

September 2011

Compliance with Article 4 of the Convention on Cluster Munitions

Contaminated States Parties and treaty signatories

Twenty-eight states and three disputed areas were believed to have cluster munition remnants on their territory as of 1 September 2011.¹ Eight of these states have ratified the Convention on Cluster Munitions, committing to clear contaminated areas within ten years of becoming a State Party, while another eight have signed, but not yet ratified (see *States Parties and treaty signatories contaminated by cluster munition remnants* Table). Cluster munition remnants are defined in the convention as covering four types of hazard: unexploded submunitions, unexploded bomblets, failed cluster munitions, and abandoned cluster munitions.²

States Parties and treaty signatories with cluster munition contaminated areas

Africa	Asia-Pacific	Europe-CIS	Middle East and North Africa
<i>Angola</i>	<i>Afghanistan</i>	BiH	<i>Iraq</i>
<i>Chad</i>	Lao PDR	Croatia	Lebanon
<i>DRC</i>		Germany	
<i>Republic of the Congo</i>		Montenegro	
<i>Côte d'Ivoire</i>		Norway	
Guinea-Bissau			
<i>Mauritania</i>			

Note: States Parties are marked in bold and treaty signatories are indicated by italics.

Germany and Norway have been added to the list of affected states for the first time after they both identified suspected contamination in 2011 from unexploded submunitions on military training ranges. Côte d'Ivoire has been added after it stated in June 2011 that it was contaminated with abandoned cluster munitions.³

One State Party (Guinea-Bissau) and one treaty signatory (Republic of the Congo) are believed to be contaminated from explosions at ammunition storage areas and not from the use of cluster munition during armed conflict.

¹ Angola, Afghanistan, Azerbaijan, BiH, Cambodia, Chad, Croatia, DRC, Republic of the Congo, Côte d'Ivoire, Georgia (South Ossetia), Germany, Guinea-Bissau, Iraq, Lao PDR, Lebanon, Libya, Mauritania, Montenegro, Norway, Russia, Serbia, South Sudan, Sudan, Syria, Tajikistan, Thailand, and Vietnam. The three "other areas" are Kosovo, Nagorno-Karabakh, and Western Sahara.

² Unexploded submunitions are submunitions that have been dispersed and have landed, but have failed to explode as intended. Unexploded bomblets are similar to unexploded submunitions but refer to "explosive bomblets" which have been dropped from a fixed-wing aircraft dispenser but have failed to explode as intended. Failed cluster munitions are cluster munitions that have been dropped or fired but the dispenser has failed to disperse the submunitions as intended. Abandoned cluster munitions are unused cluster munitions that have been left behind or dumped, and are no longer under the control of the party that left them behind or dumped them. See Convention on Cluster Munitions, Article 2, paragraphs 4, 5, 6, 7, and 15.

³ Statement of Côte d'Ivoire, Convention on Cluster Munitions Intersessional Meetings, Session on Other Implementation Measures, Geneva, 30 June 2011, www.clusterconvention.org. It is not known if contamination also includes unexploded submunitions.

States Parties Albania and Zambia declared the completion of clearance of all cluster munition remnants from their territory in November 2009 and June 2010, respectively. Two States Parties (Malta and Sierra Leone) and one signatory state (Uganda) in which cluster munitions were used in the past are no longer believed to be contaminated. Malta had a small residual threat from cluster munition remnants left from World War II, but in May 2011 it reported having “no cluster munitions contaminated areas under its jurisdiction or control.”⁴

Whether or not States Parties Chile and Grenada and signatory state Mozambique are contaminated with cluster munition remnants is not yet known. The United Kingdom (UK), a State Party, has not declared any cluster munition contaminated areas. Cluster munitions were used in the Falkland Islands/Malvinas in the early 1980s, but in November 2010, the UK stated that “there is only a very small residual risk that may exist from cluster munitions” and that it had “suitable measures in place to mitigate this.”⁵

Extent of contamination in affected States Parties and signatories

States Parties

Eight States Parties are contaminated by cluster munition remnants, particularly Lao PDR and Lebanon (see table below, *Extent of contamination in most heavily affected States Parties and treaty signatories*).

Extent of contamination in most heavily affected States Parties and treaty signatories

State/area	Estimated extent of contamination (km ²)	No. of confirmed and suspected hazardous areas
Lao PDR	No credible estimate, but massive	Not known
<i>Iraq</i>	No credible estimate, but very large	Not known
Lebanon	18.1	758
BiH	12.2	669
Croatia	9.2	Not reported
<i>Mauritania</i>	9.0	2

Bosnia and Herzegovina (BiH) is contaminated with cluster munition remnants, primarily as a result of the 1992–1995 conflict related to the break-up of the Socialist Federal Republic of Yugoslavia.⁶ A general survey completed by Norwegian People’s Aid (NPA) in June 2011 identified 140 areas hit by air strikes and artillery as well as through the use of improvised devices for the delivery of submunitions, resulting in an estimated total of 3,774 unexploded submunitions and additional contamination around a former ammunition storage area at Pretis that was hit by a NATO air strike. The survey resulted in a significantly higher total estimate of contamination of 669 suspected hazardous areas (SHAs) covering more than 12km².⁷

⁴ Malta Convention on Cluster Munitions Article 7 Report, Form G, 9 May 2011.

⁵ Statement by Amb. Stephen Lillie, Head of Delegation, Convention on Cluster Munitions First Meeting of States Parties, Vientiane, 9 November 2010. The UK found and destroyed two submunitions during clearance operations in 2009–2010. See ICBL-CMC, “Country Profile: UK: Mine Action,” www.the-monitor.org.

⁶ NPA, “Implementation of the Convention on Cluster Munitions in Bosnia and Herzegovina,” Sarajevo, undated but 2010, provided by email from Darvin Lisica, Programme Manager, NPA, 3 June 2010.

⁷ NPA, “Cluster Munitions Remnants in Bosnia And Herzegovina: A General Survey of Contamination and Impact,” Draft report, August 2011. Previously, in 2009, NPA had estimated that cluster munitions affected only 1–2km².

Croatia has areas contaminated by cluster munition remnants left over from the conflict in the 1990s. The Croatian Mine Action Centre (CROMAC) informed the Monitor in March 2011 that a general survey conducted in 2010 has identified a total area of 6.9km² that is affected by unexploded submunitions.⁸ A total of 28 towns and municipalities across eight counties are impacted; the overwhelming majority (90%) is located in Zадарска county.⁹ In June 2011, Croatia, however, stated that a larger area of 9.2km² was affected by some 5,000 unexploded submunitions.¹⁰

Germany in June 2011 announced that it had identified areas suspected of containing cluster munition remnants at a former Soviet military training range at Wittstock in Brandenburg.¹¹ The remnants were “principally found within the confines of a target range,” in the south of the training range covering a suspected hazardous area of some 4km².¹² Germany had not declared any confirmed or suspected cluster munition contaminated areas in its initial Article 7 report submitted in January 2011.¹³

Guinea-Bissau is believed to be contaminated as a result of explosions at ammunition storage areas and not from use of cluster munitions during armed conflict.

Lao PDR is the world’s most heavily cluster munition contaminated country. The US dropped more than two million tons (two billion kg) of bombs between 1964 and 1973,¹⁴ including more than 270 million submunitions. There is no reliable estimate of the extent of residual contamination from unexploded submunitions, but close to 70,000 cluster munition strikes have been identified, each with an average strike “footprint” of 125,000m². A rough estimate of cluster contamination is 8,750km².¹⁵ According to the National Regulatory Authority (NRA), 10 of Lao PDR’s 17 provinces are “severely contaminated.” The NRA is planning a district-level survey of cluster munition contamination involving three operators (Handicap International, Mines Advisory Group, and NPA) to try to get a more precise determination of the extent of the problem. The survey will be piloted in three districts before broadening, eventually to cover all 85 UXO-affected districts.

Lebanon’s cluster munition contamination originates primarily from the July–August 2006 conflict with Israel, but parts of the country are affected from cluster munitions used in the 1980s. As of May 2011, 18.1km² of land was suspected to be contaminated by cluster munition remnants, across 758 SHAs.¹⁶ This represents an increase on the previous

⁸ Interview with Miljenko Vahtaric, Assistant Director, and Nataša Matesa Mateković, Head, Planning and Analysis Department, CROMAC, Sisak, 21 March 2011.

⁹ CROMAC, “Plan of humanitarian demining in 2011, Summary,” Sisak, June 2011, p. 1; and interview with Miljenko Vahtaric and Nataša Matesa Mateković, CROMAC, Sisak, 21 March 2011.

¹⁰ Statement of Croatia, Convention on Cluster Munitions Intersessional Meetings, Session on Clearance and Risk Reduction, Geneva, 28 June 2011.

¹¹ Statement of Germany, Mine Ban Treaty Standing Committee on Mine Action, Mine Risk Education and Mine Action Technologies, Geneva, 21 June 2011.

¹² Statement of Germany, Convention on Cluster Munitions Intersessional Meetings, Session on Clearance and Risk Reduction, Geneva, 28 June 2011.

¹³ Germany Convention on Cluster Munitions Article 7 Report, Form F, 27 January 2011.

¹⁴ “US bombing records in Laos, 1964–73, Congressional Record,” 14 May 1975.

¹⁵ Telephone interview with Phil Bean, Technical Advisor, Operations/Quality Assurance, NRA, 24 July 2011.

¹⁶ The fluctuating figures are said to be the result of re-surveying the contaminated areas, completion reports, and especially the transmission of strike data by Israel in May 2009. Presentation by Maj. Pierre Bou Maroun, Regional Mine Action Center, Nabatiye, 13 May 2011.

estimate of 16km² at the end of 2008 as data received from Israel in 2009 showed 282 previously unknown strike locations.¹⁷

Montenegro did not declare any contaminated areas in its initial Article 7 report, but in July 2011, the director of the Regional Centre for Divers' Training and Underwater Demining (RCUD) confirmed the presence of unexploded BLU-97 submunitions, mainly at Golubovci airfield near the capital Podgorica.¹⁸ The contamination, which is estimated to cover 250,000m²,¹⁹ is said to affect four villages around the airport.²⁰

Norway reported in January 2011 that the Hjerkins firing range is contaminated by an estimated 30 unexploded DM 1383/DM 1385 submunitions.²¹ In June 2011, it stated that the affected area was 0.84km².²²

Treaty signatories

Eight signatories are also believed to be contaminated: Afghanistan, Angola, Chad, the Democratic Republic of the Congo (DRC), the Republic of the Congo, Côte d'Ivoire, Iraq, and Mauritania.

Afghanistan has a residual threat from cluster munition remnants primarily from use of air-dropped and rocket-delivered submunitions by Soviet forces. In addition, US aircraft dropped 1,228 cluster munitions containing some 248,056 submunitions between October 2001 and early 2002.²³ Demining operators continue to encounter both US and Soviet cluster munition remnants.²⁴ In June 2011, the Mine Action Coordination Center of Afghanistan (MACCA) identified 24 areas contaminated by cluster munition remnants, of which three were planned to be cleared in 2011 and 11 others in 2012.²⁵

Angola's exact contamination by cluster munition remnants is unclear. As of March 2011, only HALO Trust had reported finding unexploded submunitions since February 2008.²⁶ HALO and the National Institute for Demining (INAD) state that unexploded submunitions remain in Kuando Kubango province.²⁷ In April 2011, NPA reported that the

¹⁷ "Eleventh report of the Secretary-General on the implementation of Security Council resolution 1701 (2006)," (New York: UN Security Council, 2 November 2009), UN doc. S/2009/566, p. 11.

¹⁸ Telephone interviews with Veselin Mijajlovic, Director, RCUD, 19 and 25 July 2011.

¹⁹ "Field of Golubovac, Reconnaissance, Survey, and Removal of Cluster Bombs, Estimated Expenses," Podgorica, 21 February 2009, received by email from Veselin Mijajlovic, RCUD, 26 March 2009.

²⁰ Interview with Borislav Miskovic, Head of EOD Team, Montenegro Police Force, Podgorica, 16 March 2008.

²¹ Norway Convention on Cluster Munitions Article 7 Report, Form F, 27 January 2011.

²² Statement of Norway, Convention on Cluster Munitions Intersessional Meetings, Session on Clearance and Risk Reduction, Geneva, 28 June 2011. Notes by the CMC.

²³ Human Rights Watch and Landmine Action, *Banning Cluster Munitions: Government Policy and Practice* (Ottawa: Mines Action Canada, May 2009), p. 27.

²⁴ Interviews with demining operators, Kabul, 12–18 June 2010. In 2009, HALO Trust cleared 2,607 unexploded submunitions. Email from Ollie Pile, Weapons and Ammunition Disposal Officer, HALO, 30 June 2009; and email from Tom Dibb, Desk Officer, HALO, 3 June 2010.

²⁵ The remaining areas are located in insecure areas such as Registan in Kandahar and Zurmat in Paktia, which will be cleared when security conditions allow. MACCA, "Fact sheet on Cluster munitions in Afghanistan," June 2011, www.macca.org.af.

²⁶ Email from Ken O'Connell, Country Director, Stiftung Menschen gegen Minen (MgM), 5 June 2010; email from J. P. Botha, Technical Operations Manager, MAG, 21 February 2011; email from Fatmire Uka, Operations Manager, DanChurchAid, 7 March 2011; email from Aubrey Sutherland, Programme Manager, Mine Action, NPA, 1 March 2011; and email from Helen Tirebuck, Programme Manager, HALO, 15 March 2011.

²⁷ Interviews with Jose Antonio, Site Manager, Kuando Kubango, HALO, Menongue, 24 June 2011; and with Coxe Sucama, Director, INAD, Menongue, 24 June 2011.

impact of cluster munition remnants was “very low” in Malanje, Kwanza Sul, Kwanza Norte, Uige, and Zaire provinces.²⁸

Chad is contaminated by cluster munition remnants, but the precise extent remains to be determined. In December 2008, Chad described it had “vast swathes of territory” contaminated with “mines and UXO (munitions and submunitions).”²⁹ During its recent survey, Mines Advisory Group (MAG) found unexploded Soviet antitank PTAB-1.5 submunitions in an area close to Faya Largeau.³⁰

The explosive threat in the **Republic of the Congo** has included cluster munition remnants,³¹ although the extent of any residual contamination is not known.³² In July 2010, the Ministry of National Defense reported that some of its stockpiles of Russian cluster munitions exploded during the 1997–1998 civil conflict. At an ammunition storage area at Maya-Maya a member of the armed forces was killed in 2009 after he detonated a submunition.³³

Côte d’Ivoire is contaminated with explosive remnants of war (ERW), including cluster munition remnants.³⁴ In June 2011, Côte d’Ivoire stated that a “small quantity” of abandoned cluster munitions had been found in ammunition storage areas at Yamoussoukro and San Pedro under the control of the UN Operation in Côte d’Ivoire (UNOCI).³⁵

In the **DRC**, cluster munition remnants have been found in the provinces of Equateur, Katanga, Maniema, and Orientale, while North Kivu province is also suspected to be contaminated.³⁶ In April 2011, the UN Mine Action Coordination Center, DR Congo (UNMACC) reported 18 sites in which submunitions had been found, most in Katanga province.³⁷ The scale of residual contamination from unexploded submunitions has not yet been quantified.

Iraq’s precise contamination from cluster munition remnants is unknown, but believed to be significant. During the 1991 Gulf War, the highway between Kuwait and Basra was heavily targeted by cluster bomb strikes.³⁸ In northern Iraq (Iraqi Kurdistan), MAG has found cluster munition remnants from when Coalition forces launched cluster strikes around Dohuk in 1991.³⁹ Cluster munitions were 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 2,200 sites of cluster munition

²⁸ Response to Monitor questionnaire by Aubrey Sutherland, NPA, 1 March 2011.

²⁹ Statement of Chad, Convention on Cluster Munitions Signing Conference, Oslo, 3 December 2008.

³⁰ Email from Liebeschitz Rodolphe, Chief Technical Advisor, UNDP, 21 February 2011; and email from Bruno Bouchardy, Program Manager, MAG, 11 March 2011.

³¹ MAG, “Where we work: MAG ROC in depth,” November 2009, www.maginternational.org.

³² Email from Frédéric Martin, Programme Manager, MAG, 1 February 2010.

³³ Email from Lt.-Col. André Pamphile Serge Oyobe, Head of Information Division, Ministry of National Defense, 13 July 2010.

³⁴ Statement of Côte d’Ivoire, Convention on Cluster Munitions Intersessional Meetings, Session on Other Implementation Measures, Geneva, 30 June 2011. www.clusterconvention.org.

³⁵ Statement of Côte d’Ivoire, Convention on Cluster Munitions Intersessional Meetings, Session on Other Implementation Measures, Geneva, 30 June 2011.

³⁶ Email from Charles Frisby, Chief of Staff, UNMACC, 30 March 2011.

³⁷ Email from Charles Frisby, UNMACC, 21 April 2011.

³⁸ UNICEF/UNDP, “Overview of Landmines and Explosive Remnants of War in Iraq,” June 2009, p. 10.

³⁹ Zana Kaka, “IRAQ: Saving lives of returnees in Dohuk,” MAG, 28 May 2010, www.maginternational.org.

contamination along the Tigris and Euphrates river valleys.⁴⁰ Cluster munition remnants 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.⁴¹ In 2010, a MAG survey of Dibis, northwest of Kirkuk, identified 20 previously unknown cluster strikes with contamination from unexploded BLU-97 and BLU-63 submunitions.⁴²

Mauritania has two areas that are known to contain cluster munition remnants. Both are located approximately 34km north of the village of Bir Mogrein.⁴³ Unexploded submunitions to be destroyed in this area are the Mk-118 and BLU-63. The first contaminated area covers approximately 6km², although further survey is likely to reduce the size of the area.⁴⁴ No human casualties have been recorded in the area to date, but a camel reportedly lost a foot to an unexploded submunition in March 2010.⁴⁵ The second area, which is located nearby, covers some 3km².⁴⁶ It is not yet marked.⁴⁷

Clearance of cluster munition remnants

Clearance obligations

Under the Convention on Cluster Munitions, each State Party is obliged to clear and destroy all unexploded submunitions located in areas under its jurisdiction or control as soon as possible, but not later than 10 years after entry into force. If unable to complete clearance in time, a state may request an extension of the deadline for periods of up to five years. Clearance deadlines for States Parties contaminated by unexploded submunitions are shown below.

Article 4 clearance deadlines for States Parties

State Party	Clearance deadline
BiH	1 March 2021
Croatia	1 August 2020
Germany	1 August 2020
Guinea-Bissau	1 May 2021
Lao PDR	1 August 2020
Lebanon	1 May 2021
Montenegro	1 August 2020
Norway	1 August 2020

In seeking to fulfill their clearance and destruction obligations, affected States Parties are required to:

- survey, assess, and record the threat, making every effort to identify all contaminated areas under their jurisdiction or control;
- assess and prioritize needs for marking, protection of civilians, clearance, and destruction;

⁴⁰ Landmine Action, “Explosive remnants of war and mines other than anti-personnel mines,” London, March 2005, p. 86.

⁴¹ Telephone interview with Kent Paulusson, Senior Mine Action Advisor for Iraq, UNDP, 28 July 2011.

⁴² Cuts in funding resulted in MAG standing down these two teams in May 2011. Response to Monitor questionnaire by Mark Thompson, Country Programme Manager, MAG, 23 July 2011.

⁴³ Observations during Monitor field mission, Bir Mogrein, 26 April 2010.

⁴⁴ Ibid.

⁴⁵ Discussions with local risk education focal points, Bir Mogrein, 26 April 2010.

⁴⁶ Email from Alioune O. Mohamed El Hacem, Director, National Humanitarian Demining Program for Development, 20 April 2011.

⁴⁷ Ibid, 2 May 2011.

- take “all feasible steps” to perimeter-mark, monitor, and fence affected areas;
- conduct risk reduction education to ensure awareness among civilians living in or around cluster munition contaminated areas;
- take steps to mobilize the necessary resources (at the national and international levels); and
- develop a national plan, building upon existing structures, experiences, and methodologies.

Reporting by states and operators on clearance of cluster munition remnants is incomplete and of varying quality, despite the obligations set out in Convention on Cluster Munitions. Based on available reporting and information gathered directly from programs, the Monitor has calculated that in 2010, at least 46,915 unexploded submunitions were destroyed during clearance operations of some 15.59km² of cluster munition contaminated area⁴⁸ across six States Parties and five signatories.⁴⁹ (See *Clearance of cluster munition remnants* table for details.)

Clearance of cluster munition remnants by States Parties and treaty signatories in 2010

State or other area	Area cleared (km2)	No. of submunitions destroyed
<i>Afghanistan</i>	1.01	4,605
<i>Angola</i>	0.50	93
BiH	0.09	70
Croatia	0.07	10
<i>DRC</i>	Not reported	8
Lao PDR	Not reported	35,448
<i>Iraq</i>	10.40	3,028
Lebanon	3.14	3,641
Montenegro	Not reported	2
Zambia	0.38	8
<i>Tajikistan</i>	Not reported	2
Totals	15.59	46,915

Note: States Parties and signatories are indicated by bold and italics, respectively.

Clearance by contaminated States Parties

In **BiH** in 2010, NPA completed three cluster munition clearance tasks, clearing an area of 88,126m² during which two KB-1 submunitions were found and destroyed.⁵⁰ It also cancelled an area of 151,879m² of previously suspect land through non-technical survey.⁵¹ In addition, civil protection explosive ordnance disposal (EOD) teams found and destroyed 68 KB-1 submunitions in 2010.⁵²

⁴⁸ This is certainly a very significant underestimate. Where cluster munition remnants are cleared in the course of general battle area clearance, but clearance of cluster munition contaminated area is not disaggregated, the area cleared is not included in this figure. This is the case for Cambodia, Lao PDR, and Vietnam, which together saw the destruction of more than 40,000 unexploded submunitions in 2010.

⁴⁹ Afghanistan, Angola, BiH, Cambodia, Croatia, DRC, Guinea-Bissau, Iraq, Lao PDR, Lebanon, Montenegro, Mozambique, Palau, Serbia, Tajikistan, United Kingdom, Vietnam, and Zambia. The three other areas were Kosovo, Nagorno-Karabakh, and Western Sahara.

⁵⁰ Telephone interview with Milan Rezo, Deputy Director, BHMAL, 1 August 2011; and email from Zeljko Djogo, Planning Sector, BHMAL, 1 August 2011.

⁵¹ Ibid.

⁵² Ibid.

Croatia reported one cluster munition clearance task in 2010 in which an area of 68,202m² in Bjelovar-Bilogora county was cleared and seven unexploded MK-1 submunitions were found and destroyed.⁵³ A further seven submunitions were destroyed during battle area clearance and EOD tasks.⁵⁴

Germany has not yet reported the clearance of any cluster munition remnants.

In **Guinea-Bissau**, Cleared Ground Demining (CGD) reported destroying six unexploded PTAB 2.5M submunitions during subsurface clearance at the Paiol da Bra ammunition storage area.⁵⁵

Lao PDR operators cleared 35km² of land in 2010, destroying 36,888 items of UXO in the process, including 21,031 unexploded submunitions (called “bombies” locally).⁵⁶ Roving spot clearance by six operators destroyed another 33,630 items of UXO, including 14,417 unexploded submunitions. The area cleared in 2010 was 5% less than the previous year and more than one-third less than clearance reported in 2008, reflecting the sharp decline in commercial company operations as a result of the global financial crisis. In 2011, commercial operators reported some recovery in activity. Lao PDR’s initial Convention on Cluster Munitions Article 7 report records clearance of a total of 227km² in the period from 1996 to November 2010. In November 2010, NPA released a report on how Lao PDR could meet the convention’s obligations that noted the work “can be done efficiently and it will not take hundreds of years.”⁵⁷

In **Lebanon**, a total of 3.14km² of contaminated land was cleared in 2010, resulting in the destruction of 3,641 unexploded submunitions. This compares to 3.92km² of clearance in 2009, including the destruction of 4,784 unexploded submunitions.⁵⁸ All clearance of cluster munition remnants is now subsurface as well as surface.⁵⁹ Lebanon Mine Action Center (LMAC) director Brigadier-General Mohamed Fehmi informed the Monitor in May 2011 that it is possible Lebanon could be cleared of the “impact” of all cluster munition remnants by the end of 2015.⁶⁰

Montenegro did not report any clearance of cluster munition contaminated area in 2010,⁶¹ but two unexploded submunitions were destroyed during EOD response.⁶² In June 2011, RCUD said a planned technical survey of SHAs had not attracted donor support.⁶³

⁵³ Interview with Miljenko Vahtaric and Nataša Matesa Mateković, CROMAC, Sisak, 21 March 2011.

⁵⁴ Email from Miljenko Vahtaric, CROMAC, 30 March 2011.

⁵⁵ Email from Cassandra McKeown, Finance Director, CGD, 28 April 2011.

⁵⁶ NRA, “1 January 2010 to 31 December 2010 UXO operations in Lao PDR,” received by email from Bounpheng Sisawath, Programme and Public Relations Officer, NRA, 25 May 2011.

⁵⁷ NPA, “Fulfilling the Clearance Obligations of the Convention on Cluster Munitions in Lao PDR: The NPA Perspective,” undated but November 2010, p. 4.

⁵⁸ Presentation by Maj. Pierre Bou Maroun, Regional Mine Action Center (RMAC), Nabatiye, 13 May 2011.

⁵⁹ Ibid.; and presentations by Tamer Said, Field Operations Officer, DanChurchAid (DCA), Tyre, 14 May 2011; Houmine Al Fawka, Site Manager, Swiss Foundation for Mine Action (FSD), and Mustafa Salih, Site Manager, Marjeyoun, MAG, 16 May 2011, and by John Hare, Operations Officer, Handicap International (HI), Toula, 18 May 2011.

⁶⁰ Interview with Brig. Gen. Mohammed Fehmi, LMAC, Beirut, 12 May 2011.

⁶¹ Telephone interview with Veselin Mijajlovic, RCUD, 17 June 2011.

⁶² Email from Nemanja Djurovic, Information Department, Ministry of Internal Affairs, 22 June 2011; and telephone interview with Zoran Begovic, Assistant to the Minister, Ministry of Interior Affairs and Public Administration, 21 June 2011.

⁶³ Telephone interviews with Veselin Mijajlovic, RCUD, 17 June and 19 July 2011.

Norway reported in January 2011 that clearance of the Hjerkinn firing range was ongoing.⁶⁴ In June 2011, it stated that the clearance would be completed by 2013.⁶⁵

Land release methodologies

During the first intersessional meetings of the convention in June 2011, the CMC published *Guiding Principles for Land Release of Cluster Munition-Affected Areas*. According to the paper, a baseline assessment of the problem should be the first priority for affected States Parties, which are obliged to “make every effort” to identify cluster munition affected areas under their jurisdiction or control. A key lesson learned regarding implementation of the Mine Ban Treaty is the need for sufficient resources to properly identify affected areas before clearance begins.

The CMC paper recommends that a desk assessment of available information first be conducted to establish an initial understanding of the contamination problem. Then non-technical survey⁶⁶ should be used to better identify the “strike footprint” by gathering information in the field through interviews with the local population, military personnel, and other relevant stakeholders. Information garnered from the desk assessment (on weapon delivery systems, ground conditions, battlefield data, etc.) is compared with evidence collected in the field and duplicate or otherwise invalid initially suspected area records can also be cancelled at this point. Technical survey⁶⁷ more accurately determines the “strike footprint” which is identified by verification of the exact location of the footprint including boundaries of the cluster strike.

In addition, the CMC paper notes that clearance of cluster munition remnants is not mine clearance and should not be regarded as such. The CMC has suggested that states use the basic principles laid out in IMAS 09.11 (Battle Area Clearance) to ensure that clearance is done cost-effectively and without excessive layers of measures that limit efficiency without adding safety. When seeking to release land, however, care must be taken to ensure that certain basic principles are followed. In particular, all areas confirmed to be contaminated with cluster munition remnants must be completely cleared, as required by the convention. In addition, the process of releasing land through non-technical survey and technical survey must be accountable and follow applicable standards and country-specific standing operating procedures.

⁶⁴ Norway Convention on Cluster Munitions Article 7 Report, Form F, 29 April 2011.

⁶⁵ Statement of Norway, Convention on Cluster Munitions Intersessional Meetings, Session on Clearance and Risk Reduction, Geneva, 28 June 2011. Notes by the CMC.

⁶⁶ Non-technical survey is defined by the relevant international mine action standards (IMAS) as survey that involves “collecting and analysing new and/or existing information about a hazardous area. Its purpose is to confirm whether there is evidence of a hazard or not, to identify the type and extent of hazards within any hazardous area and to define, as far as is possible, the perimeter of the actual hazardous areas without physical intervention. A non-technical survey does not normally involve the use of clearance or verification assets. Exceptions occur when assets are used for the sole purpose of providing access for non-technical survey teams. The results from a non-technical survey can replace any previous data relating to the survey of an area.” UN Mine Action Service, “IMAS 08.21: Non-Technical Survey,” First Edition, New York, June 2009, pp. 1–2, www.mineactionstandards.org.

⁶⁷ IMAS defines technical survey as “a detailed intervention with clearance or verification assets into a CHA [confirmed hazardous area], or part of a CHA. It should confirm the presence of mines/ERW leading to the definition of one or more DHA [defined hazardous area] and may indicate the absence of mines/ERW which could allow land to be released when combined with other evidence.” UNMAS, “IMAS 08.20: Land release,” First Edition, New York, June 2009, p. 2, www.mineactionstandards.org.