machines were deployed, four of which were medium flails and the other two medium flails, with one EOD BOT robot designed for the lifting of heavy items of UXO.10

National capacity includes two national demining organisations, IEPF and RA, contracted to perform mine clearance operations. These two operators jointly employ 176 operational and administrative staff.11

This mine action capacity was expected to be maintained in 2015.12

**QUALITY MANAGEMENT**

ANAMA’s training, survey, and quality assurance (QA) division (TSGAD), established in 2011, is responsible for training and QA. TSGAD also conducts quality control (QC).13

**LAND RELEASE**

No land containing CMR was released by clearance or technical survey in 2014 or cancelled by non-technical survey (NTS).14

**ARTICLE 4 COMPLIANCE**

Azerbaijan is not a party or signatory to the CCM, but nonetheless has obligations under international human rights law to protect life, which require clearance of CMR as soon as possible.

Currently, 90% of mine action in Azerbaijan is nationally funded, with the government contributing more than 80% of the funding for mine clearance.15 ANAMA’s long-term strategy is to be ready to mobilise and start clearance of the occupied territories, as and when this is possible.16

**ENDNOTES**

1 Email from Samir Poladov, Operations Manager, Azerbaijan National Agency for Mine Action (ANAMA), 17 June 2015.


3 Interview with Nazim Ismayilov, Director, ANAMA, Baku, 2 April 2010; see also Human Rights Watch and Landmine Action, Banering Cluster Munitions: Government Policy and Practice, Mines Action Canada, Ottawa, 2005, p. 188.


9 Ibid, p. 15.


14 Ibid, p. 15.


17 Email from Samir Poladov, ANAMA, 17 June 2015.

Camodia should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.

The Cambodian Mine Action and Victim Assistance Authority and the Cambodian Mine Action Centre should strengthen data collection and adopt common reporting formats.

Camodia should seek to better understand the extent of contamination as soon as possible.

RECOMMENDATIONS FOR ACTION

CONTAMINATION

The exact extent of contamination from cluster munition remnants (CMR) in Camodia is not known. Contamination resulted from intensive bombing by the United States of America during the Vietnam War, concentrated in north-eastern provinces along the borders with 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. Unexploded submunitions include BLU-24, BLU-26, BLU-36, BLU-42, BLU-43, BLU-49, and BLU-61.1

A baseline survey of seven eastern provinces2 started in 2012 had, by April 2015, identified 1,336 areas of suspected hazardous areas covering 13.8km2, reducing these to 13 confirmed hazardous areas totalling 1.38km2. The EDD teams released almost 2.9km2 of land between June 2014 and April 2015, locating and destroying 606 submunitions and 193 other UXO items.10

PROGRAMME OPERATORS

The Cambodian Mine Action and Victim Assistance Authority (CMMA), set up in September 2000, regulates and coordinates all activities relating to survey and clearance of ERW, including CMR, responsibilities previously assigned to the Cambodian Mine Action Centre (CMAC).1 The CMMA’s responsibilities include regulation and accreditation of all operators, preparing strategic plans, managing data, conducting quality control, and coordinating risk education and victim assistance.3 Prime Minister Hun Sen is the CMMA President, while senior government minister (Minister of Post and Telecommunication) Prak Sokhonn is CMMA vice-president and leads dialogue with donors as the chair of a Joint Government-Development Partners’ Mine Action Technical Working Group.7

Survey and clearance of CMR in eastern Camodia are undertaken mainly by CMAC and Norwegian People’s Aid (NPA). Mines Advisory Group (MAG) revised two explosive ordnance disposal (IED) teams working in Ratanakiri province in 2014, which also tackle CMR.

In 2014, CMAC conducted a baseline survey of ERW, including CMR, in eastern provinces and among all operators in Camodia had the most assets deployed for battle area clearance (BAC). In 2014, it reported releasing 25.4km2 through BAC, one-third more than the previous year, but its data did not disaggregate items destroyed through mine clearance and BAC or the number of submunitions among items of unexploded ordnance (UXO) destroyed.6

NPA worked closely with CMAC, providing administrative and technical support for CMAC teams conducting the baseline survey and developing its demining units’ land release methods, resulting in a sharp increase in productivity. In the 11 months from June 2014 to April 2015, NPA reported releasing 54km2 through its cluster munition remnants survey (CMRS).9

From mid-2013, NPA also worked in Ratanakiri province with its own multi-task teams and four explosive dog detection (EDD) teams to apply the CMRS methodology, integrating elements of non-technical and technical survey, which NPA developed in Lao PDR, as well as conducting clearance. In 2014, teams surveyed 43 suspected hazardous areas covering 13.8km2, reducing these to 13 confirmed hazardous areas totalling 1.38km2. The EDD teams released almost 2.9km2 of land between June 2014 and April 2015, locating and destroying 606 submunitions and 193 other UXO items.10

MAG, the only other operator tackling CMR, worked with one BAC team in Ratanakiri as part of a US Department of Defense Humanitarian Demining Research and Development project. In 2014, it cleared 103,595m2 of CMR contamination, destroying 43 submunitions. MAG reported that, as a research project, productivity was not as high as would normally be expected, but this was expected to rise with the team’s experience. Additionally, MAG expected to receive funding to add more teams in 2015.10 As in Vietnam, NPA and MAG are discussing collaborating on CMRS and clearance of CMR.

ENDNOTES


8 “CMAC operational summary progress report,” CMAC, undated but April 2015.

9 MAG Cambodia PowerPoint presentation, undated but May 2015.

11 Interview with Greg Crowther, Regional Director, South and South East Asia, and Nick Gunell, Technical Operations Manager, MAG, Phnom Penh, 6 May 2015, and email from Greg Crowther, 22 May 2015.

Cambodia is a state party to the 1966 International Covenant on Civil and Political Rights, Article 6(1) of which stipulates that “Every human being has the inherent right to life.”
PROGRAMME MANAGEMENT

In 2008, a memorandum of understanding was signed between the Georgian Ministry of Defense and international NGO Information Management and Mine Action Programs (iMMAP) to establish the Explosive Remnants of War Coordination Centre (ERWCC).1 In 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 2011 and the ERWCC took ownership of the mine action programme.2

Through the iMMAP project, ERWCC became the Georgian Mine Action Authority, under DELTA, tasked to coordinate and execute action to address the ERW threat. The primary task of the ERWCC is to coordinate mine action in Georgia, including quality assurance/quality control (QA/QC), and to facilitate the creation and implementation of Georgian National Mine Action Standards, in accordance with the International Mine Action Standards (IMAS).3

STANDARDS

Georgian National Mine Action Standards and National Technical Standards Guidelines (NTSG) have been drafted and are awaiting coordination with the Georgian International Centre for Humanitarian Demining (GICHD).4 iMMAP has conducted training on the IMAS for ERWCC staff, the Joint Staff of the Georgian Armed Forces and DELTA.

OPERATORS

The HALO Trust conducted CMR clearance in Georgia in 2014. 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 2012, a NATO Trust Fund project planned to provide support to establish long-term local capability and capacity for the ERWCC in clearance and victim assistance.5 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.6 No updated information has been received on the implementation of the project.

QUALITY MANAGEMENT

Under the control of DELTA, the ERWCC now conducts QA/QC,7 iMMAP has also conducted training on QA/QC for the QA/QC section of the ERWCC, the Joint Staff of the Georgian Armed Forces and DELTA.

ENDNOTES

1 Response to Mine Action Monitor questionnaire by Andrew Moore, Caucasus & Balkans Desk Officer, HALO Trust, 29 May 2015.
2 Email from Andrew Moore, HALO Trust, 29 May 2015.
4 Email from Jonathon Swalen, Programme Manager, NPA, 27 May 2010.
6 Email from Andrew Moore, HALO Trust, 23 June 2015.
8 Ibid.; and Decree #97 issued by the Minister of Defence, 30 December 2010.
10 Email from Oleg Gochashvili, DELTA, 6 July 2015.
13 Response to Cluster Munition Monitor questionnaire by Tom Meredith, Desk Officer, HALO Trust, 18 August 2013.
15 Email from Andrew Moore, HALO Trust, 5 July 2015.
16 Ibid., 23 June 2015.
**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 not clear if, to what extent, and when these changes would materialise. According to reports from mine action sources, clearance operations had slowed down due to these uncertainties.4

**LAND RELEASE**
No data was available on any CMR clearance in 2014.

**ARTICLE 4 COMPLIANCE**
Iran is not a state party to the CCM. Nonetheless, Iran 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.5

**ENDNOTES**
1 Interview with Air Force Colonel (ret.) Ali Alizadeh, Tehran, 8 February 2014.
4 Telephone interview with mine action sector operator, provided on condition of anonymity, 5 April 2015.
5 Iran is a state party to the 1966 International Covenant on Civil and Political Rights, Article 6(1) of which stipulates that “Every human being has the inherent right to life.”1
has remained unidentified. Additional contamination by the presence of a fourth type of cluster munition that PTAB cluster bombs, while international media reported the Spanish MAT-120, which holds 21 submunitions. Mines Type 84, which also functions as an anti-vehicle mine, and RBK-250 PTAB-2.5M bombs, in attacks on Bin Jawad in 2015, fighting between Libya’s rival governments storage areas bombed by NATO forces in 2011.

**PROGRAMME MANAGEMENT**

After the downfall of the Gaddafi regime, mine action came under the jurisdiction of competing authorities located in the Office of the Army Chief of the General Staff and the Libyan Mine Action Centre, which was mandated by the Ministry of Defence and became active after opening an office in Tripoli in 2012, but possessed little authority outside the city. A new director, Colonel Mohammad Turjman, was appointed in December 2013 and took up position early in 2014, subsequently renaming the centre LibMAC. In April 2014, LibMAC closed temporarily as a result of internal staff disputes. The United Nations Development Programme (UNDP) observed in 2013 that “humanitarian mine action stakeholders in Libya have been thwarted in their attempts to effect the sound implementation of mine action in country due to a void in established governance within the sector. The resultant lack of confidence and the delays in recognizing a properly mandated National Mine Action Authority with the necessary resources and capacity by the government has only compounded the issue.” Conditions deteriorated further with the sharp escalation of conflict in July 2014.

**RECOMMENDATIONS FOR ACTION**

- Libya’s internationally recognised government 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 enact legislation and assign one institution a clear mandate to manage mine action.
- Libya should initiate survey and clearance of CMR as soon as possible and take other measures to protect civilians from explosive remnants of war.

**LAND RELEASE**

Libya does not have an active programme for survey or clearance of CMR. Some battle area clearance (BAC) and explosive ordnance disposal (EOD) continued in 2014, but the escalation of conflict in the second half of the year brought systematic clearance operations to a standstill, although some spot clearance by a range of actors, including army engineers and volunteer groups, reportedly continued. MAG reported destroying nine submunitions in 2014, but this occurred in the course of clearance operations focused on ammunition storage areas (ASAs) in Hun, Misrata, and Zintan, in which it cleared 45,992 other items of unexploded ordnance (UXO) to facilitate clearance of rubble from bombed ASAs, MAG deployed an armoured excavator. MAG had planned a major expansion of its work in 2015 but did not tackle any CMR and in June evacuated its international staff.

**ENDNOTES**

1  Email from Nina Sesharan, Desk Officer for Iraq, Lebanon and Libya, MAG, 5 March 2012.
4  Telephone interview with ‘Tripoli-based mine action stakeholder, 10 May 2014.
5  UNDP, “2nd Quarter Progress Report, (PIP) Supporting the Capacity Development of Central and local stakeholders in mine action activities in Libya (Phase two)”, July 2013, p. 3.
7  Interview with Stephen Fryer, UNDP, in Geneva, 2 April 2014.
8  Interviews with more action stakeholders, speaking on condition of anonymity, June–July 2015.
9  Email from David Welby, Regional Director for Angola, Somalia, and South Sudan, MAG, 1 May 2015.
10  Email from Lutz Kosewsky, Operations Manager, DDG, 7 July 2014.
11  Libya is a state party to the 1956 International Covenant on Civil and Political Rights, Article 6(1) of which stipulates that “Every human being has the inherent right to life”. It is also a state party to the 1966 International Covenant on Human and Peoples’ Rights, Article 4 of which provides that “Every human being shall be entitled to respect for his life and the integrity of his person”.

**STRATEGIC PLANNING**

A draft National Strategic Plan states that: “the strategic goal of the Government and its development partners over the 2011–2021 period is to reduce the humanitarian and socio-economic threats posed by landmines/unexploded ordnance to the point where a residual amount of contamination remains that poses no significant impact on the population or infrastructure, and where capacity remains to take account of the needs of future development”. The United Nations (UN) noted that the objective of the programme is to develop and modernise national structures to implement a national mine action programme. As of June 2015, the plan awaited government approval. LibMAC has asserted that it has developed operational priorities but operators say they have not received them.

**OPERATORS**

International operators represented in Libya in 2014 included Danish Demining Group (DDG), Handicap International, MAG, and the Swiss Foundation for Demining (FSD). Insecurity prompted all operators to withdraw international staff before the end of the year.

**ARTICLE 4 COMPLIANCE**

Libya is not a state party to the CCM. Nonetheless, Libya has obligations under customary international human rights law obligations 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.
Serbia has less than 0.5km² confirmed to contain CMR and a further 5.3km² suspected to contain CMR. Serbia is also contaminated by other unexploded ordnance (UXO) and anti-personnel mines. Seven of the 150 municipalities in Serbia still contain areas confirmed or suspected to contain CMR, as set out in Table 1.

CMR contamination results from NATO air strikes in 1999. According to Serbia, NATO cluster munitions struck 16 municipalities: Brus, Bujanovac, Čačak, Gadižin Han, Knin, Kraljevo, Kuršumlija, Laposač, Niš city-Crveni krst, Niš city-Medijana, Preševo, Raška, Sjenica, Sopot, Stara Pazova, and Vladimirci. In late 2014, a suspected area was newly identified in Tutin, a municipality not previously reported to be contaminated by CMR.

Remaining contamination is mostly in less developed regions of Serbia, typically on mountains and in woods. These areas are of importance to local communities for access to forest products, cultivation, cattle grazing, and mushroom picking. Remnants are also found in debris of infrastructure impeding reconstruction as well as the development of tourism.

### PROGRAMME MANAGEMENT

Serbia does not have an interministerial national mine action authority. The Serbian Mine Action Centre (SMAC) was established on 7 March 2002. A 2004 law made it responsible for coordination of demining, collection and management of mine action information (including casualty data), and survey of suspected hazardous areas. 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.

### STANDARDS

According to SMAC, survey and clearance operations in Serbia are conducted in accordance with the International Mine Action Standards (IMAS). National mine action standards were said to be in the final phase of development as of March 2015.

### OPERATORS

SMAC does not carry out clearance or employ deminers but does conduct survey of areas suspected to contain mines, CMR, or other explosive remnants of war (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. Norwegian People’s Aid (NPA) personnel seconded to SMAC have conducted all surveys in Serbia.

### QUALITY MANAGEMENT

SMAC undertakes quality assurance (QA) and QC of clearance operations in mine and ERW-affected areas. In 2014, of the almost 290,000m² cleared of submunitions, an area of some 17,000m² was physically sampled for quality management. On every clearance project, SMAC QC and QA officers report conducting sampling on between 5% and 11% of the total project area, depending on project complexity and size.

### RECOMMENDATIONS FOR ACTION

- Serbia should identify funding, including from national sources, to clear the remaining areas containing cluster munition remnants (CMR) and then complete clearance as soon as possible.
- Serbia should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.

### CONTAMINATION

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Confirmed areas</th>
<th>Area (m²)</th>
<th>Suspected areas</th>
<th>Area (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stara Pazova</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>249,832</td>
</tr>
<tr>
<td>Brus/Raška</td>
<td>1</td>
<td>69,912</td>
<td>1</td>
<td>190,359</td>
</tr>
<tr>
<td>Užice</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>585,268</td>
</tr>
<tr>
<td>Sjenica</td>
<td>1</td>
<td>129,915</td>
<td>3</td>
<td>2,256,935</td>
</tr>
<tr>
<td>Niš (Crveni krst)</td>
<td>2</td>
<td>58,922</td>
<td>2</td>
<td>836,439</td>
</tr>
<tr>
<td>Bujanovac</td>
<td>1</td>
<td>210,929</td>
<td>1</td>
<td>303,823</td>
</tr>
<tr>
<td>Tutin</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>514,682</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>5</strong></td>
<td><strong>469,678</strong></td>
<td><strong>10</strong></td>
<td><strong>5,337,338</strong></td>
</tr>
</tbody>
</table>


Remaining contamination is mostly in less developed regions of Serbia, typically on mountains and in woods. These areas are of importance to local communities for access to forest products, cultivation, cattle grazing, and mushroom picking. Remnants are also found in debris of infrastructure impeding reconstruction as well as the development of tourism.

Table 1. CMR contamination by municipality as of end 2014.
LAND RELEASE
Total contaminated area released by clearance in 2014 was almost 0.29km², compared with more than 2.4km² in 2013. A further 0.81km² was cancelled in 2014 by non-technical survey.11

SURVEY IN 2014
Non-technical survey in 2014 was conducted by an NPA survey team seconded to SMAC, resulting in confirmation as contaminated of five areas suspected to contain CMR, totalling 0.47km². In addition, parts of six other suspected areas were cancelled in 2014, totalling 0.81km². No technical survey was conducted in 2014 but was planned for 2015.12

CLEARANCE IN 2014
The quantity of land cleared in 2014 marks an 88% decrease compared to 2013.13 According to SMAC, lack of funds for clearance operations resulted in decreased capacity in 2014, and subsequently a reduction in the area cleared.14

Only three operators conducted clearance in 2014, compared to eight the previous year. Two Croatian companies, DOK-ING Razminiranje and PIPER, engaged two demining teams each, employing a total of 24 deminers for each company. EMERCOM Demining, a Russian state agency, engaged one demining team, employing six deminers.15

As a result of survey and clearance in 2014, Gadžin Han and Knin municipalities were declared clear of CMR.16

PROGRESS IN 2015
In 2015, Serbia planned to survey/re-survey areas suspected to contain CMR in Brus, Niš, Sjenica, Stara Pazova, and Tutin (around 8km²).17 In March 2015, NPA started technical survey of 1.35km² of suspected area in four communities in Sjenica and Stara Pazova municipalities. In addition, a two-person NPA non-technical survey team will support SMAC.18

SMAC planned to clear CMR on some 0.26km² in Niš, Raška, and Sjenica municipalities in 2015. This was to be achieved through two tasks funded by the United States of America (0.18km²); one Serbia Montenegro Air Traffic Control-funded task (0.06km²); and one project funded by the Russian Federation (0.05km²).19 Russia has been funding a three-year humanitarian demining programme in Serbia, which was due to end in 2015. The programme, which is implemented by EMERCOM, supports a joint Russian-Serbian team conducting CMR and other UXO clearance in Serbia.19

OTHER UXO CLEARANCE
In 2015, in addition to CMR and mine clearance, SMAC was planning to conduct UXO risk reduction projects in support of major infrastructure projects (Belgrade Waterfront, South Stream Gas Pipeline). In addition, UXO clearance was planned to continue in Paracin over an area of almost 0.58km².11

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. Nonetheless, Serbia 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.20

In 2010–13, significant progress was made in clearing CMR-contaminated areas. In 2014, however, progress stalled and the less-than 0.29km² cleared during the year marks the lowest annual figure for CMR in the last five years. According to SMAC, lack of funds resulted in a decrease in area cleared.21 The work of SMAC is funded by Serbia but there is no national funding for CMR clearance.22

According to SMAC, clearance progress is contingent on funding. If adequate funds for implementation of survey and clearance projects are secured, Serbia predicts that CMR clearance could be finished in three years.23 SMAC planned to appeal for funding to ITF Enhancing Human Security as well as to other international donors. Through the ITF, Serbia expected to receive funds from the USA to clear areas contaminated with US munitions.27

ENDNOTES
1 Response to Mine Action Monitor questionnaire by Branislav Jovanovic, Director, Serbian Mine Action Centre (SMAC), 23 March 2015.
3 Email from Branislav Jovanovic, SMAC, 4 May 2015.
7 Interview with Petar Mihajlovic and Sladana Košutic, SMAC, Belgrade, 26 April 2010.
8 Emails from Vanja Skriva, Programme Manager, NPA, Belgrade, 13 March and 29 April 2014.
9 Email from Branislav Jovanovic, SMAC, 4 May 2015.
13 Ibid.
14 Ibid.
15 Ibid.
16 Email from Branislav Jovanovic, SMAC, 4 May 2015.
19 Response to Mine Action Monitor questionnaire by Branislav Jovanovic, SMAC, 23 March 2015, and email, 8 June 2015.
21 Ibid.
22 Serbia is a state party to the 1966 International Covenant on Civil and Political Rights, Article 6(1) of which stipulates that “Every human being has the inherent right to life.”
24 Ibid.
26 Ibid.
27 Ibid.
be identified in 2014, and the threat was compounded by renewed fighting which began in December 2013.2 In
contaminated areas.4 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.5 At the end of 2014, South Sudan had a total of 108 areas suspected to contain CMR, with a total size estimated at more than 7.5km².1 Areas of CMR contamination from decades of pre-independence conflict continued to be identified in 2014, and the threat was compounded by renewed fighting which began in December 2013.3 In particular, instability in Jonglei, Unity, and Upper Nile states has made access to certain areas extremely limited, severely impeding efforts to confirm or address contamination.4

SOUTH SUDAN

RECOMMENDATIONS FOR ACTION

➢ South Sudan should ensure that every effort is made to identify and address all cluster munition remnants (CMR) on its territory as soon as possible.
➢ Every effort should be made to end the conflict, which is preventing access to contaminated areas and opposing forces are using CMR remnants from unexploded ordnance (UXO).
➢ South Sudan should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
➢ The Information Management System for Mine Action (IMSMA) database reporting format should disaggregate CMR from other UXO. Continued efforts should be made to ensure reporting and recording of mine action data according to International Mine Action Standards (IMAS) land release terminology.
➢ South Sudan should develop a resource mobilisation strategy and initiate policy dialogue with development partners on long-term support for mine action, including a specific focus on cluster munition contamination.
➢ South Sudan should increase its financial support for operational mine action. Greater assistance from government-UNMAS team had investigated the allegations and established that cluster munitions had been used, but could not determine the user.5

On 7 February 2014, United Nations Mine Action Service (UNMAS) UXO survey teams discovered remnants of RBK-250-275 cluster bombs and unexploded AO-15Ch submunitions on the Juba-Bor road, south of Bor in Jonglei state.6 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. The RBK-type cluster munitions are air-delivered weapons, dropped by fixed wing aircraft or helicopters. Both Uganda and the South Sudanese government forces are believed to possess the air power to deliver these weapons, whereas opposition forces are not.7 In September 2014, South Sudan reported that a joint government-UNMAS team had investigated the allegations in the field and established that cluster munitions had been used, but could not determine the user.8

CMR contamination in South Sudan has a significant social, economic, and humanitarian impact on local communities, which is exacerbated by the lack of humanitarian access caused by the ongoing fighting and other contamination.

OTHER EXPLOSIVE REMNANTS OF WAR

South Sudan has a significant problem with mines and especially explosive remnants of war (ERW), resulting from large-scale use of explosive weapons during conflicts lasting from 1955–72 and 1983–2005. In 2015, UNMAS reported 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”.9

CONTAMINATION

At the end of 2014, South Sudan had a total of 108 areas suspected to contain CMR, with a total size estimated at more than 7.5km².1 Areas of CMR contamination from decades of pre-independence conflict continued to be identified in 2014, and the threat was compounded by renewed fighting which began in December 2013.2 In particular, instability in Jonglei, Unity, and Upper Nile states has made access to certain areas extremely limited, severely impeding efforts to confirm or address contamination.3

Nine of the 10 states in South Sudan contain suspected CMR-contaminated areas (see Table 1). Central, Eastern, and Western Equatoria remain the most heavily contaminated.4 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.5

### Table 1. CMR contamination by province as of end 2014

<table>
<thead>
<tr>
<th>Province</th>
<th>Suspected areas</th>
<th>Area (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Equatoria</td>
<td>40</td>
<td>2,572,138</td>
</tr>
<tr>
<td>East Equatoria</td>
<td>40</td>
<td>2,925,822</td>
</tr>
<tr>
<td>Jonglei</td>
<td>4</td>
<td>96,972</td>
</tr>
<tr>
<td>Lakes</td>
<td>2</td>
<td>890,186</td>
</tr>
<tr>
<td>North Bahr El Ghazal</td>
<td>3</td>
<td>105,791</td>
</tr>
<tr>
<td>Unity</td>
<td>2</td>
<td>40,000</td>
</tr>
<tr>
<td>Upper Nile</td>
<td>2</td>
<td>N/R</td>
</tr>
<tr>
<td>West Bahr El Ghazal</td>
<td>3</td>
<td>N/R</td>
</tr>
<tr>
<td>West Equatoria</td>
<td>12</td>
<td>881,896</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>108</strong></td>
<td><strong>7,512,805</strong></td>
</tr>
</tbody>
</table>

N/R = Not reported

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 FM-1, and Soviet-manufactured PTAB-1.5 and AO-15Ch submunitions.6 Since 2004, more than 770 sites containing CMR have been identified across all 10 states in South Sudan, including new contamination as a result of the conflict ongoing since December 2013.7 In August 2014, UNMAS reported that 95 known dangerous areas containing CMR remained. From August 2014 to December 2014, an additional 13 contaminated areas were identified in Central, Eastern, and Western Equatoria.8

9594

SOUTH SUDAN

CLUSTER MUNITION REMNANTS—STATES NOT PARTY
PROGRAMME MANAGEMENT
The South Sudan Demining Authority (SSDA) — now named the National Mine Action Authority (NMMA) — was established in 2006 by presidential decree to act as the national agency for coordination, planning, and monitoring of mine action in South Sudan.14

Under UN Security Council Resolution 1996 (2011), UNMAS was given the responsibility to support South Sudan in demining while strengthening the capacity of the NMMA. Accordingly, UNMAS (with the NMMA) has been overseeing all mine action in South Sudan through its main office in Juba, and sub-offices in Bentiu, Malakal, Wau, and Yi. UNMAS is responsible for accrediting mine action organisations, developing national mine action standards, establishing a quality management system, managing the IMSMA database, and tasking operators.15 The NMMA takes the lead on victim assistance and risk education.16

While it is planned that eventually the NMMA will assume full responsibility for all mine action activities, South Sudan’s National Mine Action Strategic Plan 2012–2016 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.”17 UN Security Council Resolution 1996 authorised the UN Mission in South Sudan (UNMISS) to support mine action through assessed peacekeeping funds.18

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 from Resolution 1996, focuses on four areas: protection of civilians; creating the conditions for humanitarian access; support to the Cessation of Hostilities agreements.2155 in response to the conflict that broke out in December 2013. The Resolution, which marked a significant change from Resolution 1996, focuses on four areas: protection of civilians; creating the conditions for humanitarian access; support to the Cessation of Hostilities agreements.

STANDARDS
According to UNMAS, South Sudan’s National Technical Standards and Guidelines for mine action cover CMR survey and clearance activities and do not require specific revision.19

OPERATORS
There were four international demining non-governmental organisations (NGOs) in 2014: DanChurchAid (DCA), Danish Demining Group (DDG), Mines Advisory Group (MAG), and Norwegian People’s Aid (NPA). Four commercial companies also conducted demining: G4S Ordnance Management (G4S), Mechem, MineTech International (MTI), and The Development Initiative (TDI). No national demining organisations were involved in clearance in 2014.20

Of the eight international operators, four — NPA, MAG, G4S, and TDI — reported clearing CMR in 2014. NPA deployed four teams, including three multitask teams (MTTs) and one manual demining team with six deminers trained to clear CMR.21 MAG primarily conducted explosive ordnance destruction (EOD) spot clearance and community liaison activities, but reported clearing CMR, as well as destroying landmines and other UXO. MAG deployed one seven-deminer MTT from February 2014 with a Bozena 4, and a new MineWolf team with eight deminers starting in November 2014.22 G4S reported a total capacity for its mine action operations of approximately 230 staff, including two integrated clearance teams, supported by 10 deminers and a community liaison team, with a MineWolf 240 as a primary resource, and eight MTIs.23 TDI, which employed 218 staff in South Sudan, reported its teams were completing the final year of a three-year operation in 2014.24 UNMAS assigns CMR tasks to operators.25

QUALITY MANAGEMENT
In 2014, a new quality management system was under development, which, once approved by the NMMA, could be ready for implementation during the 2015–16 demining season.25 The NMMA was reported to have visited field teams and carried out quality assurance (QA) activities in 2014.26 All operators conducting CMR survey and clearance reported carrying out their activities according to standard operating procedures and that internal QA and quality control (QC) activities were conducted regularly.27

INFORMATION MANAGEMENT
According to UNMAS, IMSMA database clean-up is conducted on a weekly basis and has had no effect on the total number of square metres of contamination or suspected hazardous areas recorded in 2014.28 UNMAS stated that operators and programme implementers assist in data entry and fault-finding, and that as such the database is constantly evolving.29

LAND RELEASE
In 2014, 1.4km² of CMR-contaminated area was released, compared with 0.4km² in 2013. Of this, 1.28km² was released through clearance and a further 0.12km² was cancelled through non-technical survey.30 This compares to release in 2013 of 96 CMR-contaminated areas totalling 0.63km², (0.51km² through technical survey and clearance, and cancellation of 0.12km² through non-technical survey).31 UNMAS reported that due to ongoing conflict and security restrictions, movement of mine action teams was “severely curtailed” during the year and that operations were constantly held up awaiting permission to enter certain areas, with many areas becoming inaccessible.32

SURVEY IN 2014
UNMAS database survey results for 2014 indicate that 1.4km² of land was confirmed as contaminated with CMR and 0.12km² was cancelled by non-technical survey (see Table 2).33

Accordingly, UNMAS (with the NMAA) has been overseeing all mine action in South Sudan through its main office in Juba, and sub-offices in Bentiu, Malakal, Wau, and Yi. UNMAS is responsible for accrediting mine action organisations, developing national mine action standards, establishing a quality management system, managing the IMSMA database, and tasking operators. The NMMA takes the lead on victim assistance and risk education. While it is planned that eventually the NMMA will assume full responsibility for all mine action activities, South Sudan’s National Mine Action Strategic Plan 2012–2016 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.” UN Security Council Resolution 1996 authorised the UN Mission in South Sudan (UNMISS) to support mine action through assessed peacekeeping funds.

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 from Resolution 1996, focuses on four areas: protection of civilians; creating the conditions for humanitarian access; support to the Cessation of Hostilities agreements. Almost 1.28km² of CMR-contaminated area was cleared in 2014 by MAG, NPA, G4S, and TDI, as shown in Table 3.

Survey of areas suspected to contain CMR in 2014

<table>
<thead>
<tr>
<th>Operator</th>
<th>Areas cancelled</th>
<th>Area cancelled (m²)</th>
<th>Areas confirmed</th>
<th>Area confirmed (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCA</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>G4S</td>
<td>2</td>
<td>114,000</td>
<td>7</td>
<td>497,299</td>
</tr>
<tr>
<td>MAG</td>
<td>1</td>
<td>10,000</td>
<td>5</td>
<td>115,436</td>
</tr>
<tr>
<td>UNMAS</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>MTI</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>187,598</td>
</tr>
<tr>
<td>TDI</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>378,898</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>4</strong></td>
<td><strong>124,000</strong></td>
<td><strong>31</strong></td>
<td><strong>1,412,931</strong></td>
</tr>
</tbody>
</table>

Clearance in 2014

Almost 1.28km² of CMR-contaminated area was cleared in 2014 by MAG, NPA, G4S, and TDI, as shown in Table 3.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Areas released</th>
<th>Area cleared (m²)</th>
<th>Submunitions destroyed</th>
<th>UXO destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDG</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>G4S</td>
<td>6</td>
<td>396,213</td>
<td>N/R</td>
<td>238</td>
</tr>
<tr>
<td>MAG</td>
<td>3</td>
<td>18,345</td>
<td>148</td>
<td>24</td>
</tr>
<tr>
<td>MTI</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NPA</td>
<td>7</td>
<td>219,502</td>
<td>106</td>
<td>524</td>
</tr>
<tr>
<td>OSL²</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TDI</td>
<td>4</td>
<td>652,919</td>
<td>N/R</td>
<td>458</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>24</strong></td>
<td><strong>1,278,979</strong></td>
<td><strong>284</strong></td>
<td><strong>1,258</strong></td>
</tr>
</tbody>
</table>

Note: N/R = Not reported

G4S informed Mine Action Monitor it could not provide disaggregated figures on the number of CMR destroyed from total UXO clearance figures, as it reports according to the IMSMA database format. Likewise, TDI stated it could not provide separate figures for CMR destroyed from UXO in 2014 from that contained in IMSMA reports.

Other operators conducting mine action activities in South Sudan, such as Mechem and MTI, reported not encountering or destroying any submunitions as part of their operations in 2014. Despite not finding any submunitions, MTI noted that due to the vast amount of weaponry used in the conflict and large numbers of cluster munitions, clearance of “fringe” submunitions during mechanical demining operations was common.
BATTLE AREA CLEARANCE
In 2014, five operators [MAG, G4S, MTI, TDI, and NPA] conducted battle area clearance (BAC) over 5.75km², a slight decrease from the 5.78km² in 2013.14

SAFETY OF CLEARANCE PERSONNEL
There were no reports of any CMR-clearance-related accidents in 2014.15

ENDNOTES
3 Response to Mine Action Monitor questionnaire by Robert Thompson, UNMAS, 30 March 2015.
4 Ibid., and email, 12 May 2014.
6 Ibid.
8 Email from Robert Thompson, UNMAS, 15 May 2014.
12 Statement by South Sudan, Convention on Cluster Munitions Fifth Meeting of States Parties, San José, Costa Rica, 3 September 2014.
20 Ibid.
21 Ibid, p. x.
22 Response to Mine Action Monitor questionnaire by Robert Thompson, UNMAS, 30 March 2015.
24 Email from Robert Thompson, UNMAS, 4 June 2015. Four national organisations carried out risk education.
26 Response to Mine Action Monitor questionnaire by Ismael Frisui, Programme Manager, MAG, 4 April 2015.
27 Email from Mark Buswell, G4S, 27 May 2015.
28 Email from Stephen Saffin, TDI, 4 June 2015; and Augustino Seja, NPA, 11 May 2015.
30 Email for Robert Thompson, UNMAS, 30 March 2015.
31 Ibid.; and Responses to Mine Action Monitor questionnaire by Ismael Frisui, MAG, 9 April 2015, and Augustino Seja, NPA, 31 May 2015. CMR are not separately reported in the IMAC database in South Sudan but are included under figures for UXO. Email from Robert Thompson, UNMAS, 11 May 2015. Figures for submunitions destroyed are from reports from the clearing operator, where available. NPA reported clearing a total of 222,081cm of CMR-contaminated areas in 2014.32
32 NPA did not report destroying UDR during cluster munition clearance in its response to the Mine Action Monitor questionnaire. However, it did not destroy a total of 283 UDR in 2014, which is the same number reported in the UNMAS IMAC database (324 UDR destroyed by NPA during cluster munition clearance and 30 during mine clearance in BOMA). NPA reported this discrepancy was due to the fact it stores information on operational productivity, task completion, and land release in different formats. Email from Augustino Seja, NPA, 18 May 2015.
33 Operation Save Innocent Lives (OSIL) is a US non-governmental organisation based on daily productivity per asset whereas CMR are based on daily productivity per operator. Email from Robert Thompson, UNMAS, 25 May 2015; and email, 8 May 2016.
34 Operation Save Innocent Lives (OSIL) is a national implementing partner of MAG. They assessed three UDR spots in 2014 but found no contamination and the areas were subsequently cleared. Email from Robert Thompson, UNMAS, 11 May 2015.
35 Email from Mark Buswell, MAG, 4 June 2015.
36 Ibid.
37 Skype interview with Stephen Saffin, TDI, 3 June 2015. While they were not reported to have cleared any CMR contamination, MTI informed Mine Action Monitor that it did not distinguish between UDR in its statistical reporting. Email from Mark Smith, MTI, 3 June 2015.
38 Ibid. The totals are those cancelled and confirmed in 2014 and are included in the totals in Table I above on recorded contaminated areas. In South Sudan, UDR spots are also recorded as hazardous areas, so for some suspected CMR-contaminated areas that were confirmed or cancelled, no corresponding area is reported if the areas were UDR spots. Email from Robert Thompson, UNMAS, 19 May 2015.
39 NPA reported confirming a total cluster munition-contaminated area of 172.3km² in 2014. According to NPA, its figures vary slightly from those recorded in the IMAC database as UNMAS calculates land released based on daily productivity per asset whereas NPA determines land released after task completion. Email from Augustino Seja, Matingarou, Programme Manager, NPA, South Sudan, 15 May 2015.
40 Response to Mine Action Monitor questionnaire by Robert Thompson, UNMAS, 30 March 2015.
41 Ibid.; and Responses to Mine Action Monitor questionnaire by Ismael Frisui, Programme Officer, MAG, 4 April 2015.
42 NPA did not report destroying UDR during cluster munition clearance in its response to the Mine Action Monitor questionnaire. However, it did not destroy a total of 393 UDR in 2014, which is the same number reported in the UNMAS IMAC database (324 UDR destroyed by NPA during cluster munition clearance and 30 during mine clearance in BOMA). NPA reported this discrepancy was due to the fact it stores information on operational productivity, task completion, and land release in different formats. Email from Augustino Seja, NPA, 18 May 2015.
43 Operation Save Innocent Lives (OSIL) is a national implementing partner of MAG. They assessed three UDR spots in 2014 but found no contamination and the areas were subsequently cleared. Email from Robert Thompson, UNMAS, 11 May 2015.
44 Email from Mark Buswell, MAG, 4 June 2015.
45 Skype interview with Stephen Saffin, TDI, 3 June 2015. While they were not reported to have cleared any CMR contamination, MTI informed Mine Action Monitor that it did not distinguish between UDR in its statistical reporting. Email from Mark Smith, MTI, 3 June 2015.
47 Response to Mine Action Monitor questionnaire by Mark Buswell, MAG, 30 March 2015.
49 Ibid.
51 Ibid.
53 Ibid.
54 Response to Mine Action Monitor questionnaire by Robert Thompson, UNMAS, 30 March 2015.
55 Ibid.
56 Ibid.; and Responses to Mine Action Monitor questionnaire by Ismael Frisui, MAG, 9 April 2015, and Augustino Seja, NPA, 2 June 2015. NPA reported that work will focus on survey but that any CMR contamination found in the process would be recorded and cleared.
57 Response to Mine Action Monitor questionnaire by Ismael Frisui, MAG, 9 April 2015. MAG’s MTI’s work was scheduled to finish at the end of June 2015, and if new funding is not secured, will not be redeployed. The Mechem team is expected to continue operations and renewable contrato in September 2015.
58 Response to Mine Action Monitor questionnaire by Ismael Frisui, MAG, 9 April 2015. NPA did not report specific changes to its capacity or operations in 2015 but stated that it would continue to focus on delivering CMR survey and clearance operations “to a high standard” in 2016.
59 Response to Mine Action Monitor questionnaire by Mark Buswell, MAG, 27 May 2015, and Stephen Smith, TDI, 2 June 2015. TDI did not report specific changes to its capacity or operations in 2015 but stated that it would continue to focus on delivering CMR survey and clearance operations “to a high standard” in 2016.
The Sudanese NMAC,2 which assumed full national ownership for implementing mine action activities upon UNMAG’s departure in June 2011, has not provided updated information on the reported nine open areas contaminated with CMR since it was established. NMAC does not distinguish between clearance of different types of explosive remnants of war (ERW) in its reporting and so has been unable to confirm how much land was cleared of CMR from 2011 to 2015, or how many submunitions were destroyed. It did not respond to repeated requests for updated information by Mine Action Monitor in 2015, nor from Cluster Munition Monitor in previous years.

From 1995 to 2000, 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 (DPCM), Chilean-made PM-1, and Soviet-manufactured PTAB-1.5 and AO-15Sh submunitions.1

In 2012, there were two allegations of cluster-munition use by the Sudanese Armed Forces, in Troji and Ongolo in Southern Kordofan. Chinese Type-81 DPCM were found in Troji by an independent journalist, which local residents reported were used in a government attack on the town on 29 February 2012. On 24 May 2012, British newspaper The Independent published photos of an RBK-500 cluster munition containing AO-2.5 RT submunitions that had failed to explode in the village of Ongolo. Residents said the bomb had been dropped from a government aircraft on 15 April 2012. Cluster Munition Monitor was not able to independently confirm the use of cluster munitions or those responsible.1 The government of Sudan denied using cluster munitions in South Kordofan.7

In May 2015, a UN Panel of Experts on Sudan documented several RBK-500 cluster bombs stored in the open along with other weapons at a Sudanese Air Force base at the El Fasher airport in North Darfur, as well as the possession of AO-2.5 RT submunitions by the Sudanese Air Force.4 It later published a photo of the stockpiled cluster munitions at the El Fasher airport in a report to the UN Security Council on 11 February 2014. The report stated that “the Panel has evidence of previous use of cluster munitions in Darfur. Rend-er-safe operations have taken place on such munitions as recently as 2012. The Panel does not, however, have evidence of the exact dates of use of the munitions. It continues to investigate.” The report further stated that the panel had “observed fluctuating stock levels at the ammunition storage area, indicative of the routine use for either operations or training” and resupply of ammunition into Darfur by the national armed forces, and warned of a “real explosive risk” if the storage facility continued to be used to store weapons.2

On 15 April 2015, Human Rights Watch published evidence that Sudanese government forces used cluster munitions in civilian areas in the Nuba Mountains in South Kordofan in February and March 2015. Researchers documented evidence of CMR in villages in Delami and Um Durein counties. Local residents stated that two bombs were dropped by government aircraft on the village of Tongoli in Delami county on 6 March 2015, and four bombs on Rajeef village in Um Durein county in late February 2015. The CMR found by Human Rights Watch were RBK-500 cluster bombs containing AO-2.5 RT fragmentation submunitions, the same type reportedly used by the Sudanese government in 2012.11 In response, a Sudanese army spokesperson was quoted by a news source denying the allegations, calling the Human Rights Watch report “totally fabricated and baseless” and claiming that “we never used this kind of weapons in war areas in Sudan.”12

Just over a month later, on 27 May 2015, the Sudanese Air Force was reported to have dropped four cluster bombs on the town of Kauda in South Kordofan in an attack occurring around 7:30am13. Nuba Reports, a network of local journalists from the Nuba Mountain area, published a video showing the clearance and burial of unexploded submunitions from the attack and reported testimonies of local villagers present at the time. According to the reports, all four bombs landed in residential areas, three in fields outside of villagers’ homes and one just outside the house of Shadia Omar Osman and her family. None of the cluster bombs exploded on impact and submunitions were either found intact within the failed canisters or scattered unexploded on the ground. At least 58 submunitions were found in Shadia’s family’s yard. Two days later, soldiers from the Sudan People’s Liberation Army North (SPLA-N), the rebel army in control of the region, collected the unexploded submunitions around Shadia’s home and buried them in a pit, which they marked with thorn bushes. The cluster munitions reportedly used in the attacks and shown in the Nuba Reports video were again RBK-500 cluster bombs containing AO-2.5 RT submunitions.12

In May 2015, in his report on the African Union-UN Hybrid Operations in Darfur, the UN Secretary-General stated that during the reporting period from 26 February to 15 May 2015, the African Union and UN mission in Darfur (UNAMID) “collected evidence of two air-delivered cluster bombs near Kirgiyiah village, Northern Darfur, and disposed of them safely.” The UN Secretary-General called on the Government of Sudan “to immediately investigate the use of cluster munitions in Northern Darfur, which are prohibited under international law and pose a particular threat to the civilian population.”14

Table 1: CMR-contaminated areas in Sudan as of June 20111

<table>
<thead>
<tr>
<th>State</th>
<th>Open</th>
<th>Closed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kassala</td>
<td>7</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>South Kordofan</td>
<td>2</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Blue Nile</td>
<td>0</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Northern Darfur</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Southern Darfur</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>9</td>
<td>8</td>
<td>17</td>
</tr>
</tbody>
</table>
On 29 June 2015, the UN Security Council adopted Resolution 2228 which renewed UNAMID’s mandate until 30 June 2016. The resolution again expressed concern “at the evidence, collected by AU–UN Hybrid Operation in Darfur (UNAMID), of two air-delivered cluster bombs near Kiriyia and North Darfur.”25 The resolution reiterated the UN Secretary-General’s call on the Government of Sudan to “immediately investigate the use of cluster munitions.”26 Upon the adoption of the resolution, the Sudanese representative rejected the resolution’s reference to the use of cluster munitions in Sudan.27

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Sudan also has a significant problem with anti-personnel mines, anti-vehicle mines, and unexploded ordnance (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. While limited CMR contamination has been identified in the Darfur region, contamination from other ERW is much greater. 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 rifle projectiles, mortars, and grenades.28

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.29 According to UNDP, the IMSMA database does not contain any data on the extent of contamination in Abyei due to the conflict and restricted access to the area.30

PROGRAMME MANAGEMENT

The Sudanese NMMA and the National Mine Action Centre (NMAC) manage Sudan’s mine action programme. In 2005, UN Security Council Resolution 1590 and the Comprehensive Peace Agreement established the legal framework for UNMAS to manage quality assurance (QA) and information management (IM) functions. Following UNMISS and UNMAD’s closure in July 2011, the National Mine Action Management Authority (NMMA) was set up, and a National Mine Action Policy Framework was developed, revised, and then approved by August 2013.31

In 2012, NMMA continued its partnership with UNMAS, the NMMA was set up, and a National Mine Action Policy Framework was developed, revised, and then approved by August 2013.31

Following UNMISS and UNMAD’s closure in July 2011 upon the independence of South Sudan, UNMAS assumed full ownership of national mine action with responsibility for coordinating all mine clearance, including accreditation and certification of mine clearance agencies. The UN Mine Action Service (UNMAS), which had opened an emergency programme in Sudan in 2002, continued to provide assistance to mine action in Sudan through technical support to NMAC, up to the end of 2013.32 As of January 2014, UNMAS ceded its lead in UN mine action efforts in Sudan to UNDP, which was expected to continue its support to NMAC until 2016.33

In Darfur, under the umbrella of UNAMID, UNMAS works under the name of the Ordnance Disposal Office (ODO) in direct support of UNAMID priorities.34 In 2012, UNAMID renewed its contract with the US-based company The Development Initiative (TDI) to assess, survey, mark, identify, and clear contamination in all five Darfur states.35 TDI’s activities depend on availability of security forces and permission from the government of Sudan and the UN Special Representative for Political Affairs.36 TDI has reported that it will transition to a mentoring role in supporting local national demining teams to increase their operational capacity and production by embedding one member of international staff in the teams. It said its task was up for re-tender in 2015.37 Mine action in Darfur is funded through assessed peacekeeping funds for UNAMID.38

In December 2013, UNMAS phased out of its lead role in support of mine action activities in a planned handover to UNDP. UNDP assumed the role in September 2014, and provided capacity building support to NMAC for a three-month period until December 2014. However after restructuring in light of adopting a new strategic plan for 2014–17, UNDP decided to transition out of support for mine action. As such, UNDP, along with the government of Sudan, requested UNMAS to retake the lead role in support of mine action in Sudan in December 2014.39

STRAEGIC PLANNING

Sudan has a multi-year National Mine Action Plan for 2013–19. According to the NMAC, the plan was designed in light of the overall security situation in Sudan and the capacity for mine action and types of assets available. The plan includes details of operations for addressing contamination in all affected states by year, with a focus on the eastern states of Kassala, Red Sea, and Gadaref, and parts of Blue Nile. When security permits, work will start according to the plan in South Kordofan and the remaining parts of Blue Nile states.40

In June 2015, a representative from NMAC stated that Sudan was committed to meeting its National Mine Action Plan deadline of 2019 but reported that it faced big challenges due to lack of funding and ongoing conflict in Blue Nile and South Kordofan.41

STANDARDS

In May 2015, NMAC stated that a review of National Technical Standards and Guidelines was ongoing and that a new version would be published on its website after their approval.42

OPERATORs

In 2014, no international non-governmental organisations (NGOs) conducted mine clearance or survey in Sudan. One international NGO, Association for Aid and Relief (AAR Japan), carried out mine risk education, along with a national NGO, SIBRO Organization for Development. The only international operator to carry out clearance activities in 2014 was TDI, which carried out explosive ordnance destruction (EOD) tasks in Darfur in support of UNAMID, deploying five multitask teams (MTTs).43 In 2015, NMAC called for other international NGO operators to undertake mine action in Sudan.44

Previously, two international mine clearance NGOs had programmes in Sudan but were forced to close down due to low funding and ongoing conflict in Darfur.45 As such, 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.46 Following months of negotiations with HAC and donors, MAG ended its operations in Sudan, leaving in early 2013.47

National demining operators are the National Demining Units, JASMAR for Human Security, and Friends of Peace and Development Organization (FPDO). In 2014, the National Demining Units comprised four mine clearance teams (MCT), one MTT, three mine detection dog (MDD) teams, and one mechanical team. FPDO and JASMAR had one MCT each and conducted land release and mine risk education. In April 2014, the Government of Sudan reported that donor countries had not funded these operations.48

QUALITY MANAGEMENT

According to NMAC, a quality assurance (QA) programme became operational in 2016 with three regionally based QA teams of one to two persons each. The teams are based in Damazeen, Kassala, and Kadugli, as well as in Khartoum, with each team responsible for one to three states.49 TDI confirmed that a QA system was in place in Sudan but reported that very few external QA activities were carried out in 2014.50

INFORMATION MANAGEMENT

NMAC reported that database clean-up began in January 2013 as part of preparations to transfer to an upgraded version of IMSMA. It expected the process to have no effect on areas reported as cleared in the database but would affect the amount of cancelled areas recorded, which it said “will be incorporated into the database and in turn will minimize the difference reflected between areas cleared and the size of total hazards closed”. The clean-up process could not be completed in 2014, and as of May 2015 was still ongoing with field verification yet to be undertaken.51

In 2014, discussions were underway with an international donor to provide in-kind support for information management and for an updated version of IMSMA to be installed – a priority for the NMAC. UNDP reported in February 2015 that the new version of IMSMA was not able to be imported into Sudan because of its geographic information system (GIS) function and United States import sanction restrictions.52
LAND RELEASE
No data was available on any CMR clearance in 2014. NMAC does not distinguish between clearance of different types of ERW in its reporting and is unable to confirm how much land was cleared of CMR since it was established in 2011 nor how many submisions were destroyed.

As stated above, according to UNDP, no CMR clearance occurred in 2014 and no CMR contamination was recorded in the IMSMA database.56 Since June 2011, ongoing conflict has prevented mine action activities from being carried out in South Kordofan, thought to be the most heavily CMR-contaminated state, and Blue Nile state, which is also believed to be heavily contaminated with mines and ERW. The NMAC reported that as soon as the security situation improves mine clearance would restart.47 In May 2015, JASMAR and FPDO were set to deploy clearance teams to South Kordofan.48 In Darfur, also heavily affected by ERW, EOD tasks could only be carried out in certain accessible areas due to the impact of ongoing instability.57

In 2014, NMAC reported a total of 0.57km² of battle area clearance (BAC): 0.27km² of subsurface clearance and almost 0.3km² of surface clearance. This was a decrease from 2013, when NMAC reported BAC of 0.95km². UNDP stated that the overall decrease in land release in Sudan in 2014 was due to reduced funding for mine action.53

TDI reported that 2014 was a “good year” for its operations with a significant increase in the amount of UXO it located and destroyed. It said this rise in productivity was due to greater independence of TDI teams from UNAMID escorts and a switch to methods from the Sudanese Armed Forces and local police, which allowed the teams more freedom of movement and a greater ability to reach suspected hazardous areas.52

SAFETY OF CLEARANCE PERSONNEL
There were no reported accidents involving mine action personnel in 2014.51

ENDNOTES
1 The locations are based on a review of sites in the UNMAS database by Mine Action Monitor.
3 Email from Mohamed Kaidar, Chief Information Officer, UNMCA, UNDP, 27 June 2011.
4 The NMAC’s website is at http://yaa-vmc.org.
9 Ibid., p. 72.
10 Ibid., pp. 22-24.
13 “Cluster Bombs Hit Homes in Male”, Nuba Reports, 15 June 2015, at: http://nubareports.org/cluster-bombs-hit-homes-in-male/ and email from the South Kordofan Blue Nile Coordination Unit, reprinted by the Humanitarian Aid Relief Trust, “Flash Update: Cluster Bombs Dropped in South Kordofan”, 2 June 2015, at: http://www.heart-uk.org/news/flash-update-cluster-bombs-dropped-in-south-kordofan/ Audia is one of the most populated towns in the Nuba mountains. Reports stated that the bomb exploded, many would have been killed or injured as the attacks occurred at a time when families would have been at home getting ready for the day, children seeking water, and people walking to fetch water, light cooking fires, and tend to livestock.
14 “Cluster Bombs Hit Homes in Male”, Nuba Reports, 15 June 2015.
16 Ibid., p. 72.
17 UN Security Council Resolution 2228 [2015] noted that UNMAD had disposed of the cluster munitions safely.
18 UN Security Council Resolution 2228 [2015].
22 Email from Javed Habibulhaq, UNDP, 11 May 2015.
23 Revised Anti-Personnel Mine Ban Convention (APPMC) Article 5 deadline Extension Request, 30 July 2013, p. 6.
24 Ibid.
27 Ibid.
28 Ibid.
32 Revised APMBC Article 5 deadline Extension Request, 30 July 2013, pp. 28-33.
33 Statement of Sudan, Anti-Personnel Mine Ban Convention Standing Committee meetings, Geneva, 29 June 2015, Notes by NPA.
36 APMBC Article 7 Report (2014), Form p. 16.
37 ICBL, “ICBL Comments on Sudan’s Article 5 Extension Request”, May 2015.
39 “Sudan causes frustration among NGOs”, AlNile, 1 June 2012.
40 MAG, “MACG Reports Sudan after six years of work to remove remnants of conflict”, 7 March 2013.
41 Statement of Sudan, Standing Committee on Mine Action, Geneva, 10 April 2014.
42 Revised Article 5 Extension Request, 30 July 2013, p. 21.
44 Ibid.
45 Email from Javed Habibulhaq, UNDP, 11 May 2015.
47 Ibid.
49 Email from Javed Habibulhaq, UNDP, 11 May 2015.
52 Ibid.
54 Ibid.
55 Sudan is a state-party to the 1966 International Covenant on Civil and Political Rights, Article 5 of which stipulates that “Everyone having the internal right to vote is entitled to vote . . . in those bodies established in accordance with this Covenant by the states concerned.”
56 Revised APMBC Article 5 deadline Extension Request, 30 July 2013, p. 3.
57 Email from Javed Habibulhaq, UNDP, 11 May 2015.
58 Revised Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, 30 July 2013, p. 6.
59 Ibid.
60 APMBC Article 7 Report (2014), Form p. 15. This was confirmed by UNDP in February 2015. Interview with Javed Habibulhaq, UNDP, in London, 25 February 2015.
Syrian government forces have used cluster munitions extensively in the four-year-old conflict and Islamic State (IS) has also 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 The United Kingdom-based Syrian Network for Human Rights reported a sharp increase in Syrian government use of cluster munitions in 2014, recording multiple strikes in nine governorates, mostly by aircraft but in some instances by ground forces’ rocket fire. Affected governorates named by the Syrian Network included Qunaitra.2

Human Rights Watch, citing Kurdish officials and photographs, said there was evidence to suggest IS forces had used cluster munitions fired from multiple rocket launchers in their offensive against the town of Kobani in August 2014.3 In a report produced after the battle for Kobani, Handicap International confirmed the presence of unexploded submunitions among dense ERW contamination.4

Human Rights Watch, pulling together reports of researchers, local activists, and bloggers, recorded at least six types of cluster munition that had been used, including air-dropped bombs and land-based rockets, and seven types of explosive submunition. It also cited evidence that government forces had used incendiary submunitions and that opposition forces had used unexploded submunitions as improvised explosive devices.5

There is no mine action programme in Syria, no national mine action authority, and no mine action centre.

In March 2012, the United Nations Mine Action Service (UNMAS) established an office in Damascus, initially as part of the UN Supervision Mission in Syria (UNSMIS). This was closed in August 2012 and UNMAS no longer has a presence in Syria. An UNMAS risk education project was included in the Syrian humanitarian response plan proposed for 2014, but Syrian authorities did not approve visas for staff to implement it. To assist humanitarian relief agencies and eventual reconstruction, UNMAS started a “clash database” based largely on open source material recording the locations of armed clashes, but handed this over in 2014 to the UN Office for the Coordination of Humanitarian Affairs.6

RECOMMENDATIONS FOR ACTION

➔ Syrian government and opposition forces should immediately stop using cluster munitions and accede to the Convention on Cluster Munitions (CCM) as a matter of priority.

➔ The Syrian government should set up a national mine action centre as the first step towards creating a national programme for tackling explosive remnants of war (ERW) contamination.

➔ Syria should allow competent international organisations access to advise and assist the development of a national programme and start the process of non-technical survey.

SYRIA

One of nine cluster bombs launched by Syrian government forces against a housing estate in Aleppo on 7 March 2013. © Amnesty International

CLUSTER MUNITION REMNANTS - STATES NOT PARTY

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ENDNOTES

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 Raqqa.


6 Emails from Flora Sutherland, Senior Programme Coordinator, UNMAS, New York, 28 May 2013 and 9 June 2015.

7 Syria is a state party to the 1966 International Covenant on Civil and Political Rights, Article 6(d) of which stipulates that: “Everyone having been born in the inherent right to life.”

LAND RELEASE

No formal programme exists for survey, clearance, or release of areas contaminated by submunitions.

ARTICLE 4 COMPLIANCE

Syria is not a state party to the CCM. Nonetheless, Syria 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.

CONTOURATION

Syrian government forces have used cluster munitions extensively in the four-year-old conflict and Islamic State (IS) has also 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. The United Kingdom-based Syrian Network for Human Rights reported a sharp increase in Syrian government use of cluster munitions in 2014, recording multiple strikes in nine governorates, mostly by aircraft but in some instances by ground forces’ rocket fire. Affected governorates named by the Syrian Network included Qunaitra.

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Explosive remnant of war observed in the city of Kobani during an assessment by Handicap International. © Philippe Houliat/Handicap International

EXPANSION REMNANT OF WAR OBSERVED IN THE CITY OF KOBANI DURING AN ASSESSMENT BY HANDICAP INTERNATIONAL. © PHILIPPE HOULIAT/Handicap International

One of nine cluster bombs launched by Syrian government forces against a housing estate in Aleppo on 7 March 2013. © Amnesty International

No formal programme exists for survey, clearance, or release of areas contaminated by submunitions.
TAJIKISTAN

RECOMMENDATIONS FOR ACTION

➔ Tajikistan should complete clearance of its areas known to contain cluster munition remnants (CMR) and conduct the necessary survey to ensure that other contaminated areas do not exist.

➔ Tajikistan should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.

CONTAMINATION

Tajikistan has 150,000m² of area confirmed to contain CMR, located in Darvaz district of Gorno-Badakhshan province in the central region. Cluster munitions were used during Tajikistan’s civil war in the 1990s, though the user’s identity is not known.

In 2007–08, 334,000m² of CMR-contaminated land was cleared, with the destruction of 500 submunitions. In 2009 and 2010, re-survey of the area identified four hazardous areas covering 150,000m², which were subsequently reclassified as battle areas without CMR contamination. In 2010, two submunitions were destroyed during clearance in the central region. Prior to 2014, the last unexploded submunition to be found was in 2011.

In 2014, based on information provided by a member of the local Sagirdasht community, the quality assurance/quality control (QA/QC) team of the Tajikistan National Mine Action Centre (TNMAC) found one AO-2.5RT submunition in Darvaz district. The QA/QC team subsequently found other submunitions, covering a total area they estimated at 400,000m². This estimate was subsequently revised downwards by Norwegian People’s Aid (NPA) to 150,000m², following a field visit in July 2015. During this visit containers for two AO-2.5RT strikes, evidence of submunition detonations, and nine unexploded submunitions were seen in the same area. Subsequently evidence of a third container was found and as of early August 2015 more than 60 unexploded submunitions had been cleared. The contaminated land is used for pasture during the summer months when the snow has melted, and the nearest village is 15km away. The contaminated area is around 200 metres from the nearest suspected mined area.

Prior to this recent discovery of land containing CMR, it was believed that only a residual CMR threat remained, in the central region. Tajikistan has stated that once survey and clearance of this area is completed, the country will have cleared all known areas containing CMR, although it is acknowledged that submunitions may still be discovered during other survey and clearance operations. Other battle area clearance tasks may contain unexploded submunitions and it may be premature to declare completion until a proper survey is conducted.

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Tajikistan also has hazardous areas containing other unexploded ordinance (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.

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 near future, although this did not happen until more than 10 years later. TMAC was made responsible for coordination and monitoring of all mine action activities. Since then, TMAC has acted as the secretariat for the CIIHL to which it reports.

On 3 January 2014, by government decree, the Tajikistan National Mine Action Centre (TNMAC) was established. Prior to this, lack of legal recognition had presented problems for TMAC. For example, TMAC could not open a bank account to receive and disburse funds. The importance of clarifying TMAC’s status had been highlighted in the 2012 evaluation of UNDP support to mine action in Tajikistan. 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.

STRATEGIC PLANNING

The current national mine action strategic plan (NMASP) 2010–15 expires at the end of 2015, and a new strategy for 2016–20 was under development as of the middle of the year. The TNMAC completion workplan (2015–20) was also under revision, but relates predominantly to mine survey and clearance, and to Article 5 of the Anti-Personnel Mine Ban Convention.

LEGISLATION AND STANDARDS

In 2015, Tajikistan drafted a “Humanitarian Demining Law”, which includes all aspects of mine action. As of June 2015, the draft law was due to be circulated for consultation, after which it must be approved by parliament and signed by the President of Tajikistan. It was expected that the law would be adopted by November 2015.

Tajikistan’s National Mine Action Standards (TNMAS) have been revised and were awaiting translation into Russian and government approval as of June 2015. The TNMAS predominantly refer to mines, but also cover UXO including unexploded submunitions.

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 surveys (in 2004–05 and 2007–09) and clearance; provided technical assistance to TMAC; and, by November 2012, supported the development of the Union of Sappers of Tajikistan’s capacity. 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.
LAND RELEASE
No CMR-contaminated area was released by clearance or technical survey in 2014, and no area suspected to contain CMR was cancelled by non-technical survey.

SURVEY IN 2014
As noted above, in 2014, TNMAC’s QA/QC team found one AD-2/2 SRT submunition and, following further investigation, identified an area of some 400,000m² that contains unexploded submunitions. This was revised downwards to 150,000m² by NPA, as a result of a field visit to the site in July 2015.

PROGRESS IN 2015
In 2015, NPA planned to conduct technical survey in order to define more accurately the boundaries of the contaminated area and then to conduct battle area clearance (BAC) to release the land. Due to adverse weather it is only possible to conduct land release operations during four months of the year. Weather permitting, it was planned to complete survey and clearance of the remaining CMR-contaminated area before the end of 2015.

ARTICLE 4 COMPLIANCE
Tajikistan is not a party or signatory to the CCM and therefore does not have a specific deadline under Article 4 of the Convention. Nonetheless, Tajikistan 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.

TNMAC and NPA believe that once the remaining contaminated area is released in 2015, Tajikistan will have cleared all CMR-contaminated areas in the country. However, a number of BAC tasks remain in the Central Region and it is possible that further submunition strikes will be identified during the course of survey or clearance.

ENDNOTES
1 Email from Aubrey Sutherland-Pillai, Country Director, Norwegian People’s Aid (NPA) Humanitarian Dem璽affam (HD) Tajikistan, 17 July 2015; and Response to Mine Action Monitor questionnaire by Muhabbat Ibrohimzoda, TNMAC, 3 April 2015.
4 Response to Cluster Munition Monitor questionnaire by Abdulman Karmrouz, TNMAC, 11 June 2015.
5 Email to Mine Action Monitor questionnaire by Muhabbat Ibrohimzoda, TNMAC, 3 April 2015.
6 Email from Daler Mirzoaliev, Operations Manager, NPA Tajikistan, 14 July 2015.
7 Email from Aubrey Sutherland-Pillai, 9 and 17 July 2015, and Daler Mirzoaliev, NPA HD Tajikistan, 15 June 2015; and interview with Muhabbat Ibrohimzoda, TNMAC, 3 April 2015.
8 Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, 9 March 2015, p. 4.
10 Ibid., 7 August 2015.
11 Email from Daler Mirzoaliev, TNMAC, 12 May 2015.
12 Email from Daler Mirzoaliev, NPA Tajikistan, 14 July 2015.
14 Email from Daler Mirzoaliev, TNMAC, 12 May 2015.
15 Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline Extension Request, 9 March 2015, p. 4.
16 Email from Daler Mirzoaliev, TNMAC, 3 April 2015.
19 Interview with Muhabbat Ibrohimzoda, TNMAC and Ahad Mahmoudov, UNDP, in Geneva, 23 June 2015.
20 Ibid., pp. 27–29.
21 Email from Muhabbat Ibrohimzoda, TNMAC, 12 May 2015.
22 Interview with Muhabbat Ibrohimzoda, TNMAC and Ahad Mahmoudov, UNDP, in Geneva, 23 June 2015.
23 Email from Daler Mirzoaliev, TNMAC, 3 April 2015.
24 Interview with Muhabbat Ibrohimzoda, TNMAC and Ahad Mahmoudov, UNDP, in Geneva, 23 June 2015.
25 Ibid.
29 Emails from Aubrey Sutherland-Pillai, 9 and 17 July 2015, and Daler Mirzoaliev, NPA HD Tajikistan, 14 July 2015.
30 Emails from Muhabbat Ibrohimzoda, TNMAC, 12 May 2015; and Daler Mirzoaliev, NPA HD Tajikistan, 15 June 2015; and interview with Muhabbat Ibrohimzoda, TNMAC and Ahad Mahmoudov, UNDP, in Geneva, 23 June 2015.
31 Tajikistan is a state party to the 1966 International Covenant on Civil and Political Rights, Article 6 of which stipulates that “Every human being has the inherent right to life.”
32 Emails from Muhabbat Ibrohimzoda, TNMAC, 12 May 2015; and from Resad Junuzagic, former Country Director, NPA, 28 April 2015.
33 Direct_Implementation.pdf.
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. 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 Selayiansky, in the Donetsk region of eastern Ukraine. These rockets are fired from the 9K58 Smerch multipule-barrel rocket launchers over a maximum range of 96km. On 11 July, photographs taken by the Associated Press (AP) at an insurgent base at Slaviansk 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. According to AP, the remnants at Slaviansk were collected and destroyed by Ukrainian government explosive ordnance disposal (EOD) teams.

In October 2014, Human Rights Watch 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, Starosheve, Makivka, and Ilovaisk) and Luhansk (Novosvitlitska). 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. The OSCE also reported evidence of CMR in Komsomisliske, south-east of Donetsk, resulting from an attack on 2 February, and in Kramatorsk, in the north of the Donetsk region, on 10 February.

During a ten-day investigation in eastern Ukraine, Human Rights Watch found evidence of the use of cluster munition rockets in at least seven villages, towns, and cities between 23 January and 12 February 2015, with some locations hit multiple times. Three of the areas investigated were in government-controlled territory, and four were in rebel-held territory. Thirteen civilians were killed during these attacks, including at least two children.

**RECOMMENDATIONS FOR ACTION**

- Ukraine should end all use of cluster munitions and accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Ukraine should establish an operational national mine action centre under civilian control.
- Ukraine 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.
The Ministry of Defence of Ukraine is now the central coordinating body for demining in Ukraine. However, a number of other ministries continue to deploy units that undertake clearance and disposal of ERW and mines.34

The Emergency Service of Ukraine (SESU), formerly known as the Ministry of Emergencies, is generally responsible for humanitarian clearance of affected territories, with the exception of those allocated to the other ministries and bodies. The Ministry of Defence is responsible for all areas where military units, educational institutions, companies, or organisations belonging to the armed forces are permanently located. The Engineering Division of the Ministry of Infrastructure conducts UXO spot clearance tasks. The national Border Guard 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 clearance of national transport railways, roads, terminals etc. Lastly, the Ministry of Internal Affairs has an engineering department that conducts EOD, in particular for improvised explosive devices.35

Ukroborservice is a national demining organisation that acts as a subcontrac ter for the Ukrainian government. Ukroborservice is not currently undertaking clearance in Ukraine, but the government is considering putting out a tender for the services of humanitarian demining organisations.36

As of April 2015, SESU deployed 32 ‘pyrotechnic’ units, totalling 500 personnel, while the Ministry of Internal Affairs (MIA) deployed 27 units, totalling nearly 200 people. Forty percent of capacity is dedicated to humanitarian demining and UXO clearance in areas contaminated as a result of former conflicts.37 According to the OSCE, the SESU planned to deploy 50 live-firing teams in the 2015 clearance season.38

As of April 2015, the Ministry of Defence was deploying 25 manual clearance teams comprising a total of 125 personnel, two explosive detection dog (EED) teams, 15 demining robots, and four BMR-2 machines.39

QUALITY MANAGEMENT

Quality management is headed by the 134th Engineering division, which monitors quality.40

INFORMATION MANAGEMENT

The Information Management System for Mine Action (IMSMA) has been piloted by the GICHD and SESU in four regions of Ukraine; there are plans to institutionalise it and use its access across the country.41

LAND RELEASE

Since the outbreak of fighting in eastern Ukraine, clearance has been undertaken by both Ukrainian government authorities and pro-Russian separatist groups.38 Clearance of ERW in the provinces of Donetsk and Luhansk is typically reactive and takes place soon after attacks or when notification of contamination is received via members of the local community. Items of KORD are either destroyed in situ, or removed to storage areas or compounds.39

The SESU is actively clearing government-controlled areas of mines and UXO.40 Clearance of ERW, including CMR, is often undertaken by its pyrotechnic teams, and has sometimes taken place quickly with the exception of new contamination, especially in populated areas. Clearance operations are often as a result of emergency call-outs from members of the community, which trigger deployment of a reconnaissance team and, if required, a pyrotechnic team to neutralise the threat. Clearance has been slower in the separation zone.41

In the separation zone, the Ukrainian armed forces are undertaking ad hoc clearance of ERW contamination.42

In areas controlled by pro-Russian rebel groups, the separatists are undertaking clearance of ERW and mines. In Donetsk, former SESU personnel, now organised under the separatist Donetsk People’s Republic (DPR), are undertaking the bulk of clearance around Donetsk city. The personnel are organised into regular shifts, with clearance being provided all day and all night.43

The Ukrainian authorities and the pro-Russian rebels are, to varying degrees, recording written logs of emergency call outs and clearance operations, but data is not typically disaggregated into weapon type.44 Clearance data is not available from pro-Russian separatist groups, and an accurate picture of the scale of ERW clearance operations undertaken in eastern Ukraine and of remaining CMR contamination is not available.

SAFETY OF CLEARANCE PERSONNEL

According to Ukraine Armed Forces, 45 people have been killed and 150 injured by explosive ordnance, mostly in the first half of 2015. A total of 95% of victims were reported to be military personnel, though data includes casualties from clearance operations as well as military operations.45

ARTICLE 4 COMPLIANCE

Ukraine is not a party or signatory to the CCM. Nonetheless, Ukraine has obligations under international human rights law to clear CMR as soon as possible, in particular virtue of its duty to protect the right to life of every person under its jurisdiction. Russia has similar obligations in any areas of Ukraine over which it exercises effective control.46

National funding is provided for clearance of ERW and mines, and the Department of Ecology and Mine Security has its own budget within the Ministry of Defence.47 Ukraine also receives assistance from foreign capacities (OSCE and NATO) for demining material.48 Germany has provided the Ministry of Emergency Situations with 50 metal detectors to assist the pyrotechnic units with demining activities in the liberated territories in the Donetsk and Luhansk regions.49

According to the OSCE Project Coordination Unit, in order to address the main operational challenges Ukraine needs to institutionalise a national mine action mission and centre appropriate to a conflict setting, to introduce legislation for emergency ERW response; and expand the IMSMA system to enable centralised nationwide information management.50

ENDNOTES

1 Human Rights Watch (HRW), ‘Ukraine: Widespread use of cluster munitions’, 20 October 2014, at: http://www.hrw.org/news/2014/10/20/ ukraine-widespread-use-cluster-munitions. ‘Ukraine used cluster bombs, and were blown up in 1942 before that army left the area. Clearance of the adit tunnels was expected to take a decade or more to complete.’ See, e.g., “During a Year in Kerch and Sevastopol neutralized 33 thousands of explosive remnants of war (ERW) challenges”, News release, Geneva, 24 April 2015, at: http://www.osce.org/ukraine-amm/379890.

2 Ibid.

3 ‘Ongoing challenge to the military and the people of Crimea’, report by the OSCE, 26 June 2015.

4 Ibid.; and B. Szlanko, “Cargo rockets, 222mm (M22) or 300 mm (M300)”, MIA, 22 October 2014.42


9 Ibid.


15 Interview with Colonel Oleksandr Shchebetiuk, Head of Engineer Department of Internal Affairs, Ministry of Internal Affairs (MIA), 20 October 2014, and interview, 18 February 2015.


17 Ibid.

18 Interview with Colonel Oleksandr Shchebetiuk, Head of Engineer Department of Internal Affairs, Ministry of Internal Affairs (MIA), 20 October 2014, and interview, 18 February 2015.

19 Ibid.


21 Ibid.; and B. Szlanko, “Cargo rockets, 222mm (M22) or 300 mm (M300)”, MIA, 22 October 2014.

PROGRAMME MANAGEMENT

Vietnam’s mine action programme is undergoing a period of transition from military management to civilian oversight. 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).11 BOMICEN, part of the Ministry of Defence, has acted as a central coordinating body for clearance and survey by national operators.12

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.13 VNMAC was given responsibility to propose policy, draw up plans, serve as the focal point for international cooperation, lead fundraising, and “to preside over” mine action information management. It is also responsible for planning and implementing quality assurance (QA).14 The government appointed VNMAC’s director and two deputy directors in 2014, and the centre became officially operational in February 2015.

STRATEGIC PLANNING

Vietnam’s National Mine Action Plan for 2013–2015, released in May 2013, called for clearance of 1,000km² a year to support socio-economic development, giving priority to provinces with the highest levels of contamination and casualties. Implementation, however, was dependent on mobilising substantial additional financial resources. The Military Engineering Command estimated that to achieve the target would have needed at least double the actual number of clearance teams.

VNMAC reported that priorities for 2015–2016 included drafting and issuing a decree on mine action, fundraising for VNMAC’s headquarters, developing a national database, conducting mine action in Ha Tinh province using Japanese funding, and developing and implementing mine action in Vietnam’s most contaminated provinces.15

OPERATORS

Most clearance in Vietnam is conducted by the Army Engineering Corps, whose officials have previously reported operating some 250 mine/unexploded ordnance (UXO) clearance teams, including the teams of around 50 military companies.16 Four international humanitarian operators conducted clearance in Vietnam in 2014. Belgian non-governmental organisation (NGO) APOPO, Mines Advisory Group (MAG), Norwegian People’s Aid (NPA), and PeaceTrees Vietnam. Germany brought in APOPO at the start of 2014 to take over the programme previously managed by Solidarity Service International (SOSI, but Germany stopped its funding in September 2014 and the programme closed.17 International operators are required to register with the People’s Aid Coordinating Committee to work in Vietnam, but negotiate agreements to operate separately with the authorities of each province.

CONTAMINATION

Vietnam is heavily contaminated by CMR but the extent is not known. The United States of America 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 submunitions.1 Most of the submunitions used were air-dropped, but artillery-delivered submunitions were also used in central Quang Binh and provinces to its south.18

The Military Engineering Command says it has encountered substantial amounts of cluster munitions abandoned by the US military, notably at or around old US air bases, including eight underground bunkers found in 2009, one reportedly covering an area of 4,000m² and containing some 25 tons of munitions.19

RECOMMENDATIONS FOR ACTION

→ Vietnam should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
→ Vietnam should accelerate survey of areas contaminated with cluster munition remnants (CMR) in its most heavily affected provinces to better define the extent of contamination.
→ Vietnam should accelerate development of a national database, making data available to operators on a timely basis.
→ Vietnam should report comprehensively on the results of survey and clearance by all operators, national and international.
APPO’s management of the former SODI operation in Quang Tri and Thua Thien Hue provinces lasted only nine months before Germany withdrew funding, resulting in the programme’s closure at the end of September. PeaceTrees Vietnam, undertaking mine action to support community-building programmes in Quang Tri province, cleared some 93,500m² of land in 2014, destroying 5,330 items of UXO. APOPO’s management of the former SODI operation in Quang Tri and Thua Thien Hue provinces lasted only nine months before Germany withdrew funding, resulting in the programme’s closure at the end of September. PeaceTrees Vietnam, undertaking mine action to support community-building programmes in Quang Tri province, cleared some 93,500m² of land in 2014, destroying 5,330 items of UXO. 16

### Table 1. International NGO survey/clearance in 2014

<table>
<thead>
<tr>
<th>Operator</th>
<th>CMR area cleared (km²)</th>
<th>BAC (km²)</th>
<th>Roving tasks</th>
<th>Submunitions destroyed</th>
<th>Other UXO destroyed</th>
<th>AP mines destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOPO</td>
<td>0</td>
<td>0.33</td>
<td>360</td>
<td>880</td>
<td>3,048</td>
<td>8</td>
</tr>
<tr>
<td>MAG</td>
<td>2.28</td>
<td>0.18</td>
<td>12,114</td>
<td>1,945</td>
<td>17,826</td>
<td>0</td>
</tr>
<tr>
<td>NPA/Project RENEW*</td>
<td>0</td>
<td>0.03</td>
<td>1,969</td>
<td>1,212</td>
<td>7,621</td>
<td>0</td>
</tr>
<tr>
<td>PeaceTrees Vietnam</td>
<td>N/R</td>
<td>0.09</td>
<td>N/R</td>
<td>N/R</td>
<td>5,330</td>
<td>N/R</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>2.28</strong></td>
<td><strong>0.63</strong></td>
<td><strong>14,443</strong></td>
<td><strong>4,037</strong></td>
<td><strong>33,845</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

N/R: Not Reported. AP = anti-personnel.

**Established in August 2001, Project RENEW is a cooperative partnership between the government of Quang Tri province and international NGOs to address ERW.**

### ENDNOTES

4. Prime Minister’s Decision No. 96/2006/QD-TTg, 4 May 2006.
7. Prime Minister’s Decision 313/QD-TTg, 4 March 2014.
8. Information provided by Do Van Nhan, Deputy Director General, VNMAC, received by email from Vietnam Veterans of America Foundation (VVAF), 19 June 2015.
9. Information provided by Do Van Nhan, VNMAC, received by email from Vietnam Veterans of America Foundation (VVAF), 19 June 2015.
11. Email from TeKimiti Gilbert, Head of Mine Action, APOPO, 16 June 2015.
15. Emails from Jonathan (Stu) Guthrie, Programme Manager, NPA, Hanoi, 9 and 22 June 2015.
17. Interview with Portia Stratton, Country Director, MAG, 1 May and 30 June 2015.
19. Email from TeKimiti Gilbert, APOPO, 16 June 2015.
20. Email from TeKimiti Gilbert, APOPO, 16 June 2015.
22. Data for January to September 2014, received by email from TeKimiti Gilbert, APOPO, 16 June 2015.
23. Vietnam is a state party to the 1966 International Covenant on Civil and Political Rights, Article 6 of which stipulates that: “Every human being has the inherent right to life.”

### CONTAMINATION

Yemen has significant contamination from CMR but much of it is in areas of ongoing conflict and the full extent is not known. In 2014, YEMAC reported that it had identified some 18km² of suspected CMR hazards in the northern Sada’a governorate, but also knew of other areas of contamination in north-western Hajjah governorate that it had not been able to survey.

CMR contamination almost certainly increased in 2015 as a result of air strikes by the Saudi-led coalition on Houthi rebels, most notably in Sada’a, their main stronghold. Photographic evidence and accounts of local residents and activists cited by Human Rights Watch point to use in April 2015 of air-dropped CBU-105 and BLU-108 weapons in coalition attacks on the al-Safraa area, 30km south of the city of Sada’a. Another area of Sada’a governorate was struck in April with artillery-fired, ZP-39 dual-purpose improved conventional munition (DPCIM) submunitions.19

### RECOMMENDATIONS FOR ACTION

- Yemen should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Yemen should survey at the earliest opportunity areas reportedly targeted with cluster munitions in the 2015 conflict and provide an updated assessment of cluster munition remnant (CMR) contamination.
- Yemen should draw up a plan setting out priorities and, when security permits, timelines for clearance.
- The Yemen Mine Action Centre (YEMAC) should give access and accreditation to international operators to take advantage of their technical expertise and fundraising capabilities.
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. NMAC, chaired by the Minister of State (a member of the cabinet), brings together representatives of seven concerned ministries.

YEMAC was established in Sana’a in January 1999 as NMAC’s implementing body with responsibility for coordinating mine action in the country. It is supported by a Regional Executive Mine Action Branch (REMB) in al-Mukalla (Hadamout governorate) and another REMAB in Sana’a (Hadamout governorate). REMABs are responsible for field implementation of the national mine action plan. However, escalating political turmoil and conflict in 2014, together with lack of funding, have impaired YEMAC’s abilities to discharge its responsibilities.

All mine and explosive remnants of war (ERW) survey and clearance is conducted by YEMAC, which reported starting in 2014 with six clearance teams composed of 293 deminers, 12 technical survey teams with 76 personnel, eight explosive ordnance disposal (EOD) teams with 85 personnel, and two quality assurance teams. YEMAC had previously reported that all clearance activities were conducted on an emergency basis and it had broken its teams into small groups to deal with ERW contamination, including CMR.

STRATEGIC PLANNING

Yemen has no strategic plan for tackling CMR.

LAND RELEASE

YEMAC did not report results for operations in 2014 and it was unclear where or how many teams were still active by the end of the year. As of June 2015, Yemen had not submitted its Anti-Personnel Mine Ban Convention Article 7 transparency report for 2014.

By August 2014, funding shortages had led YEMAC to cut survey and clearance capacity by 30% and in October it suspended field operations altogether. It is not clear when or if clearance has resumed.

ARTICLE 4 COMPLIANCE

Yemen is neither a state party nor a signatory to the Convention on Cluster Munitions. Nonetheless, Yemen 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.

ENDNOTES

1 Email from Ali al-Kadri, General Director, YEMAC, 20 March 2014.
4 CCM Article 7 Report, Form I, 31 March 2009.
6 Interview with mine action stakeholders requesting anonymity, February–June 2015.
7 Email from Ali al-Kadri, General Director, YEMAC, 20 March 2014.
8 APMBC Article 5 deadline Extension Request, 31 March 2008, p. 3.
10 Yemen is a state party to the 1966 International Covenant on Civil and Political Rights, Article 6(1) of which stipulates that “Every human being has the inherent right to life.”
RECOMMENDATIONS FOR ACTION

- Kosovo should disaggregate clearance of cluster munition remnants (CMR) from mine clearance in its reporting.
- Kosovo should make a formal commitment to respect and implement the Convention on Cluster Munitions (CCM) and in so doing clear all CRMs as soon as possible.

CONTAMINATION

At the end of 2014, contamination from CMR in Kosovo remained in 51 areas over 7.4km². Three areas containing CMR were released during 2014.

Contamination is primarily a result of conflict between the Federal Republic of Yugoslavia (FRY) and the Kosovo Liberation Army (KLA) in the late 1990s, and between the FRY and NATO in 1999. NATO aircraft bombed 333 locations between 24 March and 10 June 1999 (Operation Allied Force), dropping 1,392 bombs that released 295,700 UXOs. Explosive ordnance disposal (EOD) teams encountered clusters of unexploded ordnance (UXO) dating back to World War II. However, explosive ordnance disposal (EOD) teams continue to encounter items of unexploded ordnance (UXO) dating back to World War II. Kosovo Protection Force (KFOR) EOD teams regularly collect items of AXO in response to information provided by the public and demining organisations.

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

There is contamination in Kosovo from other explosive remnants of war (ERW). Most contamination 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. Kosovo Protection Force (KFOR) EOD teams regularly collect items of AXO in response to information provided by the public and demining organisations.

PROGRAMME MANAGEMENT

In January 2011, the EOD Coordination Management Section became the Kosovo Mine Action Centre (KMAC) under the Ministry of the Kosovo Security Force (KSF). KMAC is responsible for managing clearance of mines and CRMs. 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.

OPERATORS

Three NGOs have conducted land release in Kosovo: The HALO Trust, the Bosnian-based Mine Detection Dog Centre (MDDC), and Mines Awareness Trust (MAT). The MDDC and MAT were not funded to operate in 2014, but KMAC expected KSF and MDDC to start work on a new demining task in 2015. Norwegian People’s Aid (NPA) received accreditation to conduct a survey and was due to operate in northern Kosovo.

HALO Trust reported that an evaluation of Kosovo’s mine action programme in 2014, on behalf of the International Trust Fund (ITF) Enhancing Human Security, concluded that KSF and HALO, continuing with their existing capacity and procedures, would take 12 years to complete mine and ERW clearance operations. The evaluation report suggested that if both organisations, with existing capacity, had access to HALSIMDs (Handheld Standoff Mine Detection System) and adopted NPA’s cluster munition remnants survey (CMRS) methodology, clearance could be completed in nine years. HALO applies CMRS methodology in Lao People’s Democratic Republic but is unconvinced it presents advantages in Kosovo’s conditions.

LAND RELEASE

Clearance accelerated in 2014, after the downturn in clearance as a result of funding constraints the previous year. KSF and the HALO Trust cleared a total of 0.84km² containing mines and/or CMR in 2014, double the area cleared in 2013 (see Table 1). Reporting by KMAC does not distinguish battle area clearance (BAC) from mine clearance, although reports by operators indicated most of the area cleared contained CMR.

KSF operated three platoons with 75 deminers also trained for BAC and a fourth platoon with 25 deminers also trained for EOD who conduct both area clearance and spot EOD tasks. In 2014, it released one confirmed hazardous area and worked on three more that were suspended at the end of the demining season. KSF EOD also destroyed 449 UXO items in the course of 360 response tasks.

HALO, working with 57 deminers, cleared 405.307m² containing CMR, nearly two-thirds more than the previous year, and accounting for two of the three CMR areas released in 2014. HALO deminers average 100m² a day on cluster munition sites reflecting the constraints on clearance posed by steep gradients, dense vegetation, and heavy metal contamination.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Area cleared (m²)</th>
<th>Anti-personnel mines destroyed</th>
<th>Anti-vehicle mines destroyed</th>
<th>Submunitions destroyed</th>
<th>UXO destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSF</td>
<td>376,032</td>
<td>25</td>
<td>1</td>
<td>123</td>
<td>31</td>
</tr>
<tr>
<td>HALO</td>
<td>444,763</td>
<td>16</td>
<td>0</td>
<td>123</td>
<td>12</td>
</tr>
<tr>
<td>KFOR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>840,097</td>
<td>41</td>
<td>1</td>
<td>361</td>
<td>398</td>
</tr>
</tbody>
</table>

ARTICLE 4 COMPLIANCE

Kosovo is not a state party to the 2008 CCM. Nonetheless, Kosovo has obligations under customary international human rights law obligations 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.

ENDNOTES

1 Email from Ahmet Sallova, KMAC, 18 March 2015.
3 Email from Ahmet Sallova, KMAC, 18 March 2015.
5 Email from Ahmet Sallova, KMAC, 1 August 2012.
6 Email from Ahmet Sallova, KMAC, 1 August 2012.
7 Ibid.
8 Email from Ahmet Sallova, KMAC, 18 March 2015.
9 Email from Andrew Moore, HALO Trust, 27 May 2015.
10 Email from Ahmet Sallova, KMAC, 18 March 2015.
11 Email from Andrew Moore, HALO Trust, 21 May and 8 July 2015.
12 Email from Ahmet Sallova, KMAC, 18 March 2015.
CONTAMINATION
The exact extent of contamination from CMR in Nagorno-Karabakh is not known, but it is widespread and affects all regions. As of the end of 2014, surface CMR contamination was estimated to comprise 86 areas covering 42.7km². The total area including subsurface contamination is believed to be higher.

CMR contamination as of September 2013 was reported to be 39.5km², but this figure included contamination within the Soviet boundary of Nagorno-Karabakh only. Total CMR contamination across the whole of Nagorno-Karabakh at the end of 2013 was estimated to be 60.4km². CMR contamination has thus decreased significantly during 2014, as a result of clearance operations.

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 quantities of cluster munitions were dropped from the air during the conflict. Nagorno-Karabakh declared independence in 1991 but this has not been internationally recognised.

Nagorno-Karabakh has CMR in every region, but particularly Askeran, Martakert, and Martuni, where more than three quarters of remaining CMR are located. Unexploded submunitions caused at least 16 casualties in Nagorno-Karabakh between 1995 and 2013. No civilian submunition incidents were reported in 2014, although eight civilian mine incidents were recorded, resulting in 11 casualties.

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES
Nagorno-Karabakh is also contaminated by landmines and other unexploded ordnance (UXO). Explosive remnants of war (ERW) contamination is said to 'severely' impact on rural communities, limiting the incomes of thousands of families.

PROGRAMME MANAGEMENT
A mine action coordination committee is responsible for liaising between the de facto government of Nagorno-Karabakh and The HALO Trust. In 2000, HALO established the Nagorno-Karabakh Mine Action Centre (NKMAC), which consolidates all mine action-related information and responds to requests from the de facto government ministries, other non-governmental organisations (NGOs), and local communities. The NKMAC maintains maps and a database that covers all suspect areas surveyed; all areas cleared of mines and UXO; locations of all mine and UXO-related accidents; and a full record of all mine risk education given.

In 1995 and 1996, HALO trained local Karabakhi personnel in demining and left national staff to manage operations. In 1999, HALO returned to find the programme had suffered significant failures, including many accidents and a breakdown of management. Since 2000, HALO has been the sole organisation conducting land release in Nagorno-Karabakh. HALO's Nagorno-Karabakh operations cover both CMR clearance and mine clearance, and HALO does not field separate teams dedicated solely to mine clearance or CMR clearance. Operational staff are trained and experienced in working in both capacities.

A 2013 demining needs assessment by the United States Agency for International Development (USAID) concluded that HALO needed to seek and secure additional support and funding to continue its demining operations in Nagorno-Karabakh. In October 2013, HALO obtained a grant of US$5 million from USAID for the next two and a half years.

HALO's staff numbers fluctuated during 2014 as a result of changes in funding. From January to September 2014, approximately 155 staff were supported by USAID. This included 133 operational staff and 22 support staff, and equated to an operational capacity of 15 eight-person manual teams, one four-person explosive ordnance disposal (EOD) team, and three three-person mechanical teams, with each team operating an armoured Volvo front-loader. By October 2014, however, HALO's USAID budget in Nagorno-Karabakh was reduced by 25% for the fiscal year 2015, resulting in a redundancy for 43 staff. This decreased operational capacity to 10 manual teams, one EOD team, and two mechanical teams, funded by USAID.

HALO also received funding from the United Kingdom Foreign and Commonwealth Office (FCO) for one two-person risk education team and one four-person EOD team throughout 2014, and one eight-person manual team that operated for six months. In October 2014, Armenian Diaspora organisations ‘All Armenia Fund’ (AAF) and ‘Landmine Free Artsakh’ (LFA) provided HALO with funding for one additional manual team from August 2014 to April 2015.

As of the end of 2014, HALO was employing 129 staff in Nagorno-Karabakh. The 25% budget reduction in USAID applies from October 2014 to September 2015. HALO expected to maintain the reduced capacity throughout 2015.

RECOMMENDATIONS FOR ACTION
- The Nagorno-Karabakh authorities should provide funding for survey and clearance of cluster munition remnants (CMR).
- The authorities should ensure that any remaining abandoned stockpiles of cluster munitions are destroyed.
- The Nagorno-Karabakh authorities should make a formal commitment to respect and implement the Convention on Cluster Munitions (CCM) and to clear all CMR.

HALO Trust cluster munition clearance in Norashenik, Nagorno-Karabakh in October 2013. © The HALO Trust
LAND RELEASE
A total of 13km² of area contaminated with CMR was released by clearance in 2014, compared with 4.65km² in 2013. In addition, just under 7km² was released in 2014 during clearance operations as a result of overly large polygons being drawn.21

SURVEY IN 2014
In 2014, HALO confirmed eleven suspected areas, totalling 5.5km², as contaminated.20

CLEARANCE IN 2014
Just over 13km² of land, across 40 areas in the Askeran, Hadzhet, Mardakert, Martuni, and Shushi regions of Nagorno-Karabakh was released by clearance in 2014. During battle area clearance (BAC) operations, 220 submunitions were destroyed, along with 58 other items of UXO, one anti-personnel mine, and three anti-vehicle mines.21

The 13km² cleared in 2014 marks a significant increase compared to the previous year when 4.65km² of CMR-contaminated area was cleared during BAC operations.22 This increase is due to the fact that teams were deployed to conduct more BAC in 2014 than in 2013, because of the inaccessibility of minefields in winter and during the wet season. HALO’s CMR clearance operations nonetheless remained a “secondary” activity, as per USAID’s requested prioritisation of mine clearance.23

Furthermore, HALO was called out to 194 EOD tasks in 2014, during which 91 submunitions were destroyed along with 362 other items of UXO, 53 anti-personnel mines, and 13 anti-vehicle mines, in addition to the UXO destroyed during planned clearance operations as detailed above.24

Land released in 2014 assisted 399 direct and 1,567 indirect beneficiaries. The released area will mainly be used for agriculture, grazing, and woodcutting.25

ARTICLE 4 COMPLIANCE

Nagorno-Karabakh is not a state party to the 2008 Convention on Cluster Munitions (CCM). Nonetheless, the authorities in Nagorno-Karabakh have obligations under customary international human rights law obligations to clear CMR as soon as possible, in particular by virtue of the duty to protect the right to life of every person under their jurisdiction.

The Nagorno-Karabakh authorities have not provided HALO with any funding for clearance of CMR-contaminated or mined areas.26 Progress in clearance of CMR has fluctuated over the last five years, as shown in Table 1.

HALO was receiving 25% less funding from its main donor, USAID, in 2015 than in the previous year, resulting in a one-third reduction in operational capacity. However, USAID has indicated willingness to extend HALO’s current two-and-a-half-year grant that ends in March 2016.27 USAID has requested that funds be used for clearance operations within the Soviet-era boundary of the Nagorno-Karabakh oblast, and that HALO focus on mine clearance.28 CMR surface clearance is funded by USAID as a secondary activity, to be conducted when minefields are inaccessible. No sub-surface CMR clearance is funded by USAID.29

Despite the clear humanitarian need to clear ERW, the international isolation of Nagorno-Karabakh also makes it difficult for HALO to raise funds to work in the region, and funds raised are often subject to territorial restrictions.30 Almost no CMR is conducted outside the Soviet-era boundary of the Nagorno-Karabakh oblast.31 Funding is needed to prevent Nagorno-Karabakh’s communities being blighted by mines and CMR for decades to come.32

Table 1. Clearance of CMR-contaminated area in 2010–1429

<table>
<thead>
<tr>
<th>Year</th>
<th>Area cleared (km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>13.01</td>
</tr>
<tr>
<td>2013</td>
<td>4.65</td>
</tr>
<tr>
<td>2012</td>
<td>7.60</td>
</tr>
<tr>
<td>2011</td>
<td>8.50</td>
</tr>
<tr>
<td>2010</td>
<td>2.83</td>
</tr>
<tr>
<td>Total</td>
<td>36.59</td>
</tr>
</tbody>
</table>

ENDNOTES

1 Email from Andrew Moore, Caucasus & Balkans Desk Officer, HALO Trust, 29 May 2015.
2 Email from Andrew Moore, HALO Trust, 11 June 2015.
4 Email from Andrew Moore, HALO Trust, 2 July 2015.
5 Ibid.
6 Emails from Nick Smart, 10 April 2012; Andrew Moore, 25 February 2010, and 5 April 2011; Matthew Howitt, 8 July 2009; and Vahan Krumens, all from HALO Trust, 6 April 2007.
7 Response to Mine Action Monitor questionnaire by Andrew Moore, HALO Trust, 2 May 2015.
9 Email from Andrew Moore, HALO Trust, 28 June 2015.
10 Ibid.
12 Ibid., pp. 30-31.
15 Ibid., and email from Andrew Moore, HALO Trust, 19 March 2014.
17 Ibid.
18 Ibid.
19 Ibid.
20 Ibid.
21 During CMR clearance operations, HALO initially uses a standard polygon of 500,000m². Clearance starts at the centre of this area and extends outwards. When no further evidence of CMR is found, the remaining area is released/cancelled.
23 Ibid.; and email from Andrew Moore, HALO Trust, 23 June 2015.
24 Ibid.
26 Ibid., 22 May 2015.
27 Ibid.
28 Ibid.
30 Response to Monitor questionnaire by Andrew Moore, HALO Trust, 22 May 2015.
31 Email from Andrew Moore, HALO Trust, 11 June 2015.
32 Email from Andrew Moore, HALO Trust, 22 May 2015.
33 Email from Andrew Moore, HALO Trust, 6 April 2007.
34 Email from Andrew Moore, HALO Trust, 11 June 2015.
35 Email from Andrew Moore, HALO Trust, 11 June 2015.
36 Email from Andrew Moore, HALO Trust, 11 June 2015.
37 Email from Andrew Moore, HALO Trust, 6 April 2007.
38 Email from Andrew Moore, HALO Trust, 22 May 2015.
39 Email from Andrew Moore, Caucasus & Balkans Desk Officer, HALO Trust, 29 May 2015.
40 Email from Andrew Moore, Caucasus & Balkans Desk Officer, HALO Trust, 29 May 2015.
41 Email from Andrew Moore, Caucasus & Balkans Desk Officer, HALO Trust, 29 May 2015.
42 Email from Andrew Moore, Caucasus & Balkans Desk Officer, HALO Trust, 29 May 2015.
CONTOH

Western Sahara had almost 4.7 km² of area confirmed to contain CMR as of end 2014. Both the north and south of Western Sahara still contain confirmed CMR-contaminated areas, as set out in Table 1.

Table 1: CMR contamination by region as of end 2014

<table>
<thead>
<tr>
<th>Region</th>
<th>Confirmed areas</th>
<th>Area (m²)</th>
<th>Suspected areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>28</td>
<td>1,461,410</td>
<td>0</td>
</tr>
<tr>
<td>South</td>
<td>21</td>
<td>3,213,061</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>49</td>
<td>4,674,471</td>
<td>0</td>
</tr>
</tbody>
</table>

The Royal Moroccan Armed Forces used cluster munitions, including both artillery-fired and air-dropped, against Polisario Front forces during their conflict in Western Sahara from 1975 to 1991. According to the Saharawi Arab Democratic Republic (SADR), cluster munitions of the types BLU-43, M42, and MK118 were used by the Royal Moroccan Armed Forces in multiple locations in Bir Lahlu, Douga, Mehariz, Mjeik, and North Wadir.

While clearance had been projected to be completed by the end of 2012, the discovery of previously unknown contaminated areas meant this target date was not met. As of end 2014, 49 known cluster munition strike zones remained.

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Western Sahara remains significantly affected by mines and explosive remnants of war (ERW) due to the conflict between the Royal Moroccan Army and the Popular Front for the Liberation of Saguia el Hamra and Rio de Oro (Polisario Front) forces. A defensive wall (the Berm) was built during the conflict, dividing control of the territory between Morocco on the west side, and the Polisario Front on the east side.

A 2008 survey managed by Action on Armed Violence (AOAV) identified one area containing unused ammunition and 433 ERW spot clearance tasks. From 2012 to August 2014, AOAV carried out 42 spot tasks during which 46 ERW and 29 submunitions were destroyed.

The significant mine, CMR, and other UXO contamination in Western Sahara continues to pose a daily threat to the local and nomadic populations, along with UN personnel and humanitarian actors.

PROGRAMME MANAGEMENT

The United Nations Mission for the Referendum in Western Sahara (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 through a partnership between AOAV and Mechem, a commercial contractor, from 2012 to 2014.

In September 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. SMACO was established with UN support and started its activities in January 2014. Throughout the first half of 2014, AOAV and MINURSO MACC trained SMACO to coordinate and lead mine action activities east of the Berm. Training sessions were held on human resources, operations, logistics, management, and finance-related aspects of mine action, as well as quality management and the Information Management System for Mine Action (IMSMA) database.

In 2015, SMACO did not have any operating teams but facilitated the operations of its partners.

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). It planned to develop a mine action strategy specific to Western Sahara in the second half of 2015 as well as local mine action standards applicable to the east of the Berm.

OPERATORS

AOAV and commercial contractor MineTech International (MTI) were the two implementing operators conducting CMR survey and clearance in 2014, in partnership with MINURSO MACC. AOAV was operational in the first half of 2014, until it began a demobilisation and handover process on 24 June 2014 due to a lack of funding and loss of the UN Office for Project Services (UNOPS) tender for mine action in Western Sahara. In September 2014, MTI took over the UN tender and began operations, which were fully handed over from AOAV on 23 October 2014.

From 1 January to 31 August 2014, AOAV had the following capacity: two multitask teams (MTTs), one mechanical clearance team (MCT); one Mine Wolf and Vehicle Mounted Mine Detection System; one battle area clearance (BAC) team; and a total of 72 staff, of whom 68 were local. From 1 September to 31 December 2014, MTI’s capacity included one Vehicle Mounted Ground Penetrating Radar System; one community liaison officer team, two MTTs, and a total of 59 staff for all mine action-related activities.

In 2015, Norwegian People’s Aid (NPA) was in the process of deploying to Western Sahara with two MTTs for a two-year period. MTI is expected to continue to operate with the same capacity in 2015. The MINURSO MACC also secured funding for an additional MTT for a nine-month period.

RECOMMENDATIONS FOR ACTION

• The Saharawi Arab Democratic Republic should make a formal commitment to respect and implement the Convention on Cluster Munitions (CCM) and to clear all cluster munition remnants (CMR) east of the Berm as soon as possible.
• Morocco is strongly encouraged to provide cluster strike data to the United Nations or humanitarian demining organisations to facilitate survey and clearance of CMR.

OTHER EXPLOSIVE REMNANTS OF WAR
QUALITY MANAGEMENT
MINURSO MACC reported that quality assurance (QA) activities are conducted externally by the MACC. Operations and QA Officer on a regular basis, on average of three QA assessments per month, as well as internally by implementing partners. AOAV conducted its own internal quality control (QC) assessments on a daily basis, which were recorded and submitted in daily reports to MINURSO MACC.19

LAND RELEASE
Total CMR-contaminated area released by clearance and technical survey in 2014 was more than 1.75km². This represents an increase of 75% of CMR clearance in 2013.20

SURVEY IN 2014
AOAV, Mechem, MTI, and MINURSO confirmed a total of nearly 0.9km² as contaminated with CMR through non-technical and technical survey in 2014, as set out in Table 2.

Table 2. Survey in 201420

<table>
<thead>
<tr>
<th>Operator</th>
<th>Areas cancelled</th>
<th>Areas confirmed as contaminated</th>
<th>Area confirmed (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOAV-MECHEM</td>
<td>0</td>
<td>13</td>
<td>795,017</td>
</tr>
<tr>
<td>MTI</td>
<td>0</td>
<td>1</td>
<td>16,813</td>
</tr>
<tr>
<td>MINURSO</td>
<td>0</td>
<td>1</td>
<td>76,542</td>
</tr>
<tr>
<td>Totals</td>
<td>0</td>
<td>15</td>
<td>888,372</td>
</tr>
</tbody>
</table>

CLEARANCE IN 2014
AOAV and MTI together cleared a total of more than 1.75km² of CMR contamination in 2014 (see Table 3). This was due to an increase in battle area clearance (BAC) capacity to address cluster munition strike areas in 2014.21

Table 3. Clearance of CMR-contaminated area in 201424

<table>
<thead>
<tr>
<th>Operator</th>
<th>Area cleared (m²)</th>
<th>Submunitions destroyed</th>
<th>Other UXO destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOAV-MECHEM</td>
<td>1,436,181</td>
<td>306</td>
<td>289</td>
</tr>
<tr>
<td>MTI</td>
<td>320,385</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>Totals</td>
<td>1,756,566</td>
<td>321</td>
<td>297</td>
</tr>
</tbody>
</table>

Most of AOAV’s mechanical clearance tasks were in the Mijek region. Its BAC team, which operated independently, began operations in the south and concentrated its efforts in the Mijek region due to high levels of CMR contamination. AOAV reported finding and destroying more items in 2014 due in part to a shift in geographic focus to newly identified areas with higher levels of CMR contamination. It also reported its clearance productivity tripling from 2013 to 2014 due to an increase in the number of deminers and deputy team leaders deployed.20

SAFETY OF CLEARANCE PERSONNEL
No mine action personnel were killed or injured by CMR in 2014.27

ARTICLE 4 COMPLIANCE
Western Sahara is not a state party to the CCM. However, in June 2014, the Saharawi Arab Democratic Republic (SADR) submitted a voluntary CCM Article 7 transparency report to the UN, 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”.28

The SADR has obligations under international human rights law to clear CMR as soon as possible, including in accordance with the 1981 African Charter on Human and Peoples’ Rights.29 In 2015, MINURSO MACC planned to release up to 2km² of CMR-contaminated areas to the east of the Berm and conduct QA assessment visits to BAC operations.30 The MACC did not expect a change in funding levels for 2015.

ENDNOTES
1 Response to Mine Action Monitor questionnaire by Sarah Holland, Programme Officer, UNMAS, 18 May 2015.
2 Ibid. Bir Lahouiti, Tertit, and Mehaires are considered to make up the north, and Mijek and Agwanit the south. Email from Graeme Abersbach, Programme Manager, UNMAS, 6 June 2015.
4 Email from Karl Greenwood, Chief of Operations, AOAV/Mechem Western Saharan Programme, AGS, 18 June 2012.
6 Email from Gordon Nowak, AOAV Western Sahara, 25 July, 2014.
7 Emails from Oskar Engeland, Senior Technical Adviser, MINURSO MACC, 30 March 2012, and from Penelope Casswell, AGS, 18 May 2010, incorporating information from James McBragg, MINURSO MACC.
8 Email from Graeme Abersbach, UNMAS, 6 June 2015.
12 Interview with Ruth Simpson, Programme Manager, AOAV, Geneva, 1 April 2014.
13 Email from Sarah Aros, Coordinator, SMMAC, 21 May 2015.
14 Email from Sarah Holland, UNMAS, 3 June 2015.
17 Five EOD spot tasks were also conducted, destroying 21 items of UXO. Response to Mine Action Monitor questionnaire by Melissa Fuhr, AOAV, 7 May 2015.
23 As of May 2015, NPA had completed recruitment and was training national staff members to be deployed as two MTIs in August 2015, to carry out initial survey around the village of Bir Lehluo. Throughout 2015, NPA was planning to work closely with MINURSO to increase its capacity.31
24 Total CMR-contaminated area released by clearance and technical survey in 2014 was more than 1.75km². This represents an increase of 75% of CMR clearance in 2013.21
25 Ibid. AOAV reported different figures from those contained in the UNMAS database. It reported carrying out a total of 203,142 m² of BAC in 2014, destroying a total of 791 submunitions, three anti-vehicle mines, and 642 items of UXO. Response to Mine Action Monitor questionnaire by Melissa Fuhr, AOAV, 7 May 2015. UNMAS and AOAV were unable to reconcile the figures reported or account for the discrepancies. MTI declined to provide data directly on its clearance operations. Email from Melissa Vlietjes, Project Executive, MTI, 14 May 2015.
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