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Convention on Cluster Munitions

CCM

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THIRD EDITION

A GUIDE TO CLUSTER MUNITIONS



GENEVA INTERNATIONAL CENTRE FOR HUMANITARIAN DEMINING (GICHD)

The GICHD is an expert organisation working to reduce the impact of mines, cluster munitions and other explosive hazards, in close partnership with mine action organisations and other human security organisations. We support the ultimate goal of mine action: saving lives, returning land to productive use and promoting development. Based at the Maison de la paix in Geneva, the GICHD employs around 55 staff members from over 15 different countries. This makes the GICHD a unique and international centre of mine action expertise and knowledge. Our work is made possible by core contributions, project funding and in-kind support from more than 20 governments and organisations.

IMPLEMENTATION SUPPORT UNIT, CONVENTION ON CLUSTER MUNITIONS (ISU CCM)

The mandate of the ISU CCM is to support the States Parties to the Convention on Cluster Munitions on the implementation of the Convention through the CCM's implementation machinery, office holders and thematic working groups; to provide advice and technical support to individual States Parties through the development of a resource base of relevant expertise and practices on the implementation of the Convention; to keep record of formal and informal meetings under the CCM and other relevant knowledge products, expertise and information pertaining to the implementation of the CCM; to facilitate communication amongst States Parties and other relevant actors; and serve as an interface between the States Parties and the international community on issues related to the implementation of the CCM.

Acknowledgements

Our sincere thanks go to the contributors of this publication: Colin King, Fenix Insight Ltd; Elke Hottentot and Bérengère Lenoir, Handicap International; Mark Thompson, Vicki Peale and Katrien Nollen, MAG; Arianna Calza Bini, Gender & Mine Action Programme; Aneez Pasha-Stamm; Samuel Paunila, Roland Evans, John Rawson and Olivier Cottray, GICHD.

A GUIDE TO CLUSTER MUNITIONS

THIRD EDITION

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LIST OF ABBREVIATIONS

AXO

abandoned explosive ordnance

APMBC

Anti-Personnel Mine Ban Convention

BAC

battle area clearance

CBU

cluster bomb unit

CCP

circular error probable

CCW

Convention on Certain Conventional Weapons (1980)

CEM

combined effects munition

CHA

confirmed hazardous area

CL

community liaison

CLO

community liaison officer

CM

cluster munitions

CMC

Cluster Munition Coalition

CMD

conventional munitions disposal

CMRS

cluster munition remnants survey

CRPD

Convention on the Rights of Persons with Disabilities

DAP

Dubrovnik Action Plan

DPICM

dual-purpose improved conventional munitions

EBS

evidence-based survey

ECP

elliptical error probable

EOD

explosive ordnance disposal

ERW

explosive remnants of war

EU

European Union

GBV

gender-based violence

GICHD

Geneva International Centre for Humanitarian Demining

GIS

geographic information system

GPS

global positioning system

HEAT

high explosive anti-tank

ICRC

International Committee of the Red Cross

IM

information management

IMAS

international mine action standards

IMSMA

information management system for mine action

INGO

international non-governmental organisation

JSOW

joint standoff weapon

KAP

knowledge, attitude and practice

LAO PDR

Lao People's Democratic Republic

MBRL

Multi barrel rocket launcher

MRE

mine risk education



NCDR

National Committee for
Demining and Rehabilitation

NGO

non-governmental organisation

NMAA

national mine action authority

NMAC

national mine action centre

NMAS

national mine action standards

NTS

non-technical survey

NPA

Norwegian People's Aid

OD

open detonation

QM

quality management

RE

risk education

RR

risk reduction

RRE

risk reduction education

RSP

render safe procedure

SD

self-destruct

SFW

sensor-fuzed weapon

SHA

suspected hazard area

STS

selectively targeted skeet

SOP

standard operating procedures

SP

States Parties

TS

technical survey

UAV

unmanned aerial vehicle

UK

United Kingdom

UN

United Nations

UNIDIR

UN Institute for Disarmament
Research

UNMAS

UN Mine Action Service

USA

United States of America

UXO

unexploded ordnance

WAD

weapon and ammunition
destruction

WCMD

wind corrected munitions
dispenser

FOREWORD

The Convention on Cluster Munitions (CCM) entered into force in 2010. Since then, tremendous progress has been made by both States Parties and other affected States toward ridding the world of these indiscriminate weapons and in universalising the Convention. It prohibits all use, production, transfer and stockpiling of cluster munitions. There is a framework established within the Convention to ensure adequate risk education as well as care and rehabilitation to survivors and their communities. It also addresses questions of the clearance of contaminated areas and the destruction of stockpiles.

By mid-April 2016, 119 States had joined the Convention: 100 as States Parties and 19 as Signatories. During this period, since the CCM entered into force, much expertise has been acquired by States Parties and partner organisations. This expertise addresses challenges in treaty compliance and best practices that have been developed within the sector to support effective and efficient implementation of the Convention. This new edition of *A Guide to Cluster Munitions* features updated information on the Convention's key obligations such as stockpile destruction and cluster munitions clearance. It features comprehensive descriptions and illustrations of the types of cluster munitions in contaminated areas. It also explores good practices in risk education and victim assistance, as well as other critical elements such as information management systems. The guide is completed by a close look at the legal framework of the Convention, providing clear guidance for the ratification of the Treaty.

In particular, the third edition will be useful for new States Parties, or States considering accession to the Convention, who may be seeking further information, including specific responsibilities of State Parties. For those requiring more in depth information or technical data, this edition also provides several valuable links to resource websites.

I would like to thank the Government of Italy for their financial contribution to this important publication and the GICHD for supporting the Implementation Support Unit in producing this third edition.



Sheila N. Mweemba

Director

Implementation Support Unit of the Convention on Cluster Munitions

2015 marked a major milestone in our common efforts to put an end to the suffering caused by cluster munitions. The Convention's First Review Conference took place in Dubrovnik, Croatia. As the sole international instrument on cluster munitions, the Convention has succeeded, in a relatively short time, in strengthening the argument against the use of these weapons and contributed towards their global stigmatisation.

However, challenges remain in ensuring that the Convention is effective in saving lives and improving livelihoods. Respecting the Convention's deadlines must remain a priority, including with regard to challenges posed by conflicts and new conflict forms. The GICHD maintains its support to affected countries as part of a long-term contribution to ensuring human security and enabling development. The Centre assists States in meeting their deadlines for completion of their obligations.

GICHD's collaboration with the Convention developed significantly in 2015. As per the hosting agreement for the Convention's Implementation Support Unit (ISU CCM), agreed upon between the States Parties and the GICHD, the Centre now provides infrastructure and administrative support for ISU operations. As an observer delegation at Meetings of the States Parties, the GICHD also actively participates in the work of the Convention.

In light of this, the GICHD and the ISU CCM are releasing this updated third edition of the *Guide to Cluster Munitions*. The first and second editions were published by the Centre in 2007 and 2009 respectively.

I would like to thank the ISU CCM for the fruitful collaboration in producing this new edition. The GICHD looks forward to continuing cooperation with the ISU CCM, as well as with affected States, the UN and civil society, towards achieving the noble and joint goals enshrined in the Convention.



Ambassador Stefano Toscano

Director

Geneva International Centre for Humanitarian Demining



INTRODUCTION

GENERAL CHARACTERISTICS OF CLUSTER MUNITIONS

Cluster munitions, as covered by this publication, are conventional munitions, each of which is designed to disperse or release multiple submunitions (in some cases called ‘bomblets’) over an area that may extend to several hundred square metres.¹ The general definition of this explosive weapon describes both the container (also called a dispenser or ‘parent munition’) and the submunitions it holds.

Cluster munitions (CM) can be fired from the ground, or air-delivered. Ground-based cluster munitions include mortar bombs, artillery projectiles and rockets, while air-delivered ordnance includes bombs, rockets and missiles. More detailed descriptions of cluster munitions are given in Chapter 2.

For the purposes of this document, a submunition is an individual item of explosive ordnance contained within the dispenser or ‘parent munition’. It is ejected, expelled, or dispersed at some point after the cluster munition is fired, launched, or dropped. Submunitions can also be deployed from dispensers fixed to an aircraft. Each submunition incorporates a high explosive charge, with many combining a fragmentation effect and a shaped charge; these are known as ‘dual-purpose’ submunitions. Fragmentation is intended to inflict injury on personnel and damage to material,² while the shaped charge is designed to penetrate armour and other hard surfaces.

Definitions

The Cluster Munitions Ban process, also known as the Oslo Process, began in 2007. It carefully described definitions of a cluster munition and an explosive submunition. These definitions (and others) are set out in Article 2 of the 2008 Convention on Cluster Munitions (CCM), as follows:

‘Cluster munition’ means a conventional munition that is designed to disperse or release explosive submunitions each weighing less than 20 kilograms, and which includes those explosive submunitions.

It does not mean the following:

- (a) a munition or submunition designed to dispense flares, smoke, pyrotechnics or chaff; or a munition designed exclusively for an air defence role;
- (b) a munition or submunition designed to produce electrical or electronic effects;

- (c) a munition that, in order to avoid indiscriminate area effects and the risks posed by unexploded submunitions, has all of the following characteristics:
- (i) each munition contains fewer than ten explosive submunitions;
 - (ii) each explosive submunition weighs more than four kilograms;
 - (iii) each explosive submunition is designed to detect and engage a single target object;
 - (iv) each explosive submunition is equipped with an electronic self-destruction mechanism; and
 - (v) each explosive submunition is equipped with an electronic self-deactivating feature.

‘Explosive submunition’ means a conventional munition that, in order to perform its task, is dispersed or released by a cluster munition and is designed to function by detonating an explosive charge prior to, on or after impact.

Military utility of cluster munitions

Use of cluster munitions stemmed from a military requirement to launch remote strikes at areas, where – due to their size or ill-defined individual targets – a large number of conventional ‘unitary’³ warheads would otherwise be needed.

Area coverage of cluster weapons meant that accuracy of the delivery system was less critical, while – in the conflict zones where they were used – the potential for collateral damage was considered of little consequence. Delivery of large numbers of submunitions also off-set the problem of munitions that failed to function, once again with little thought as to the long-term implications.

Initially, the relatively small submunition warheads were only effective against ‘soft’ targets (such as people, light vehicles and stores), while ‘hard’ targets (including buildings, fortifications and armoured vehicles) would still require heavy unitary weapons such as bombs and artillery projectiles. This began to change and shaped charges were incorporated. These allow a small warhead to penetrate several centimetres of armour.

As the efficiency of warheads increased they could be made smaller, allowing more submunitions to be packed into the parent munition; the weapon could then cover an ever wider area. Once again, potential for collateral damage increased while the need for reliability became even less important.

Multi-purpose warheads meant that different 'target sets' (such as infantry formations, vehicle convoys or storage areas) could be attacked using a single type of ammunition. This had the potential to substantially reduce the logistic burden – particularly for forces operating a long way from their base. This versatility also meant that an aircraft could be equipped to engage 'opportunity targets', which otherwise might be unsuited to its weapons load.

All of these factors combined to offer military forces greater efficiency and versatility at a reduced cost. It is therefore hardly surprising that, from initial use up until the end of the 20th century, the adoption of cluster munitions increased more or less continuously.

The growing popularity of cluster munitions among the military was accompanied by a corresponding increase in design and production by developed countries. They further spread the weapons among favoured developing nations. By the time the CCM came into force, 34⁴ countries had manufactured cluster munitions and around 40⁵ countries or regions had been contaminated.

Why do cluster munitions cause 'unacceptable harm'?

Clearly, all forms of explosive weaponry are capable of inflicting death, injury and damage. The group of nations which shaped the Oslo Process to ban cluster munitions adopted the phrase 'unacceptable harm' to describe their effects. Their meaning was that these munitions routinely inflicted suffering significantly over and above that expected from other types of ordnance.

Cluster munition characteristics mean that they pose a particular threat to the civilian population both during and after use, with victims often including a high proportion of children. Even the military have noted that CM endanger their own troops, which is one of the reasons for the incorporation of safeguards within newer designs. Further details are given in Chapter 2.

The main reasons why cluster munitions cause 'unacceptable harm' are as follows:

- their wide-area effect means an increased likelihood of civilian victims or collateral damage to civilian objects from the explosion of the submunitions dispersed by each CM during an attack. This problem is worsened by the typically high number of submunitions delivered in a single attack
- the failure rate of many submunitions means that a single attack may leave hundreds – and in some cases thousands – of small unexploded, but lethal devices (sometimes called 'blinds' or 'duds')

- compared with other types of ordnance, the high number of unexploded submunitions contaminating an area greatly increases the probability of an accidental encounter
- unlike minefields, which are usually fenced and marked, there may be little or no indication that an area is contaminated with submunitions
- submunitions are small and light compared with many other types of ordnance. Their reduced impact energy therefore requires a sensitive fuzing system, which means that even minimal disturbance may be enough to cause them to explode.
- unlike most types of ordnance, submunitions are often small and light enough to be picked up by children, who may not recognise them as dangerous munitions.

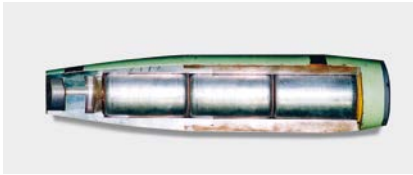


1 Unexploded submunitions in Lebanon. There is often little or no warning to civilians that they are entering a contaminated area

In addition to causing death and injury, the presence of unexploded submunitions endangers and discourages the return of the displaced, and impedes livelihood activities, such as agriculture or grazing.

Permitted munitions

There are many types of parent munition which dispense payloads that are not considered to be particularly harmful and which, therefore, were not banned under the CCM. As the definition states, these include larger explosive munitions (over 20 kg) and non-explosive items such as flares, smoke and chaff. These are often dispensed by projectiles or bombs that are similar in design and appearance to banned cluster munitions, making correct identification critical to military authorities and clearance agencies.



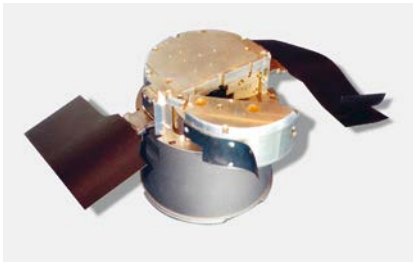
2 This carrier projectile contains a payload of smoke-producing canisters, and is not classified as a cluster munition



3 This Russian 'AGITAB' is based on a cluster bomb, but contains a payload of paper leaflets

Although landmines can be dispensed by parent munitions, they are excluded from the definition of a cluster munition. Anti-personnel mines are prohibited under the Anti-Personnel Mine Ban Convention, while anti-vehicle mines are covered by Amended Protocol II to the Convention on Certain Conventional Weapons.

The CCM does permit some explosive submunitions which meet the demanding, cumulative requirements set out in the definition. At present, very few types meet these criteria; examples are shown in **Figures 4**.



4 The BONUS and SMARt 155 submunitions are permitted under the terms of the CCM

USE AND IMPACT OF CLUSTER MUNITIONS IN ARMED CONFLICT

History of the use of cluster munition⁶

First use – UK

The first significant use of cluster weapons was during the Second World War, when German planes dropped SD-2 ‘Butterfly Bombs’ on the British port of Grimsby. Although only 1,000 or so submunitions were dropped, there was chaos in the town for weeks and the subsequent clearance task took around 10,000 man-hours. Almost as many people were killed after the raid as during it, as they attempted to collect or move unexploded submunitions.

Vietnam

The next major use of submunitions was during the Vietnam War, where both mines and impact-fuzed submunitions were dropped by the millions by the USA. It was also in Vietnam that the first dual-purpose submunitions (the MK118 ‘Rockeye’) were used.

Lao PDR

The worst affected country is the Lao People’s Democratic Republic (Lao PDR), where it is estimated that more than 260 million submunitions were dropped during the Indo-China War. The National UXO Programme assumes a 30% failure rate for US submunitions (locally called ‘bombies’), resulting in an estimate of 78 million unexploded submunitions.⁷ As in World War II, most of these ‘bombies’ were air-delivered in cluster munitions, had mechanical impact fuzes and used a fragmentation effect. Many of those used in Lao PDR were ‘spin-armed’ and contained an ‘all-ways acting’ fuze designed to operate at any impact angle. This type of fuze is particularly dangerous if it fails to function as intended. Some 40 years after they were dropped in Lao PDR, these submunitions are still causing casualties on a regular basis.

Falkland Islands/Las Malvinas

In 1982, the United Kingdom used BL755 cluster munitions during the Falklands conflict against Argentine positions. It is reported by Landmine Action that the only civilian casualties of the conflict were caused by these cluster munitions.

First Gulf War

Extensive deployment of both air and ground-delivered cluster munitions occurred during the First Gulf War of 1991. Iraqi units were both devastated and demoralised by the continual submunition strikes that occurred throughout the ‘air war’ phase of the campaign. The fact that the ground war lasted only four days and met little resistance was largely attributed to the effect of cluster munitions.

Since the Iraqi forces were mainly in open desert, there was little impact on civilians, although there were many post-conflict casualties among allied troops and explosive ordnance clearance workers.

The First Gulf War also highlighted the excessive failure rate of these munitions. More than 95,000 unexploded submunitions were recorded during the clearance of the US sector of Kuwait, which probably represented around one quarter of the unexploded ordnance throughout the whole country. Despite evidence of high failure rates and the risk of a significant post-conflict hazard, the same weapons types were used again in Kosovo, Afghanistan, and then in Iraq.

Chechnya

In the wars in Chechnya, cluster munitions were extensively deployed by Russian forces in populated areas, particularly in and around Grozny. In a cluster strike on Grozny market in 1999, witnessed by staff from an international demining organisation, 137 people were killed and many more injured.

Eritrea-Ethiopia

The Eritrea-Ethiopia conflict of 1998–2000 saw the use of cluster munitions by both parties. In June 1998, Eritrean aircraft dropped cluster munitions in the Ethiopian town of Mekele, hitting a school. Fifty three civilians were killed and a further 185 were injured in the attack. Ethiopian aircraft also dropped cluster munitions on civilians in Eritrea. On 9 May 2000, UK-manufactured BL755 cluster bombs were dropped on a camp for displaced people. In the period after the attack, 420 unexploded submunitions were found and disposed of by an international demining organisation.

Kosovo

In May and June 1999, allied forces dropped more than 240,000 submunitions (BLU-97, BL755, and MK118 Rockeye) on Kosovo, with tens of thousands more dropped on Serbia and Montenegro. The cluster munitions in Kosovo caused at least 75 deaths and injuries to civilians at the time of use and more than 150 post-conflict casualties. The resultant contamination produced US\$30 million worth of post-conflict clearance. According to one expert,⁸ in Kosovo alone, it is believed that the BLU-97 submunitions caused more fatalities than all of the landmines put together. He considers that this is largely due to the presence of an ‘all-ways acting’ secondary fuze; also the cause of so many casualties also in Lao PDR. Cluster munitions are still being cleared in Kosovo.

Afghanistan

The USA reportedly dropped more than 248,000 submunitions over Afghanistan between October 2001 and March 2002, causing casualties at the time of use

and exacerbating an existing problem with cluster munitions following Soviet use in the 1990s.⁹

Iraq

During major hostilities in Iraq in 2003, both air-delivered and artillery-delivered cluster munitions were used extensively. Although use of air-dropped cluster munitions in populated areas had decreased in comparison to past wars, the widespread use of ground-launched cluster munitions, including artillery projectiles and rockets, resulted in significant numbers of casualties.

South Lebanon

During the 2006 conflict in southern Lebanon, Israel is believed to have deployed more than two million submunitions (the exact number has never been disclosed), using a combination of air, artillery, and rocket-delivered cluster munitions. These ranged from those containing Vietnam-era BLU-63 submunitions, (large numbers of which failed to explode) to M77 submunitions ejected from MLRS rockets, (many of which also failed to explode and subsequently caused civilian casualties). They also used artillery-delivered M85 submunitions fitted with self-destruct fuzes, intended to eliminate residual contamination, yet these also failed in significant numbers. Research undertaken by Landmine Action in September 2006 found that in 60% of cases, the centre of the strike was within 500 metres of the centre of a residential area. In 2008, the UN estimated that 48 square kilometres of southern Lebanon had been contaminated by hundreds of thousands of cluster munitions.¹ As of 12 December 2008, 153,755 unexploded submunitions had been destroyed by clearance operations.

Recent use

Cluster munitions were used in 5 countries during 2015, according to the Cluster Munition Monitor 2015; Libya, Sudan, Syria, Ukraine and Yemen, all non-signatories of the CCM. In 2016 CM have been further used in Syria and Yemen.¹⁰

Affected Countries

The Cluster Munition Coalition lists a total of 23 countries and 3 territories which are affected by cluster munition remnants. These are Afghanistan, Azerbaijan, Bosnia and Herzegovina, Cambodia, Chad, Chile, Croatia, Democratic Republic of Congo, Germany, Iraq, Lao PDR, Lebanon, Libya, Montenegro, Mozambique, Serbia, Somalia, South Sudan, Sudan, Syria, Ukraine, Vietnam, Yemen, as well as Kosovo, Nagorno-Karabakh and Western Sahara.

There may also be small amounts of contamination in another 15 countries.

Impact of submunitions on civilians

The impact of submunitions during and after a cluster strike can be devastating to local communities. Difficulties in accurately targeting submunitions and their wide-area effects mean that civilians may fall victim to the weapons during an attack despite stringent efforts to target only military objectives. Even a low failure rate can result in a large number of unexploded submunitions because of the often high quantities delivered. That impact is felt directly and indirectly. In some countries and regions, submunitions are a major cause of deaths and injuries to civilians. Indeed, in a global study in November 2006, Handicap International concluded that 98% of recorded cluster munition casualties were civilians.¹⁰ This does not mean, of course, that this is representative of all submunition casualties. The study confirmed a total of 13,306 victims killed and injured by cluster munitions.¹¹

At least as far as children are concerned, submunitions may be a greater threat than landmines. Submunitions are small, often visible on the ground, and attractive for children to pick up and play with. In 2001 in Kosovo, for example, the ICRC found that as compared to those killed or injured by anti-personnel mines, those killed or injured by submunitions were 4.9 times as likely to be under age 14. Incidents involving submunitions were also much more likely than landmines to result in death or injury to several people.¹²

Although the most severe impact of cluster munitions is human, there can also be significant socio-economic consequences:

- residential areas can be densely contaminated with large numbers of unexploded submunitions
- unexploded submunitions can endanger returning populations and prevent people from returning home
- cluster munitions can hinder relief efforts and impede work to rehabilitate communities
- unexploded submunitions can affect areas that are already subject to the highest levels of poverty
- cluster munitions can seriously affect livelihoods by blocking water supplies, disrupting work to restore power lines and preventing excavation of rubble and reconstruction efforts, and
- unexploded cluster munitions can prevent or endanger the harvest of crops.¹³



In Lao PDR, which suffered one of the heaviest bombardments in history, including massive use of submunitions, a study in 2006 by the UNIDIR concluded that: 'Economics and the impact of cluster submunitions are fundamentally bound together. The fact that these devices are still in the ground hinders development by restricting land use and delaying or adding to the costs of infrastructure projects. And because people are poor, they have no choice but to use the land or to collect UXO for the scrap metal, which then creates the possibility of deeper poverty resulting from UXO accidents.'

Following the 34-day conflict in Lebanon in the summer of 2006, the south of the country remains littered with a huge number of unexploded submunitions. Since the end of the bombing through to 17 December 2008, 217 civilians were reported killed or injured by submunitions. In addition, thousands more are denied access to their land and the ability to return to normal life.

ENDNOTES

- 1 Sometimes also referred to as cluster bombs.
- 2 Material = structures and equipment, as the objective of using CM is to disable the enemy in a confined, large area. Structures = e.g. window glass, to use frag is to shatter a window and take advantage of the effects of secondary glass fragmentation. Equipment = personal equipment soldiers carry, their weapons, vehicles, medical equipment, food stuff, navigation equipment, ammunition carried by soldiers and vehicles, etc.
- 3 'unitary' refers to a weapon with a single warhead.
- 4 <http://www.stopclustermunitions.org/en-gb/cluster-bombs/global-problem/producers.aspx>
- 5 <http://www.stopclustermunitions.org/en-gb/cluster-bombs/global-problem/affected-countries-and-territories.aspx>
- 6 This section is based on presentations to the ICRC's expert meeting on CM in April 2007 by Colin King and Simon Conway, and subsequent discussions. See ICRC 'Expert meeting: Humanitarian, Military, Technical and Legal Challenges of CM, Montreux, Switzerland, 18 – 20 April 2007', ICRC, Geneva, May 2007, pp.11-22.
- 7 Lao National Unexploded Ordnance Clearance Programme Annual Report 2007, p1.
- 8 Colin King
- 9 See, for example, Human Rights Watch, 'Off Target: The Conduct of the War and Civilian Casualties in Iraq', Washington DC, 11 December 2003, www.hrw.org/en/reports/2003/12/11/target
- 10 Material in this section is drawn from the Cluster Munition Coalition website, Timeline of Cluster Munition Use, <http://www.stopclustermunitions.org/en-gb/cluster-bombs/use-of-cluster-bombs/a-timeline-of-cluster-bomb-use.aspx>
- 11 Handicap International, 'Fatal Footprint: The Global Impact of Cluster Munitions, Preliminary Report', Brussels, November 2006
- 12 'Explosive Remnants of War: Cluster Bombs and Landmines in Kosovo', ICRC, Revised Edition, Geneva, June 2001.
- 13 See, 'Foreseeable Harm: The use and impact of cluster munitions in Lebanon', 2006, Landmine Action, London, September 2006, p5.



WHAT ARE CLUSTER MUNITIONS?

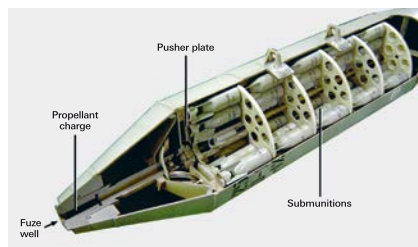
This chapter provides an overview of the types of cluster munitions in existence, as well as their characteristics and limitations. The enormous diversity of these weapons makes it difficult to categorise them simply. According to Human Rights Watch, 33 countries have produced at least 208 different types of cluster munitions.¹ This chapter gives a brief overview of the main types, along with their characteristics and effects.

MEANS OF DELIVERY

There are four principal ways of delivering submunitions onto a target:

- tube-launched (e.g. artillery shell, mortar, or naval gun)
- air-dropped container
- aircraft dispenser, and
- rocket/missile.

While the sizes, shapes and means of delivery vary, the basic characteristics of most cluster munitions are broadly similar. The warhead or bomb consists of a canister or casing, the majority of which is a cargo area filled with tightly packed submunitions. The warhead normally has a fuze system linked to an ejection mechanism, both of which normally incorporate small explosive charges. Images showing cutaway views of typical cluster munitions are at **Figures 5 and 6**.



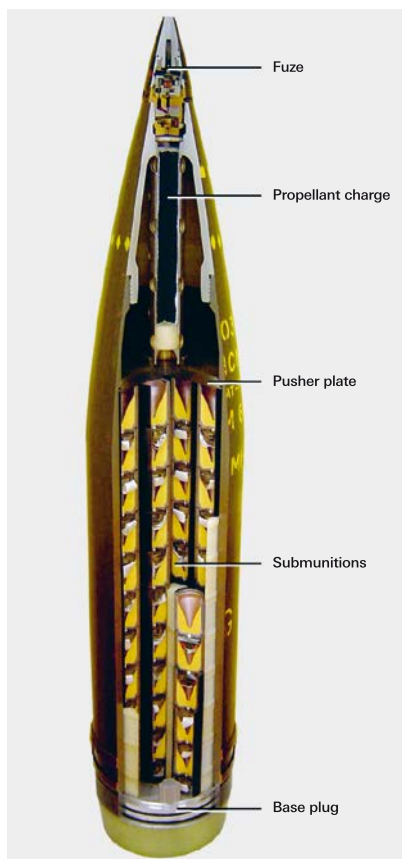
5 A Cutaway of the Russian RBK-250-275 cluster bomb

Once the projectile has been fired or the bomb dropped, the fuze initiates the ejection sequence, either after a set delay or at a given height. Activation of the fuze usually ignites one or more small propellant charges, which open the casing and eject the payload. The ejected submunitions, each of which has its own fuze, disperse further as they enter the airstream.

Dispensers are different in that, unlike a bomb, the container is fixed to the aircraft. The unit is actuated by an electrical signal from the cockpit; this fires small propellant charges to eject the submunitions from the tubes or pods of the dispenser in a rapid sequence. The submunitions arm once they are a safe distance from the dispenser, then follow a ballistic trajectory to the ground. Some models are flight-stabilised by a drogue chute that opens after ejection, positioning the submunition correctly and altering its ballistic trajectory towards vertical.

Although most submunitions used to be air-dropped (e.g. in conflicts in Afghanistan, Cambodia, the former Federal Republic of Yugoslavia, the Lao People's Democratic Republic and Viet Nam), ground-based delivery by artillery or rocket systems has become increasingly prevalent, most notably in the First Gulf War, the conflict between the coalition led by the United States of America (USA) and Iraq in 2003 and the conflict in southern Lebanon in 2006. Rocket-launched 9N235 submunitions are known to have been used in Ukraine

in 2015 and ZP-39s bomblets in Yemen in 2016.² It is believed that most of the cluster munitions in stockpiles today are ground-based systems.



6 A Cutaway of a typical cluster projectile

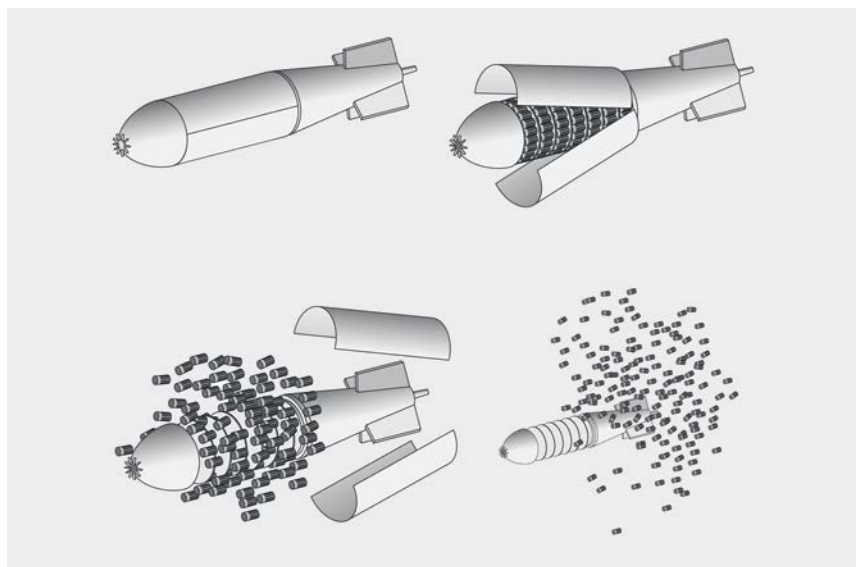
ACCURACY

This section addresses both the capability of the parent munition to dispense submunitions over its target and the ability of individual submunitions to fall and detonate where intended.

In addition to leaving behind large areas contaminated with unexploded submunitions, a major humanitarian concern is the accuracy of targeting of submunitions during an attack. Most submunitions free-fall in a ballistic trajectory determined by a combination of factors, and can stray far from their intended target. Some modern anti-armour cluster munition systems now use independently targeted submunitions which identify, and fire at, an individual vehicle, although with limited ability to differentiate between military and civilian vehicles. Improvements are also being made to the accuracy of air-launched and missile-borne dispensers, which can incorporate wind correction and/or inertial/GPS (Global Positioning System) guidance. However, such advanced systems are expensive and existing data on their performance in combat is very limited.

Cluster munitions (other than those delivered by precision guided munitions), in common with every other form of remotely delivered ordnance, will have some degree of inaccuracy in their delivery. This arises from a combination of the error in alignment with the target, and the influences on the weapon between the time of discharge or release, and impact. The degree of inaccuracy from these factors is known as the Circular Error Probable (CEP) which is defined as the radius of a circle into which 50% of the weapons would be expected to fall.

To reduce the size of the CEP and Elliptical Error Probable (EEP), some manufacturers have developed Wind Corrected Munitions Dispensers (WCMD),



7 Air-dropped cluster munition – dispersal of bomblets after opening

e.g. BLU-103A/B WCMD with a CEP at only 26 metres. 50% (101 pc) or 202 BLU-97 submunitions carried by BLU-103A/B should land in a circle with a diameter of 26m (or 85ft). It should be noted that WCMD-assisted CEP at 26 m is an unverified claim by the manufacturer, achieved in test environment in ideal terrain, altitude and weather conditions, and that indeed 50% of the submunitions are still expected to fall outside of the circle.

A further level of inaccuracy occurs as the submunitions disperse from the cluster munition. In most cases they are ejected explosively, with little or no control, and then follow a ballistic trajectory. As they fall to the ground, they are vulnerable to a variety of influences, including the wind and the detonation of other submunitions. The greater the height at the time of ejection from the parent munition, the larger the dispersion will be, and the more time there will be for submunitions to be further influenced by the wind.

In older systems, the inherent inaccuracy of the cluster munition, combined with the dispersion of the ejected submunitions, can lead to the strike missing the target area by a substantial margin. Even if the weapon is accurate, the coverage may extend well beyond the intended target and into civilian areas.

STRIKE PATTERNS

The impact of a cluster strike leaves what is known as a 'footprint'. In many cases, this strike area will be subjected to both the explosive effects of the submunitions, and to contamination by unexploded ordnance. The footprint from weapons following a ballistic trajectory is usually in an ellipse pattern, covering the entry (or beginning of the strike zone) and the 'fade-out' (the end of the strike zone). The (normally empty) casing of the parent munition may fall either within or outside this ellipse.

Where the munition is falling almost vertically, as occurs when a bomb is dropped from a great height or is retarded by a parachute, the pattern may be more circular or donut-shaped. The empty casing of the parent munition will normally fall within this area. The 'hole' in the centre of the donut is the result of the submunitions being ejected in a radial pattern, with few, if any, following the path of the parent munition.

Cluster munitions are often used in multiple strikes, and while an individual footprint may be relatively clear, overlapping patterns can become very confusing. Cluster strikes can deliver thousands of individual explosive devices (a single salvo of 12 MLRS rockets can deliver 7,728 submunitions), leaving a large area of

contamination. In many cases, it is not possible to establish how many weapons have been used; this then makes it impossible to account for all submunitions when the area is subsequently cleared.

SUBMUNITION TYPES AND CHARACTERISTICS

Submunitions are intended for use against different targets and therefore their characteristics and effects also differ. Some are fragmentation devices intended to kill or injure personnel. Others are anti-armour, typically using a shaped charge, employing the Munroe effect designed to penetrate the armour of tanks and other protected vehicles.

The Munroe effect is described as the following: a shaped charge incorporates a conical metal liner (often made from copper). On detonation, the liner is forced by the detonating wave from the explosive into a high velocity molten jet, which is projected forwards into the target. The high density and velocity of this jet give it the ability to penetrate armour and other hard surfaces to a far greater depth than the high explosive charge could otherwise achieve.

Increasingly, there has been a trend towards combining effects in order to make submunitions more versatile; this allows the same submunition to be employed against multiple target types. This move towards multi-purpose ammunition is partially responsible for the increased employment of cluster munitions in recent conflicts. 'Dual-purpose improved conventional munitions' (DPICM) combine anti-armour and fragmentation effects, while 'combined effects munitions' (CEM), add an additional incendiary element.³

More modern 'sensor fuzed' cluster munitions detect their targets from a distance and therefore need a warhead that combines lethality with significant range. This ammunition tends to use a different type of charge called an 'explosively formed projectile (EFP)'. This type of charge uses the Misznay Schardin effect, which unlike the Munroe Effect, does not form a plasma jet. Instead, the concave disk is distorted by the heat and blast, and forms a slug. Kinetic energy drives the slug to the target and then penetrates it. The damage is caused by the blast overpressure, and the slug ricocheting and fragmenting around the inside of the target. The plate is often made from a heavy metal such as tantalum, which is shaped during detonation of the explosive into a high-velocity projectile, capable of penetrating heavy armour over some distance. These have been further developed over the last few years to allow production of a hypersonic solid mass from these devices.

There are currently very few types of sensor-fuzed submunitions, although they are reportedly being researched, produced, or acquired by at least 14 countries. As mentioned in Chapter 1, these weapons are the only types of explosive submunition capable of complying with the legislation of the CCM.

EXAMPLES OF SUBMUNITIONS

Fin-stabilised fragmentation submunition

The Russian AO-1SCh submunition, which weighs 1.2 kilograms and is 49 x 156 mm (see **Figure 8**), is a fragmentation submunition with an anti-personnel/anti-materiel effect.⁴ One hundred and fifty submunitions are dispersed from the cluster bomb (RBK 250-275) over an area of some 4,800 square metres.



8 The Russian AO-1SCh is a simple fragmentation submunition

The submunition is basically a miniature bomb, containing a simple impact fuze and a 200 g high explosive charge encased in a thick steel body. The AO-1SCh submunition has been used in many regions, including Chad, the Russian Federation (in Chechnya), and Tajikistan.⁵ They are among the most common Russian submunitions and are found in stockpiles throughout the world.

Spin-armed submunition

The US BLU-61 is typical of a spin-armed submunition, having a spherical body, 99 mm in diameter, made from steel. The body is notched to enhance the fragmentation effect and encased in plastic, into which vanes are moulded.



9 The US BLU-61 is a typical example of a spin-armed submunition

Once released from the cluster bomb, the vanes on the submunitions induce spin as they fall. Once the spin rate is sufficiently high, centrifugal force is used to arm the fuze, which then detonates the submunition as it strikes the ground.

Spin-armed submunitions such as the BLU-61 generally use 'all-ways acting' fuzes (see **Fuzing**, below), which are fully encased within the submunition. These weapons were used extensively during the bombing campaign in Laos that began in the mid -1960s. Failure rates were high, with the number remaining unexploded estimated to be in the millions.⁶

Anti-armour and dual-purpose submunitions



10 The US Mk 118 'Rockeye' anti-armour submunition

The US Mk 118 'Rockeye' (see **Figure 10**) is an anti-armour submunition developed in 1968, during the Vietnam War. The parent munition is the Mk-7 'Tactical Munitions Dispenser', containing 247 submunitions. The filled dispenser, known as a Cluster Bomb Unit (CBU), weighs around 230 kilograms and is opened in the air after it has been released by explosively splitting the casing when the time-delay fuze functions.



11 The Russian PTAB-2.5KO is a dual-purpose submunition, combining a HEAT shaped charge with a notched fragmentation casing

Each dart-shaped submunition is 316 millimetres long, weighs 600 grams, and incorporates a 183-gram shaped charge to penetrate armour. When ejected at an altitude of 150 metres, the submunitions cover an area of approximately 4,800 square metres.

During detonation of the Mk 118, the casing of the shaped charge shatters to create fragmentation; many anti-armour submunitions incorporate notched steel

casings to deliberately enhance this effect. Submunitions designed to produce both anti-armour and fragmentation effects are known as 'dual-purpose'; an example is the Russian PTAB-2.5KO, shown in **Figure 11**.

Dual-purpose improved conventional munition

Dual-purpose improved conventional munitions (DPICM) are compact submunitions capable of being dispensed in large numbers. Their small size and light weight make them ideal for use in longer range weapons where payload

space is limited, such as artillery projectiles and rockets.

The US M77 (**Figure 12**) is a typical DPICM, dispensed by the MRLS rocket system. It is very similar to the M42 and M46 DPICM, which are widely used in artillery projectiles.



12 The US M77 is a typical DPICM

The submunition weighs only 213 g and has a tubular steel body just 38 mm in diameter. The open end of the body houses a copper shaped charge liner, while the other end is domed and fitted with a simple impact fuze. The fuze incorporates a small threaded striker attached to a loop of fabric ribbon; this is folded over the fuze, allowing submunitions to be stacked closely, nose to tail, within the dispenser. The striker retains a spring-loaded slide fitted with a small stab-sensitive detonator.

On impact, inertia carries the striker forward into the detonator, beneath which is a small booster pellet and the main charge. The body is shattered to create a fragmentation effect, while the shaped charge is fired downwards into the target. The M77 is capable of penetrating between 50 and 100 mm of armour, despite having an explosive charge of just 33 g. In some DPICM, ball-bearings surround the body to enhance the anti-personnel effect.

Combined effects submunition

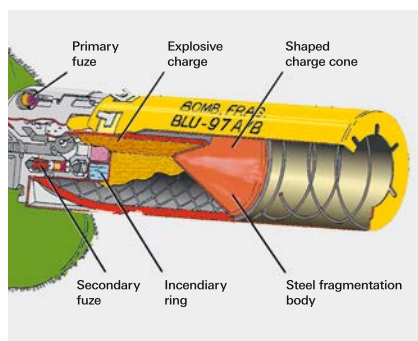
A widely-used combined effects munition is the US CBU-87 cluster bomb. The BLU-97 submunitions it disperses (shown in **Figure 14** BLU-97 with chute)



13 The US CBU-89 cluster bomb contains 202 BLU-97/B submunitions



14 The BLU-97 'combined effects' submunition



15 Cutaway diagram of the BLU-97

incorporate a shaped charge utilising the Munroe effect and are capable of penetrating more than 200 millimetres of armour. The body of each submunition, made from internally notched steel, shatters into approximately 300 fragments, each of which can penetrate 6 mm of steel. These fragments can kill people, disable vehicles, and inflict damage on materiel to a range of 20 metres or more. Also incorporated into the body of the submunition is a zirconium ring, which has an incendiary

effect intended to ignite fuel and other combustible materials in the target area. A cutaway diagram of the BLU-97 is at **Figure 15**.

Sensor-fuzed cluster munition

The US BLU-108 Sensor-Fuzed Weapon (SFW) was developed to detect and engage individual armoured vehicles without creating a wide-area antipersonnel effect. Features include advanced active and passive sensors (infrared, millimetre wave radar) and the ability to loiter above a target area. The SFW cluster bomb carries ten submunitions, with each submunition incorporating four warheads. Each warhead is capable of engaging a separate vehicle within an area of 460 by 150 metres. The SFW was first used in combat in Iraq in 2003, and has since been used in Yemen.⁷ Despite being equipped with a self-destruction device, numerous warheads remained unexploded.

Selectively Targeted Skeet

In response to this issue of unexploded warheads some militaries are trying to reduce this problem. One example of such efforts is the Selectively Targeted Skeet STS is a precision-guided munition⁸, four of which are inside a BLU-108A/B submunition. Several BLU-108A/B devices, in turn, are ejected from a bomb, missile, etc. The carrier itself is guided, such as the Joint Standoff Weapon⁹ (JSOW). As the BLU-108 approaches the target area, it releases a parachute and fires a small rocket to spin the container. Four Skeets are released at right angles to one another. They deploy 'Samara Wings' which are weighted fabric blades tightly packed into the submunition as released. The STS is deployed spinning from its host carrier, causing both a stabilising spin and tilting the Skeet appropriately.

In its descent, the Skeet uses pairs of infrared sensors to search for valid targets. If no valid target is found, the Skeet's timed self-destruction function is set to activate and destroy it by detonation at an altitude posing minimal hazard to people on the ground. If a valid armoured target (e.g. a tank) is found, the Skeet orients itself to the top centre of the target. At the appropriate moment it detonates, firing a just-formed molten copper projectile of moving metal, travelling at hypersonic speed, which will penetrate the thinnest, top part of the tank armour by forward momentum and heat. Alternatively, if the Skeet senses a 'soft' target such as a truck, it will damage that unarmoured target with 16 fragments shot radially from its centre.

Fuzing

The majority of submunitions use some form of stabilisation (normally fins, a streamer, or a drogue chute)¹⁰ to bring them into a nose-down attitude. In general, submunitions use spin and air resistance to actuate their arming mechanisms, preparing them to explode on impact. This initiation system is referred to as a fuze, which may or may not include a safety and arming unit.

Most (but not all) fuzes incorporate safety features designed to prevent accidental initiation if the submunition is subjected to shock or impact prior to arming. These include the misalignment or disconnection of critical mechanical and explosive components, which are then brought together to form viable mechanisms and explosive trains when the cluster munition is at a safe distance from the deployment platform.



16 The British BL 755 is initiated by a nose-mounted piezo-electric element. The fuze incorporates both mechanical and electrical safety features

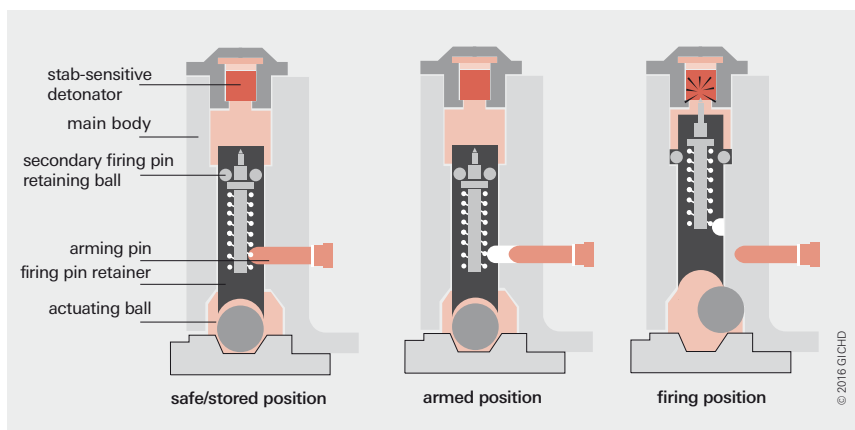
Electrically-initiated fuzes often employ a piezo-electric element, which generates an electric charge when mechanically deformed. These fuzes normally incorporate both mechanical and electrical safeguards, such as the misalignment of the explosive train and a break in the circuit, both of which must be overcome by the movement of components during the arming process (**Figure 16**).



17 Components of the Russian AO-1Sch. The fuze has no safety or arming mechanism; sufficient impact simply crushes the nose of the fuze and drives the firing pin into the detonator

Once armed, stabilised submunitions are normally designed to detonate on impact when they strike a hard surface nose-first (**Figure 17**). In these weapons, the fuzing mechanism is directional and will not be actuated if the bomblet impacts at the wrong angle. Some fuzes, however, are designed to function over a range of impact angles. Such fuzes are known as ‘all-ways acting’ fuzes and tend to be used on munitions that arm by spin as they rotate in the airstream. These fuzes are particularly significant because of the threat they pose if they fail to function.

All-ways acting mechanisms typically incorporate a ball-bearing housed in a chamber with sloping sides. Sideways movement of the ball-bearing acts on the sloping surface and pushes a pin into a stab-sensitive composition. This means that they should function at any impact angle (**Figure 18**).



18 Diagram of an all-ways acting fuze

The relatively high failure rate among submunition fuzes led to the addition of secondary fuzing systems in some later designs. Secondary fuzes serve as a back-up to initiate the submunition if the primary fuze fails for any reason, such as impact at the wrong angle. Some use all-ways acting mechanisms; however, if these are not actuated during impact, they can act like *de facto* anti-handling devices when the submunition is subjected to further sudden movement.

Unexploded US BLU-97 submunitions have gained a reputation for accidental initiation, caused by their all-ways acting fuzes. This secondary fuze often remains functional, despite failing during the initial impact.

Cluster munitions equipped with radar, infrared, laser, and/or radiometric sensor fuzing mechanisms are radically different from the mechanical and electrical designs of the Cold War era. After deployment by a ground-based or airborne system, the dispenser releases the submunitions. The submunition fuze is armed by the alignment of the firing train and connection of power to the electronic sensors, which then begin scanning for a target. Data from the sensors is fed to a processor, which then determines if, or when, an acceptable target has been identified. When the criteria are met, the Misznay Schardin effect charge is initiated, firing the heavy metal slug at the target. If, however, the confidence level of detection is not satisfactory, a self-destruct mechanism will be activated at a given height.¹¹ Most sensor-fuzed submunitions incorporate power sources that discharge soon after deployment; this means that they are incapable of being initiated, should the self-destruct mechanism fail.

Self-destruct

Awareness of the dangers posed (to both friendly forces and civilians) by unexploded submunitions led to the incorporation of self-destruct features in some designs.

Self-destructing submunitions are intended to automatically detonate after a set period of time if they do not detonate on impact. Mechanisms to ensure this automatic detonation are usually either electronic or pyrotechnic. In the latter, a burning fuse is ignited during the arming process; this is designed to initiate the detonator a few seconds after impact if the primary fuze fails to function.

The only DPICM incorporating self-destruction to have seen significant operational use is the Israeli-designed M85 (see **Figure 19**). This was used by the UK during the 2003 conflict in Iraq, and then on a larger scale by Israel during the 2006 Lebanese conflict. In southern Lebanon, the Israeli M85 was used alongside older DPICM. The



19 The Israeli M85 incorporates a self-destruct mechanism, but this has proven far less reliable than claimed

self-destruct fuzes failed to achieve the reliability claimed by the manufacturers, although they did appear to have a significantly lower failure rate than the non-self-destructing types. This showed that, at least in this case, incorporation of a self-destruct device reduced the overall failure rate, but was not a solution to submunition contamination. It also illustrated substantial difference between the results obtained during testing, and the reality seen during operations.¹²

There are also cluster munitions that ‘self-neutralise’ or ‘self-deactivate’. The Iraq conflict of 2003 saw the first major use of sensor-fuzed submunitions, designed to target and defeat armoured vehicles, which incorporate self-deactivation. An electronic fuze, which requires an electrical power supply, allows a sensor-fuzed munition to use a ‘reserve battery’, which is only activated when the munition is deployed. If it fails to explode on impact, the short life span of the battery means that the power source soon becomes unavailable to initiate the warhead, providing a reliable method of ‘self-deactivation’. This does not make the munition safe, but it does at least minimise the possibility of it functioning through accidental disturbance.¹³

Submunition failure rates

One of the major humanitarian concerns regarding the use of cluster munitions is the numbers that fail to explode as intended.¹⁴ It is very difficult to determine the precise failure rate of submunitions, but there is considerable evidence that the predicted failure rate determined by a manufacturer is often much lower than the failure rate observed during operational use. The main reason for this is that testing rarely replicates real combat conditions.

Submunitions may fail due to a number of factors, including:

- design (failures in design or assembly)
- length and condition of storage (working parts deteriorated over time)

- preparation for use by combatants (such as failure to set fuzes correctly)
- drop height, angle, attitude, and velocity (too high, too low, too slow, too fast)
- vegetation (heavy, dense, or soft)
- ground conditions at the impact area (e.g. soft, hilly, wet), and
- interaction and damage (the effects of collisions, blast and fragmentation from other submunitions).

In summary, there are many individual factors and combinations which may influence whether a submunition will explode as designed or not. In many designs, the primary fuze, secondary back-up, or self-destruct mechanism rely on the same action (such as the movement of a critical component) at the beginning of the arming sequence. This means that if this action fails, for any of the above reasons, both the primary and secondary fuze, or self-destruct, will fail too.

When they fail to detonate, unexploded submunitions may be left in a highly dangerous state; partially or fully armed and often damaged. There are many instances of submunitions detonating at the slightest stimulus, while others endure being moved several times before exploding. These explosive weapons are extremely unpredictable. In essence, however, all submunitions are inherently dangerous once released from the delivery system and armed, and should be treated as such.

The rigorous design and manufacture of newer electronically fuzed munitions may make them less likely to malfunction than older mechanically fuzed types. This is primarily due to their lack of moving parts, the ability to test electronic circuits more thoroughly and the limitations of reserve batteries. In profit-driven ammunition testing, it is impossible to check every single mechanical fuze; hence limited sample lots are taken and tested. With electronic fuzes, all critical circuits can be tested quickly and easily.¹⁵



20 The electronic fuze of the Spanish SNA submunition. Circuits like this are less prone to malfunction than mechanical systems, and each one can be tested prior to production

ENDNOTES

- 1 'Human Rights Watch Memorandum to CCW Delegates: A Global Overview of Explosive Submunitions, Prepared for the Convention on Conventional Weapons (CCW) Group of Governmental Experts on the Explosive Remnants of War (ERW), May 21–24, 2002', Human Rights Watch, Washington DC, 2002, pp. 1–2.
- 2 Human Rights Watch, 'Survey of Cluster Munitions Produced and Stockpiled', Briefing Paper Prepared for the ICRC Experts Meeting on Cluster Munitions, Montreux, Switzerland, April 2007, available at: www.hrw.org.
- 3 In this work, we do not consider landmines delivered by cluster munitions in any detail as they are covered by specific international agreements.
- 4 The letters 'AO' stand for aviatsionnaya oskolochnaya, or 'aircraft fragmentation'. See Mennonite Central Committee report at: www.mcc.org.
- 5 Handicap International, 'Circle of Impact: The Fatal Footprint of Cluster Munitions on People and Communities', Brussels, May 2007, pp. 48, 84, 90.
- 6 Mines Advisory Group (MAG) state that more than 270 million submunitions were dropped in Laos; up to 80 million failed to detonate, remaining live and in the ground after the end of the war.
- 7 Human Rights Watch, 'Survey of Cluster Munitions Produced and Stockpiled', Briefing Paper Prepared for the ICRC Experts Meeting on Cluster Munitions, Montreux, Switzerland, April 2007.
- 8 http://en.citizendium.org/wiki/Precision-guided_munition
- 9 http://en.citizendium.org/wiki/AGM-154_Joint_Standoff_Weapon
- 10 Some of the more modern submunitions use small parachutes to stabilise their descent towards the target. Shortly after deployment from the container, a drag chute or small inflatable 'air brake' is ejected from the rear. This is part of the process that allows a telescopic body to extend and arms the fuzing system.
- 11 See, for example, 'Benchmarks for Alternative Munitions to Cluster Munitions 'Sensor Fused Area Munitions' (SEFAM), Additional explanatory information to the draft CCW Protocol on Cluster Munitions', UN doc. CCW/GGE/2007/WP.1/Add.1.
- 12 Ibid., pp. 12–13: see more generally 'M85, An analysis of reliability', Norwegian People's Aid, Oslo, 2007, available at: www.npaid.org/filestore/M85.pdf.
- 13 Colin King, in International Committee of the Red Cross, 'Expert meeting: Humanitarian, Military, Technical and Legal Challenges of Cluster Munitions, Montreux, Switzerland, 18 to 20 April 2007', ICRC, Geneva, May 2007, p. 12.
- 14 There is a further failure rate among submunitions equipped with self-destruct devices, some of which also typically fail to detonate as intended.
- 15 Colin King, reported in ICRC, 'Expert meeting: Humanitarian, Military, Technical and Legal Challenges of Cluster Munitions, Montreux, Switzerland, 18 to 20 April 2007', ICRC, Geneva, May 2007, p. 20.



CONVENTION ON CLUSTER MUNITIONS

This chapter describes the negotiation and content of the Convention on Cluster Munitions and provides some updates on its implementation over the past five years. The convention, which prohibits all cluster munitions deemed to cause unacceptable harm to civilians, was adopted on 30 May 2008 in Dublin, Ireland, and was opened for signature on 3 – 4 December 2008 in Oslo, Norway. It entered into force on 1 August 2010 after the first 30 States submitted their instruments of ratification.¹

NEGOTIATION OF THE CONVENTION: THE OSLO PROCESS

The impetus for the negotiation of the Convention, as with the 1997 Anti- Personnel Mine Ban Convention, was concern over the impact of these weapons on civilians. One of the introductory paragraphs of the Convention refers to the determination of States Parties 'to put an end for all time to the suffering and casualties caused by cluster munitions at the time of their use, when they fail to function as intended or when they are abandoned.'²

Norway launched the 'Oslo Process' after discussions within the auspices of the Convention on Certain Conventional Weapons (CCW) at the United Nations in Geneva failed to make progress on cluster munitions. Twenty-five States had called for the negotiation of a new international treaty on cluster munitions at the Third CCW Review Conference in November 2006. At the time, however, the development of such a treaty was opposed by a number of major military powers. The Oslo Process sought to negotiate and conclude a treaty outside the CCW.²

The process formally began in February 2007 at a meeting convened by the Royal Norwegian Ministry of Foreign Affairs in Oslo. On 23 February, 46 States issued the Declaration of the Oslo Conference on Cluster Munitions (the 'Oslo Declaration'), committing themselves to:

'Conclude by 2008 a legally binding international instrument that will: (i) prohibit the use, production, transfer and stockpiling of cluster munitions that cause unacceptable harm to civilians, and (ii) establish a framework for cooperation and assistance that ensures adequate provision of care and rehabilitation to survivors and their communities, clearance of contaminated areas, risk education and destruction of stockpiles of prohibited cluster munitions.'

The Oslo Process included a series of global conferences to discuss draft versions of the proposed Convention. These conferences took place in Lima (May 2007), Vienna (December 2007), and Wellington (February 2008) prior to the final diplomatic negotiations in Dublin in May 2008. The events were supported by a series of regional and thematic meetings in Phnom Penh, San Jose, Belgrade, Brussels and Livingstone, addressing particular aspects of the cluster munitions issue and providing input to the discussion on the global stage. 79 countries adopted the 'Wellington Declaration'³ at the meeting in Wellington, New Zealand, which set out the principles to be included in the future convention, in particular:

- A prohibition on the use, production, transfer and stockpiling of cluster munitions that cause unacceptable harm to civilians, and
- A framework for cooperation and assistance that ensures adequate provision of care and rehabilitation to survivors and their communities, clearance of contaminated areas, risk education, and destruction of stockpiles.

The text was formally adopted on 30 May 2008 by the 107 negotiating states (see Annex 1). In accordance with its Article 15, the Convention on Cluster Munitions was opened for signature on 3 – 4 December 2008 in Oslo. As at 19 April 2016, 119 States had joined the Convention; 100 as States Parties and 19 as Signatories.

DEFINITION OF CLUSTER MUNITIONS UNDER THE CONVENTION

The Convention defines a cluster munition as meaning 'a conventional munition that is designed to disperse or release explosive submunitions each weighing less than 20 kilograms, and includes those explosive submunitions...'.⁴ The Convention also applies to submunitions contained within fixed-wing dispensers, which are termed 'explosive bomblets'.⁵ This definition covers the vast majority of weapons with submunitions that have been produced, and all that had been used up to the adoption of the Convention.

The Convention excludes from the definition the following:

- (a) A munition or submunition designed to dispense flares, smoke, pyrotechnics or chaff; or a munition designed exclusively for an air defence role;
- (b) A munition or submunition designed to produce electrical or electronic effects;

- (c) A munition that, in order to avoid indiscriminate area effects and the risks posed by unexploded submunitions, has all of the following characteristics:
- (i) Each munition contains fewer than ten explosive submunitions;
 - (ii) Each explosive submunition weighs more than four kilograms;
 - (iii) Each explosive submunition is designed to detect and engage a single target object;
 - (iv) Each explosive submunition is equipped with an electronic self-destruction mechanism;
 - (v) Each explosive submunition is equipped with an electronic self-deactivating feature.⁶

The Convention neither prohibits nor restricts the use of these explosive weapons. Their use is permitted on the basis that they will not have indiscriminate area effects or pose a risk of failing to function and thus becoming unexploded ordnance. However, like all other explosive weapons, such munitions are regulated by the general rules of IHL governing the conduct of hostilities. They are also covered by Protocol V on explosive remnants of war.⁷

The Convention also excludes air-launched and scatterable landmines from its prohibitions, which might otherwise fit the definition, as these are addressed in the Anti-Personnel Mine Ban Convention:

- All landmines
- A munition or submunition designed to dispense flares, smoke, pyro-technics, or chaff
- A munition designed exclusively for an air defence role, and
- A munition or submunition designed to produce electrical or electronic effects



21 Signing conference in Oslo, 4 December 2008

GENERAL PROHIBITIONS

Under Article 1, paragraph 1 of the convention, States Parties are obliged ‘never under any circumstances’ to:

- (a) Use cluster munitions;
- (b) Develop, produce, otherwise acquire, stockpile, retain or transfer to anyone, directly or indirectly, cluster munitions;
- (c) Assist, encourage or induce anyone to engage in any activity prohibited to a State Party under this Convention.

The undertaking ‘never under any circumstances’ to use, develop, produce, stockpile, or transfer cluster munitions, or to assist, encourage or induce anyone to do so, means that the Convention applies in all situations and all circumstances, including peacetime and war or other armed conflict, and during internal disturbances or tensions. States Parties may not resort to cluster munitions in attack or self-defence, even if threatened with imminent military defeat. Furthermore, it is not possible to make any reservations to the provisions of the Convention.⁸ States Parties may only take advantage of exceptions specifically provided for, such as the retention of a small number of cluster munitions for training and research into clearance techniques **(see below section on exceptions to the prohibitions on stockpiling and transfer)**.

Although the convention is addressed to States and not to non-State armed groups, the preamble notes that States Parties are resolved that such groups ‘shall not, under any circumstances, be permitted to engage in any activity prohibited to a State Party to the convention.’⁹ Although there has been relatively limited use by non-State armed groups of cluster munitions, as noted in Chapter 1, a leading member of such a group in Croatia ordered the use of the weapons against Zagreb in 1995, resulting in many civilian casualties. In addition, Human Rights Watch has alleged that Hezbollah used cluster munitions against Israel during the armed conflict in Lebanon in 2006.¹⁰

In the five years since entry into force of the Convention, cluster munitions have been used in several countries including in Cambodia, Libya, Sudan, Syria, Ukraine and Yemen.¹¹ During the First Review Conference on the Convention held in Dubrovnik, Croatia from 7 – 11 September 2015, the conference adopted with some reservations the 2015 Dubrovnik Political Declaration in which the States Parties recommitted to the full implementation of the Convention, to ensuring a world free of cluster munitions and condemned ‘any use by any actor’.

Consequently, in its capacity as the President of the Convention, in December 2015 Croatia issued a statement in which it expressed its concerns at, and condemned the continued use of, the weapons in Syria.¹²

Prohibition on use

The core of the convention is its prohibition on the use of cluster munitions, as defined in the Convention itself. Indeed, the Oslo Declaration referred to the ‘grave consequences caused by the use of cluster munitions.’ Use covers the employment of cluster munitions in all situations, whether in armed conflict, internal disturbances, or peacetime (unless it falls within the permitted exceptions; **see below sections on the prohibitions on stockpiling and transfer**).

A provision entitled *Relations with States not party to this Convention* expressly allows States Parties to engage in military cooperation and operations with States that have not adhered to the Convention on Cluster Munitions and which might commit acts prohibited under the convention (**see below section on interoperability**).¹³ It is, however, also provided that in such a situation, no State Party may itself use cluster munitions, or ‘expressly request the use of cluster munitions in cases where the choice of munitions used is within its exclusive control.’¹⁴ Furthermore, States Parties are required to discourage the use of cluster munitions by States not party to the Convention and to notify them of their obligations under the Convention and promote the norms it establishes.¹⁵

Prohibition on stockpiling

Each State Party undertakes never to stockpile cluster munitions. States may, however, retain a limited number of cluster munitions and explosive submunitions for training in clearance and development of destruction techniques, as well as for the development of counter-measure techniques.¹⁶

Prohibition on production and development

The convention’s prohibition on production of cluster munitions is immediate and absolute. There are no exceptions and in accordance with Article 1 of the convention each State Party is further obliged not to develop or acquire cluster munitions in the future.

Prohibition on transfer

Each State Party undertakes never to transfer cluster munitions. This includes import, export, gift, and sale of the weapons. Article 2, paragraph 8 of the

convention defines transfer as involving, 'in addition to the physical movement of cluster munitions into or from national territory, the transfer of title to and control over cluster munitions, but does not involve the transfer of territory containing cluster munition remnants.' It explicitly excludes the transfer of territory on which abandoned or failed cluster munitions or unexploded submunitions are found.

An exception to the prohibition allows the transfer of cluster munitions to another State Party for the purpose of destruction, for training and for the development of counter-measure techniques.¹⁷ It is therefore not permissible to transfer cluster munitions to a State not party or to a non-state armed group under any circumstances.

Interoperability and assisting, encouraging or inducing a prohibited activity

The Convention on Cluster Munitions is the first international humanitarian or disarmament law treaty to specifically address problems of interoperability. Interoperability covers situations where military alliances of States are operating together and the legal obligations on these States differ (because, for instance, they are party to different international treaties, or have different understandings of the precise content of customary international law).

A State Party cannot assist anyone, irrespective of whether or not they are an individual, private company, State or non-State armed group or State not party, to use, develop, produce, stockpile or transfer cluster munitions. This provision must, though, be understood in conjunction with the provisions in Article 21 of the Convention, paragraph 3 of which states that:

'Notwithstanding the provisions of Article 1 of this Convention and in accordance with international law, States Parties, their military personnel or nationals, may engage in military cooperation and operations with States not party to this Convention that might engage in activities prohibited to a State Party.'

The States Parties in such an operation are required to discourage the use of cluster munitions by States not party to the Convention.

OBLIGATIONS TO DESTROY STOCKPILES OF CLUSTER MUNITIONS

Each State is further required – as soon as possible but not later than eight years after becoming party to the Convention – to destroy stockpiles of cluster

munitions that are under both its jurisdiction and its control. The term 'jurisdiction' typically covers the whole of the sovereign territory of a State Party (even where the stockpiles may belong to another State); the term 'control' may apply extra-territorially, for instance if a State Party occupies territory belonging to another State and gains control of stockpiles of cluster munitions in the process. The formulation, which differs materially from that contained in the Anti-Personnel Mine Ban Convention, means that foreign stockpiles controlled by a State not party to the convention but located on the territory of a State Party may not fall within this requirement.

The destruction of cluster munitions is a complex engineering challenge, which often involves reverse-engineering and remote disassembly because of the initial design of the submunitions. It is therefore a relatively expensive process when compared against the destruction or demilitarisation of other conventional ammunition. States should therefore be encouraged to commence their destruction programmes at the earliest opportunity.

Each State Party undertakes to ensure that destruction methods comply with applicable international standards for protecting public health and the environment.¹⁸ The European Union, for example, has directives governing the controlled management of hazardous waste.¹⁹

The eight-year deadline for stockpile destruction can be extended for an additional four years and further extensions of four years may also be granted in exceptional circumstances.²⁰

Contrary to the general expectations in the early life of the Convention, most States Parties with obligations under this Article have succeeded in destroying the stocks well ahead of the stipulated deadline. Progress shown to date furthermore strengthens the outlook for all States parties to complete destruction well within the initial eight-year deadline provided for by the CCM. At the end of 2015, only 11 out of 37 States Parties still had an obligation under this Article.

OBLIGATIONS TO CLEAR AND DESTROY CLUSTER MUNITION REMNANTS

Each State must also clear territory under its jurisdiction or control of cluster munition remnants within 10 years of becoming party to the convention.²¹ Cluster munition remnants are defined to include the following:

- Failed cluster munitions (where cluster munitions are dropped or fired but a dispenser fails to disperse the submunitions as intended)²²

- Abandoned cluster munitions (where unused cluster munitions have been left behind or dumped, and are no longer under the control of the party that left them behind or dumped them)²³
- Unexploded submunitions (where submunitions have landed, but have failed to explode as intended),²⁴ and
- Unexploded bomblets (where explosive bomblets have been dropped from a fixed-wing dispenser but have failed to explode as intended).²⁵

If, after becoming a State Party, cluster munitions are used in areas under its jurisdiction or control and become cluster munition remnants, the State Party is given up to ten years after the end of active hostilities to complete clearance and destruction operations.²⁶ Where a State that later becomes party to the convention had previously used cluster munitions against another State Party, the State that used the cluster munitions is ‘strongly encouraged’ to provide assistance for the marking, clearance and destruction of such cluster munition remnants, including, where available, information on types and quantities of the cluster munitions used, precise locations of cluster munition strikes, and areas in which cluster munition remnants are known to be located.²⁷

In fulfilling its Article 4 clearance and destruction obligations, an affected State Party is obliged to do the following as soon as possible:

- Survey, assess and record the threat, making every effort to identify all contaminated areas under its jurisdiction or control
- Assess and prioritise needs for marking, protection of civilians, clearance and destruction
- Take ‘all feasible steps’ to perimeter-mark, monitor and fence hazardous areas (see Chapter 6)
- Conduct risk reduction education to ensure awareness among civilians living in or around cluster munition contaminated areas of the risks and ways to minimise them (see also Chapter 6)
- Take steps to mobilise resources, and
- Develop a national plan, building, where appropriate, upon existing structures, experiences, and methodologies.²⁸

In doing so, each State Party must take into account international standards, including the International Mine Action Standards (IMAS).²⁹

Upon completion of its Article 4 clearance and destruction obligations, a State Party is required to make a declaration of compliance to the next Meeting of States

Parties.³⁰ If, however, a State is unable to meet its 10-year deadline for clearance and destruction of cluster munitions remnants, it may request extensions from a Meeting of States Parties or a Review Conference for additional periods of up to five years at a time.³¹

Since the adoption of the CCM in 2008, by the First Review Conference in September 2015, a total of 9 States Parties had completed cluster munition remnants clearance. The first deadlines will come up on 1 August 2020 for 4 States Parties and they are expected to be in compliance by that time. At the time of this publication, 11 State Parties still have an obligation under this Article. Furthermore, 3 signatory states, 13 States not Party and 3 other areas or territories were believed or suspected to be contaminated by cluster munition remnants.

OBLIGATIONS TO ASSIST VICTIMS AND SURVIVORS

The Convention has the most far-reaching provisions on assistance for victims ever included in a disarmament or humanitarian law treaty.³² Each State Party that has cluster munition victims on its territory or under its control must provide for their medical care and physical rehabilitation, psychological support, and social and economic inclusion.³³ In addition, the State must assess domestic needs in these areas and develop plans and mobilise resources to meet them.³⁴ The definition of victims under the convention is extremely broad (**see Box 1**), covering not only those who are killed or injured by cluster munitions, but also families and communities that have suffered socio-economic and other consequences.

BOX 1

THE DEFINITION OF CLUSTER MUNITIONS VICTIMS

According to Article 2, paragraph 1:

‘Cluster munition victims’ means all persons who have been killed or suffered physical or psychological injury, economic loss, social marginalisation or substantial impairment of the realisation of their rights caused by the use of cluster munitions. They include those persons directly impacted by cluster munitions as well as their affected families and communities.

INTERNATIONAL COOPERATION AND ASSISTANCE

Article 6 of the Convention contains detailed provisions related to international cooperation and assistance. This article outlines that each State Party, ‘in fulfilling its obligations under this Convention’, has certain rights, including ‘the right to

seek and receive assistance'³⁵ and 'the right to participate in the fullest possible exchange of equipment, material and scientific and technological information concerning the implementation of this Convention'.

Article 6 also indicates that each State Party has certain responsibilities – when 'in a position to do so' – to provide assistance for victim assistance, risk reduction education, the clearance of cluster munitions remnants, and the destruction of stockpiled cluster munitions.³⁶ In addition, each State Party accepts the responsibility not to 'impose undue restrictions on the provision and receipt of clearance and other such equipment and related technological information for humanitarian purposes'.³⁷ Assistance can be provided bilaterally, through regional organisations, or internationally, particularly through the UN. The UN, for example, already supports mine action programmes in more than 40 countries. Assistance can also be given through the ICRC, national Red Cross and Red Crescent societies and their International Federation, as well as NGOs.³⁸

ENTRY INTO FORCE OF THE CONVENTION

The Convention on Cluster Munitions entered into force on 1 August 2010 after the 30 States ratified it. Since then the number of States that have joined the CCM stands at 119; 100 States Parties and 19 Signatories as at 19 April 2016. Each State Party is obliged to encourage States not party to adhere to the convention, 'with the goal of attracting the adherence of all States'.³⁹

To further universalise the CCM and its implementation, on 20 October 2015, during the 70th United Nations General Assembly, the President of the Convention, Croatia, submitted to the 1st Committee of the 70th Session of the United Nations General Assembly the first ever resolution on the 'Implementation of the Convention on Cluster Munitions'. The Resolution was co-sponsored by 29 States. When the Resolution was put to the General Assembly vote, the States voted; 139 in favour, 40 abstained and only 2 States voted against the resolution.

During the First Review Conference, the Dubrovnik Action Plan (DAP) was adopted to cover the following five year period up the Second Review Conference in 2020. The DAP built on the earlier Vientiane Action Plan and is intended to move forward the desire expressed by States Parties to ensure the effective implementation of the provisions of the CCM from the First to the Second Review Conference of the Convention. The DAP includes specific operationalising actions, targets and completion time frames over this five-year period, with defined roles and responsibilities for States Parties.

IMPLEMENTATION OF THE CONVENTION

The implementation mechanisms of the Convention on Cluster Munitions are similar to those laid down under the Anti-Personnel Mine Ban Convention. As noted by the ICRC, the adoption of domestic legislation and administrative regulations may be required.⁴⁰ This obligation includes the need to impose penal sanctions to prevent and suppress violations by persons, or on territory, under the State's jurisdiction or control.⁴¹ To this end, specific domestic legislation may have to be adopted and the regulations governing the armed forces amended.

In the interests of transparency, States are required to report annually to the UN Secretary-General on a range of matters, such as the types and numbers of cluster munitions destroyed, the extent and the location of areas contaminated by cluster munitions, the status of clearance programmes, the measures taken to provide risk education and warnings to civilians, the status of programmes for providing assistance to victims and the measures taken domestically to prevent and suppress violations of the convention.⁴² Reporting on these matters also provides an overview on the status of implementation.⁴³

Meetings of States Parties are held annually to review the effectiveness of the convention.

In accordance with Article 12 paragraph 2(b), the First Review Conference of the Convention on Cluster Munitions decided to review the machinery, the objectives and the periodicity of Meetings of States Parties, the Meeting decided that the intersessional meetings would no longer be held while the meetings of State parties would continue to be at which 'States Parties shall meet regularly and annually in order to consider, and, where necessary, take decision in respect of any matter with regard to the application or implementation of this Convention; where States Parties with obligations under the Convention report on their progress and challenges in their implementation of these;' The Meeting further decided in favour of a change in the presidential period effectively placing it in advance of the Meetings of States Parties allowing for a more constructive lead time up to and inclusive of a meeting of States Parties under the chairmanship of the same President. A presidential period would thereby start at the end at the last day of a Meeting of States Parties and run through to the last day of the following Meeting of States Parties.

Beyond the meetings and in accordance with Article 8, paragraph 1, the States Parties agree to consult and cooperate with each other regarding the implementation of the provisions of the convention and to work together in a spirit of cooperation to facilitate compliance with their obligations. Should concerns

arise about a State's compliance with the convention, clarification may be sought through the UN Secretary-General.⁴⁴ If necessary, the issue may be submitted to a Meeting of States Parties, which can adopt procedures or specific mechanisms to clarify the situation and draft a resolution.⁴⁵

ENDNOTES

- 1 Albania, Austria, Belgium, Burkina Faso, Burundi, Croatia, Denmark, France Germany, Holy See, Ireland, Japan, Laos, Luxembourg, Macedonia, Malawi, Mali, Malta, Mexico, Moldova, Montenegro, New Zealand, Nicaragua, Niger, San Marino, Sierra Leone, Slovenia, Spain, Uruguay and Zambia.
- 2 Second Preambular paragraph, Convention on Cluster Munitions.
- 3 'Declaration of the Wellington Conference on Cluster Munitions2', available at www.clusterconvention.org/papers/papers_vi/vic-oslowellington.html
- 4 Article 2, paragraph 2, Convention on Cluster Munitions.
- 5 Article 1, paragraph 2, Convention on Cluster Munitions.
- 6 Ibid.
- 7 See, for example, ICRC, 'The Convention on Cluster Munitions', Fact Sheet, Geneva, November 2008, www.icrc.org
- 8 Article 19, Convention on Cluster Munitions.
- 9 Twelfth preambular paragraph, Convention on Cluster Munitions
- 10 Human Rights Watch alleges that Hezbollah fired more than 100 Chinese-produced Type-81 122mm cluster munition rockets into northern Israel. 'Timeline of Cluster Munition Use', 13 February 2009.
- 11 <http://www.stopclustermunitions.org/en-gb/cluster-bombs/use-of-cluster-bombs/a-timeline-of-cluster-bomb-use.aspx>
- 12 <http://www.clusterconvention.org/2015/12/23/croatia-condemns-continuous-use-of-cluster-munitions-in-syria/>
- 13 Article 21, paragraph 4, Convention on Cluster Munitions.
- 14 Article 12, paragraphs 4 (c) and (d), Convention on Cluster Munitions.
- 15 Article 21, paragraph 2, Convention on Cluster Munitions.
- 16 Article 3, paragraph 6, Convention on Cluster Munitions.
- 17 Article 3, paragraph 7, Convention on Cluster Munitions.
- 18 Article 3, paragraph 2, Convention on Cluster Munitions.

- 19 Directive 2006/12/EC of the European Parliament and of the Council on Waste, 5 April 2006 (Solid Waste). Directive 2000/76/EC of the European Parliament and of the Council on the Incineration of Waste, 4 December 2000 (Emissions to Air). See also <http://europa.eu/scadplus/leg/lvb/l21199.htm>.
- 20 Article 3, paragraphs 1-5, Convention on Cluster Munitions.
- 21 Article 4, paragraph 1, Convention on Cluster Munitions.
- 22 See definition in Article 2, paragraph 4, Convention on Cluster Munitions.
- 23 See definition in Article 2, paragraph 6, Convention on Cluster Munitions.
- 24 See definition in Article 2, paragraph 5, Convention on Cluster Munitions.
- 25 See definition in Article 2, paragraph 15, Convention on Cluster Munitions.
- 26 Article 4, paragraph 1 (b), Convention on Cluster Munitions.
- 27 Article 4, paragraph 4 (a) and (b), Convention on Cluster Munitions.
- 28 Article 4, paragraph 3, Convention on Cluster Munitions.
- 29 Article 4, paragraph 1 (c), Convention on Cluster Munitions.
- 30 Article 4, paragraphs 5-8, Convention on Cluster Munitions.
- 31 See, for example, ICRC, 'The Convention on Cluster Munitions', Fact Sheet
- 32 Article 5, paragraph 1, Convention on Cluster Munitions.
- 33 Article 5, paragraph 2, Convention on Cluster Munitions.
- 34 Article 5, paragraph 2, Convention on Cluster Munitions.
- 35 Article 6, paragraph 1, Convention on Cluster Munitions.
- 36 Article 6, paragraph 2, Convention on Cluster Munitions.
- 37 Article 6, paragraph 3, Convention on Cluster Munitions.
- 38 Article 6, paragraph 2, Convention on Cluster Munitions.
- 39 Article 21, paragraph 1, Convention on Cluster Munitions.
- 40 See, for example, ICRC, 'The Convention on Cluster Munitions', Fact Sheet.
- 41 Article 9, Convention on Cluster Munitions.
- 42 Article 7, Convention on Cluster Munitions.
- 43 ICRC, 'The Convention on Cluster Munitions', Fact Sheet.
- 44 Article 8, paragraph 2, Convention on Cluster Munitions.
- 45 Article 8, paragraph 3-6, Convention on Cluster Munitions; see also ICRC, 'The Convention on Cluster Munitions'.



CLUSTER MUNITIONS AND THE CONVENTION ON CERTAIN CONVENTIONAL WEAPONS

The Convention on Certain Conventional Weapons (CCW) addresses post-conflict clearance of all explosive remnants of war (ERW), including abandoned cluster munitions and unexploded submunitions, through its Protocol V. The protocol also has limited provisions on preventive measures to minimise the amount of ordnance that becomes ERW. However, several discussions were held between 2009 and 2011, none of which yielded a possible protocol specifically addressing cluster munitions.

PROTOCOL V ON EXPLOSIVE REMNANTS OF WAR

In December 2001, the Second Review Conference of the 1980 CCW sought to address growing international concern about the threat to civilians from cluster munitions and other ERW. It agreed on a mandate for an open-ended Group of Governmental Experts to discuss ways to address the issue of ERW, including technical improvements and other measures for relevant types of munitions, including submunitions, which could reduce the risk of such munitions becoming ERW. The Group was also tasked with examining the adequacy of existing international humanitarian law in minimising post-conflict risks of ERW, both to civilians and to the military.¹

As a result, Protocol V on ERW was adopted in November 2003 after a year of formal negotiations and entered into force on 12 November 2006 following adherence to it by 20 States Parties to the CCW. As of 31 December 2015, a total of 87 States had consented to be bound by the Protocol.

In accordance with Article 10, paragraph 1 of the Protocol, 22 States Parties to the Protocol asked the UN Secretary-General in November 2006 to convene a first Conference of States Parties to the Protocol to discuss its operation. The First Protocol V Conference was held on 5 November 2007. It decided to establish a mechanism for cooperation and assistance, consisting of annual informal meetings of experts reporting to the Conferences of States Parties to the CCW.² The GICHD has published a book on the implementation of the Protocol as a resource for States Parties and other interested actors.³

CCW Protocol V on ERW addresses cluster munitions in three ways:

- during the design and manufacturing phase
- as abandoned explosive ordnance (AXO) linked to an armed conflict, and
- as unexploded ordnance (UXO) linked to an armed conflict.

Minimising the occurrence of ERW

Under Article 9 of Protocol V, and ‘bearing in mind the different situations and capacities’, each State Party is ‘encouraged to take generic preventive measures aimed at minimising the occurrence of explosive remnants of war’, which include cluster munitions. The non-binding Technical Annex to the protocol suggests ways in which this can be achieved.

States producing or procuring explosive ordnance should seek the greatest reliability of munitions through certified quality control measures and internationally recognised quality assurance standards. Periodically, a sample of stockpiled explosive ordnance should undergo live-fire testing to ensure that munitions function correctly. Testing under controlled or ideal conditions usually produces different results to combat. A State should examine ways of maximising the reliability of explosive ordnance that it intends to produce or procure.

Risk of explosions in stockpiles should be minimised by the use of appropriate ammunition management. In managing stockpiles, States should store unused cluster munitions in secure facilities or appropriate containers that protect the explosive ordnance and its components in a controlled atmosphere. States should apply appropriate explosive ordnance logging, tracking and testing procedures. This should include information on:

- the date of manufacture of each number, lot or batch of explosive ordnance
- the conditions it has been stored under, and
- the environmental factors to which it has been exposed.

Finally, the Annex notes that proper training of all personnel involved in the handling, transportation and use of explosive ordnance is an important factor in ensuring its reliable operation. States should therefore adopt and maintain suitable training programmes to ensure that personnel are properly trained for the munitions with which they work.

Clearing ERW

Under Article 3 of Protocol V, States Parties, as well as parties to an armed conflict within the territory of a State Party, have obligations to address the threat posed by abandoned cluster munitions or unexploded submunitions on territory under their control after the cessation of active hostilities and ‘as soon as feasible’. There are four obligations, to:

- survey and assess the threat posed by explosive remnants of war
- identify priorities for marking and clearance
- mark and clear, remove or destroy ERW, and
- take steps to mobilise the necessary resources.

Similarly, any State Party that has used cluster munitions on territory controlled by another State Party is required to provide, ‘where feasible’, technical, financial, material or human resources to facilitate the marking and clearance, removal or destruction of abandoned cluster munitions or unexploded submunitions. This assistance can be provided bilaterally or through a mutually agreed third party, such as the UN or other ‘relevant organisations’.

According to Article 5, States Parties and parties to an armed conflict must take ‘all feasible precautions’ in territory under their control that is affected by ERW to protect civilians and civilian objects from the threat. These precautions may include warnings, risk education for the civilian population, marking, fencing and monitoring of territory affected by ERW, as set out in the Technical Annex.

Data recording requirements

Under Article 4, paragraph 1 of the Protocol, States Parties and parties to an armed conflict are required ‘to the maximum extent possible and as far as practicable record and retain information on the use of explosive ordnance or abandonment of explosive ordnance, to facilitate the rapid marking and clearance, removal or destruction of ERW, risk education and the provision of relevant information to the party in control of the territory and to civilian populations in that territory.’

The non-binding Technical Annex sets out in more detail some of the data that should be recorded in order to facilitate future clearance efforts. With respect to unexploded submunitions, a State should record the following:

- the location of areas targeted
- the approximate number of cluster munitions used in those areas
- the type and nature of cluster munitions used in areas, including technical information relevant to clearance, and
- the general location of known and probable unexploded submunitions.⁴

Where a State has been obliged to abandon cluster munitions in the course of operations it should endeavour to leave the weapons safe and secure, and record information on their location, giving the approximate number and the types abandoned at each specific site.

NEGOTIATIONS WITHIN THE CCW ON CLUSTER MUNITIONS

In November 2006, at the Third Review Conference of the CCW, States Parties decided to convene in June 2007, 'as a matter of urgency', an inter-sessional meeting of governmental experts to consider further the application and implementation of existing international humanitarian law to specific munitions that may cause explosive remnants of war, with a 'particular focus on cluster munitions.'

As a result of this meeting the governmental experts decided to recommend to the 2007 Meeting of States Parties to the CCW to determine how best to address the humanitarian impact of cluster munitions, 'including the possibility of a new instrument.' The meeting of States Parties was held in Geneva in November 2007. It decided to establish a Group of Governmental Experts that would meet to consider the issue further.

In 2008, the Group of Governmental Experts met five times (in January, April, July, September, and November) but did not achieve consensus on how to proceed. The 2008 Meeting of States Parties to the CCW decided that the Group of Governmental Experts would meet for up to two weeks in 2009, from 16 to 20 February and then, if required, from 14 to 17 April. The Group, which was to be supported by military and technical experts, was expected to make every effort to conclude its negotiations as rapidly as possible and to report to the 2009 Meeting of States Parties to the CCW.⁵

On 20 February 2009, just prior to the close of the meeting, the chair of the Group of Governmental Experts, Ambassador Gustavo Ainchil of Argentina, proposed a draft text on cluster munitions to the States Parties. At the April session, further progress was made towards a draft protocol, although it fell far short of the aspirations of States supporting the Convention on Cluster Munitions, with a prolonged transition period for the prohibition of any existing weapons. Certain major users of cluster munitions, such as Israel, the Russian Federation, and the USA, claimed that the current text represented a good basis for negotiation, and suggested that it would affect more than 85 per cent of existing global stockpiles of cluster munitions. At the opening of the April session, the Czech Republic, on behalf of the European Union, stated that:

‘As several High Contracting Parties are not yet in a position to join the CCM (Convention on Cluster Munitions), the EU is convinced that concluding in the framework of CCW a complementary agreement, compatible with the CCM, would significantly contribute to addressing the humanitarian impact of cluster munitions.’⁶

The Fourth Review Conference of the CCW was held from 14 to 25 November 2011. At the end of the two-week conference, delegations from over 100 nations had failed to reach agreement on a controversial and weak proposal that would have legitimised the continued use of cluster munitions and undermined the 2008 Convention on Cluster Munitions (CCM). States Parties also did not adopt a further mandate to continue to work on cluster munitions. Currently the matter is not among the subjects to be considered during the Fifth CCW Review Conference scheduled for December 2016.

ENDNOTES

- 1 Final Document of the Second Review Conference, UN doc. CCW/CONF.II/2.
- 2 See Final Document of the First Protocol V Conference, UN doc. CCW/P.V/CONF/ 2007/1.
- 3 GICHD, *Mine Action and the Implementation of CCW Protocol V on Explosive Remnants of War*, Geneva, July 2008.
- 4 Technical Annex, Article 1, CCW
- 5 See United Nations Office in Geneva, ‘GGE sessions in 2009’, www.unog.ch
- 6 Opening statement by H.E. Ambassador Tomáš Husák, Permanent Representative of the Czech Republic to the United Nations Office in Geneva on behalf of the European Union, Geneva, 14 April 2009, to the Meeting of the GGE of the High Contracting Parties to the CCW, Geneva, 14–17 April 2009.



STOCKPILE DESTRUCTION

This chapter provides an overview of techniques for the destruction of cluster munition stockpiles.

The International Mine Action Standards (IMAS) state that, in the context of mine action, the term ‘stockpile’ refers to a large accumulated stock of explosive ordnance.¹ Stockpile destruction is defined as ‘the physical destructive procedure towards a continual reduction of the national stockpile’.² A State or other entity holding stocks of ammunition may wish to destroy explosive ordnance as:

- part of a disarmament process
- to implement a legal obligation
- upon expiry of shelf life
- for reasons of safety.³

As described in Chapter 3, the Convention on Cluster Munitions requires that each State destroy all stockpiles of cluster munitions under its jurisdiction within eight years of becoming a party to the convention. The eight-year deadline for stockpile destruction can be extended for an additional four years and further extensions of four years may also be granted in exceptional circumstances.⁴ Article 6, paragraph 5 of the Convention requires that each State Party in a position to do so shall provide assistance for the destruction of stockpiled cluster munitions.

The Cluster Munitions Monitor estimates that prior to the start of the global effort to ban cluster munitions, 91 countries stockpiled millions of cluster munitions containing more than 1 billion submunitions. Since the 2010 entry into force of the CCM, States Parties have destroyed 532,938 cluster munitions and 85 million submunitions, while a dozen States Parties have completed their stockpile destruction. In their 2015 report, the Monitor reported that 64 nations have cluster munition stockpiles, including 17 States Parties and signatories to the convention. Of these 17 nations, 15 are in the process of destroying their stockpiles.⁵

Stockpile destruction contributes to confidence-building between States, as well as preventing future proliferation of illegitimate weapons and ammunition.

CHALLENGES OF STOCKPILE DESTRUCTION

Cluster munition warheads are generally more complex than those of other conventional weapons. In addition to the payload of explosive submunitions, they usually incorporate a number of components within the fuzing and dispersal systems. These may include igniters, explosive charges and other hazards, such as compressed gas and springs.

Each submunition is a self-contained weapon, with an integral fuzing system and warhead that are capable of functioning independently once separated from the parent munition. Removal must be achieved without initiating the arming mechanism, and the complete destruction of every submunition must be ensured, together with that of the parent cluster munition.

Most countries acquired their cluster munitions decades ago and many continue to have inadequate record of their stocks. CM found within any one country can come from a variety of sources; purchased from one of several states and manufacturers over previous years, or left behind when allies withdrew or conflicts ended. Often, there are no technical manuals to explain the unique ammunition system's characteristics and in some cases no information on ammunition. With little subject literature available, it is difficult to understand the significant differences pertaining to technical specifications of the cluster munitions and their submunitions on the one hand, and CCM Article 2 definitions on the other. This may cause uncertainty about which stockpiled ammunition must be reported on.



22 Navigation page, Cluster Munitions ID Tool

Problems with identifying ammunition, and then establishing whether they are permitted or banned under the CCM, led the GICHD to develop the Cluster Munition Identification Tool (CMID). This web-based database system is available free of charge and offers a simple and intuitive guide to the recognition of cluster munitions. Accessible at cmid.gichd.org, the CMID allows for easy identification of cluster munitions and, upon identification, of whether or not they fall within the categories banned under the CCM.

The situation is further complicated by the fact that many cluster munition stockpiles have not been properly maintained. Much of the ammunition manufactured in, or before, the 1980s is already well beyond its intended shelf life. Storage depots have often fallen into disrepair, subjecting the ammunition to extremes of temperature. Protective packaging may have deteriorated or been removed, allowing the ingress of water and mechanical damage. In some cases munitions have been stockpiled outside, exposed to everything from plant growth to bush fires.



23 These cluster bombs in Mozambique have been stored outside for many years, deteriorating as a result of exposure to high temperatures and rain

Transporting cluster munitions to disposal sites is also problematic. A variety of safety concerns must be addressed, particularly if the ammunition has to be moved through populated areas. For large quantities, this will involve a substantial logistic effort and therefore considerable expense. Permissions, legal issues and other administration necessary for international shipment may make transportation over land all but impossible. This is why the earlier that the ammunition is destroyed, the cheaper and safer it is.

TECHNIQUES FOR STOCKPILE DESTRUCTION

Destruction of cluster munition stockpiles can be achieved through a variety of techniques. Physical destruction techniques available range from relatively simple 'open detonation', through manual disassembly of the munitions to highly sophisticated industrial processes. Opting for any particular technique will be based on factors such as:

- ammunition type
- safety
- cost
- available resources
- environmental considerations.

As the IMAS note, destruction of munitions is a potentially hazardous task. Dangers are minimised if risk assessments are carried out and correct procedures are followed. If they are not, the possibility of a serious accident becomes very high.⁶

Open detonation

Open detonation techniques are probably among the cheapest means to destroy stockpiles of cluster munitions. Specialist demolition skills are required to ensure complete destruction and it is not always easy to find a suitable demolition area. This technique is not suitable for large-scale destruction of CM stocks, and might raise environmental concerns (**see below – Environmental considerations**).

Unless very large quantities of high explosives are used, the detonation may not ensure destruction of all submunitions within a cluster munition. There is a considerable risk that live submunitions may be thrown out from the demolition; these can travel a considerable distance and become armed or unstable. This would produce a more dangerous situation, requiring additional EOD work, and putting more people at risk. After every demolition, the area must be carefully investigated to ensure that no live submunitions have been thrown out.

Closed detonation

A 'closed' detonation technique has been used in Norway, where munitions are destroyed in deep mine shafts. This method has successfully contained all known undesirable environmental effects, the depth and ground structure

ensuring that no contamination can enter the atmosphere or the water table. However, the process is slow and expensive compared to open detonation, with few such facilities available elsewhere in the world.

Closed incineration

Closed incineration usually involves feeding ammunition into a large armoured oven, which results in the explosive components burning away to leave inert metallic scrap. This technique is suitable for mass destruction of a wide variety of ammunition, although submunitions would have to be removed from their parent cluster munitions. In many cases, the submunition would then require further preparation, such as the removal of the fuze and shaped charge cone. For cluster munitions, therefore, closed incineration is often combined with disassembly (see below – Industrial Demilitarisation and Manual Disassembly) as part of a disposal process, rather than in isolation.

Closed incineration requires more technology and infrastructure than detonation, which is expensive. Some mobile plants are available but the installation is generally fixed, so that the cluster munitions must be transported to the facility. Incineration must comply with national environmental laws; those governing emissions are particularly relevant, since burning of explosive produces high concentrations of nitrogen oxide.

Industrial demilitarisation

A number of countries operate sophisticated disassembly plants in which the majority of tasks are fully automated and undertaken by robotic machinery. This creates a highly efficient system in which few people are involved and safety levels are high. Such plants can operate 24 hours a day as long as the input and output streams can be managed. This stage of the demilitarisation cycle is environmentally friendly and the technology is readily available.

The requirement for high capital investment is a disadvantage. Industrial demilitarisation involves purpose-built machines, which require testing and calibration. They must be housed in specially constructed facilities, with staff trained for their use and maintenance. A machine can only process one type of ammunition, which means that this process is only viable for large quantities of a particular type of ammunition (typically in the tens of thousands). The plants are fixed installations, so cluster munitions must be transported to the site. Industrial processing plants often only accept ammunition in good condition, which rules out many of the stockpiles present in developing countries.

Manual disassembly

Manual disassembly involves people physically dismantling cluster munitions using simple hand tools or engineering jigs. This technique has the advantage of requiring limited capital investment and can be implemented virtually anywhere, eliminating international transportation problems. This option is ideal for relatively small stockpiles (up to low thousands), mixed types and munitions in poor condition. The majority of the manual labour is carried out by local staff using, wherever possible locally sourced tools. This benefits local economies and builds capacity that can be applied to disposal of other ammunition types.

Manual disassembly is normally a cost-effective disposal option, with the added potential of recycling materials and re-using components. Examples include the Norwegian People's Aid (NPA) SHADOW programme⁷ and the Explosive Harvesting Project of the Golden West Humanitarian Foundation.⁸ In response to the increasing number of explosions at ammunition storage sites, the SHADOW programme emphasises national capacity building for stockpile management and destruction through low-tech and cost-effective techniques.

The inherent hazards of disassembly are managed through the implementation of strict and thorough quality management procedures, but the dangers can never be eliminated. This is a labour-intensive process which results in relatively slow production rates; it is rarely a problem for the countries involved, but the process would not be suitable for very large stockpiles.



24 Macedonian operators disassemble a Russian BKF cluster munition

During conventional explosive harvesting, the munition is opened using remotely operated saws. The explosive is then melted out and re-cast into new charges. Golden West provides these recycled explosive charges to demining organisations, which use them for the demolition of landmines. For cluster munitions, shaped charges can be removed and re-used for more specialist demolition work.



25 A projectile is cut open to gain access to the explosive

A SHADOW programme enabled Moldova to become the first country to destroy its own stockpile of cluster munitions in July 2010.⁹ Similar programmes, run by NPA with technical oversight from Fenix Insight Ltd, have been implemented in Macedonia, Croatia, Serbia, Mozambique and Peru.

INTERNATIONAL STANDARDS

There are no international standards specifically for the destruction of cluster munitions beyond what is set out in the CCM, Article 3. Thus, each State Party to the CCM undertakes to ensure that destruction methods comply with applicable international standards for protecting public health and the environment.¹⁰ Where the destruction requires cluster munitions to be transported or stored outside the area of jurisdiction, then relevant national laws and international regulations for transporting of dangerous goods apply.

United Nations International Ammunition Technical Guidelines (IATG Edition 2, Feb 2015) Chapter 10.10 provides detailed information on demilitarisation and destruction of conventional ammunition. The guidance is voluntary for states to take advantage of as stand-alone instruction for stockpile management, or as a toolset to support national standards, including its provisions for e.g. transport of ammunition (Ch. 08.10), ammunition processing (Ch. 07.10) and operational (temporary) storing of ammunition (Ch. 06.10). IATG's comprehensive technical guidance expands from demilitarisation and destruction techniques to related, pivotal aspects of stockpile reduction including e.g. pollution controls, environmental norms, disposal options, explosive limits, quality management, planning processes, and more. The CCM is mentioned on Page 3 of the IATG 10.10.¹¹

Standard NATO agreements (called STANAGs) lay down general standards for management of conventional ammunition, while an OSCE Handbook of Best Practices on Conventional Ammunition (2008) provides general guidance on the destruction of conventional ammunition. In addition to these international

standards and guidance platforms, there are regional and national laws and regulations influencing the options for destruction of cluster munitions.

Environmental considerations

Concerns have been expressed regarding environmental consequences of destroying cluster munitions by open detonation methods, both by States holding stockpiles and also potential donors, which may fall foul of national or international environmental legislation and guidelines.¹² In Europe, some countries have banned open detonation of munitions unless there is no alternative, which in turn can only be justified on the grounds of safety. With further reasons, such bans have encouraged the development of purpose-built demilitarisation facilities.

Studies have shown that, under the right conditions, the environmental impact of small demolitions is negligible; indeed, this often appears to be the best option where the alternative would be a long journey or the construction of a special processing facility. However, there are many complex factors to consider and the argument surrounding the environmental effect of open detonation is still ongoing.

There are international standards for determining and measuring air pollution from industrial processes. These standards apply to any pollution control systems used during industrial demilitarisation but do not provide guidance on what overall emission limits should be.

Setting emission controls and limits remains the responsibility of the national authority and is stipulated by agreed domestic, regional and international thresholds for toxins, heavy metals and CO₂. To fight global warming and reduce industrial pollution worldwide, the Paris Climate Agreement was signed by 175 countries on 22 April 2016 at UN Plaza in New York City. It is the first legally binding, universal agreement adopted by 195 countries in December 2015.

Until the Paris Climate Agreement enters into force in 2020, the only applicable regional legislation that covers emissions into the atmosphere from the incineration of hazardous waste is the Directive 2000/76/EC of the European Parliament and the European Union Council on the Incineration of Waste, 4 December 2000 (Emissions to Air). This provides a comprehensive standard and is in use by all European Union countries and those countries with associate status. It does not prohibit open detonation.¹³

ENDNOTES

- 1 IMAS 04.10: Glossary of mine action terms, definitions and abbreviations, Second Edition, 1 January 2003 (incorporating amendment numbers 1, 2 & 3), 3.244.
- 2 Ibid. 3.245.
- 3 IMAS 11.10: Guide for the destruction of stockpiled anti-personnel mines, Second Edition, 1 January 2003 (incorporating amendment numbers 1, 2 & 3), Section 6.11, p. 6.
- 4 Article 3, paragraphs 1–5, Convention on Cluster Munitions.
- 5 Cluster Munition Monitor 2015 Report, Major Findings, <http://www.the-monitor.org/en-gb/reports/2015/cluster-munition-monitor-2015/major-findings.aspx>
- 6 IMAS 11.20: Principles and procedures for open burning and open detonation operations, Second Edition, 1 January 2003 (Incorporating amendment number(s) 1, 2 & 3), Section 4, p. 2.
- 7 SHADOW stands for Self-Help Ammunition Destruction Options Worldwide.
See: <http://www.jmu.edu/cisr/journal/17.3/notes/moroney.shtml>
and <https://www.npaid.org/content/download/497>
- 8 See Golden West Humanitarian Foundation, 'Transforming Weapons of Warfare into Tools for Peace', www.goldenwesthf.org/index.php?option=com_content&task=blogcategory&id=3&Itemid=3#camodia.
- 9 See: <https://www.youtube.com/watch?v=rOpNUHdhrLo>
- 10 Article 3, paragraph 2, Convention on Cluster Munitions.
- 11 <http://www.un.org/disarmament/convarms/ammunition/IATG/>,
<https://unoda-web.s3.amazonaws.com/wp-content/uploads/assets/convarms/Ammunition/IATG/docs/IATG10.10.pdf>
- 12 The NATO Maintenance and Supply Agency (NAMSA), for instance, will not award contracts for stockpile destruction of any munitions by open detonation. The only exemption to this is the use of open detonation in deep mines in Norway, where an environmental impact assessment has supported the technique.
- 13 European Union Strategy and Action Plan on Paris Climate Agreement 22 Apr 2016 (COP21), http://ec.europa.eu/clima/policies/international/negotiations/paris/index_en.htm



SURVEY OF CLUSTER STRIKES

This chapter considers the survey of cluster munition strikes. It covers recent key developments in the field of survey that have improved measurement of contamination and efficiency of subsequent clearance.

NEED FOR MORE EFFECTIVE SURVEY

Effective survey is essential for the efficient clearance of cluster munition contamination. In the past, clearance has sometimes been conducted where there is little or insufficient evidence of cluster munitions.

In some countries clearance teams found one submunition for every few thousand square metres searched. Sometimes land without any cluster munitions or explosive remnants of war (ERW) was cleared. The need to improve operational efficiency was clear.

Added impetus was provided by the development of land release principles starting in 2007 and by the practical need to define areas of contamination in compliance with the Convention on Cluster Munitions (CCM).

A core principle of finding credible evidence emerged as a prerequisite for clearance. An innovative study and review was conducted by the INGO Norwegian People's Aid (NPA) in 2010. The study examined how land release principles could be applied to enable compliance with the CCM. The process enabled mapping of cluster munition remnants within defined Confirmed Hazardous Areas (CHAs) through a rapid process of Technical Survey (TS). CHA perimeters were established based on evidence.

Although the concept had potential, the challenge was to apply it practically. The Lao PDR was selected as an operational environment to prove the theory. A TS technique known as Cluster Munition Remnants Survey (CMRS) was developed. This would become more widely known as Evidence-Based Survey (EBS). Although CMRS was developed for the South East Asia contamination environment the principles behind it can potentially be applied elsewhere and to more recent conflicts.

Lao PDR context

Cluster munition (CM) contamination in South East Asia, from the conflicts of the 1960s and 1970s, is extensive. Bombing resulted in multiple strikes on overlapping targets over a number of years. With so much contamination, clearance organisations initially only cleared land that was prioritised for use, rather than full cluster munition strike ‘foot prints’. In the early years of clearance this land use request approach was deemed reasonable but as time went on it became progressively inefficient. The term ‘request-based clearance’ became accepted and misidentification of extremely large areas as contaminated led to a slower overall removal of explosive hazards from the ground. Technical survey would, in some instances, simply involve marking out turning points around areas designated for clearance. This was to re-assure the land owner or local community regardless of whether any evidence was present.

Cluster munition contamination in the Lao PDR is relatively uniform. According to the United States Theatre History of Operations Reports (THOR) bombing data, 81.45% of all cluster munitions dropped on Laos were spin-stabilised, such as the CBU-24 (containing 665 BLU-26 bomblets or submunitions).¹ Such cluster munitions tended to form predictable oval patterns or footprints on the ground which could be potentially identified from a start point of one submunition located in its original strike position.

Development of Evidence-Based Survey (EBS)

The solution to the issue of insufficient or inaccurate survey, alongside sometime inefficient clearance, was to develop a process that concentrated on the gathering of credible evidence. This involved a desktop analysis of historical bombing, survey and clearance data and fresh Non-Technical Survey (NTS) to assess information from local people in the first instance. This was followed by a more credible technical survey to ultimately ascertain if there was direct evidence of contamination. Preparation for survey included comprehensive analysis of previous data, accident reports, spot tasks, clearance reports and use of databases such as THOR.

NTS was conducted within village boundaries as the unit of inquiry. The survey teams had where possible the necessary gender and ethnic balance with language skills to best gather evidence from local populations. Evidence points of cluster munitions were represented on a village map and became start points for technical survey. Local communities were given a full explanation of the entire survey and

clearance process at this point to ensure their involvement in the prioritisation and clearance of their own land. Good quality NTS was essential. However the key development was the new technical survey procedure, CMRS, developed by NPA.

The CMRS process starts with the results of NTS, namely the recorded evidence points for both cluster munition remnants and other UXO in the area. All cluster munition evidence points identified in a given area (e.g. typically within the boundary of a village) became starting points for investigation by CMRS teams. Actual submunitions or other UXO found during NTS were immediately dealt with by Roving Explosive Ordnance Disposal (EOD) teams. If a submunition was found in one location, teams would investigate the surrounding area to see if this was a single moved item or part of a wider strike footprint. Teams essentially followed the evidence until the full extent of a strike was known. It could be said that the aim of CMRS teams in the field is to find and report cluster munition Confirmed Hazardous Area (CHAs). Once the survey was complete, a CHA polygon was drawn around the area where contamination was confirmed and reported to the national authority.

The key objective of CMRS is to find evidence of a cluster strike. This could be a submunition or fragmentation from a submunition. It involves rapidly surveying 50 m x 50 m (2500 m²) boxed areas around the initial evidence start point. CMRS determines which boxes contain evidence of contamination. Five, and later four, searchers were assigned to each box. When searchers found a submunition or strong evidence such as a fuze, survey in that boxed area was terminated and the box was recorded as colour code red. Given the nature of cluster strikes in the Lao PDR, typically searchers would identify a red box within 5-10 minutes of commencing a search.

If searchers found fragments of cluster munitions (e.g. a fragmentation ball bearing from a BLU-26), the box was recorded in yellow. If no evidence was found within the box during the allotted time (typically around 30 minutes or when the section commander believed more than 50% of the box was covered; whichever was longer), the box was recorded as green. Inaccessible boxes were recorded in grey, and boxes that contained other UXO were recorded in blue. Boxes that contained both UXO and CM were also coloured red.

The dimensions of the box could, if necessary, be marked out on the ground using a simple 25 m rope system fanning to four points of the compass from the centroid (centre point) of the box. A CMRS team of two sections would survey around 10 – 14 boxes (25,000-35,000 m²) per day although this figure was dependent on ground conditions and terrain. Some strikes were far from the nearest road access and could require significant time to reach within a given working day.

Detector sensitivity is dependent on soil conditions in a given area. NPA searchers used UXO detectors such as the Vallon VMXC1-3. Other organisations used Minelab F3 (red endcap) and the Ebinger PIDD for the same role. The searchers moved through each box in a controlled manner under the direction of the section commander. Tests showed five searchers could cover at least 59.8% of the box in 23.5 minutes in open land and 53.8% in heavily forested close terrain in 30 minutes.²

By mid-2012, the CMRS method was fully operational. It would become known at a national level as Evidence-Based Survey (EBS). By 2014 a number of other operators, including HALO Trust and UXO Lao, were also conducting a form of CMRS. Partnerships developed in which where NPA would conduct technical survey producing Confirmed Hazardous Areas (CHAs) whilst MAG or UXO Lao would conduct the subsequent clearance.

Approaches varied between operators. NPA was keen to survey as much of the contamination as possible in order to create a national baseline. HALO took advantage of operating on a smaller scale by conducting all stages of the land release process within a village unit sequentially. This maximised interaction with local communities and increased chances of finding as much contamination as possible, not just through EBS but also during ongoing clearance. There were reasonable arguments for both approaches.

Information Management (IM) Aspects of CMRS

Evidence-Based Survey required the capture and reporting of huge quantities of data, arguably more than previous technical survey within mine action. Proficient IM was essential for the success of this new process.³

The initial stage involved creating a grid system covering a digital map of the country in 1 km x 1 km sized grid boxes. This was exactly overlaid on top of the UTM grid system and was normally made using the Fishnet tool in ARCGIS, although Google Earth was also a viable alternative.

The 1 km grid squares were identified by a unique Military Grid Reference System (MGRS) number, e.g. 48Q_AA_12_34. The fishnet tool was also used to create 400 x 50 m x 50 m boxes within each 1 km² box. A shapefile of a centroid for each 50 m x 50 m box was created using Xtools.

The UTM grid references of these centroids are the start points for TS of each box, which has a unique identifier. The centroids were easily sent to field teams by use

of DNR Garmin. Conversion to GPX files was required for use in GPS, and to KML files for representation in Google Earth. Where they were available, good quality geometrically corrected ortho-maps were used instead. Imagery from Unmanned Ariel Vehicles (UAVs) is likely to be increasingly used in the future.

At the end of each work day teams reported search results within the labelled boxes. Some organisations had report forms loaded onto tablets; others reported results for each box searched that day by phone. As time passed more organisations invested in the training and equipment required for digital reporting. The benefits of quicker access to data, alongside the reduced possibility of transcribing errors, were quickly evident.

Use of IM tools was a fundamental component of successful TS of cluster munitions. Advances made could not have happened without integrating proficient IM into operations. Development of Evidence-Based Survey by NPA stands as a notable example of benefits that can be realised when IM and Operations work closely together. While much of the IM design behind operational procedures could seem complex for lay people, the procedures they supported were at all times practicable. Use of Infopath forms and SharePoint reduced input errors and allowed real time access to data reported from the field anywhere in the world. Similar means of reporting across mine action have since become increasingly common.

Significance of Evidence-Based Survey

Development of EBS was essentially the first real application of technical survey for cluster strikes. Previously the possible extent of strike footprints might remain unknown until the end of the clearance phase. Now, to a significant degree, such a picture comes a phase earlier; at the end of technical survey.

Clearance for cluster munitions is typically manual, and costly. Scarce clearance assets should be assigned to land confirmed as contaminated. While the clearance process remains part of a continuous investigation of evidence, clearance itself can now be more effectively planned and targeted with the implementation of EBS.

Kontayoun village case study

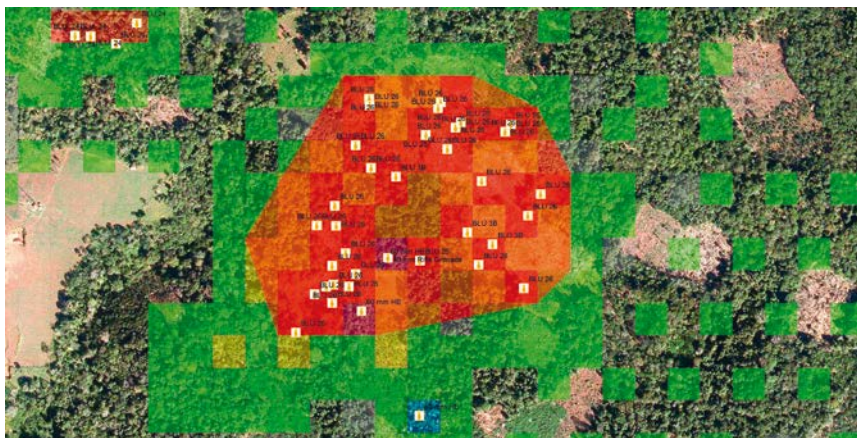
The following case study of a site near Kontayoun village, Thateng District, Sekong, Lao PDR shows the EBS process from start to finish.

NTS by NPA identified cluster munition evidence points in an area of jungle, mixed with some cultivated fields. The site was required to develop a coffee plantation in accordance with the regional economic development plan.



26 Plan view of task site near Kontayoun village. Terrain was a mix of cultivated fields and jungle

NPA conducted CMRS which resulted in a CHA of 159,891 m² being drawn. NPA found 91 items during CMRS alone (3 x 60 mm mortar, 1 x 40 mm grenade, 3 x BLU-3b, and 84 x BLU-26).



27 Plan view of CMRS results. Items found in red boxes are shown by the small white labels

Subsequent clearance identified at least five clear strikes in areas of jungle or bands of jungle adjoining the cultivated land. There were another two or three probable strike footprints on the eastern side of the CHA. Cultivation had probably altered the footprint patterns since the conflict over forty years earlier.

BLU-3bs, which can be found in patterns that are potentially more difficult to detect by TS, were also present in small numbers at this site. Clearance enlarged the polygon by 62.3% to 259,533 m². A further 775 items were found (760 x BLU-26, 8 x BLU-3b, 2 x M67 hand grenades, and 5 x 40 mm rifle grenades). The total number of submunitions for the final clearance polygon (including CMRS items found) was 844 x BLU-26 and 11 x BLU-3bs.

In a basic measure of efficiency, while discounting non-cluster munition ERW, NPA found one cluster munition for every 303 m² cleared. This compared favorably with cluster munition clearance across the world at the time.



28 Plan view of Clearance results

This case study also illustrates the subsequent discussion of how EBS should develop. Of the 259,533 m² ultimately cleared, many of the submunitions were found in a much smaller area. For example the two distinct footprints in the south west of the CHA had a combined surface area of 15,649 m².

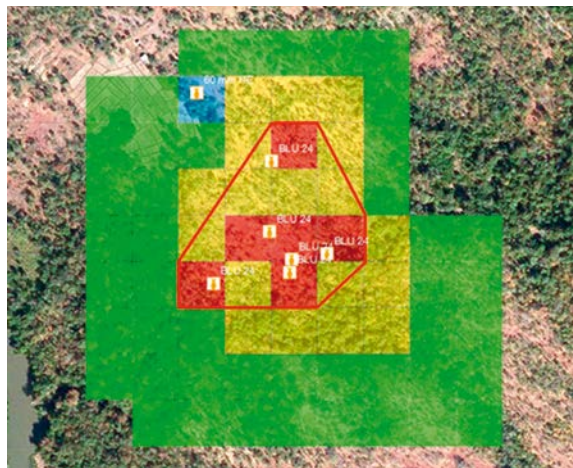


29 Plan view of two strike footprints on the south western side of the CHA

During CMRS and clearance, 312 cluster munitions were found in these two distinct footprints, i.e. one item for every 50.16 m² ultimately cleared. These results supported a case for drawing CHAs relatively tightly.

Green boxes would not be included in CHAs unless absolutely necessary (normally if surrounded by red or yellow boxes). Indeed, at the time, some operators would not include yellow boxes within a CHA unless there was a compelling reason. Subsequent clearance would always be conducted a standard 50 m from the last cluster munition found in any case, so tight drawing of CHAs would be unlikely to risk strikes being missed.

Indeed, given that tight CHA drawing led to an even better focus of resources on areas of real contamination, ultimate clearance of explosive hazards speeded up and the overall risk was arguably reduced. In 2011, when NPA started large scale CMRS in Laos, the average CHA size was 64,383 m². By mid-2015 that size had been reduced to 35,562 m².



30 Tightly drawn CHA around a BLU-3b CHA.

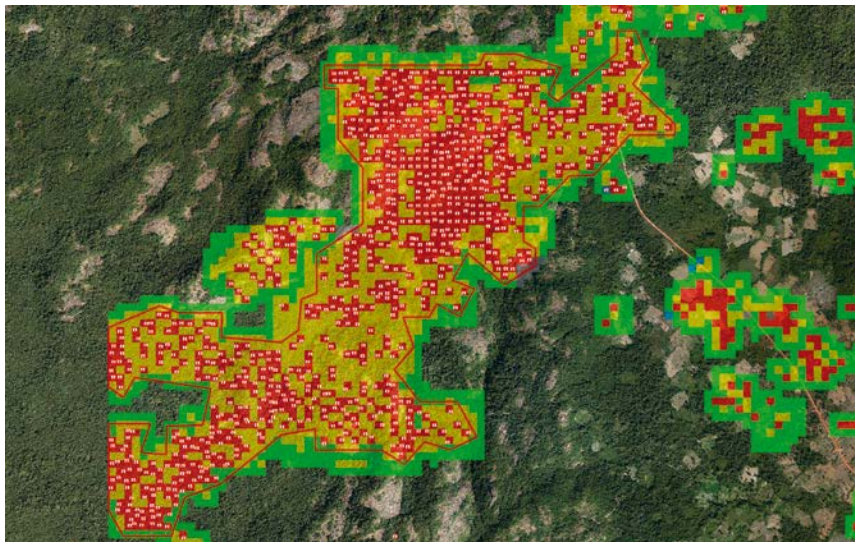
Note the yellow boxes are not always included within the CHA

Subsequently it was argued by some that CHA should not be drawn so tightly. A view emerged that CHAs produced by EBS should reflect the likely amount of clearance required and if drawn tightly would potentially underestimate the figure.

A decision was taken by a number of operators in Laos in 2015 to include a fade out of 50 m at the survey stage. This enlarged CHA sizes but possibly gave a clearer indication of the amount of clearance that would be ultimately required in an area. By the end of 2015 NPA's average CHA size was 57,988 m² which reflected this new approach. CHAs in countries such as Cambodia and Vietnam have traditionally been larger from the start of EBS, reflecting different interpretations and applications of EBS, according to circumstances in each country. Changes in Laos standardised, in some respects, an approach to CHA drawing in South East Asia.

It should be noted that, regardless of the average size, some CHAs can be remarkably large. EBS has shown that areas that saw concentrated bombing over a prolonged period, which are typically logistics hubs or key road junctions or river crossings, can create CHAs of km².

The image below shows a 4,185,769 m² CHA found by NPA near the village of Phouhom, in Attapeu Province, Lao PDR between May and December 2015. From the EBS alone 881 explosive devices were found within this CHA, 875 of which were submunitions. More will no doubt be found when the site is eventually cleared.



31 Example of a large CHA found near Phouhom, Attapeu Province, Lao PDR in 2015

All reasonable effort and liability

The technical survey techniques developed in South East Asia are not infallible. Items can be missed, just as items have unfortunately been missed during clearance. The prime consideration is the finite resources available to remove cluster munitions. With so many submunitions to be removed, the key question is how best to apply these resources.

Before EBS was developed, the extent of contamination in a number of countries was not accurately known and resources were not always effectively targeted. On balance, it is perhaps better to target resources more effectively while accepting a small risk that technical survey procedures might miss items or might only be targeted in areas with a sufficient evidence threshold. In many ways EBS will only ever be as good as the Desktop Analysis and NTS that precedes it. It is important these stages are conducted by well trained and managed teams.

This minimises the possibility of missing evidence. Quality Management of all stages of the Land Release process should be rigorous, and not limited to technical survey and clearance.

It should be noted that a number of checks are integral to EBS. Evidence so far suggests that the average size of the most common cluster munitions footprint in South East Asia, the CBU-24, is approximately 11,000 m². In an average footprint, the survey team would have to miss items in over four boxes to fail to find a strike. This would be an unlikely scenario. Most footprints overlap so in reality teams would need to miss evidence in more than four boxes. In any case survey teams typically report finding contamination within five or ten minutes of searching. Some have come to accept that good quality EBS can constitute 'all reasonable effort'.⁴

Debates continue over the extent of survey required. Some operators advocate more extensive survey to provide greater reassurance. Others contend that there is an option of NTS or EBS teams returning if new evidence of strike footprints is found after technical survey or clearance. The debate over what constitutes all reasonable effort at each stage of the land release process in a given country is likely to continue.

Quality Management (QM) of Evidence-Based Survey must of course remain strong and accident rates in surveyed and cleared areas should be closely monitored. However, there are currently no indications that EBS will lead to an increase in risk from explosive hazards to local populations. Arguably it will reduce risk considerably, due to faster removal of more explosive hazards. Not all explosive hazards will be removed, and inevitably some will remain as residual contamination. Every country that has experienced significant conflict has been confronted with a degree of residual contamination. Many have shown that it is possible to successfully manage the risk that residual contamination poses. In the short term, the priority will remain the timely survey and clearance of as many items as possible. EBS is a significant part of this process.

Future Developments

Techniques pioneered in the Lao PDR, and replicated in Vietnam and Cambodia, are, in some ways, specific to those operating environments. The fundamentals of the process can, however, serve as a framework for the conduct of future surveys of cluster strikes in other countries. The key principle of combining practical IM with practical procedures in the field remains.

The challenge will be adapting these methods to operating environments where the hazard from cluster munitions and the respective national safety rules (as detailed in National Mine Action Standards) are different from one country to another.

In some countries with similar contamination, such as Lebanon, it is not permitted to enter a cluster munition strike footprint. However, in South East Asia it is permitted. In Lao PDR, operators typically have four searchers and possibly a section commander within a 50 m x 50 m box. In other countries this would break safety distance rules. In Lao PDR personal protective equipment (PPE) is not worn by all operators; in other countries it is mandatory.

Perceptions of risk and reasonable effort differ from country to country. EBS might not be applicable to certain types of cluster munition contamination. For example, even in Lao PDR some argue it is not best suited to identifying strikes from larger submunitions, such as BLU-45s and BLU-49s. Others see the technique as more effective against spin-stabilised cluster munitions rather than cluster munitions dispensed directly from an aircraft, such as the CBU-14 and CBU-25.

Challenges involved in adapting EBS to other countries are clear but are not insurmountable. Fewer searchers with full, appropriate PPE can be used in a box and, if necessary, single searchers can search many boxes concurrently when section commanders and team leaders are adequately trained to coordinate this. Even if teams search a series of boxes more slowly than in SE Asia, due to different safety procedures, the process will still offer an improvement in TS and is likely to speed up land release as a whole. There is potential for dogs to be used for EBS. NPA Cambodia and HALO Trust in the Lao PDR have had notable success with multi-skilled teams which can undertake NTS, TS (CMRS), Battle Area Clearance (BAC) and basic Explosive Ordnance Disposal (EOD). It is possible this concept could be replicated elsewhere.

Inevitably different operators, and even programmes within the same organisation, will adapt EBS in accordance to their own circumstances. This is a strength of EBS because such diversity allows further constant improvement through varied trial and error on the ground. EBS will necessarily evolve as a method. The challenge will be maintaining quality, sufficient standardisation and relevance to varied operating environments concurrently.

CONCLUSION

The development of EBS in Lao PDR was very significant. It played an essential role in making clearance more efficient and in enabling long term planning and prioritisation. The NPA approach was soon accepted and adopted by the clearance operators, firstly in Lao PDR and then in Vietnam and Cambodia.

The challenge is now to adapt key elements of the process (notably the system of grid boxes and the IM that supports this) to other contaminated countries. CMRS was particularly effective when surveying spin-stabilised cluster munition strikes such as those from CBU-24s. It has a probable application for other types of cluster strike as well, and it is hoped it can be successfully adapted and applied in the future.

ENDNOTES

- 1 <http://www.jmu.edu/cisr/journal/19.2/r-d/evans.shtml>
- 2 NPA Laos Field Tests, April 2014. GPS tracking shows that all five searchers covered 1245m in open ground. The degree of coverage depended on the width of arc that an average searcher would achieve with a Valon VMX C3. If 1.2m is taken as a minimum 1492 m² were covered. Many searchers covered 2m+ arc with their detectors so 1492 is likely to be an underestimation of the ground covered.
- 3 'Surrounding the entire land release process should be an effective information management system that ensures that data is collected accurately and consistently, is reported in compliance with formats and schedules, is entered into databases correctly, and is analysed to provide reliable support to decision makers, quality monitors and other interested parties.' IMAS 07.11 First Edition (Amendment 2, March 2013). Land Release. Introduction p.1
- 4 IMAS 07.11 First Edition (Amendment 2, March 2013).



CLEARANCE AND DISPOSAL OF CLUSTER MUNITIONS

This chapter considers the safe clearance and disposal of cluster munitions in accordance with the International Mine Action Standards (IMAS),¹ taking into account the lessons learned in recent conflicts in which cluster munitions were used.² The clearance and disposal of certain cluster munitions is required by both the Convention on Cluster Munitions (see Chapter 3) and Protocol V to the Convention on Certain Conventional Weapons (see Chapter 4).

Mine action organisations generally refer to clearance of explosive ordnance other than landmines i.e. explosive remnants of war (ERW) as battle area clearance (BAC), explosive ordnance disposal (EOD), weapon and ammunition destruction (WAD), or conventional munition disposal (CMD).³

This chapter concentrates on BAC where submunitions are the main hazard rather than other ERW, although it is recognised that other munitions are likely to be found during the clearance process.

Aims of post-conflict submunition clearance include:

- prevention of further casualties
- restoration of land, buildings and infrastructure to productive use
- opening of routes to permit freedom of movement, and
- creation of confidence within the local population.

The clearance of cluster munitions is a challenging and potentially dangerous explosive ordnance disposal (EOD) task. It is, however, fundamental to post-conflict remediation. In many cases, displaced people are unable or reluctant to return to their homes, their land or their workplaces. Unlike minefields, which are normally clearly delineated in open ground, cluster munition strikes may extend across rural and built-up areas, with little or no obvious sign of their presence.

The sensitivity of many fuzing systems means that disposal *in situ* is the only safe option. However, in the absence of specialist EOD resources, untrained people – sometimes children – have attempted to clear areas by collecting submunitions for destruction elsewhere, often with devastating consequences. It is therefore vital that clearance tasks are prioritised, planned and executed by well-trained teams as a matter of urgency.

CLEARANCE METHODOLOGY

Generally speaking, clearance methodology is a function of ongoing risk assessments made at both national planning and tasking level and on the ground by field operators. IMAS defines BAC as ‘the systematic and controlled clearance of hazardous areas where the hazards are known not to include mines’, and clearance as ‘tasks or actions to ensure the removal and/or the destruction of all mine and ERW hazards from a specified area to a specified depth’ (IMAS 04.10 – 2005)

A submunition clearance task will normally be either a visual search of the surface of the suspected area, or a visual search and an instrument-assisted search below the surface to a specified depth.

The choice of method may be influenced by the following factors:

- casualty rate
- conflict history: access to official records of the number and type of cluster munition strikes
- contamination profile: submunition type(s) and other ERW
- clearance history: access and quality of records and reports of past activities
- intended land use: urban, rural (grazing) or rural (agricultural)
- type of terrain: e.g. access to the area, vegetation density, road proximity
- impact of CM on the communities within the SHA and in the surrounding area
- weather at the time of the cluster strike and planned clearance activity
- season; e.g. the extent of vegetation, crop cycles, ground condition, access, rain
- available resources

Visual/surface search

This method has been used on several occasions after conflict as a quick and effective means to reduce the immediate hazard in an area. In many emergency response scenarios this methodology is employed in order to maximise the impact of scarce EOD resources, although its effectiveness is hazard and terrain-dependent. For example, it may be particularly appropriate in urban areas or on rocky hard ground where unexploded submunitions are lying on or above the surface. Visual search will normally include the search of ground and vegetation or structures above it, since submunitions frequently end up in trees, fencing and buildings.

Visual/surface search is often conducted during the emergency phase of a post-conflict clearance operation. The advantages are that it can be implemented quickly, with limited resources, and can rapidly lower the casualty rate. If all cluster munition remnants were indeed visible on, and above the surface in a given area, then after their disposal the area is no longer contaminated. This enables local populations to resume activities there.

The disadvantages of the visual search method lie in occasional misperceptions among local communities and authorities that at the end of the search, the area would have been cleared to a specified depth, as this is not the case. In addition, if a conducted visual search results in no evidence of CM in a given area, the tasking authority may delete the area from the clearance plan, or lower its priority. Sometimes the information is just not good enough and areas that were deemed safe were in fact contaminated under the surface.

In recent operations, many surface search tasks have left hazardous areas – in some cases for many years – with inadequate or ambiguous official records and no local markings. Where rapid surface search is conducted, it is therefore crucial that:

- the extent and limitations of the search are recorded
- the local population are aware of residual hazards, and
- follow-on (sub-surface) operations are planned as soon as possible.

In all instances where visual searches have been conducted, it is essential that accurate recording and reporting of the task is conducted for follow-up tasking if



32 Small submunitions, such as DPICM, often end up on the surface and can be located visually

necessary. Each item found should be properly recorded using maps and a GPS in order to be able to establish the footprint of the strike, and to account for all submunitions.

Instrument/sub-surface clearance

Sub-surface clearance is slower than a visual surface search, but provides a more comprehensive solution. The decision whether or not to conduct sub-surface clearance is dependent on an objective assessment of the likelihood of unexploded submunitions below the surface. If, for example, part of the footprint is on a tarmac road, the road itself will not normally require more than a visual inspection. If, on the other hand, the ground is soft (such as a ploughed field), then sub-surface clearance will almost certainly be needed. Whichever decision is taken, it must be documented and the reasons recorded.

When a decision to conduct sub-surface clearance is taken, it may still be appropriate to carry out a surface search beforehand; not only does this reduce the immediate threat to the local population, but it also enables clearance personnel to traverse the area in greater safety.

The extent and the depth of clearance should be decided by national authorities. A typical example would be to search a distance of 50 metres past the last submunition found (to cover 'fade-out')⁴ and to a depth of 20 centimetres (e.g. for Dual Purpose Improved Conventional Munitions – DPICM). For larger submunitions, clearance depths may be set, at 50 cm, a metre or more. The search parameters may change as a result of new evidence (e.g. submunitions located beneath the search depth) or changing factors, such as new land use requirements. In any case, the decision-making process should be fully documented.



33 A sub-surface instrument search being conducted in Kosovo

Instrument search may also be used to augment above-ground visual and surface clearance where, for example, submunitions are believed to be hidden in thick vegetation or suspended in trees.

RENDER SAFE PROCEDURES

Render Safe Procedures (RSP) are technical instructions for the destruction or neutralisation of unexploded munitions. They are usually detailed in technical manuals or Standing Operational Procedures (SOPs) intended for use by trained EOD operators using specialised equipment.

The four most common disposal methods are:

- destruction by detonation, normally carried out *in situ*
- destruction using ‘deflagration’ technique
- techniques to separate the fuze mechanism from the main charge
- manual neutralisation of the fuze.

These are discussed briefly in turn. It should be stressed, however, that *any RSP should only be carried out by appropriately qualified EOD technicians who are familiar with all aspects of the submunition and fuze mechanism design.*

Detonation

Destruction by detonation *in situ* is usually the most appropriate RSP for unexploded submunitions. This involves placing a high explosive charge beside the submunition and detonating it, which also detonates the submunition. Of course, where clearance activities have to be conducted in or around populated areas, this may not be a popular decision among locals.

Where destruction by detonation *in situ* is conducted, sandbags (or some other protective structure capable of containing the fragmentation) should be placed around the device before demolition. In Lebanon, some clearance operators used rubber tyres or a water-based ‘prill’ sandbag system to mitigate damage. Multiple submunitions are often detonated simultaneously using electric cable or detonating cord to link charges.

A major consideration during the disposal of some submunitions is the danger from the formation of a shaped charge jet. These jets have the potential to travel more than 1,800 metres, so it is important to place explosive charges in a way that prevents their formation. An alternative is to place a robust barrier in front of the submunition to ‘catch’ or attenuate the jet.⁵

Deflagration

Deflagration is the rapid burning of the explosive content without detonation; this method is also normally conducted *in situ*. A small purpose-built shaped charge (often referred to as a point focal) may be fired at the submunition to induce deflagration of the main filling. Alternatively, for example, pyrotechnic torches may be used to induce deflagration of the explosive within a submunition.

This method is generally safer than demolition as the charge can be mounted a distance from the target (at least 80 mm), but it requires more training, tends to be more expensive, and takes longer to set up.

Successful deflagration is less destructive than detonation, but the disadvantage is that it may leave live fragments of explosive and hazardous components, such as detonators, in the area.

With all deflagration techniques there is always a risk of the submunition detonating, therefore the same precautions and danger areas have to be put in place as for when using normal detonation procedures.

Separation techniques

Separation techniques, such as the use of small linear cutting charges, water-jet disruptors, or explosively fired projectiles, are designed to detach the fuze mechanism from the main charge of the submunition. Once separated, the fuze well cavity of the munition should be inspected to ensure that no hazardous components of the fuze remain. If the fuze well cavity is clear of hazardous components then the munition can be moved and disposed of in a suitable location. It may even be possible to move the fuze, provided that all component parts can be positively identified and the EOD technician is certain that the initiation mechanism has been totally disrupted.

Manual neutralisation

Manual neutralisation is rarely advisable, since the condition and sensitivity of unexploded submunitions is usually unknown. Under some circumstances, this option might be considered by EOD personnel for simple mechanical submunitions (such as the Russian AO-1SCh) in good condition. It should not be conducted for any submunition with electric or piezo-electrical fuze components. In general, manual neutralisation should only be considered where a grave and immediate threat to human life exists.

OPERATIONAL PLANNING

Criteria used in determining operational priorities

The purpose of priority-setting in any field is to ensure we are doing the 'right job' with a view to maximising the ratio of benefits to costs.⁶ When determining clearance priorities for cluster munitions and other ERW, the following factors should be considered and, therefore, reflected in the criteria used for setting priorities:

- technical data: the nature and extent of the contamination; access to sites; weather conditions; ground cover; etc. These factors determine whether a suspected hazard needs to be cleared at all and, if it does, the skills, assets, funds and time required.
- risk to life and limb for:
 - ▶ civilians, particularly when they are displaced and upon their return, as they will not know the nature and location of the hazards
 - ▶ humanitarian and development aid workers
 - ▶ security forces, including international peacekeepers, who are trying to restore security in conflict-affected zones
- potential value of contaminated or inaccessible land and other assets, including:
 - ▶ denial of properties – farmland, water points, forests, and other assets needed for livelihoods, as well as roads and paths that provide access to markets, health clinics, schools, etc.
 - ▶ constraints on reconstruction and development – even when people can 'work around' contamination and get on with their lives, submunition contamination may constrain infrastructure reconstruction and new investments, both public and private, that are needed to lift conflict-affected communities and entire regions out of poverty
- likelihood that the cleared or unblocked land/assets will be used productively – land disputes; the absence of complementary inputs (e.g. seeds for planting); or the absence of funds for reconstruction and development projects will constrain the productive use of areas cleared or made accessible, which would alter the benefit to cost ratio and the priority of the task

- international legal obligations and norms – States Parties to the Convention on Cluster Munitions or Protocol V of the CCW have accepted legal obligations and are bound to respect them. Value must also be placed on meeting some or all of these obligations in non-party States when (i) the government seeks to be in compliance with international norms that stigmatise the use of cluster munitions or (ii) the country receives financial or technical assistance from countries that are States Parties to the relevant conventions.

A key issue is what relative weights to attach to the various criteria. Possible operational tasks must be assessed against all criteria. During the Socio-economic Survey and Priority-setting workshop held in Vientiane, March 2009, the GICHD described the following way of using criteria to set priorities:

Total Benefits = Value of Risk Education + Economic growth + Poverty reduction + Value of Treaty Compliance.⁷

In addition, any priority-setting system for dealing with significant contamination must feature both top-down and bottom-up elements. For example, allocating resources from the national level among provincial districts is a top-down decision. However, most impacts of explosives contamination are highly localised and so information about preferences from affected communities is needed to ensure the correct task priorities are identified for the assets available in the province or district.⁸

Priority-setting and operational planning

A number of special challenges can complicate priority-setting for cluster munition clearance, such as:

- multiple decision-makers: officials from the local government, UN agencies, and donor countries, plus operations managers, may all have different views on the relevant weights to assign to the priority-setting criteria
- poor data quality: particularly in the emergency response phase, when poor task selection could lead to unnecessary casualties and wasted resources
- rapidly evolving context: due to, for example, changes in national politics and in the security situation; this may mean that clearance priorities need to change

There is no priority-setting blueprint that can be applied in all countries. Even within a country, the system for setting clearance priorities may have to be modified as contamination data improves, displaced people return to their communities, more clearance assets arrive, organisations enter or leave the programme, and government capacities grow. Given these factors, it is often useful to think in terms of stages in a country's transition from conflict to development, and how clearance priorities might evolve through those stages.⁹

Stage in conflict & political transition	Stage of Response	Typical issues for planning & priorities
Continued conflict/peace negotiations	Pre-response planning	Obtaining data on military strikes; preparation of contingency plans; liaison with national authorities and early response agencies
Immediate post-conflict	Emergency	Survey & clearance of routes for refugee/IDP return and for aid delivery; expanding survey effort; establishing coordination & reporting mechanisms
Restoration of internal security	Emergency/ integrated peacekeeping	As above, plus meeting mobility requirements for security forces; exit planning and establishing national capacities
Priority reconstruction	Post-emergency	Support for reconstruction of infrastructure and developing capacities to address residual hazards
Development	Transition	Support for development investments; ¹⁰ transition and exit

Given this transition, saving lives and limbs is typically given great weight in the early stages of a programme. Economic value of contaminated or blocked land becomes an increasingly important criterion as people return to re-establish their livelihoods and as the pace of reconstruction increases (a process that can continue for over a decade following significant conflicts) and new investments for development are started. Where international peacekeeping forces are present, priority is normally given to their needs for mobility to fulfil their mandate.

Once security is restored and high impact areas have been cleared the situation is less urgent but often more complicated. A response capacity is normally required to deal with residual threats to life and limb, but technical consideration will dominate priority-setting for clearance of low threat hazards to meet international obligations.

Special issues when dealing with extensive contamination

When contamination is too extensive to be resolved with a short to medium-term clearance programme, support for the development of national capacities for planning and management (as well as operations personnel and assets) is essential; long-term problems require sustainable solutions. Capacity development to nationalise the planning and management of a programme is itself a medium-term task; typically three to five years, even when national authorities have shown commitment and assigned capable individuals to manage their programme. Therefore, an exit plan must be formulated and agreed well in advance to guide transition planning, along with the country's capacity development effort.¹¹

Transition, capacity development and exit always entail difficult trade-offs. It is more efficient to use experienced organisations – often internationally managed – to address contamination, but then the necessary local capacities may never develop. A reasonable balance must be struck.

In addition, national responsibility requires that the clearance programme is aligned with national systems. Relevant factors include:

- how responsibilities are split between national and sub-national governments
- how the budgeting and development planning systems work
- the mechanisms used for inter-departmental coordination
- how to obtain 'bottom-up' information from the impacted communities.

Simply handing over a clearance programme designed and managed by international experts to their national counterparts is not a responsible exit strategy, and is unlikely to provide a sustainable solution.

BOX 2

AFGHANISTAN: A SUCCESSFUL EXAMPLE OF TRANSITION

In Afghanistan, clearance of cluster munitions, mines and other ERW has been for the last three years solely managed by the government's Directorate for Mine Action Coordination (DMAC), with no foreign experts or administrators in the organisation. United Nations Mine Action Centre for Afghanistan (UNMACA), a project of UNMAS, has assisted in planning and implementing this transition since 2007 with a gradual transfer of functions and responsibilities from foreigners to experienced Afghan nationals. At one point in 2005 UNMACA had 55 international staff in Afghanistan, while it now operates with only 3 internationals. The UNMACA's role has gradually evolved from the authority to an advisor. The current core activities revolve in managing the distribution of Voluntary Trust Fund (VTF) to national mine action operators, and provision of strategic advisory to Afghanistan's National Disaster Management Authority, the parent organisation of DMAC.

Whereas at 10 years the transition period was long, so too is the complexity of the ERW clearance in Afghanistan. It is the biggest mine action program in the world and arguably the most dangerous operating environment for both the national and international clearance operators. The challenge of managing the work of 10'000 people in clearing the most diverse and extensive contamination of ERW from the current and past conflicts; and doing this in the midst of a war in a vast, mountainous country with little road infrastructure, cannot be overstated. The DMAC is highly competent to succeed in this endeavour yet their work in making the country safe is all but over.

RECORDING AND REPORTING

It is essential to record and report the conduct of clearance, along with an auditable record of the risk assessments made. It is also important to ensure that reporting demonstrates how the clearance of cluster munition remnants contributes to humanitarian and development objectives and outcomes. Reporting only on outputs, such as the number of square metres cleared and the number of items destroyed, is not sufficient. There is a need to demonstrate how clearance is improving lives and livelihoods of people living in contaminated communities.

All suspected submunition strike areas should be recorded with a view to identifying the extent and centre point of the footprint. This would generally be the basis of the strike zone grid reference. This information should be recorded by the central data collection facility (generally the information management section in the national mine action authority or mine action centre).

Cluster munition strikes are generally recorded as a suspected hazardous area (SHA) and confirmed hazardous area (CHA). In the initial response, several cluster munition strikes, overlapping or close together, may be recorded as a single SHA, Individual strike footprints wherein evidence of CM contamination has been identified are recorded as CHA. This may distort the perception of contamination on the ground. In many cases, the extent of the footprint gradually emerges as clearance proceeds, so haphazard disposal of individual submunitions over the same area may also confuse the issue. The same problem can occur where surface clearance has been conducted but has not been properly recorded and reported.

When many individual strikes have been reported it may be found, during the implementation of the task, that several SHA/CHA have been covered in the clearance of a certain area. Careful review and management of planning, databases, mapping and operational staff will ensure that accurate data is collected. In the process, relevant SHA/CHA and their parts are removed from the map and that the true picture of contamination is reflected.

Once the area has been visually searched above ground and sub-surface cleared to a specified depth, a completion report should be issued. Completion reports should form the basis for further planning, analysis and tasking. If only a visual search was conducted with no evidence to warrant sub-surface clearance, then a low risk (or similar depending on the NMAS) report should be issued.

Low risk and completion reports for cluster munition clearance activity should include the following types of information:

- type of clearance
- depth of clearance
- findings
- equipment used
- all clearance activity
- the location and type of individual submunitions (supporting the general picture of the strike footprint)
- marking

- fencing
- digital mapping (or accurate, scaled sketch)
- comments from community liaison efforts, including on usable land, community needs before and after clearance, and their assessed awareness of the problem at hand
- follow-up activities planned, if only visual search was carried out.

IMAS AND CCM

The International Mine Action Standards have a significant role in the safe clearance and disposal of cluster munitions and their remnants.

The CCM specifically refers to the IMAS in two places: in Section 3 of article 4 on clearance and destruction of cluster munitions remnants and Section 2 of article 3 on storage and stockpile destruction. The IMAS series were reviewed and amended in 2009/10 to ensure compliance with the CCM. To ensure that cluster munitions issues were addressed, minor amendments were made to all IMAS and specifically in the clearance and stockpile destruction chapters.

The Land Release IMAS address issues relating to survey and clearance of mines and ERW, including unexploded submunitions. General guidance on Battle Area Clearance (BAC) is provided in IMAS 09.11.

There is also a Technical Note 09.30-06/2008 on clearance of cluster munitions, addressing the subject in more detail based on experience in Lebanon. The Technical Note concentrates on BAC where submunition contaminated areas are the main hazard rather than other ERW, although it is recognised that there may be some other devices found in the process. It discusses operational planning, clearance methodology, and recording and reporting of information. The document highlights the importance of community liaison throughout design, implementation and recording of CM clearance tasks, as well as methods of neutralisation or destruction, which may be selected during the disposal of unexploded submunitions.

For more details please refer to the Technical Note 09.30-06/2018 available at <http://www.mineactionstandards.org/standards/technical-notes-for-mine-action-tnma/>

ENDNOTES

- 1 A new IMAS on BAC was issued in 2007: IMAS 09.11: Battle Area Clearance.
- 2 See, for instance, the Technical Note on Mine Action based on experiences clearing cluster munitions in Lebanon. Clearance of Cluster Munitions based on experience in Lebanon, TNMA 09.30/06, 1 January 2008, available at: [www.mineactionstandards.org/tnma/TN_09.30.06-2008_clearance_of_cluster_munitions_based_on_experience_in_Lebanon_\(version_1.0\).pdf](http://www.mineactionstandards.org/tnma/TN_09.30.06-2008_clearance_of_cluster_munitions_based_on_experience_in_Lebanon_(version_1.0).pdf).
- 3 One view is that BAC focuses on locating the explosive hazard, which then leads to an EOD task. EOD is defined under the IMAS as 'the detection, identification, evaluation, render safe, recovery and disposal of EO. EOD may be undertaken:
a) as a routine part of mine clearance operations, upon discovery of ERW;
b) to dispose of ERW discovered outside hazardous areas, (this may be a single item of ERW, or a larger number inside a specific area); or
c) to dispose of EO which has become hazardous by deterioration, damage or attempted destruction.'
IMAS 04.10: Glossary of mine action terms, definitions and abbreviations, Second Edition, 1 January 2003, 3.90.
- 4 In Lebanon, for example, applicable standards require 50 metres clearance past the last submunition found.
- 5 Email from Adrian Wilkinson, 12 April 2009.
- 6 For more information, see: Ted Paterson, 'Priority-setting fundamentals. Ensuring Mine Action Promotes Development: Priority-setting and Pre/Post-clearance assessment workshop, Vientiane, Lao PDR, 11-13 March 2009', GICHD.
- 7 For more information, see: Ted Paterson, 'Priority-setting fundamentals. Ensuring Mine Action Promotes Development: Priority-setting and Pre/Post-clearance assessment workshop, Vientiane, Lao PDR, 11-13 March 2009', GICHD.
- 8 Preferences are 'wish list' while priorities are the tasks to which resources are actually allocated. We have a problem if priorities do not reflect local preferences.
- 9 For a more thorough discussion see Chapter 3 in GICHD. Guide to Socio-Economic Approaches to Mine Action Planning, 2004. http://www.gichd.org/fileadmin/pdf/publications/Guide_Socio_Economic_Approaches.pdf
- 10 Many more organisations, both public and private, are involved in development than in the reconstruction phase, which often is 'centrally planned'. This places greater burdens on the clearance programme. For more information, see GICHD. Linking Mine Action and Development – Guidelines for Policy and Programme Development: National Mine Action Centres, 2008. http://www.gichd.org/fileadmin/pdf/ma_development/Guidelines/Guidelines-LMAD-NationalMAC-24Nov2008.pdf
- 11 For more information, see 'A Guide on Transitioning Mine Action Programmes to National Ownership', GICHD in collaboration with UNMAT, 2013: <http://www.gichd.org/mine-action-resources/publications/detail/publication/a-guide-on-transitioning-mine-action-programmes-to-national-ownership/#.Vx8Sy1V96Uk>



This chapter examines how to reduce risk to civilians through Risk Reduction and Risk Education. Together they are referred to as Risk Reduction Education (RRE) and cover public education campaigns, community mine action liaison, and fencing and marking activities.

DEFINITION OF RRE

‘Risk Education ensures that communities are aware of the risks from mines, unexploded ordnance and/or abandoned munitions and are encouraged to behave in ways that reduce the risk to people, property and the environment. Objectives are to reduce the risk to a level where people can live safely and to recreate an environment where economic and social development can occur free from the constraints imposed by contamination’.¹

Cluster munitions, especially unexploded sub-munitions, can represent a significant threat to civilians, particularly to children. Children are at great risk from Explosive Remnants of War (ERW), including sub-munitions.² A key principle to Risk Education (RE) is the individual’s right to receive accurate and timely information about landmine risk and other explosives in the environment.

Risk Reduction Education ‘is a process of information transfer involving a dialogue with the community on not only the landmine/ERW threat, but also wider developmental concerns, and seeking possible solutions discussions and focus on practical, detailed and precise alternatives as a way of promoting a reduction in risk-taking behaviour’.³

There are ‘five pillars’ or disciplines of mine action which give context to RRE within the sector; RRE plays a role in each of them. It is the particular collaboration between RE and clearance that creates Risk Reduction Education, or the ‘limiting (of) risk of physical injury from mines and unexploded ordnance that already contaminates the land’.⁴

INTERNATIONAL STRATEGY AND FRAMEWORKS

United Nations strategy

The Strategy of the United Nations on Mine Action (2013-2018) has a first strategic objective of:

Risks to individuals and the socio-economic impacts of mines and ERW, including cluster munitions, are reduced.⁵

UN specific activities for Objective 1 include, among others:

- Facilitate and provide prioritised marking, fencing, technical and non-technical survey, and clearance
- Support and provide mine-ERW risk education.⁶

Legal framework

Little reference to Risk Education is included in the Convention on Cluster Munitions, although each affected State Party is required 'as soon as possible' to 'conduct Risk Reduction Education to ensure awareness among civilians living in or around cluster munition contaminated areas of the risks posed by such remnants'.⁷ In doing so, the State Party is obliged to 'take into account international standards, including the International Mine Action Standards (IMAS)'.⁸

In contrast, CCW Protocol V refers to the provision of both 'warnings' and 'Risk Education'.⁹ Warnings are primarily intended to raise urgent awareness about the threat from unexploded sub-munitions (or other explosive ordnance), whereas RE is seen as a longer-term process designed to instil safer behaviour in target populations. Warnings will often be conducted while armed conflict is ongoing (immediately following an attack, for instance). When conflict is over (or security allows), more in-depth and sustained communication activities, especially through dialogue with affected communities, will characterise RE.

The non-legally binding Technical Annex to CCW Protocol V outlines a number of 'best practice elements' of warnings and RE.

RISK EDUCATION

National and international standards

According to Protocol V's Technical Annex, 'All programmes of warnings and risk education should, where possible, take into account prevailing national and international standards, including the International Mine Action Standards'.¹⁰

Standards for Mine Risk Education (MRE) have been approved as IMAS. In total, seven standards deal with MRE, namely:

- 07.11 | Guide for the management of MRE
- 07.31 | Accreditation of MRE organisations and operations
- 07.41 | Monitoring of MRE programmes and projects
- 08.50 | Data collection and needs assessment for MRE
- 12.10 | Planning for MRE programmes and projects
- 12.20 | Implementation of MRE programmes and projects
- 14.20 | Evaluation of MRE programmes and projects

Standard 07.11 should be read before reading the others.¹¹

According to IMAS, MRE has three components: public information dissemination, education and training, and community liaison. They are complementary and mutually reinforcing. RRE principles are exactly the same where CM are the main threat: the primary emphasis in safety messages warns against touching or disturbing unexploded sub-munitions in any way.

CM users should fund warnings and RE

'Parties to a conflict should, if possible, provide additional resources for warnings and risk education. Such items might include: provision of logistical support, production of risk education materials, financial support and general cartographic information'.¹²

It is implicit that where government is not best placed to deliver warnings or RE directly, it can support others in doing so. An international organisation can be supported to conduct RRE warnings by facilitating access to public information sources free of unnecessarily complicated administrative procedures and, if possible, at no cost.

PLANNING AND COORDINATION

All forms of RRE require coordination, resource mobilisation, local capacity development and institutional support, information management, training of personnel, and quality management.¹³ RRE is conducted by cooperation under a national mine action authority or other coordination body.

In a non-emergency setting, an implementing agency will conduct a needs assessment to analyse information needs, educational capacities, communication access, risk behaviours, etc.

Variables exist for geographical location and contamination, gender, age, socio-economic occupation, literacy levels, etc. The information gathered will be used to identify target groups most at risk, messages most required, appropriate materials and dissemination methods.

Information can be gathered through desk research and community-based participatory approaches, including mapping. Mine risk management by mapping is the use of simple portable technology for map overlays to visually determine contamination, land use, population, clearance, and safe land and risk behaviours. Maps can be used for planning purposes and to stimulate discussion of priorities and needs by both the community and NMAA, and later incorporation into a GIS system for effective sharing within mine action authorities.¹⁴

Adequate needs assessment and evidence-based research before creating RRE activities makes for managed, effective, measurable and time-bound projects. Needs analysis should incorporate a gender perspective, due to 'different uses and knowledge of the land, different priorities for clearance due to different needs, identifying impact of weapons on a community... In mine action, gender mainstreaming involves considering the separate needs and realities of males and females in all activities aimed at identifying the impact and mitigating the threats of landmines and UXO, whether it is through mine clearance, risk education, advocacy or victim assistance'.¹⁵ 'One straightforward and effective solution is to have gender balanced teams, enabling the organisations to liaise with and collect information from all ages and genders'.¹⁶

RRE is an IMAS requirement where contamination is present. RRE campaigns should, therefore, stop when the risk is no longer present.

EMERGENCY RE WARNINGS

Public information dissemination

Public information dissemination refers primarily to activities which seek to reduce risk of injury from mines and ERW by raising awareness among individuals and communities, establishing modified safer behaviour in newly dangerous situations. It is primarily one-way communication, often through mass media, providing relevant information and advice in a cost-effective and timely manner. In an emergency post-conflict situation or unplanned population movement, public information dissemination is often the most practical means of communicating safety information. It is aimed generally rather than at specific target groups and is limited to the duration of immediate danger. It is possible to measure impact in a limited way through whether the material and messages are recalled at a later period. The medium chosen would depend on its popularity and literacy levels, accessibility of transport and communications channels and perceived neutrality.

Time is of the essence. 'Warnings should be given, as soon as possible, depending on the context and the information available. A Risk Education programme should replace a warnings programme as soon as possible. Warnings and Risk Education always should be provided to the affected communities at the earliest possible time'.¹⁷

LONG TERM RRE

Education and training

Education and training is a two-way process, involving imparting and acquiring knowledge, attitude and practice through teaching and learning. RRE is aimed at creating new norms of acceptable long-term safety behaviour and building peer and social support. It is different to 'warnings', in the range of messages delivered, room given for dialogue and interaction, and specific targeting of social and geographical populations at risk. Information, Education and Communication (IEC) materials, specifically designed for target groups, are wider in range and for visual and tactile use. An organisation delivering education and training should conduct a deep needs analysis to ensure impact and monitoring mechanisms.

'Parties to a conflict should employ third parties such as international organisations and non-governmental organisations when they do not have the resources and skills to deliver efficient risk education. The best-placed entity to deliver warnings should be assessed on a case-by-case basis'.¹⁸

Delivery of RRE by military structures should be avoided, except where they are regarded as informative and trusted sources by specific target groups and use appropriate methods and materials. Military, civil defence and humanitarian organisations may all be able to contribute to saving lives and limbs under coordinating efforts of mine action coordination centres.

Capacity-building

Education and training may be delivered by an NGO or mine action organisation directly, or indirectly, through capacity-building by other institutions. These institutions can be a formal education structure, health service structures, community-based organisations and local hierarchies, religious leaders, and other mediums depending on country and culture. Indirect delivery reaches wider audiences and creates a dialogue through known and trusted media. It therefore has potential for greater impact on behavioural change.

As a long-term RRE approach a government may choose to incorporate RRE into educational curricula at either provincial or national level. This is a chosen response, even in countries where school attendance is low, as both a way of reaching a percentage of children and as a starting point for out-of-school children. To be effective, a school-based RRE approach requires proper planning, technical input and support, training and monitoring. Often a high degree of support is required from collaborating stakeholders for this to be effective. It is costly to develop and a long-term commitment. As for all RRE channels, it needs to be timed to stop when ERW no longer form a threat.

It can be difficult to implement RRE where there is no approved national curriculum, space within the curriculum to absorb a non-academic subject, or teacher training, quality or retention is weak.

A government should also support a school-based programme together with relevant RRE channels for adults and out-of-school children, or nomadic and non-settled communities. Education and training activities may be conducted as parent-to-children and children-to-parent education in the home, child-to-child education, peer-to-peer education in work and recreational environments, RE training for humanitarian aid workers and inclusion of RE safety messages in regular occupational health and safety practices.

MATERIALS AND METHODOLOGY

A thorough needs analysis at the planning stage will define appropriate educational and publicity materials for specified target groups. These should have been field tested and adapted accordingly before distribution and use. The needs analysis should also have created understanding of appropriate delivery methods or media. For example, short plays and skits may be appropriate for a nomadic and illiterate target group; radio may reach a good number of the adult male population, etc. The IMAS MRE guides are relevant reference points.

Finding creative, authoritative communication channels is critical where access is difficult for religious, cultural and geographical reasons. The Mine Action Coordination Centre of Afghanistan (MACCA) have trained midwives to deliver RE to women, religious imams to deliver RE to their mosque attendees, and community-based police officers to deliver RE to other police officers, communities and children, helping to reinforce their protective role as community police.¹⁹

Organisations delivering RRE should plan a needs assessment beyond the emergency warnings phase. This will highlight methods suitable for the target group. The target group will not remain stable but will change throughout the post-conflict development and environment. Therefore, materials, methodology and messages have to respond to changing needs of geographical, age, gender and socio-economic groups.

TRANSIENT AND SETTLED POPULATIONS

Warnings and risk reduction education should be provided to both those living in or near affected areas and those who transit such areas,²⁰ particularly where accidents have occurred, where there are high levels of engagement with contaminated land, or where RRE has not been delivered previously. It could be aimed at those returning to contaminated areas in the future, or living in areas with a high likelihood of becoming contaminated.

Return of refugees and/or internally displaced persons could be planned or spontaneous. Population movements are one of the main triggers of increased incidents involving explosive ordnance. This requires essential coordination for information dissemination and protection en route and during periods of resettlement with relevant UN agencies, government departments and implementing partners.

For those living and working in an area affected by ERW, there is often an economic reason to investigate contaminated areas. For example, some may collect scrap metal from ERW as a vital addition to income. Exposure to risk can be deliberate and voluntary. Change from risk avoidance to risk reduction has greater impact on reducing intentional risk.

RRE AND MARKING

While clearance of cluster munition remnants is ongoing, or where it is not immediately feasible, other measures can reduce civilian risk. These include marking of CM-affected areas and provision of warnings and other RE to at-risk groups. This is required by international law, in particular the CCM and CCW Protocol V (see Chapters 3 and 4). This section reviews good practice in support of applicable international legal obligations.

Community mine action liaison assists in these activities through community involvement in decision-making, support and protection of marking precautions and exchange of information. RRE can keep communities regularly informed of reduction, clearance, cancellation and confirmation of contaminated areas.

Marking of contaminated areas

Marking of contaminated areas is key. Additional methods including reducing risk of death or injury to civilians and freeing up space for continuation of socio-economic activities, creating corridors for people to freely access markets and resources and to travel with security are important. Marking is a temporary measure before clearance. As noted in the IMAS,²¹ mine and other explosive ordnance hazards are marked to provide a clear and unambiguous warning of danger to local populations.

The IMAS provide detailed guidance on appropriate marking of contaminated areas. Based on legal obligations and the IMAS, as well as research by the GICHD,²² this section suggests a ten-step approach to maximising the contribution of medium to long-term marking to casualty reduction.

Step 1 Make marking part of an overall strategy.

Step 2 Concentrate on marking areas where population movement is expected or settled.

Step 3 Combine marking with risk education.

Step 4 Involve local communities in marking efforts, if appropriate and feasible and backed by technical support and clearance.

Step 5 Make sure markings can be seen.

Step 6 Use durable markings of minimal value.

Step 7 Record the location of markings.

Step 8 Maintain the markings.

Step 9 Monitor the status of the markings and any casualties.

Step 10 Remove the markings when they are no longer needed.

Marking saves lives. It creates identified safe areas and corridors to allow continuation of socio-economic activity. Mine action activities of mapping, marking, community liaison and RRE all play a vital role. All the above steps will require some community liaison to ensure cooperation and timely information dissemination on markings and signs.

Legal framework

The CCM requires that States Parties take ‘all feasible steps’ to ensure that, as soon as possible, areas affected by cluster munition remnants are marked and fenced to ensure effective exclusion of civilians. According to Article 4, paragraph 2, each State Party is required, as soon as possible, to ‘take all feasible steps to ensure that all cluster munition contaminated areas under its jurisdiction or control are perimeter-marked, monitored and protected by fencing or other means to ensure the effective exclusion of civilians’.

Erecting a fence is generally applicable as a security measure to ammunition storage areas with stockpiled cluster munitions. However, fencing off a series of cluster strike footprints, where these are detectable in the first place, and then usually involve unexploded submunitions in relatively small numbers in sizable areas both urban and rural, is not simple. Fencing is not easily done and is not always an effective way of addressing the problem. It can be impractical to erect kilometres of costly metal barrier around contaminated areas. To do it right, any security fence infrastructure needs other amenities with it including surveillance, signage and markings, maintenance and physical guarding. The cost of actually clearing the contaminated area can be lower than putting a fence

around it. However, where this can be done, it inevitably improves the safety of the communities at risk.

Article 5, Protocol V of the CCW approaches the marking and fencing in a more subtle manner, urging parties to an armed conflict to take ‘all feasible precautions’ in territory under their control that is affected by ERW to protect civilians and civilian objects from the threat. These precautions ‘may include’ marking, fencing, and monitoring of territory affected by explosive remnants of war, as set out in the Technical Annex.

The Annex in CCW Protocol V, regarding warnings, risk education, marking, fencing and monitoring, states:

- (h) When possible, at any time during the course of a conflict and thereafter, where explosive remnants of war exist the parties to a conflict should, at the earliest possible time and to the maximum extent possible, ensure that areas containing explosive remnants of war are marked, fenced and monitored so as to ensure the effective exclusion of civilians, in accordance with the following provisions.
- (i) Warning signs based on methods of marking recognised by the affected community should be utilised in the marking of suspected hazardous areas. Signs and other hazardous area boundary markers should as far as possible be visible, legible, durable and resistant to environmental effects and should clearly identify which side of the marked boundary is considered to be within the explosive remnants of war affected area and which side is considered to be safe.
- (j) An appropriate structure should be put in place with responsibility for the monitoring and maintenance of permanent and temporary marking systems, integrated with national and local risk education programmes.

The signs should also clearly identify which side of the marked boundary is considered to be hazardous and which side is considered to be safe.

An appropriate structure should be put in place to monitor and maintain permanent and temporary marking systems, which should be ‘integrated’ with national and local risk education programmes.

IMAS 08.40: Marking mine and UXO hazards, Second Edition provides further guidance on marking of known contaminated areas.

COMMUNITY MINE ACTION LIAISON

Community Mine Action Liaison refers to the systems and processes used to exchange information between national authorities, UN agencies, mine action organisations and communities on the presence of mines and ERW, and of their potential risk and localised prioritisation. It informs communities when a clearance activity is planned to take place, the nature and duration of the task, and the exact locations of areas that have been marked or cleared. In addition, community liaison can support relief and development interventions that reduce risk to affected communities.

Risk Reduction Education minimises civilian casualties before and during clearance operations by conveying factual information. Community liaison should ensure that communities understand and are part of decision-making over resources and collaborate on enforcing community safety. RRE helps communities to continue to thrive within their socio-economic activities as much as possible given the contamination context, not just to survive. Community liaison allows implementing agencies to work with development actors to provide high-risk groups with safer, alternative livelihoods that can also help significantly reduce risk by addressing underlying motivations of high-risk behaviour.

Community liaison researches socio-economic and cultural norms and feeds into all five pillars of mine action. Community Mine Action Liaison can coordinate with the wider humanitarian sector to ensure that communities living in and around contaminated areas are assisted. Liaison within mine action can create safe routes for access to valuable local resources – e.g. cleared paths and signed areas to let children return to school, to ensure people can access market and forest, water sources etc. until total clearance can be achieved.

IMPACT MEASUREMENT

Initial detailed research and needs analysis should provide relevant indicators for RRE. There are a range of methods to measure impact of risk reduction, warnings RE, and long-term RE, to assess effectiveness of materials, messages and methodology, as well as impact on behaviour.

Knowledge Attitude and Practice (KAP) surveys have frequently been used to evaluate RE and show comparative progress over years. Behavioural change measurement methodologies can be borrowed from the health sector. Measurement indices of knowledge should not be dismissed; it is the starting point to behavioural change.

Qualitative and quantitative data can be gathered to demonstrate community engagement in supporting marking and fencing and therefore the success of community liaison activities in enabling this.

There are well acknowledged challenges in measuring impact of behavioural change and the low level of RRE impact on particular social groups. In particular, changing behaviour of young men and teenage boys is known to be difficult.²² The prefrontal cortex that is involved in high level cognitive function is not fully developed until 25; it is the reason for risk-taking behaviour in several areas of life. 'This age group (15-25) dies of accidents of almost every sort ... at high rates.'²³ A public health campaign aimed at this specific target group needs to be realistic and creatively aimed at mitigating risk. 'Brain research has shown that the adolescent brain undergoes really quite profound development, and this has implications for education, for rehabilitation, and intervention'.²⁴

OTHER PILLARS

RRE can contribute to achieving the overall aims of mine ERW, small arms and light weapons and cluster munition clearance through the other pillars.

Stockpile destruction

RRE around stockpiles in residential areas is critical, including recognition of fencing and warning signs. Survey of caches and stockpiles can benefit from a community liaison perspective to record local community knowledge of, proximity to and interaction with the risk.

Survivor assistance

RRE has long placed an interactive role in survivor assistance, through collecting data, reporting and referral mechanisms, employment of survivors or case studies or survivors in RRE campaigns and materials. Support, collaboration and coordination with survivor assistance projects have been valuable.

Advocacy

RRE has contributed to advocacy campaigns through data collection, research, case studies, evaluations, examples of effective campaigns, by giving a voice to affected populations. There have been creative efforts in low-key advocacy too, with children engaged in child-to-child RE projects making links with children in non-affected countries, building relationships and understanding.²⁵

CONCLUSION

RRE is a valuable opportunity to swiftly and cost-effectively change and save lives, whilst being participative and collaborative to achieve consensus and support for humanitarian clearance efforts. RRE components – from public warning and education campaigns and community support to fencing and marking activities – are an essential part of achieving cleared and safe environments.

ENDNOTES

- 1 <http://www.mineaction.org/issues/education>. United Nations. Copyright 2016
- 2 The Journal of ERW and Mine Action, Issue 15.3/ Fall 2011 'The Impact of ERW on Children' – Blake Williamson of CISR.
- 3 'Mine-risk Education in Mine Action: How is it Effective?' Sharif Baaser and Hugues Laurence of UNICEF, Eric Filippino of GICHD). Journal of ERW and Mine Action, Volume 13 | Issue 1 Article 18, 2015.
- 4 <http://www.mineaction.org/issues/education>. United Nations. Copyright 2016
- 5 'Mine Action and Effective Coordination: The United Nations Interagency Policy' – The United Nations Mine Action. 2005.
- 6 'The Strategy of United Nations Mine Action 2013-2018' – The United Nations. 2013.
- 7 Article 4, paragraph 2(e), Convention on Cluster Munitions.
- 8 Article 4, paragraph 3, Convention on Cluster Munitions.
- 9 Warnings are defined in the Technical Annex, rather than the body, of CCW Protocol V as 'the punctual provision of cautionary information to the civilian population, intended to minimise risks caused by explosive remnants of war in affected territories.' In contrast, risk education is defined indirectly, by reference to how it should be conducted: 'Risk education to the civilian population should consist of risk education programmes to facilitate information exchange between affected communities, government authorities and humanitarian organisations so that affected communities are informed about the threat from explosive remnants of war. Risk education programmes are usually a long term activity'.
- 10 Technical Annex, Article 2(a), CCW Protocol V.
- 11 A Guide to International Mine Action Standards. IMAS, GICHD 2010
- 12 Technical Annex, Article 2(g), CCW Protocol V.
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- 20 Technical Annex, Article 2(d), CCW Protocol V.
- 21 IMAS 08.40: Marking mine and UXO hazards, Second Edition, 1 January 2003.
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- 23 Beautiful Brains – David Dobbs. October 2011. National Geographic.
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ASSISTING THE VICTIMS

Assisting the victims of a particular weapon system, or victim assistance (VA), is a relatively new concept, first seen in a multilateral disarmament treaty in the 1997 Anti-Personnel Mine Ban Convention (APMBC).¹ Following its entry into force, the concept evolved greatly. With VA obligations having appeared more recently in Protocol V to the Convention on Certain Conventional Weapons (CCW) and in the Convention on Cluster Munitions (CCM), there is now a uniform approach to what VA means.

The international community understands in very broad terms who or what a victim might be and that VA involves a wide range of activities. While mine clearance and VA are both aspects of mine action, there are differences in what is involved in achieving both. Unlike humanitarian demining, which emerged in the mid-1990s as a new discipline, complete with its own standards and other professional trappings, VA is part of broader long-established domains, such as development, disability and human rights. This has important implications for VA responsibilities.

WHO IS A VICTIM?

The CCM defines victims as ‘all persons who have been killed or suffered physical or psychological injury, economic loss, social marginalisation or substantial impairment of the realisation of their rights caused by the use of cluster munitions. They include those persons directly impacted by cluster munitions as well as their affected families and communities.’²

Data collection of CM victims has primarily recorded only those people killed and injured and little is known about the actual number of families and communities affected by CM. ‘The Monitor has documented a total of 19,868 cluster munition casualties in 33 countries and three other areas from the mid-1960s through the end of 2014. This includes casualties recorded as directly resulting from the use of CM, as well as from CM remnants. However, a summary total of more than 55,000 casualties globally, calculated from various country estimates, provides a better indicator of the number of CM casualties. Although casualties continue to be under-reported, recent improvements in data collection highlight the widespread failure to record CM casualties in past conflicts, particularly casualties that occurred during airstrikes and shelling in Southeast Asia and the Middle East.’³

States and other areas with cluster munition casualties (as of August 2015)⁴

State Parties	Non-signatories and other areas
Afghanistan	Cambodia
Albania	Eritrea
Bosnia and Herzegovina	Ethiopia
Chad	Georgia
Croatia	Israel
Guinea-Bissau	Kuwait
Iraq	Libya
Lao PDR	Russia
Lebanon	Serbia
Montenegro	South Sudan
Mozambique	Sudan
Sierra Leone	Syria
Signatories	Tajikistan
Angola	Ukraine
Colombia	Vietnam
Democratic Republic of the Congo (DRC)	Yemen
Somalia	<i>Kosovo</i>
Uganda	<i>Nagorno-Karabakh</i>
	<i>Western Sahara</i>

Note: other areas are indicated in italics.

'In 2010-2014, CM casualties were reported in 14 countries and three other areas: Afghanistan, Cambodia, DRC, Croatia, Iraq, Lao PDR, Lebanon, Libya, Serbia, South Sudan, Sudan, Syria, Ukraine, and Vietnam, as well as Kosovo, Nagorno-Karabakh, and Western Sahara. The majority of reported CM casualties (64%) have occurred in States Parties to the convention, particularly Afghanistan (775), Iraq (3,035), Lao PDR (7,628), and Lebanon.

A continuing pattern of harm to civilians, particularly children and young adults, is still apparent. Children under 18 years of age accounted for half of all CM casualties in 2010–2014 in countries where casualties from sub-munitions were disaggregated and details known. In this same period, civilians were the majority (92%) of all CM casualties where the status was recorded. Humanitarian clearance personnel accounted for 2%, and security forces; military and other security personnel as well as non-state armed group (NSAG) actors; accounted for 5%.⁵

'In their 2008 Plan of Action on Victim Assistance, the High Contracting Parties to Protocol V to the CCW have accepted that 'explosive remnants of war may not only affect the persons directly impacted by them, but also their families and communities.'⁶

This broad definition of victim has drawn attention to the full range of victims. Nevertheless, most attention has focused on providing assistance to those individuals directly impacted by ERW. They have specific needs for emergency and on-going medical care, rehabilitation, psychological support, work and employment, inclusive sports, leisure and cultural activities, inclusive education and a legal and policy framework to guarantee their rights to participate in the civil, political, economic, social and cultural spheres of their societies on a basis equal with others. Although little is known about the actual number of families and communities affected by CM, the limited information available indicates that their needs are likely to be extensive. Most victims are already part of the most poor; a CM accident may push them further into poverty through medical expenses and loss of income.

The ultimate goal of participation on a basis equal with others suggests that the more empowering term 'survivor' should normally be used in relation to those individual women, girls, boys and men who have been injured, survived and left living with an impairment as a result of contact with CM. However, the term 'victim' continues to be used, in part to avoid ambiguity for legal obligations, given that the term appears in legal texts. The international community has also created a definition that goes beyond the individual directly affected.



34 Rehabilitation centre (Afghanistan)

VICTIM ASSISTANCE (VA) IN CM CONTEXT

State Parties to the CCM recognise that victims are entitled to receive age and gender-sensitive assistance in the fields of medical care, rehabilitation, psychological support and social and economic inclusion. Necessary data should be collected to plan and report on VA, and national laws and policies developed, enforced and implemented to meet the obligations under the CCM. The States Parties are expected to actively involve victims and their representative organisations in all work of the Convention, and not discriminate against or among CM victims, or between CM victims and those who have suffered injuries from other causes.

Medical care

An incident involving a CM can cause a range of injuries including loss of limbs, abdominal, chest and spinal injuries, visual and hearing impairment, scars, and psychological trauma. Direct victims often acquire a lifelong impairment.

Emergency and continuing medical care includes first aid, emergency evacuation and medical care including surgery, blood transfusions, pain management and other health services. Provision of appropriate emergency and continuing

medical care, or the lack of it, has a profound impact on immediate and long-term recovery and is one of the main factors affecting mortality rates. In reality many affected countries lack trained staff, medicines, blood supplies, equipment and infrastructure to adequately respond to traumatic injuries.

Another factor impacting fatality rates is the sex of the casualty: the female fatality rate is 43%; for men it is 29%.⁷ Setting up a low-tech pre-hospital emergency system in areas with high casualty rates, including training local villagers in basic first aid, can significantly increase survival chances. Research in Northern Iraq by the Tromsø Mine Victim Resource Centre has shown that mortality of victims of mines and war injuries ($n = 919$) decreased from 28.7% to 9.4% ($p = 0.001$), as did the time from injury to first medical help, from 2.4 hours to 0.6 hours ($p = 0.002$) when such an emergency system was developed.⁸

Rehabilitation

Survivors may also need rehabilitation including provision of services for physiotherapy and supply, maintenance and training in the use of assistive devices such as prostheses, orthoses, walking aids and wheelchairs. Physical rehabilitation focuses on helping a person regain or improve the capacities of her or his body, with mobility and independence in daily activities as the primary goal. Use of mobility devices improves education and work opportunities, and contributes to improving health, social participation and overall quality of life. In many low-income countries, however, only 5-15% of those people needing assistive devices actually have access to them.⁹

Rehabilitation services should apply a multidisciplinary team approach including a medical doctor, a physiotherapist, a prosthetic/orthotic professional, an occupational therapist, a social worker and other relevant specialists. The team should include male and female professionals, as in many countries it is not appropriate for women and girls to be attended by men and vice versa.

Psychological and psychosocial support

Psychological and social impacts are significant. Survivors can face social exclusion or are abandoned after the accident because of prevailing community beliefs (e.g. that the person brings bad luck). Many persons with disabilities are excluded from relationships and family life as a result of negative attitudes. These negative consequences affect survivors in different ways. Both boys and girls may drop out of school as a result of an accident and may find it difficult to get married later in life. Women with disabilities have a lower marriage rate than men with

disabilities. Barriers to returning to work lead to unemployment. Adults who are no longer able to generate an income for their families often experience frustration and depression.

‘Activities that empower survivors and promote social inclusion are integral to enhancing psychological well-being’¹⁰ Appropriate psychological and psychosocial support can make a significant difference to survivors, and the families of those killed or injured.

This type of support is part of mental health services and comprises psychological, psychosocial and peer-to-peer support. Providing it may be necessary in the immediate aftermath of the accident and at different times throughout their lifetime. The goal is to prevent and respond to psychological distress in populations experiencing disabling injuries and the threat of traumas from accidents involving CM, as well as preventing and responding to mental disorders, such as post-traumatic stress. Mental health services contribute to ensuring that people can find balance and harmony in the environment in which they live.¹¹

Unfortunately in low-income countries, only 1.54% of the health budget is allocated to such services.¹² In their absence survivors all over the world have developed peer-to-peer support networks, where a survivor supports another. These networks should not be seen as a substitute for professional psychological support, but they have proved to be a vital alternative, particularly in rural remote areas.

Social inclusion

‘Psychological well-being and social inclusion are closely inter-linked. Psychological well-being can lead to full and effective social inclusion while inclusion contributes to psychological well-being. Furthermore, to enjoy full and effective inclusion survivors must be empowered to change their situation and access their rights.’¹³

Many CM survivors are excluded from family, school, community and work life. To reverse this, social inclusion services support someone to gain direction in life and to realise goals, find a place within the family, and participate in community life. These include personalised social support dealing with relationships and family life, and participation in cultural sports and leisure activities. Improving participation is a vehicle for personal expression, well-being and health, contributing to challenging negative community attitudes and raising awareness of rights and capacities of survivors and other persons with disabilities.

The goal of social inclusion activities is to increase a person's self-reliance by gaining insights about him/herself and learning to mobilise his/her own resources, both internal and external (e.g. family, neighbours, community). It values each person and promotes human development principles, where persons take an active role in planning their life. Social inclusion improves the quality of CM survivor's life, generating a sense of human dignity, belonging and self-worth.¹⁴

Inclusive education

Considering that half of all casualties are children, ensuring access to education is crucial to ensure all people are able to learn what they need and want throughout their lives. Components of education are early childhood care, primary, secondary and higher education, non-formal education and lifelong learning. Inclusive education is a process to increase participation, effectively responding to the individual needs of all learners, including girls, boys and persons in situations of vulnerability (such as child survivors and other children with disabilities). Inclusive education is a right in and of itself, and a way to facilitate the realisation of other rights (such as access to health, employment and political participation). Education contributes to the well-being of persons, their families and that of their communities. Gender affects access to education. In poor households, or in those facing a trauma, girls are often first to stop going to school.¹⁵

Economic inclusion

Economic inclusion is essential in promoting self-sufficiency, independence, enhanced self-esteem and a sense of dignity. This is a particular challenge in countries affected by CM where there is a general lack of opportunity for economic participation. For many CM survivors and families of those killed or injured, the main priority is finding opportunities to be productive community members. It is important to improve the economic status of survivors, their families and affected communities, guaranteeing all persons have income to ensure an adequate standard of living through employment and social protection. Economic inclusion benefits a single person as well as the collective development of her family and community by increasing income and improving social participation and psychological well-being. Activities in this domain include vocational training, access to micro-credit, income generation opportunities through self and waged employment, and the economic development of the community infrastructure.

Laws and policies

VA obligations require that a legal and policy framework is provided that guarantees the rights of victims with a view to ensuring opportunities in society

on a basis equal with others. In relation to survivors, the 2008 Convention on the Rights of Persons with Disabilities (CRPD) provides significant guidance. As noted by the UN High Commissioner for Human Rights, Navanethem Pillay, 'When survivors of mines and other explosive devices acquire a disability they fall under the scope of the CRPD.'¹⁶

Policies, strategies and action plans on disability and inclusion should contain reference to survivors, take their reality into consideration and include an adequate response to their needs. Indirect victims tend to belong to the larger group of the poor and vulnerable; as such, efforts to address their situation should also respond to the day-to-day reality faced by family members of people injured and killed, and those living in communities affected by CM.

Identification and referral

Identification and referral are important if victims are to access available services. Victims tend to live in rural and remote areas, far from capitals where most services are provided. Many barriers exist including time and cost to reach services, absence of childcare and accommodation, lack of information or physical access, or discriminatory attitudes. Identifying victims where they live and supporting them to access services is often a vital step in ensuring increased participation and improved quality of life.

Understanding the challenges faced

Another important element of VA is data collection to understand the extent of the challenge; gathering, analysing and sharing of information in a given domain. Its goal is to understand, to report on and disseminate information on the number, sex, age, situation, needs and capacities of victims. In doing so, it enables Ministries and other stakeholders to formulate, implement, monitor and evaluate policies, plans and programmes to respond to the rights and needs of victims. Without relevant and precise data, it is impossible to propose effective policy options, to measure progress, to mobilise resources, and more generally, to plan and implement VA effectively and strategically.¹⁷

To achieve the objective of understanding the challenge, different methodologies are used for acquiring and analysing accurate data. These are:

- Casualty data collection for planning of risk education, prioritisation of clearance operations and land release. The Information Management System for Mine Action (IMSMA) provides a suitable platform for this and is being used in many states.¹⁸

- Needs assessments and mapping of services in a given area to plan and prioritise programmes. Data is collected on the target population's needs, demands, capacities, resources and the environment: service providers, social and cultural norms and infrastructure that can act as either facilitators or barriers to victims' quality of life.¹⁹
- Diagnosis for personalised support compiling information on the most vulnerable of victims, and persons with disabilities, with the aim of improving their quality of life. It includes the needs and priorities of the person and feedback from their family and professionals such as health and social workers; it also identifies barriers and facilitators in her environment.²⁰

Accurate sex and age-disaggregated data on CM and other casualties is essential, as well as data on the broader prevalence of disability and on injuries. Only with good data the limited resources can be targeted effectively and appropriate policies, plans and programmes formulated and implemented.

GENDER AND DIVERSITY²¹

Gender, age and diversity dimensions of VA vary according to the local context; how CM accidents affect various groups of people and how they should be taken into account. Parties to the APMBC, Protocol V to the CCW and the CCM agree on the importance of providing age and gender-sensitive assistance. States Parties to the APMBC have also identified the need to include a diversity perspective in all VA efforts to address the circumstances and experience of all persons living in situations of vulnerability in affected communities, including internally displaced persons, the elderly, people living in extreme poverty and other marginalised groups.

Principles that guide implementation of the UN Convention on the Rights of Persons with Disabilities (CRPD) include respect for difference and acceptance of persons with disabilities as part of human diversity; equality of opportunity; and equality between men and women. Although women and girls are a minority among ERW survivors, they can face greater obstacles than boys and men in accessing services to promote their physical, psychological and economic well-being. For cultural reasons, girls and women may not be able to access medical or rehabilitation services if only male practitioners are available, or they may not be able to travel to available services without a male escort. Childcare responsibilities may limit time for women to receive rehabilitation and psychological support. Women may face additional burdens if the main family breadwinner is killed or injured. In many cultures, women have limited opportunities to access economic empowerment initiatives to support their families. Women and girls with disability can also face greater discrimination within their communities.



NON-DISCRIMINATION

It is widely understood that the call to assist victims should not lead to exclusion of any person injured or impaired in another manner. The human rights principle of non-discrimination is prominent in the CCM text, with reference in the preamble:

*'Bearing in mind the Convention on the Rights of Persons with Disabilities which, inter alia, requires that States Parties to that Convention undertake to ensure and promote the full realisation of all human rights and fundamental freedoms of all persons with disabilities without discrimination of any kind on the basis of disability.'*²²

According to Reiterer, this principle was one discussed most intensively during the Oslo process leading to the Convention on CM.²³

'In drafting the overall victim assistance provision it was of utmost importance that the language ensured the best possible assistance to cluster munition victims without this being at the expense of victims of, say, landmines or other explosive remnants of war. In other words, the new provision was to be crafted in a way that would not allow it to be construed as creating a new category of victims enjoying 'preferential' treatment at the expense of others.'

Reflecting this concern, Article 5(2) (e) of the CCM stipulates that each State Party shall:

'Not discriminate against or among cluster munition victims, or between cluster munition victims and those who have suffered injuries or disabilities from other causes;'

According to Reiterer '...this again seemed a rather wide clause, which could potentially have been interpreted as an excuse for inactivity following the maxim that as long as everyone is treated in the same insufficient manner, no discrimination occurs.' To avoid this, article 5(2) (e) continues by stating:

'Differences in treatment should be based only on medical, rehabilitative, psychological or socio-economic needs' thereby specifying that differences in treatment should only be related to needs.

This implies that physical rehabilitation programmes, for example, should not discriminate on the basis of what caused the need for services but rather should be established in a sustainable manner to meet the needs of survivors and all others who may require services provided.

All actors should take great care to avoid developing responses to the victims of CM and other ERW that run parallel to, or are in isolation from broader efforts to meet the needs and guarantee the rights of those who have been injured and/or who live with disabilities and who are indirectly victimised as a result of being a family member of a person injured or killed, or living in an affected community.

Assistance to survivors and indirect victims should be viewed as a part of an overall public services system within which efforts to fulfil the promise to survivors should be undertaken. Similarly, donor countries should consider their VA obligations in light of their humanitarian mine action efforts, and also more broadly in the context of international cooperation and assistance in the context of development, human rights and humanitarian initiatives.

VA IN BROADER CONTEXTS

While VA is referred to as an integral component of mine action, there are important contextual differences between humanitarian demining and activities related to assisting victims of CM, mines and other ERW.

Humanitarian demining has developed as a new and specialised discipline. A responsive programme to clear mines or CM remnants and to promote behavioural change through risk education is ultimately intended to finish, and some already have. In contrast, problems faced by survivors are similar to the challenges of those who have suffered injuries and who are living with impairments. The problems faced by family members of people injured and killed are similar to others who are extremely poor. Many of the challenges they face will remain significant for their entire lives.

Survivors are individuals who are part of larger communities of persons with disabilities and of individuals requiring a broad range of services. Their needs do not require development of new disciplines as the various VA elements are already encompassed in existing sectors.²⁴ The existing healthcare and social service systems, rehabilitation programmes, vocational training, employment and social protection initiatives, and legislative and policy frameworks should be adequate to meet the needs of all citizens; including victims of CM.

The CCM preamble states that the CRPD is the overarching framework through which to implement VA. The Parties to the APMBC, the CCM and Protocol V to the CCW have all noted the role of the CRPD in fulfilling each treaty's promise to survivors. 22 of the 50 CRPD articles are particularly relevant to assisting survivors.²⁵ Handicap International published a paper that lays out the various elements at play when considering VA in light of the CRPD and disability-inclusive development.²⁶

While the CRPD is indeed the guiding framework for survivors with disabilities, it should be noted that the VA provisions extend beyond survivors to affected families and communities. While the CCM, APMBC and Protocol V of the Convention on Conventional Weapons of War contain provisions towards victims, there is not one other treaty or framework that applies to all.

The disarmament community has long understood that integrating VA into development, human rights and humanitarian frameworks is essential if victims are to participate at all levels of society, providing the most sustainable avenue to support survivors as well as indirect victims.

As agreed by the APMBC States Parties and included in the Maputo Action Plan:

‘Engagement in other domains is also necessary in view of the States Parties’ understanding that victim assistance should be integrated into broader national policies, plans and legal frameworks related to the rights of persons with disabilities, health, education, employment, development and poverty reduction.’²⁷

It is also important that assistance to victims is integrated into broader programmes for conflict victims. The CCM provides more guidance on integration. Article 5(2) (f) on VA states that:

‘Each State Party shall develop a national plan and budget, including timeframes to carry out these activities, with a view to incorporating them within the existing national disability, development and human rights frameworks and mechanisms, while respecting the specific role and contribution of relevant actors.’²⁸

The Dubrovnik Action Plan²⁹ includes a reference to:

‘Ensure that existing national policies, plans and legal frameworks related to people with similar needs, such as disability and poverty reduction frameworks, address the needs and human rights of cluster munition victims, or adapt such plans accordingly.

Monitor and evaluate the implementation of victim assistance as integrated into national laws, policies, and plans, related to people with similar needs, or as a part of a national action plan....’

A long-term solution to addressing victims’ needs can only be ensured if it is embedded in broader development, human rights and humanitarian frameworks. Encouragingly, recent treaty documents underline the importance of making integration operational.

INTEGRATED APPROACH TO VA

Dedicated VA efforts have ensured access and provided services to survivors and other persons with disabilities³⁰ alike. Little to no evidence exists, however on whether and how victims are being reached through relevant efforts undertaken in the context of development, human rights and humanitarian efforts in CM affected countries. While efforts supported with earmarked VA funding have been shown to reach survivors and also integrate other people with disabilities amongst those it reaches, evidence of the contrary is lacking.

Initiatives³¹ are underway to provide guidance that should lead to a more holistic understanding of how VA obligations can become operational. This is referred to as an integrated approach to VA, which is two-fold. Firstly it implies that specific VA efforts benefit survivors, indirect victims, and people impaired through other causes. Secondly, that assistance provided through development, human rights and humanitarian initiatives also include survivors and indirect victims amongst the beneficiaries.

This dual approach should be implemented until mainstream efforts can demonstrate that they are inclusive of survivors and indirect victims. Funds earmarked for VA assistance should continue until mainstream initiatives can clearly demonstrate inclusion of CM victims.

Specific VA efforts as a catalyst to advance inclusion of persons with disabilities

Non-discrimination is a cornerstone of VA. Any specific effort should increase participation of survivors and indirect victims and other persons with disabilities as well. Specific efforts include VA earmarked funding provided by donor states, as well as any specific VA mechanism put in place, or instrument developed, by affected states.

Today, donor states understand that initiatives supported with VA earmarked funds will be used to develop services that are accessed by survivors and other persons with disabilities facing similar challenges. Evidence to ensure this is not always available.

In some affected states, VA supported initiatives have indeed been proved to improve access to services and spur on a disability dynamic where disability was not yet a priority, such as in Tajikistan,³² for example. Here, 'the Victim Assistance Program of the Tajikistan National Mine Action Centre became a Disability Support Unit, recognising a broadening of its mandate and reinforcing the understanding that victim assistance is inclusive of other persons with disabilities.'

While most affected states now coordinate specific efforts related to their VA obligations in tandem advancing inclusion of persons with disabilities, there are still some states that treat VA, for survivors, as separate from efforts to advance the inclusion of persons with disabilities. This is not sustainable in the long-term and a missed opportunity at the national level; building bridges between specific efforts on VA and those to ensure the rights of persons with disabilities can only advance a society's evolution towards being more disability-inclusive.

Broader efforts reach victims amongst overall beneficiaries

As noted previously; ‘victims’ are a diverse group. For **survivors** with impairments, the integrated approach requires that disability-specific and disability-inclusive efforts are designed, implemented and evaluated with their specific situation in mind. As such, special attention should be given to the place of VA in broader approaches to disability and disability rights. Steps taken to ensure that all women, girls, boys and men with disabilities may participate in the civil, political, economic, social and cultural spheres of their societies on a basis equal with others are, in fact, steps taken to ensure that the promise made to mine and other ERW survivors in various conventional weapons treaties is met. The CRPD provides guidance. Efforts should be made to integrate a response to survivors into broader efforts to implement this landmark human rights convention.

Given the recent adoption of disability-inclusive Sustainable Development Goals,³³ all development efforts in CM-affected countries should now consider how to ensure that CM victims are beneficiaries. Similarly, actions undertaken in line with the World Health Organization (WHO) Plan of Action on Disability,³⁴ endorsed by all States through the World Health Assembly, are another opportunity to realise VA obligations to survivors.

In terms of **family members of people injured and killed**, as well as **people living in affected communities**, an integrated approach would take their challenges and capacities into consideration when planning, implementing and measuring impact. These initiatives should all be disability-inclusive and as such benefitting people with and without disabilities in a similar manner.

It appears that this concept is still not fully understood similarly by all actors and concrete results have yet to be demonstrated. The challenge is turning it from concept into practice.

Implications of the integrated approach are different for states in a position to provide international cooperation and assistance (donor states, UN agencies and other actors supporting development initiatives in affected countries) and for affected states.

**INTEGRATED APPROACH TO VA UNDER THE APMBC AND CCM IN THE
CONTEXT OF DEVELOPMENT, HUMAN RIGHTS AND HUMANITARIAN
INITIATIVES**

DONOR STATES, UN AGENCIES AND OTHER DEVELOPMENT ACTORS	
Specific VA efforts	Broader development, human rights and humanitarian efforts in affected states
VA earmarked funds – as part of humanitarian action on CM, mines and other ERW support efforts that lead to services accessible to survivors, other persons with disabilities and indirect victims and spur a disability dynamic at the national level	Realising VA obligations through efforts that are not labelled as ‘VA’ i.e. not funded with VA funds, in the realm of human rights and development
AFFECTED STATES	
Specific VA efforts	Broader efforts
A national action plan or strategy on VA is designed and implemented in a manner that benefits survivors, other persons with disabilities and indirect victims	<p>National injury surveillance mechanisms, if and when they exist, should incorporate data collection on individuals directly impacted by mines and other ERW.</p> <p>Strategies of health, disability, education, labour, transportation, and social welfare ministries include initiatives that are relevant to reality faced by direct and indirect victims</p>

The integrated approach to VA in the context of development, human rights and humanitarian initiatives has already capitalised on one opportunity, namely VA-supported efforts acting as a catalyst for strengthening disability inclusion more generally. Other as yet unexplored opportunities include fulfilment of VA obligations through their integration into plans to achieve the Sustainable Development Goals and to realise the WHO Plan of Action on Disability.

RESPONSIBILITIES FOR VA

Well-being and the guarantee of a state population's rights are within the domestic jurisdiction of each state. Meeting needs and guaranteeing the rights of mine and other ERW victims is the responsibility of each state for individuals in areas under its jurisdiction and control. This is a particularly profound responsibility for the approximately 35 states, which have indicated, or are presumed to be responsible for, significant numbers of victims.

Most of these states are also in the process of clearing mines, CM remnants and other ERW, destroying stocks and delivering mine risk education. Lead responsibility for VA should not normally rest with those leading these activities, namely national mine action centres and authorities.

For VA, responsibility should be held by state entities that have existed for decades, such as ministries of social affairs, labour or health. Recognising where lead responsibility should lie, and reinforcing relevant state institutions to exercise responsibility, is the logical approach to ensure that victims are treated in the long term in an efficient, sustainable and non-discriminatory manner.

The 2003 United Nations' policy on the scope of action of mine action centres and authorities in VA highlights that 'mine action centres are not designed to take the lead role in victim assistance, nor do they have the mandate, expertise or required resources,' but suggests that they can contribute in a number of ways:

- 1. Raise awareness within government of the important promise States have made to mine and other ERW victims** by ensuring that different ministries understand their responsibility for VA including the need to identify victims, ensure access to services through mapping of services in an accessible format for those with different impairments, referral, personalised social support, and provision of services, particularly in rural and remote areas.

2. **Push for ratification of the CRPD and call for its implementation**, including contributing to reporting, updating existing legislation and supporting action in line with the WHO Plan of Action on Disability. Make casualty data available to those responsible for monitoring and reporting on compliance with the CRPD, including civil society organisations.³⁵
3. **Raise awareness of the steps needed to realise the Sustainable Development Goals** and support related efforts, while ensuring that these respond to the reality faced by survivors, family members of people injured and killed and people living in communities affected by mines and other ERW.
4. Call on governments to **develop a national action plan on disability** inclusive of survivors' needs and contribute to its development. In the absence of political will to develop such a plan, call for and support the development of a national action plan on VA grounded in the principle of non-discrimination. Contribute to related monitoring and evaluation efforts.
5. **Participate in inter-ministerial and multi-stakeholder coordination on disability**, ensure survivors' rights are recognised; guarantee and support participation in related meetings.
6. **Collect sex and age-disaggregated data on mine casualties** and feed this into broader national injury surveillance and disability information systems.
7. Contribute to **reporting on VA** under CCM article 7.
8. **Mobilise resources and technical expertise for VA** by facilitating international interest in assisting victims in a manner that calls for advances that benefit the broader community of those who have been injured and/or are living with impairments.
9. **Ensure victims and other people with disabilities are aware of their rights** as per the APMBC, CCM and the CRPD.
10. **Promote collaboration in civil society** between organisations of persons with disabilities and those representing victims.

While ultimate responsibility for VA rests with individual states, many institutions have limited capacity and national ownership requires strengthening. In such instances, international organisations and international and national NGOs are vital in delivering services and enhancing national capacity. In addition, many states with responsibility to meet the needs, and guarantee the rights, of significant numbers of victims, lack financial means to do so.

The APMBC, the CCM and Protocol V to the CCW each call upon its parties to provide technical, material and financial support for VA. In addition, the CRPD states that 'States Parties recognise the importance of international cooperation and its promotion, in support of national efforts for the realisation of the purpose and objectives of the present Convention.'³⁶

Since the entry into force of the CCM, tens of millions of dollars in VA contributions have been generated. Undoubtedly, however, the biggest support has come through development assistance contributions for health care, which are not explicitly labelled as VA. In recent years, annual development assistance flows to affected countries for basic health care and infrastructure, personnel, medical education and training and medical services have been over ten times greater than funding specifically for VA. Evidence to show that efforts supported by these funds are reaching victims is not available yet and data collection to demonstrate who is benefitting is needed.

Responsibilities of a ministry of social affairs or health, a national ERW clearance programme, a non-governmental organisation and an international donor are different. However, all actors share the responsibility of ensuring effective participation and inclusion of survivors, other persons with disabilities and indirect victims.

Survivors and other persons with disabilities have a unique perspective on their own situation and needs. They can, and should be, constructive partners in all VA and broader disability efforts. The principle of participation and inclusion is well understood in the context of the APMBC, the CCM and Protocol V to the CCW, with parties to each heeding the message of 'nothing about us without us.' As such, participation of CM survivors is essential in all aspects of planning, coordination, implementation, monitoring and evaluation of activities that affect their lives.

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- 30 Examples of VA acting as a catalyst for the governments' involvement in disability issues are described in a recent publication by the MBT Implementation Support Unit (2013): Five examples of the role of mine action programmes in integrating victim assistance into broader frameworks. www.gichd.org/fileadmin/pdf/publications/Role_MA_in_VA.pdf

- 31 The CCM coordinators on Victim Assistance and the Coordinators on International Cooperation and Assistance were, at the time of the revision of this guide, working on developing a working paper with guidance for states in a position to provide international cooperation and assistance, and for affected states, on how to strengthen an integrated approach to victim assistance under the CCM in the context of development, human rights and humanitarian initiatives.
- Separately, a reporting guide on CCM was also being developed that aims to guide states to better understand how it is, and could be fulfilling its victim assistance obligations through the diverse work of various ministries.
- Also at the time of revising this guide, the United Nations Mine Action Service was updating the UN Policy on Victim Assistance. This document will provide guidance on the role of the UN in this area.
- Ultimately, implementation of this guidance should enhance collaboration between those responsible for victim assistance and those engaged in broader development, human rights and humanitarian initiatives and eventually lead to the sustainable realization of the victim assistance obligations and to stronger initiatives for a disability-inclusive society in affected states.
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Information Management aims to enable actors at all levels of cluster munition clearance to use good quality and timely information to maximum benefit in evidence-based decision-making. This chapter provides an overview of the information cycle. This starts with the need to clearly identify what information is required to support clearance of cluster munition remnants, especially unexploded submunitions, before moving on to data collection, storage, analysis and reporting

INFORMATION MANAGEMENT CYCLE

FIGURE 1



Identifying information requirements

The first step in the information management cycle is to define clearly what information is needed by whom and in support of what decision processes.

This step should be taken in consultation between information management staff and all information stakeholders (for example, operations and programme management staff). IM capacity assessments carried out by the GICHD in a number of mine action programmes clearly show that those programmes with the most successful IM units are those in which programme and operations management personnel were actively involved in defining information requirements and information management processes.

The non-binding technical annex of the Convention on Conventional Weapons Protocol V sets out some of the data that should be recorded in order to facilitate future clearance efforts. With respect to unexploded submunitions, a State should record the following:

- location of areas targeted;
- approximate number of cluster munitions used in those areas;
- type and nature of cluster munitions used in areas, including technical information relevant to clearance; and
- general location of known and probable unexploded submunitions.

Data collection

After a clear definition of information needs has been obtained, these can be broken down into the data elements that will constitute the database. These must be collected in the field through the use of structured and standardised forms.

There is no internationally agreed format for recording this data. It should be both clear and accurate with – if possible – GPS coordinates of point targets. While submunitions may not have landed at these coordinates, this will be a useful starting point for a survey of contaminated areas. Similarly, where a State has recorded information related to its use of cluster munitions, it should be stored in a manner which permits retrieval and subsequent release.

Tools for data collection range from simple paper-based forms to digital data collection devices of varying complexity. While paper-based tools are simple to deploy, require little training and are less prone to technical failure, they are open

to data entry (human) errors. They also require more time to process and enter into the database post-survey. Mobile data collection tools on the other hand can incorporate data quality checks and can transfer data to a database much faster. However, they present more technical vulnerabilities in remote field environments. The choice of technique will require a trade-off between these considerations.

Data validation and storage

Robust data quality management is vital to successful information management.

Poor data quality leads to unreliable information products and erodes stakeholder confidence in the IM process. This in turn undermines their willingness to invest further effort, leading to a vicious cycle of degrading information quality. Data QM should be incorporated at every stage of the cycle. For example, one key aspect of quality is ‘fitness-for-purpose’. Fitness for purpose of data is addressed in the initial stage of identifying data requirements. Similarly, data accuracy and timeliness are addressed through efficient and robust data collection processes.

However, the ‘last line of defence’ for data quality is the validation process before committing data to the database. This validation process can incorporate organisational processes (data is validated by competent staff as it travels from the field, through regional offices, to headquarters for example) and technical processes (data entry business rules as well as data coherence queries play a large role in ensuring the data entered into the database is free of errors). The data entry phase therefore provides a valuable opportunity to check the accuracy of the data provided. There may be mistakes in recording or duplication of suspected hazard areas as a result of one or more surveys conducted. For example, where a survey of several impacted communities has identified multiple strike zones close to one another, it is worth trying to verify whether it is not actually one single strike zone that is affecting the different community members. This can help save time and resources.

After these validation steps are carried out, the data should be committed to a secure database, hosted in a safe location and regularly backed-up. This database should contain all of the data relevant to cluster munitions collected at all levels for the entire area being serviced. Establishing and regular updating and dissemination of this single master data-set greatly improves the chances that all those engaged in addressing the cluster munition threat will be working from a common picture of both the hazard and the progress being made to address it.

Data analysis

Data analysis is the process of generating new, actionable information from raw data. This analysis may be qualitative, quantitative or a combination of both. It aims to provide answers to a set of operational and/or strategic questions, such as ‘where are the hazards?’; ‘how close are the hazards from populated areas?’; ‘How old is the contamination?’¹

A number of analytical tools exist to support this process. Geographic Information Systems (GIS) should be considered a primary tool for this work, given the inherently geographic nature of cluster munition clearance (it consists of first locating the hazard, assessing its impact through proximity to populations then taking terrain, vegetation and climate into account when planning operations). In addition, a number of intuitive analysis and reporting tools are now available that can be configured to address specific operational and strategic questions.

Reporting and dissemination

The goal of Information Management is to provide useful and usable information to those who need it. The effort of collecting, validating, storing and analysing data can only be justified if the final information products are made available for use in decision-making. The release or exchange of data on the use of cluster munitions has been a contentious issue in several armed conflicts over the past decade, but is now required by international treaty. The Convention on Cluster Munitions requires all States Parties to report annually on the following:

- the technical characteristics of each type of cluster munition produced by each State prior to becoming party to the Convention, with ‘such categories of information as may facilitate identification and clearance of cluster munitions’;
- the information should include, at a minimum, the dimensions, fusing, explosive content, metallic content, colour photographs and other information that may facilitate the clearance of cluster munition remnants.²

The Convention also has an innovative provision that applies in cases in which cluster munitions have been used or abandoned by one State prior to becoming party to the Convention and which have become cluster munition remnants in areas under the jurisdiction or control of another State Party.

In such cases, the ‘user’ State is ‘strongly encouraged’ to provide assistance to the affected State Party, including, ‘where available’, information on:

- types and quantities of the cluster munitions used
- precise locations of cluster munition strikes, and
- areas in which cluster munition remnants are known to be located.³

CCW Protocol V sets out a qualified obligation to share relevant data, subject to a caveat relating to the legitimate security interests of the user.⁴ According to the protocol, relevant information should be released to the party (or parties) in control of the affected territory and others engaged in clearance of the affected areas or in the provision of risk education. If the State that has used cluster munitions does not wish to provide the relevant data directly to the party in control of the affected areas, it can make use of mechanisms established internationally or locally for the release of information, such as through the UN Mine Action Service, and other expert agencies.

According to the Technical Annex to CCW Protocol V the information should be released ‘as soon as possible, taking into account such matters as any ongoing military and humanitarian operations in the affected areas, the availability and reliability of information and relevant security issues.’⁵

It is also important to gather and use data on cluster munition remnants to demonstrate how the contamination impedes post-conflict humanitarian and development efforts. This data should therefore be systematically shared with relief, reconstruction, and development actors.

INFORMATION MANAGEMENT SYSTEM FOR MINE ACTION (IMSMA)

The Geneva International Centre for Humanitarian Demining (GICHD) has supported the development and deployment of the Information Management System for Mine Action (IMSMA) from its first version in 1998/99 until now. The system is currently installed in about 40 mine action programmes around the world.⁶

Based on requirements submitted by users in the field, the system has been continuously revised and upgraded since its initial release in the summer of 1999 and has become the de facto standard in mine action information management.

The latest version of IMSMA combines a full-featured Geographic Information System (GIS) with a powerful relational database which acts as a national data repository. Distribution of the system is managed by the GICHD. It is provided free of charge to affected countries and to the governments of countries actively involved in peacekeeping and mine action support operations.

Practically, IMSMA can be used to:

- plan, manage, report and map cluster munition survey and clearance activities;
- plan, manage, report and map risk education activities;
- record, report on, and map information on the assistance needs of submunition victims; and
- record, report on, and map relevant socio-economic information.

The GICHD has adapted its IMSMA strategy and initiated a new development cycle. This has been undertaken with new trends and technologies in mind, and following an analysis of the evolution of IMSMA and the strengths and weaknesses of its various versions from 1999 to today. The GICHD aims to address evolving and emerging needs, especially regarding technological development, user experience and interoperability with third-party applications. Moreover, the GICHD will seek to make more use of off-the-shelf tools that can be configured to mine action requirements without as much need for costly programming and customisation. This will reduce the need for specific technical system support and free up both GICHD and field IM resources for providing user-driven information products such as maps, reports and statistics.

In many programmes the core function of IMSMA is the provision of a national storage and data validation platform, while other functions such as data collection and data analysis can be performed by specialised third-party applications. The Information Management System for Mine Action should therefore no longer be understood as a singular tool, but as a system; a set of interrelated tools and processes that operate together to provide the sector with sound information management.

The approach adopted by the new IMSMA strategy is that each step in the process can be carried out by a variety of standard or customised tools as long as these tools are interoperable, i.e. that they can communicate data between one another in a standardised and reliable manner. To accomplish this, the GICHD will develop and maintain a robust mine action data exchange language (maXML) and API.

Respectively these allow standardised exchange of data and of functionality between different tools in the system.

In this way the GICHD seeks to foster and encourage an 'ecosystem' of user-driven, interoperable, modular tools that can quickly leverage rapid advances in technology and more effectively put IM into the hands of strategic and operational stakeholders.

ENDNOTES

- 1 It is also important to identify and record the level of tolerable risk in the event of major contamination as this will help to guide clearance plans. What is deemed tolerable should be led by the affected communities themselves.
- 2 Article 7, paragraph 1(c), Convention on Cluster Munitions.
- 3 Article 4, paragraph 4, Convention on Cluster Munitions.
- 4 See Article 4, CCW Protocol V.
- 5 Technical Annex, Article 1, CCW Protocol V.
- 6 See www.gichd.org/operational-assistance-research/information-management/imsma/overview/.



GENDER AND DIVERSITY

Programmes to reduce the impact of cluster munitions should mainstream gender and diversity into planning, implementation, budget, monitoring and evaluation to ensure that operations are inclusive, efficient, and effective and benefit all affected groups.

GENDER AND DIVERSITY TERMINOLOGY

Diversity refers to differences in values, attitudes, cultural perspective, beliefs, ethnic background, sexual orientation, ability or disability, skills, knowledge, age and life experiences. These differences must be recognised, understood and valued if an organisation is to ensure that all groups of people are able to benefit equally from mine action and that it does not add to discrimination experienced by already marginalised groups.

Gender is defined as ‘culturally and socially constructed differences between males and females that determine their roles and responsibilities in society and vary from place to place and time to time’.¹ The concept was introduced in the 1950s to distinguish between biological sex and the social construct of attributes and opportunities associated with being male or female.²

IMAS 04.10 contains key terminology related to gender:

- **Gender Equality** – the equal rights, responsibilities and opportunities of men and women and implies that the interests, priorities and needs of both are taken into consideration equally.
- **Gender Mainstreaming** – the process of assessing the different implications for women, men, girl and boys of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making the concerns and experiences of both women and men an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated
- **Gender-Sensitive** – takes into consideration the different impact landmines have on men, women, boys and girls. The ultimate aim of gender-sensitive mine action is to conduct mine action in such a way that respects and is based on gender equality

WHY GENDER AND DIVERSITY IN ACTIONS ON ERW?

The work in removing, and reducing the impact of cluster munitions does not happen in a vacuum. It takes place in a context where there are differences and inequalities between women, girls, boys and men in responsibilities assigned, activities undertaken, access to and control over resources, as well as decision-making opportunities. Consequently, programmes to reduce the impact of cluster munitions do not necessarily benefit individuals from different backgrounds equally and should make sure that they neither sustain nor exacerbate existing inequalities between different affected groups and individuals.

Gender, age and other aspects, such as class, job, language, race, ethnicity, political affiliation, religion, education, sexual orientation, literacy, physical abilities, and residency status/migration history influence exposure to cluster munitions and explosive remnants of war (ERW) and the risk of becoming a victim, the ability to access medical and psychological services, long term reintegration, risk education and awareness (RE), and the likelihood of getting employed in mine action.

Due to gender and diversity-specific roles and responsibilities, women, girls, boys and men from diverse groups are affected differently by cluster munitions and ERW and therefore need to be assisted in different ways. For example, gender-distinct mobility patterns often mean that different age and sex groups hold different information on contamination and might have different priorities for survey and clearance.

Inclusion of all stakeholders in consultations and surveys leads to more complete information on the nature and extent of the problem and a more accurate understanding of all the different priorities and needs in the affected communities. This contributes to enhanced security and sustainable and inclusive development for affected women, girls, boys and men.

In other areas of mine action, such as victim assistance and RE, services need to be tailored to reach specific target groups. For example, men might be harder to reach by RE teams during daytime; or they might be reluctant to seek psychological help after being maimed by a cluster munition/ERW because of prevailing cultural beliefs about masculinity. Women in some contexts might not be able to go to public meetings or to speak to male surveyors. Children might need more interactive and dynamic forms of RE; or if they lost a limb in a cluster munition/ERW accident, they will need to change their prosthesis more often than adults.

MAINSTREAMING GENDER AND DIVERSITY IN PROGRAMMES TO REDUCE CM IMPACT

It is essential to carry out a gender analysis to identify and develop an understanding of differences between women, girls, boys and men in terms of: risky behaviour; who is affected and how; access to resources, opportunities, decision-making, services; specific needs/priorities; obstacles for participation; the impact of mine action activities; and potential effects on gender equality.

Gender and diversity are cross-cutting issues and must be mainstreamed at all levels of a programme.

Planning:

- Mainstream gender and diversity in the national mine action strategy, national mine action standards (NMAS), work-plans and relevant Standard Operating Procedures (SOPs).
- Collect, analyse and use quantitative and qualitative information disaggregated by sex, age and other relevant diversity dimensions to inform the design of mine action programmes.

Priority setting:

- Consult actively with both female and male representatives from all affected groups
- Develop gender-sensitive indicators as part of a weighting system to reflect the priorities of females and males from different backgrounds



Non-technical survey:

- Mixed teams to collect information from women, girls, boys and men (IMAS 08.21)
- Adapt the methodology and team composition accordingly in areas where direct contact with women and girls or marginalised groups is not possible

Technical Survey and Clearance:

- Offer equal access to employment opportunities to qualified men and women
- Offer appropriate facilities for male and female staff
- Have a code of conduct in place and clear mechanisms to deal with breaches of the code

Handover procedures:

- Make sure that male and female beneficiaries from diverse groups are accurately informed about the land that is safe to use

Pre and post-clearance impact assessment:

- Ensure that affected females and males are consulted and verify if they benefit equally

Community Liaison and Risk Education:

- Use mixed teams
- Design and deliver sessions in an age, gender and diversity-sensitive way

Victim Assistance:

- Train and hire male and female professionals from different backgrounds to provide services
- Make sure that there are no barriers for any group/individual to access the services
- Offer assistance to direct and indirect victims

Information Management:

- Make sure that forms are designed to collect data disaggregated by sex, age and other relevant diversity dimensions
- Develop gender and diversity-sensitive indicators to monitor and evaluate outputs and outcomes

Quality Management:

- Mainstream gender and relevant diversity dimensions in the relevant NMAS, SOPs, quality assurance forms and accreditation processes

There are many examples of the benefits of mainstreaming gender and diversity in programmes that are designed to reduce the impact of mines, cluster munitions and other ERW. In Jordan, there is a clear example of how well gathering information from women, girls, boys and men works in producing a more detailed picture of local information and of the benefits of having mixed survey teams.

The National Committee for Demining and Rehabilitation (NCDR) and NPA undertook a Landmine Retrofit Survey with a clear gender perspective. Information was gathered from women and men in the communities by survey teams which also consisted of women and men surveyors. Convenient times and locations for the meetings were chosen to make sure all segments of society could participate. By discussing how minefields threaten lives and block development and how the clearance would improve life for women, men, girls and boys, people submitted information on where landmine accidents had taken place. The technical assessment results showed that males and females identified different areas as contaminated by landmines, as women and men have access to different information depending on mobility patterns, daily tasks and knowledge. One of the main conclusions drawn from the experience was that clearance recommendations have to take into account the needs of both women and men, and that female participation is not only relevant for gender balance, but also for obtaining relevant data.³

Effective risk education involves communication among different individuals and different groups or audiences, therefore methods, tools and materials need to be adapted to different target groups.

For example, women in some communities do not feel at ease either to appear in public alongside the male members of their community, or to receive mine education sessions from male counterparts. In such cases, it is opportune to have the female facilitators, as they are able to conduct, in a culturally sensitive manner, separate sessions for women and girls only.

The involvement of women has moreover led to changes in these women's lives, including increased confidence in expressing themselves.

In further examples of adaptations for different audiences sessions for children need to be short, dynamic, fun and interactive; materials need to be available in local languages and contain images that are self-explanatory for people with low or no literacy; and risk education targeting men needs to happen at times and in places where they are accessible.

NORMATIVE FRAMEWORK AND KEY REFERENCES

A number of guidelines, UN documents and resolutions, reports and action plans stress the importance of including gender perspectives and considerations in mine action programmes. The following table provides references to these.

	References to gender and mine action
Convention on the Elimination of all forms of Discrimination Against Women (1979)	<p>States commit themselves to undertake a series of measures to end discrimination against women in all forms, including:</p> <ul style="list-style-type: none"> • to incorporate the principle of equality of men and women in their legal system, abolish all discriminatory laws and adopt appropriate ones prohibiting discrimination against women • to establish tribunals and other public institutions to ensure the effective protection of women against discrimination • to ensure elimination of all acts of discrimination against women by persons, organisations or enterprises <p>http://www.ohchr.org/EN/ProfessionalInterest/Pages/CEDAW.aspx</p>
Beijing platform (1995)	<p>'Women living in poverty, particularly rural women, also suffer because of the use of arms that are particularly injurious or have indiscriminate effects...'</p> <p>Actions to be taken by governments include recognising that women and children are particularly affected by the indiscriminate use of anti-personnel land-mines</p>
United Nations Security Council Resolution (UNSCR) 1325 on Women, Peace and Security (2000)	<p>Emphasises '[...] the need for all parties to ensure that mine clearance and mine awareness programmes take into account the special needs of women and girls'. UNSCR 1325 represents a legal reference to stakeholders' obligations to ensure that mine action addresses the special needs of women and girls</p> <p>http://www.un.org/events/res_1325e.pdf</p>

United Nations' Millennium Development Goal 3: Promote gender equality and empower women	<p>Mine action organisations are obliged to ensure gender equality and to actively empower women in their activities</p> <p>http://www.un.org/millenniumgoals/pdf/MDG%20Report%202010%20En%20r15%20-low%20res%2020100615%20-.pdf#page=22</p>
Convention on Cluster Munitions (2008)	<p>Makes reference to gender on a number of occasions, in particular in relation to the importance of ensuring VA is age and gender-sensitive</p> <p>http://www.clusterconvention.org/</p>
UN Gender Guidelines (2010)	<p>http://www.gmap.ch/fileadmin/UN_gender_guidelines/UN_Gender_Guidelines_for_Mine_Action.pdf</p>
Gender and Landmines: from Concept to Practice (2008)	<p>This report by the Gender and Mine Action Programme (GMAP) studies the significance of gender in the impact and the effectiveness of mine action. It aims at giving the reader an overview, together with concrete examples from 5 different countries (Colombia, Lebanon, Mozambique, Sri Lanka, Sudan), on how gender can be mainstreamed in mine action</p> <p>http://www.gmap.ch/fileadmin/Gender_and_Landmines_from_Concept_to_Practice/SCBL_-_Gender___Landmines_2008_rev_Sep09.pdf</p>
Strategy of the United Nations on Mine Action (2013-2018)	<p>Promotes gender mainstreaming and contains specific indicators on gender, for instance on the provision of age and gender victim assistance services and on the collection of sex and age-disaggregated data</p> <p>http://www.gmap.ch/fileadmin/National_and_Donor_Mine_Action_Strategies/UN_mine_action_strategy_2013-2018.pdf</p>

Gender and Mine Action Programme (GMAP)	<p>GMAP runs an international programme whose general objective is to raise awareness of the importance of taking into considerations different needs, priorities, capabilities and knowledge of women, girls, boys and men affected by landmines, cluster munitions, and ERWs. The programme encourages and supports the mine action sector to mainstream gender in policies, programming and operations, complementing similar efforts by the UN and other actors. It is the main source of information on all aspects of gender and mine action and the only programme focusing exclusively on this issue</p> <p>www.gmap.ch</p>
Dubrovnik Action Plan (2015)	<p>Reasserts and reinforces the concepts presented in the Vientiane Action Plan, including gender mainstreaming's importance in collecting and disseminating risk information</p> <p>http://www.unog.ch/80256EDD006B8954/%28httpAss ets%29/EDCC7B40F1CE5532C1257EB40041239F/\$file/ CCM+CONF+2015+WP.3.E.pdf (Draft Action Plan)</p>

ENDNOTES

- 1 Gender and Mine Action Programme
- 2 Sexologist John Money introduced the terminological distinction between biological sex and gender as a role in 1955. Before his work, it was uncommon to use the word 'gender' to refer to anything but grammatical categories. However, Money's meaning of the word did not become widespread until the 1970s, when feminist theory embraced the distinction. Today, the distinction is strictly followed in some contexts, but in many contexts, even in some areas of social sciences, the meaning of gender has expanded to include 'sex' or even to replace the latter word.
- 3 http://www.gmap.ch/fileadmin/Gender_and_Landmines_from_Concept_to_Practice/SCBL_-_Gender___Landmines_2008_rev_Sep09.pdf



ANNEXES

ANNEX I

CONVENTION ON CLUSTER MUNITIONS

The Convention was adopted in Dublin by 107 states on 30 May 2008 and signed in Oslo on 3 December the same year. The Convention became binding international law when it entered into force on 1 August 2010.

Dublin 19-30 May 2008

THE STATES PARTIES TO THIS CONVENTION,

Deeply concerned that civilian populations and individual civilians continue to bear the brunt of armed conflict,

Determined to put an end for all time to the suffering and casualties caused by cluster munitions at the time of their use, when they fail to function as intended or when they are abandoned,

Concerned that cluster munition remnants kill or maim civilians, including women and children, obstruct economic and social development, including through the loss of livelihood, impede post-conflict rehabilitation and reconstruction, delay or prevent the return of refugees and internally displaced persons, can negatively impact on national and international peace-building and humanitarian assistance efforts, and have other severe consequences that can persist for many years after use,

Deeply concerned also at the dangers presented by the large national stockpiles of cluster munitions retained for operational use and **determined** to ensure their rapid destruction,

Believing it necessary to contribute effectively in an efficient, coordinated manner to resolving the challenge of removing cluster munition remnants located throughout the world, and to ensure their destruction,

Determined also to ensure the full realisation of the rights of all cluster munition victims and **recognising** their inherent dignity,

Resolved to do their utmost in providing assistance to cluster munition victims, including medical care, rehabilitation and psychological support, as well as providing for their social and economic inclusion,

Recognising the need to provide age- and gender-sensitive assistance to cluster munition victims and to address the special needs of vulnerable groups,

Bearing in mind the Convention on the Rights of Persons with Disabilities which, *inter alia*, requires that States Parties to that Convention undertake to ensure and promote the full realisation of all human rights and fundamental freedoms of all persons with disabilities without discrimination of any kind on the basis of disability,

Mindful of the need to coordinate adequately efforts undertaken in various fora to address the rights and needs of victims of various types of weapons, and **resolved** to avoid discrimination among victims of various types of weapons,

Reaffirming that in cases not covered by this Convention or by other international agreements, civilians and combatants remain under the protection and authority of the principles of international law, derived from established custom, from the principles of humanity and from the dictates of public conscience,

Resolved also that armed groups distinct from the armed forces of a State shall not, under any circumstances, be permitted to engage in any activity prohibited to a State Party to this Convention,

Welcoming the very broad international support for the international norm prohibiting anti- personnel mines, enshrined in the 1997 Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction,

Welcoming also the adoption of the Protocol on Explosive Remnants of War, annexed to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects, and its entry into force on 12 November 2006, and **wishing** to enhance the protection of civilians from the effects of cluster munition remnants in post-conflict environments,

Bearing in mind also United Nations Security Council Resolution 1325 on women, peace and security and United Nations Security Council Resolution 1612 on children in armed conflict,

Welcoming further the steps taken nationally, regionally and globally in recent years aimed at prohibiting, restricting or suspending the use, stockpiling, production and transfer of cluster munitions,

Stressing the role of public conscience in furthering the principles of humanity as evidenced by the global call for an end to civilian suffering caused by cluster munitions and **recognising** the efforts to that end undertaken by the United Nations, the International Committee of the Red Cross, the Cluster Munition Coalition and numerous other non-governmental organisations around the world,

Reaffirming the Declaration of the Oslo Conference on Cluster Munitions, by which, *inter alia*, States recognised the grave consequences caused by the use of cluster munitions and committed themselves to conclude by 2008 a legally binding instrument that would prohibit the use, production, transfer and stockpiling of cluster munitions that cause unacceptable harm to civilians, and would establish a framework for cooperation and assistance that ensures adequate provision of care and rehabilitation for victims, clearance of contaminated areas, risk reduction education and destruction of stockpiles,

Emphasising the desirability of attracting the adherence of all States to this Convention, and **determined** to work strenuously towards the promotion of its universalisation and its full implementation,

Basing themselves on the principles and rules of international humanitarian law, in particular the principle that the right of parties to an armed conflict to choose methods or means of warfare is not unlimited, and the rules that the parties to a conflict shall at all times distinguish between the civilian population and combatants and between civilian objects and military objectives and accordingly direct their operations against military objectives only, that in the conduct of military operations constant care shall be taken to spare the civilian population, civilians and civilian objects and that the civilian population and individual civilians enjoy general protection against dangers arising from military operations,

HAVE AGREED AS FOLLOWS:

ARTICLE 1

General obligations and scope of application

1. Each State Party undertakes never under any circumstances to:
 - (a) Use cluster munitions;
 - (b) Develop, produce, otherwise acquire, stockpile, retain or transfer to anyone, directly or indirectly, cluster munitions;
 - (c) Assist, encourage or induce anyone to engage in any activity prohibited to a State Party under this Convention.
2. Paragraph 1 of this Article applies, *mutatis mutandis*, to explosive bomblets that are specifically designed to be dispersed or released from dispensers affixed to aircraft.
3. This Convention does not apply to mines.

ARTICLE 2

Definitions

For the purposes of this Convention:

1. **‘Cluster munition victims’** means all persons who have been killed or suffered physical or psychological injury, economic loss, social marginalisation or substantial impairment of the realisation of their rights caused by the use of cluster munitions. They include those persons directly impacted by cluster munitions as well as their affected families and communities;
2. **‘Cluster munition’** means a conventional munition that is designed to disperse or release explosive submunitions each weighing less than 20 kilograms, and includes those explosive submunitions. It does not mean the following:
 - (a) A munition or submunition designed to dispense flares, smoke, pyrotechnics or chaff; or a munition designed exclusively for an air defence role;

- (b) A munition or submunition designed to produce electrical or electronic effects;
- (c) A munition that, in order to avoid indiscriminate area effects and the risks posed by unexploded submunitions, has all of the following characteristics:
 - (i) Each munition contains fewer than ten explosive submunitions;
 - (ii) Each explosive submunition weighs more than four kilograms;
 - (iii) Each explosive submunition is designed to detect and engage a single target object;
 - (iv) Each explosive submunition is equipped with an electronic self-destruction mechanism;
 - (v) Each explosive submunition is equipped with an electronic self-deactivating feature;
- 3. **‘Explosive submunition’** means a conventional munition that in order to perform its task is dispersed or released by a cluster munition and is designed to function by detonating an explosive charge prior to, on or after impact;
- 4. **‘Failed cluster munition’** means a cluster munition that has been fired, dropped, launched, projected or otherwise delivered and which should have dispersed or released its explosive submunitions but failed to do so;
- 5. **‘Unexploded submunition’** means an explosive submunition that has been dispersed or released by, or otherwise separated from, a cluster munition and has failed to explode as intended;
- 6. **‘Abandoned cluster munitions’** means cluster munitions or explosive submunitions that have not been used and that have been left behind or dumped, and that are no longer under the control of the party that left them behind or dumped them. They may or may not have been prepared for use;

7. **‘Cluster munition remnants’** means failed cluster munitions, abandoned cluster munitions, unexploded submunitions and unexploded bomblets;
8. **‘Transfer’** involves, in addition to the physical movement of cluster munitions into or from national territory, the transfer of title to and control over cluster munitions, but does not involve the transfer of territory containing cluster munition remnants;
9. **‘Self-destruction mechanism’** means an incorporated automatically-functioning mechanism which is in addition to the primary initiating mechanism of the munition and which secures the destruction of the munition into which it is incorporated;
10. **‘Self-deactivating’** means automatically rendering a munition inoperable by means of the irreversible exhaustion of a component, for example a battery, that is essential to the operation of the munition;
11. **‘Cluster munition contaminated area’** means an area known or suspected to contain cluster munition remnants;
12. **‘Mine’** means a munition designed to be placed under, on or near the ground or other surface area and to be exploded by the presence, proximity or contact of a person or a vehicle;
13. **‘Explosive bomblet’** means a conventional munition, weighing less than 20 kilograms, which is not self-propelled and which, in order to perform its task, is dispersed or released by a dispenser, and is designed to function by detonating an explosive charge prior to, on or after impact;
14. **‘Dispenser’** means a container that is designed to disperse or release explosive bomblets and which is affixed to an aircraft at the time of dispersal or release;
15. **‘Unexploded bomblet’** means an explosive bomblet that has been dispersed, released or otherwise separated from a dispenser and has failed to explode as intended.

ARTICLE 3

Storage and stockpile destruction

1. Each State Party shall, in accordance with national regulations, separate all cluster munitions under its jurisdiction and control from munitions retained for operational use and mark them for the purpose of destruction.
2. Each State Party undertakes to destroy or ensure the destruction of all cluster munitions referred to in paragraph 1 of this Article as soon as possible but not later than eight years after the entry into force of this Convention for that State Party. Each State Party undertakes to ensure that destruction methods comply with applicable international standards for protecting public health and the environment.
3. If a State Party believes that it will be unable to destroy or ensure the destruction of all cluster munitions referred to in paragraph 1 of this Article within eight years of entry into force of this Convention for that State Party it may submit a request to a Meeting of States Parties or a Review Conference for an extension of the deadline for completing the destruction of such cluster munitions by a period of up to four years. A State Party may, in exceptional circumstances, request additional extensions of up to four years. The requested extensions shall not exceed the number of years strictly necessary for that State Party to complete its obligations under paragraph 2 of this Article.
4. Each request for an extension shall set out:
 - (a) The duration of the proposed extension;
 - (b) A detailed explanation of the proposed extension, including the financial and technical means available to or required by the State Party for the destruction of all cluster munitions referred to in paragraph 1 of this Article and, where applicable, the exceptional circumstances justifying it;
 - (c) A plan for how and when stockpile destruction will be completed;
 - (d) The quantity and type of cluster munitions and explosive submunitions held at the entry into force of this Convention for that State Party and any additional cluster munitions or explosive submunitions discovered after such entry into force;

- (e) The quantity and type of cluster munitions and explosive submunitions destroyed during the period referred to in paragraph 2 of this Article; and
 - (f) The quantity and type of cluster munitions and explosive submunitions remaining to be destroyed during the proposed extension and the annual destruction rate expected to be achieved.
5. The Meeting of States Parties or the Review Conference shall, taking into consideration the factors referred to in paragraph 4 of this Article, assess the request and decide by a majority of votes of States Parties present and voting whether to grant the request for an extension. The States Parties may decide to grant a shorter extension than that requested and may propose benchmarks for the extension, as appropriate. A request for an extension shall be submitted a minimum of nine months prior to the Meeting of States Parties or the Review Conference at which it is to be considered.
 6. Notwithstanding the provisions of Article 1 of this Convention, the retention or acquisition of a limited number of cluster munitions and explosive submunitions for the development of and training in cluster munition and explosive submunition detection, clearance or destruction techniques, or for the development of cluster munition counter-measures, is permitted. The amount of explosive submunitions retained or acquired shall not exceed the minimum number absolutely necessary for these purposes.
 7. Notwithstanding the provisions of Article 1 of this Convention, the transfer of cluster munitions to another State Party for the purpose of destruction, as well as for the purposes described in paragraph 6 of this Article, is permitted.
 8. States Parties retaining, acquiring or transferring cluster munitions or explosive submunitions for the purposes described in paragraphs 6 and 7 of this Article shall submit a detailed report on the planned and actual use of these cluster munitions and explosive submunitions and their type, quantity and lot numbers. If cluster munitions or explosive submunitions are transferred to another State Party for these purposes, the report shall include reference to the receiving party. Such a report shall be prepared for each year during which a State Party retained, acquired or transferred cluster munitions or explosive submunitions and shall be submitted to the Secretary-General of the United Nations no later than 30 April of the following year.

ARTICLE 4

Clearance and destruction of cluster munition remnants and risk reduction education

1. Each State Party undertakes to clear and destroy, or ensure the clearance and destruction of, cluster munition remnants located in cluster munition contaminated areas under its jurisdiction or control, as follows:
 - (a) Where cluster munition remnants are located in areas under its jurisdiction or control at the date of entry into force of this Convention for that State Party, such clearance and destruction shall be completed as soon as possible but not later than ten years from that date;
 - (b) Where, after entry into force of this Convention for that State Party, cluster munitions have become cluster munition remnants located in areas under its jurisdiction or control, such clearance and destruction must be completed as soon as possible but not later than ten years after the end of the active hostilities during which such cluster munitions became cluster munition remnants; and
 - (c) Upon fulfilling either of its obligations set out in sub-paragraphs (a) and (b) of this paragraph, that State Party shall make a declaration of compliance to the next Meeting of States Parties.
2. In fulfilling its obligations under paragraph 1 of this Article, each State Party shall take the following measures as soon as possible, taking into consideration the provisions of Article 6 of this Convention regarding international cooperation and assistance:
 - (a) Survey, assess and record the threat posed by cluster munition remnants, making every effort to identify all cluster munition contaminated areas under its jurisdiction or control;
 - (b) Assess and prioritise needs in terms of marking, protection of civilians, clearance and destruction, and take steps to mobilise resources and develop a national plan to carry out these activities, building, where appropriate, upon existing structures, experiences and methodologies;

- (c) Take all feasible steps to ensure that all cluster munition contaminated areas under its jurisdiction or control are perimeter-marked, monitored and protected by fencing or other means to ensure the effective exclusion of civilians. Warning signs based on methods of marking readily recognisable by the affected community should be utilised in the marking of suspected hazardous areas. Signs and other hazardous area boundary markers should, as far as possible, be visible, legible, durable and resistant to environmental effects and should clearly identify which side of the marked boundary is considered to be within the cluster munition contaminated areas and which side is considered to be safe;
 - (d) Clear and destroy all cluster munition remnants located in areas under its jurisdiction or control; and
 - (e) Conduct risk reduction education to ensure awareness among civilians living in or around cluster munition contaminated areas of the risks posed by such remnants.
3. In conducting the activities referred to in paragraph 2 of this Article, each State Party shall take into account international standards, including the International Mine Action Standards (IMAS).
 4. This paragraph shall apply in cases in which cluster munitions have been used or abandoned by one State Party prior to entry into force of this Convention for that State Party and have become cluster munition remnants that are located in areas under the jurisdiction or control of another State Party at the time of entry into force of this Convention for the latter.
 - (a) In such cases, upon entry into force of this Convention for both States Parties, the former State Party is strongly encouraged to provide, *inter alia*, technical, financial, material or human resources assistance to the latter State Party, either bilaterally or through a mutually agreed third party, including through the United Nations system or other relevant organisations, to facilitate the marking, clearance and destruction of such cluster munition remnants.
 - (b) Such assistance shall include, where available, information on types and quantities of the cluster munitions used, precise locations of cluster munition strikes and areas in which cluster munition remnants are known to be located.

5. If a State Party believes that it will be unable to clear and destroy or ensure the clearance and destruction of all cluster munition remnants referred to in paragraph 1 of this Article within ten years of the entry into force of this Convention for that State Party, it may submit a request to a Meeting of States Parties or a Review Conference for an extension of the deadline for completing the clearance and destruction of such cluster munition remnants by a period of up to five years. The requested extension shall not exceed the number of years strictly necessary for that State Party to complete its obligations under paragraph 1 of this Article.
6. A request for an extension shall be submitted to a Meeting of States Parties or a Review Conference prior to the expiry of the time period referred to in paragraph 1 of this Article for that State Party. Each request shall be submitted a minimum of nine months prior to the Meeting of States Parties or Review Conference at which it is to be considered. Each request shall set out:
- (a) The duration of the proposed extension;
 - (b) A detailed explanation of the reasons for the proposed extension, including the financial and technical means available to and required by the State Party for the clearance and destruction of all cluster munition remnants during the proposed extension;
 - (c) The preparation of future work and the status of work already conducted under national clearance and demining programmes during the initial ten year period referred to in paragraph 1 of this Article and any subsequent extensions;
 - (d) The total area containing cluster munition remnants at the time of entry into force of this Convention for that State Party and any additional areas containing cluster munition remnants discovered after such entry into force;
 - (e) The total area containing cluster munition remnants cleared since entry into force of this Convention;
 - (f) The total area containing cluster munition remnants remaining to be cleared during the proposed extension;
 - (g) The circumstances that have impeded the ability of the State Party

to destroy all cluster munition remnants located in areas under its jurisdiction or control during the initial ten year period referred to in paragraph 1 of this Article, and those that may impede this ability during the proposed extension;

- (h) The humanitarian, social, economic and environmental implications of the proposed extension; and
 - (i) Any other information relevant to the request for the proposed extension.
7. The Meeting of States Parties or the Review Conference shall, taking into consideration the factors referred to in paragraph 6 of this Article, including, *inter alia*, the quantities of cluster munition remnants reported, assess the request and decide by a majority of votes of States Parties present and voting whether to grant the request for an extension. The States Parties may decide to grant a shorter extension than that requested and may propose benchmarks for the extension, as appropriate.
8. Such an extension may be renewed by a period of up to five years upon the submission of a new request, in accordance with paragraphs 5, 6 and 7 of this Article. In requesting a further extension a State Party shall submit relevant additional information on what has been undertaken during the previous extension granted pursuant to this Article.

ARTICLE 5

Victim assistance

1. Each State Party with respect to cluster munition victims in areas under its jurisdiction or control shall, in accordance with applicable international humanitarian and human rights law, adequately provide age- and gender-sensitive assistance, including medical care, rehabilitation and psychological support, as well as provide for their social and economic inclusion. Each State Party shall make every effort to collect reliable relevant data with respect to cluster munition victims.
2. In fulfilling its obligations under paragraph 1 of this Article each State Party shall:
- (a) Assess the needs of cluster munition victims;

- (b) Develop, implement and enforce any necessary national laws and policies;
- (c) Develop a national plan and budget, including timeframes to carry out these activities, with a view to incorporating them within the existing national disability, development and human rights frameworks and mechanisms, while respecting the specific role and contribution of relevant actors;
- (d) Take steps to mobilise national and international resources;
- (e) Not discriminate against or among cluster munition victims, or between cluster munition victims and those who have suffered injuries or disabilities from other causes; differences in treatment should be based only on medical, rehabilitative, psychological or socio-economic needs;
- (f) Closely consult with and actively involve cluster munition victims and their representative organisations;
- (g) Designate a focal point within the government for coordination of matters relating to the implementation of this Article; and
- (h) Strive to incorporate relevant guidelines and good practices including in the areas of medical care, rehabilitation and psychological support, as well as social and economic inclusion.

ARTICLE 6

International cooperation and assistance

1. In fulfilling its obligations under this Convention each State Party has the right to seek and receive assistance.
2. Each State Party in a position to do so shall provide technical, material and financial assistance to States Parties affected by cluster munitions, aimed at the implementation of the obligations of this Convention. Such assistance may be provided, *inter alia*, through the United Nations system, international, regional or national organisations or institutions, non-governmental organisations or institutions, or on a bilateral basis.

3. Each State Party undertakes to facilitate and shall have the right to participate in the fullest possible exchange of equipment and scientific and technological information concerning the implementation of this Convention. The States Parties shall not impose undue restrictions on the provision and receipt of clearance and other such equipment and related technological information for humanitarian purposes.
4. In addition to any obligations it may have pursuant to paragraph 4 of Article 4 of this Convention, each State Party in a position to do so shall provide assistance for clearance and destruction of cluster munition remnants and information concerning various means and technologies related to clearance of cluster munitions, as well as lists of experts, expert agencies or national points of contact on clearance and destruction of cluster munition remnants and related activities.
5. Each State Party in a position to do so shall provide assistance for the destruction of stockpiled cluster munitions, and shall also provide assistance to identify, assess and prioritise needs and practical measures in terms of marking, risk reduction education, protection of civilians and clearance and destruction as provided in Article 4 of this Convention.
6. Where, after entry into force of this Convention, cluster munitions have become cluster munition remnants located in areas under the jurisdiction or control of a State Party, each State Party in a position to do so shall urgently provide emergency assistance to the affected State Party.
7. Each State Party in a position to do so shall provide assistance for the implementation of the obligations referred to in Article 5 of this Convention to adequately provide age- and gender-sensitive assistance, including medical care, rehabilitation and psychological support, as well as provide for social and economic inclusion of cluster munition victims. Such assistance may be provided, *inter alia*, through the United Nations system, international, regional or national organisations or institutions, the International Committee of the Red Cross, national Red Cross and Red Crescent Societies and their International Federation, non-governmental organisations or on a bilateral basis.
8. Each State Party in a position to do so shall provide assistance to contribute to the economic and social recovery needed as a result of cluster munition use in affected States Parties.

9. Each State Party in a position to do so may contribute to relevant trust funds in order to facilitate the provision of assistance under this Article.
10. Each State Party that seeks and receives assistance shall take all appropriate measures in order to facilitate the timely and effective implementation of this Convention, including facilitation of the entry and exit of personnel, materiel and equipment, in a manner consistent with national laws and regulations, taking into consideration international best practices.
11. Each State Party may, with the purpose of developing a national action plan, request the United Nations system, regional organisations, other States Parties or other competent intergovernmental or non-governmental institutions to assist its authorities to determine, *inter alia*:
- (a) The nature and extent of cluster munition remnants located in areas under its jurisdiction or control;
 - (b) The financial, technological and human resources required for the implementation of the plan;
 - (c) The time estimated as necessary to clear and destroy all cluster munition remnants located in areas under its jurisdiction or control;
 - (d) Risk reduction education programmes and awareness activities to reduce the incidence of injuries or deaths caused by cluster munition remnants;
 - (e) Assistance to cluster munition victims; and
 - (f) The coordination relationship between the government of the State Party concerned and the relevant governmental, intergovernmental or non-governmental entities that will work in the implementation of the plan.
12. States Parties giving and receiving assistance under the provisions of this Article shall cooperate with a view to ensuring the full and prompt implementation of agreed assistance programmes.

ARTICLE 7

Transparency measures

1. Each State Party shall report to the Secretary-General of the United Nations as soon as practicable, and in any event not later than 180 days after the entry into force of this Convention for that State Party, on:
 - (a) The national implementation measures referred to in Article 9 of this Convention;
 - (b) The total of all cluster munitions, including explosive submunitions, referred to in paragraph 1 of Article 3 of this Convention, to include a breakdown of their type, quantity and, if possible, lot numbers of each type;
 - (c) The technical characteristics of each type of cluster munition produced by that State Party prior to entry into force of this Convention for it, to the extent known, and those currently owned or possessed by it, giving, where reasonably possible, such categories of information as may facilitate identification and clearance of cluster munitions; at a minimum, this information shall include the dimensions, fusing, explosive content, metallic content, colour photographs and other information that may facilitate the clearance of cluster munition remnants;
 - (d) The status and progress of programmes for the conversion or decommissioning of production facilities for cluster munitions;
 - (e) The status and progress of programmes for the destruction, in accordance with Article 3 of this Convention, of cluster munitions, including explosive submunitions, with details of the methods that will be used in destruction, the location of all destruction sites and the applicable safety and environmental standards to be observed;
 - (f) The types and quantities of cluster munitions, including explosive submunitions, destroyed in accordance with Article 3 of this Convention, including details of the methods of destruction used, the location of the destruction sites and the applicable safety and environmental standards observed;

- (g) Stockpiles of cluster munitions, including explosive submunitions, discovered after reported completion of the programme referred to in sub-paragraph (e) of this paragraph, and plans for their destruction in accordance with Article 3 of this Convention;
- (h) To the extent possible, the size and location of all cluster munition contaminated areas under its jurisdiction or control, to include as much detail as possible regarding the type and quantity of each type of cluster munition remnant in each such area and when they were used;
- (i) The status and progress of programmes for the clearance and destruction of all types and quantities of cluster munition remnants cleared and destroyed in accordance with Article 4 of this Convention, to include the size and location of the cluster munition contaminated area cleared and a breakdown of the quantity of each type of cluster munition remnant cleared and destroyed;
- (j) The measures taken to provide risk reduction education and, in particular, an immediate and effective warning to civilians living in cluster munition contaminated areas under its jurisdiction or control;
- (k) The status and progress of implementation of its obligations under Article 5 of this Convention to adequately provide age- and gender-sensitive assistance, including medical care, rehabilitation and psychological support, as well as provide for social and economic inclusion of cluster munition victims and to collect reliable relevant data with respect to cluster munition victims;
- (l) The name and contact details of the institutions mandated to provide information and to carry out the measures described in this paragraph;
- (m) The amount of national resources, including financial, material or in kind, allocated to the implementation of Articles 3, 4 and 5 of this Convention; and
- (n) The amounts, types and destinations of international cooperation and assistance provided under Article 6 of this Convention.

2. The information provided in accordance with paragraph 1 of this Article shall be updated by the States Parties annually, covering the previous calendar year, and reported to the Secretary-General of the United Nations not later than 30 April of each year.
3. The Secretary-General of the United Nations shall transmit all such reports received to the States Parties.

ARTICLE 8

Facilitation and clarification of compliance

1. The States Parties agree to consult and cooperate with each other regarding the implementation of the provisions of this Convention and to work together in a spirit of cooperation to facilitate compliance by States Parties with their obligations under this Convention.
2. If one or more States Parties wish to clarify and seek to resolve questions relating to a matter of compliance with the provisions of this Convention by another State Party, it may submit, through the Secretary-General of the United Nations, a Request for Clarification of that matter to that State Party. Such a request shall be accompanied by all appropriate information. Each State Party shall refrain from unfounded Requests for Clarification, care being taken to avoid abuse. A State Party that receives a Request for Clarification shall provide, through the Secretary-General of the United Nations, within 28 days to the requesting State Party all information that would assist in clarifying the matter.
3. If the requesting State Party does not receive a response through the Secretary-General of the United Nations within that time period, or deems the response to the Request for Clarification to be unsatisfactory, it may submit the matter through the Secretary-General of the United Nations to the next Meeting of States Parties. The Secretary-General of the United Nations shall transmit the submission, accompanied by all appropriate information pertaining to the Request for Clarification, to all States Parties. All such information shall be presented to the requested State Party which shall have the right to respond.
4. Pending the convening of any Meeting of States Parties, any of the States Parties concerned may request the Secretary-General of the United Nations to exercise his or her good offices to facilitate the clarification requested.

5. Where a matter has been submitted to it pursuant to paragraph 3 of this Article, the Meeting of States Parties shall first determine whether to consider that matter further, taking into account all information submitted by the States Parties concerned. If it does so determine, the Meeting of States Parties may suggest to the States Parties concerned ways and means further to clarify or resolve the matter under consideration, including the initiation of appropriate procedures in conformity with international law. In circumstances where the issue at hand is determined to be due to circumstances beyond the control of the requested State Party, the Meeting of States Parties may recommend appropriate measures, including the use of cooperative measures referred to in Article 6 of this Convention.
6. In addition to the procedures provided for in paragraphs 2 to 5 of this Article, the Meeting of States Parties may decide to adopt such other general procedures or specific mechanisms for clarification of compliance, including facts, and resolution of instances of non-compliance with the provisions of this Convention as it deems appropriate.

ARTICLE 9

National implementation measures

Each State Party shall take all appropriate legal, administrative and other measures to implement this Convention, including the imposition of penal sanctions to prevent and suppress any activity prohibited to a State Party under this Convention undertaken by persons or on territory under its jurisdiction or control.

ARTICLE 10

Settlement of disputes

1. When a dispute arises between two or more States Parties relating to the interpretation or application of this Convention, the States Parties concerned shall consult together with a view to the expeditious settlement of the dispute by negotiation or by other peaceful means of their choice, including recourse to the Meeting of States Parties and referral to the International Court of Justice in conformity with the Statute of the Court.

2. The Meeting of States Parties may contribute to the settlement of the dispute by whatever means it deems appropriate, including offering its good offices, calling upon the States Parties concerned to start the settlement procedure of their choice and recommending a time-limit for any agreed procedure.

ARTICLE 11

Meetings of States Parties

1. The States Parties shall meet regularly in order to consider and, where necessary, take decisions in respect of any matter with regard to the application or implementation of this Convention, including:
 - (a) The operation and status of this Convention;
 - (b) Matters arising from the reports submitted under the provisions of this Convention;
 - (c) International cooperation and assistance in accordance with Article 6 of this Convention;
 - (d) The development of technologies to clear cluster munition remnants;
 - (e) Submissions of States Parties under Articles 8 and 10 of this Convention; and
 - (f) Submissions of States Parties as provided for in Articles 3 and 4 of this Convention.
2. The first Meeting of States Parties shall be convened by the Secretary-General of the United Nations within one year of entry into force of this Convention. The subsequent meetings shall be convened by the Secretary-General of the United Nations annually until the first Review Conference.
3. States not party to this Convention, as well as the United Nations, other relevant international organisations or institutions, regional organisations, the International Committee of the Red Cross, the International Federation of Red Cross and Red Crescent Societies and relevant non-governmental organisations may be invited to attend these meetings as observers in accordance with the agreed rules of procedure.

ARTICLE 12

Review Conferences

1. A Review Conference shall be convened by the Secretary-General of the United Nations five years after the entry into force of this Convention. Further Review Conferences shall be convened by the Secretary-General of the United Nations if so requested by one or more States Parties, provided that the interval between Review Conferences shall in no case be less than five years. All States Parties to this Convention shall be invited to each Review Conference.
2. The purpose of the Review Conference shall be:
 - (a) To review the operation and status of this Convention;
 - (b) To consider the need for and the interval between further Meetings of States Parties referred to in paragraph 2 of Article 11 of this Convention; and
 - (c) To take decisions on submissions of States Parties as provided for in Articles 3 and 4 of this Convention.
3. States not party to this Convention, as well as the United Nations, other relevant international organisations or institutions, regional organisations, the International Committee of the Red Cross, the International Federation of Red Cross and Red Crescent Societies and relevant non-governmental organisations may be invited to attend each Review Conference as observers in accordance with the agreed rules of procedure.

ARTICLE 13

Amendments

1. At any time after its entry into force any State Party may propose amendments to this Convention. Any proposal for an amendment shall be communicated to the Secretary-General of the United Nations, who shall circulate it to all States Parties and shall seek their views on whether an Amendment Conference should be convened to consider the proposal. If a majority of the States Parties notify the Secretary-General of the United Nations no later than 90 days after its circulation that they support further consideration of the proposal, the Secretary-

General of the United Nations shall convene an Amendment Conference to which all States Parties shall be invited.

2. States not party to this Convention, as well as the United Nations, other relevant international organisations or institutions, regional organisations, the International Committee of the Red Cross, the International Federation of Red Cross and Red Crescent Societies and relevant non-governmental organisations may be invited to attend each Amendment Conference as observers in accordance with the agreed rules of procedure.
3. The Amendment Conference shall be held immediately following a Meeting of States Parties or a Review Conference unless a majority of the States Parties request that it be held earlier.
4. Any amendment to this Convention shall be adopted by a majority of two-thirds of the States Parties present and voting at the Amendment Conference. The Depositary shall communicate any amendment so adopted to all States.
5. An amendment to this Convention shall enter into force for States Parties that have accepted the amendment on the date of deposit of acceptances by a majority of the States which were Parties at the date of adoption of the amendment. Thereafter it shall enter into force for any remaining State Party on the date of deposit of its instrument of acceptance.

ARTICLE 14

Costs and administrative tasks

1. The costs of the Meetings of States Parties, the Review Conferences and the Amendment Conferences shall be borne by the States Parties and States not party to this Convention participating therein, in accordance with the United Nations scale of assessment adjusted appropriately.
2. The costs incurred by the Secretary-General of the United Nations under Articles 7 and 8 of this Convention shall be borne by the States Parties in accordance with the United Nations scale of assessment adjusted appropriately.
3. The performance by the Secretary-General of the United Nations of administrative tasks assigned to him or her under this Convention is subject to an appropriate United Nations mandate.

ARTICLE 15

Signature

This Convention, done at Dublin on 30 May 2008, shall be open for signature at Oslo by all States on 3 December 2008 and thereafter at United Nations Headquarters in New York until its entry into force.

ARTICLE 16

Ratification, acceptance, approval or accession

1. This Convention is subject to ratification, acceptance or approval by the Signatories.
2. It shall be open for accession by any State that has not signed the Convention.
3. The instruments of ratification, acceptance, approval or accession shall be deposited with the Depositary.

ARTICLE 17

Entry into force

1. This Convention shall enter into force on the first day of the sixth month after the month in which the thirtieth instrument of ratification, acceptance, approval or accession has been deposited.
2. For any State that deposits its instrument of ratification, acceptance, approval or accession after the date of the deposit of the thirtieth instrument of ratification, acceptance, approval or accession, this Convention shall enter into force on the first day of the sixth month after the date on which that State has deposited its instrument of ratification, acceptance, approval or accession.

ARTICLE 18

Provisional application

Any State may, at the time of its ratification, acceptance, approval or accession, declare that it will apply provisionally Article 1 of this Convention pending its entry into force for that State.

ARTICLE 19

Reservations

The Articles of this Convention shall not be subject to reservations.

ARTICLE 20

Duration and withdrawal

1. This Convention shall be of unlimited duration.
2. Each State Party shall, in exercising its national sovereignty, have the right to withdraw from this Convention. It shall give notice of such withdrawal to all other States Parties, to the Depositary and to the United Nations Security Council. Such instrument of withdrawal shall include a full explanation of the reasons motivating withdrawal.
3. Such withdrawal shall only take effect six months after the receipt of the instrument of withdrawal by the Depositary. If, however, on the expiry of that six-month period, the withdrawing State Party is engaged in an armed conflict, the withdrawal shall not take effect before the end of the armed conflict.

ARTICLE 21

Relations with States not party to this Convention

1. Each State Party shall encourage States not party to this Convention to ratify, accept, approve or accede to this Convention, with the goal of attracting the adherence of all States to this Convention.
2. Each State Party shall notify the governments of all States not party to this Convention, referred to in paragraph 3 of this Article, of its obligations under this Convention, shall promote the norms it establishes and shall make its best efforts to discourage States not party to this Convention from using cluster munitions.
3. Notwithstanding the provisions of Article 1 of this Convention and in accordance with international law, States Parties, their military personnel or nationals, may engage in military cooperation and operations with States not party to this Convention that might engage in activities prohibited to a State Party.

4. Nothing in paragraph 3 of this Article shall authorise a State Party:
- (a) To develop, produce or otherwise acquire cluster munitions;
 - (b) To itself stockpile or transfer cluster munitions;
 - (c) To itself use cluster munitions; or
 - (d) To expressly request the use of cluster munitions in cases where the choice of munitions used is within its exclusive control.

ARTICLE 22

Depositary

The Secretary-General of the United Nations is hereby designated as the Depositary of this Convention.

ARTICLE 23

Authentic texts

The Arabic, Chinese, English, French, Russian and Spanish texts of this Convention shall be equally authentic.

ANNEX II

LIST OF STATES PARTIES AND SIGNATORIES

Convention on Cluster Munitions

As of 19 April 2016, a total of 119 states have joined the Convention, as 100 States parties and 19 Signatories.

A

Afghanistan
Albania
Andorra
Antigua and Barbuda
Australia
Austria

B

Belgium
Belize
Bolivia
Bosnia and Herzegovina
Botswana
Bulgaria
Burkina Faso
Burundi

C

Cameroon
Canada
Cape Verde
Chad
Chile
Colombia
Comoros
Congo
Cook Islands
Costa Rica
Cote d'Ivoire
Croatia
Cuba
Czech Republic

D

Denmark
Dominican Republic

E

Ecuador
El Salvador

F

Fiji
France

G

Germany
Ghana
Grenada
Guatemala
Guinea
Guinea-Bissau
Guyana

H

Holy See
Honduras
Hungary

I

Iceland
Iraq
Ireland
Italy

J

Japan

L

Lao PDR
Lebanon
Lesotho
Liechtenstein
Lithuania
Luxembourg

M

Malawi
Mali
Malta
Mauritania
Mauritius
Mexico
Moldova
Monaco
Montenegro
Mozambique

N

Nauru
Netherlands
New Zealand
Nicaragua
Niger
Norway

P

Palau
Panama
Paraguay
Peru
Portugal

R

Rwanda

S

Saint Kitts and Nevis
Saint Vincent and
the Grenadines
Samoa
San Marino
Senegal
Seychelles
Sierra Leone
Slovakia
Slovenia
Somalia
South Africa
Spain
State of Palestine
Swaziland
Sweden
Switzerland

T

The FYR of Macedonia
Togo
Trinidad and Tobago
Tunisia

U

United Kingdom
Uruguay

Z

Zambia

Signatories (as at 19 April 2016)

A

Angola

B

Benin

C

Central African Republic
Cyprus

D

Democratic Republic
of Congo
Djibouti

G

Gambia

H

Haiti

I

Indonesia

J

Jamaica

K

Kenya

L

Liberia

M

Madagascar

N

Namibia
Nigeria

P

Philippines

S

Sao Tome and Principe

U

Uganda
United Republic
of Tanzania

ANNEX III

DUBROVNIK ACTION PLAN

At the First Review Conference of the Convention held in September 2015, States Parties adopted the Dubrovnik Action Plan (DAP) which seeks to carry forward the aim of ensuring effective implementation of the provisions of the CCM from the First to the Second Review Conference of the Convention scheduled to be held in 2020. The DAP will serve as the blueprint by which the Convention's objectives for the 5-year period will seek to be achieved.

INTRODUCTION

1. In 2010, at the First Meeting of States Parties in Vientiane, Lao People's Democratic Republic, the Vientiane Action Plan was adopted by States parties to the Convention on Cluster Munitions (CCM). Developed in consultation with partners with the objective to ensure effective and timely implementation of the provisions of the treaty following the First Meeting of States Parties, the Vientiane Action Plan set out concrete and measurable steps, actions and targets aimed to be completed within specific time frames over the next five-year period and with defined roles and responsibilities.
2. Drawing from the provisions of the Convention, the actions contained in the Vientiane Action Plan were not in themselves normative requirements, but designed to gather momentum, guide and assist States parties and other relevant actors in the practical implementation of the Convention. It was argued that with such guidance States parties, together with partners, could ensure that the Convention would have an immediate impact on the ground, address current implementation challenges, react to future developments, and reflect changes in the implementation work. As such, the overall aim of the Action Plan was to support States parties in meeting their obligations. With the adoption of the Vientiane Action Plan, States parties sent a strong message on their commitment to the rapid implementation of the Convention.

3. With the objective to facilitate the preparatory process in advance of the First Review Conference of the Convention, Costa Rica in its capacity as President of the Fifth Meeting of States Parties initiated the Vientiane Action Plan Review in close cooperation with Coordinators and with the support of the interim Implementation Support Unit at UNDP. Together with the four annual progress reports to date monitoring progress in implementing the Vientiane Action Plan, the Review serves as a means to gauge the status of practical implementation of the Convention and thereby also as an opportunity to document to what extent the Convention has made a difference on the ground. As such, it contributes to the first Review Conference of the CCM in guiding the content for a new five-year action plan.
4. To this end, building on the Vientiane Action Plan and the recommendations of the Review, the Dubrovnik Action Plan (DAP) seeks to carry forward the aim of ensuring effective implementation of the provisions of the CCM from the First to the Second Review Conference of the Convention.
5. Elaborated under the guidance of the President-designate of the First Review Conference, and in the capable hands of thematic coordinators and support from UNDP, the Dubrovnik Action Plan has been developed in line with the expressed desire among States parties to further strengthen results by operationalizing actions, with targets aimed to be completed within specific time frames over the next five-year period, and with defined roles and responsibilities. Working groups of experts consisting of partners in the United Nations, the International Committee of the Red Cross, the Cluster Munition Coalition and other stakeholders have been consulted.
6. The actions contained in the Action Plan are not in themselves normative or legal requirements, but designed to gather momentum, guide and assist States parties and other relevant actors in the practical implementation of the Convention. The aim of the new Action Plan remains unchanged: to support States parties in meeting their obligations. Building on the many achievements to date and with the adoption of the Dubrovnik Action Plan, States parties will reaffirm the strong message on their commitment to the rapid implementation of the Convention.

7. The Dubrovnik Action Plan establishes a list of priorities for both States parties and other implementation actors, and also serves as a tool to monitor progress. Substantively, some actions are designed as milestones to ensure timely implementation of comprehensive and resource intensive tasks. Others are designed to assist States parties in structuring their response to their commitments under the Convention.
8. In the next five years many States parties will face their respective legally stipulated deadlines on stockpile destruction and clearance of cluster munition remnants in affected areas. In 2016, States will also celebrate the ten-year anniversary of the Convention on the Rights of Persons with Disabilities. These important milestones underline the imperative of renewed energy in the implementation of the Convention enabled by a strong Vientiane Action Plan.

I. UNIVERSALISATION

9. One hundred and sixteen (116) States have committed to the goals of the Convention. Ninety-two (92) of them have ratified or acceded to the Convention, while twenty-four (24) still need to ratify. Seventy-nine (79) Member States of the United Nations are neither signatories nor parties to the Convention.

Action 1.1 – Increase adherence with the Convention

10. Aiming to increase the number of States parties to 130 by the Second Review Conference, States parties will:
 - (a) Seize opportunities in all relevant forums including, but not limited to, the United Nations Security Council, its General Assembly, Human Rights and Economic and Social Councils, parliamentary meetings, high level, global and regional multilateral and bilateral meetings and other similar events, to engage States not yet party and promote adherence to the Convention as soon as possible.
 - (b) Continue outreach and engagement with States not parties in all appropriate fora, including capitals, to encourage their accession and work with signatory States to encourage prompt ratification.

Action 1.2 – Promote the universalisation of the Convention

11. In cooperating with and assisting other States in joining the Convention, States parties commit to:
- (a) Enhance cooperation and partnerships among States and with other relevant partners including the United Nations, the International Committee of the Red Cross, and other international organisations, the Cluster Munition Coalition and other civil society and non-governmental organisations to promote the universalisation of the Convention and its norms.
 - (b) Promote relevant models of legislation and provide targeted assistance to States requiring support in the development of new national legislation to enable ratification of, or accession to, the Convention.
 - (c) Encourage and support States not party to join the Convention as soon as possible, including by helping States not party to find solutions to the potential obstacles and challenges they face in joining the Convention so as to facilitate their eventual adherence, as well as exchanging information on how such obstacles can be overcome.
 - (d) Support the efforts of States not party that share the humanitarian imperative and concerns caused by cluster munitions, in participating in formal and informal meetings in order to encourage them to become States parties to the Convention.
 - (e) Support efforts of signatory States in their ratification process and help to find solutions to potential obstacles and challenges they may face in the process in order to facilitate their prompt ratification.
 - (f) Engage producer States not party in activities related to the implementation of the CCM including stockpile destruction, clearance and risk reduction, and victims assistance – to present and introduce them to the benefits of the implementation of the Convention with the aim to foster interest and eventual adherence.

Action 1.3 – Reinforce the norms being established by the Convention

12. States parties will continue to promote compliance, reinforcing the norms being established by the CCM that stigmatizes cluster munitions and promote their non-use by:
- (a) Ensuring compliance through bilateral discussions, the use of the good offices of the President, and any other means consistent with Article 8, in a cooperative manner, to clarify and seek to resolve questions related to any matters of compliance.
 - (b) Discouraging, in every way possible use, development, production, stockpiling and transfer of cluster munitions.
 - (c) Calling upon those who continue to use, develop, produce, stockpile and transfer cluster munitions to cease now.
 - (d) In conformity with Article 21, raising concern about any alleged use and condemning any instances of documented use by any actor, effectively calling on all States not party to accede to the Convention.
 - (e) Working as appropriate, with other stakeholders, including States not party to the Convention that have condemned or otherwise expressed concern over the use of cluster munitions generating the stigmatization of cluster munitions and promoting its non-use by any actors.

Result – Universalisation

13. By the Second Review Conference, these efforts will result in
- an increased number of States parties to the Convention;
 - a decreased number of reported alleged and confirmed instances of use, with the aim to put an end for all time to the suffering and casualties caused by cluster munitions.

II. STOCKPILE DESTRUCTION

- 14.** Thirty-seven (37) States parties have reported that they have, or previously had cluster munition stockpiles and thereby have or had obligations under Article 3. Fourteen (14) States parties remain with obligations under Article 3. States parties have collectively destroyed over 80 per cent of reported stockpiles, well on track to complete all destruction in conformity with their respective deadlines stipulated by the Convention.

Action 2.1 – Develop a resourced plan

- 15.** States parties with cluster munition stockpiles that have not yet done so will:
- (a)** Ensure to have a plan in place as soon as possible for the destruction of stocks, including an estimated completion date, national resources to be attributed, and any requirements for international support, and begin physical destruction as soon as possible.
 - (b)** Fulfil their obligations within the deadlines provided by the Convention and ensure that the plan is in compliance with international standards relating to the protection of public health and environment.
 - (c)** Highlight these plans in annual transparency reports and if deemed necessary, at meetings of the Convention as a measure of promoting transparency and confidence building and maintaining transparency as an important element for the full implementation of Article 3 by providing clear information on the status and progress of stockpile destruction programmes.
 - (d)** Request support and any need of international assistance and cooperation in order to comply with obligations under Article 3 through relevant partners.

Action 2.2 – Increase exchanges of promising practices

- 16.** States parties and signatory States that have already started, or finished the destruction of stocks are encouraged to:

Increase the exchange of information amongst themselves and expert organisations of good and cost effective stockpile destruction practices including on safety, environmental impact and efficiency. This could also include tasking the implementation support unit to draft, in consultation

with States, a template for the declaration of compliance under Article 3 to be used on a voluntary basis and to maintain a list of states with practices to share.

Action 2.3 – Apply an appropriate approach to retention

- 17.** States parties that retain or acquire cluster munitions and explosive sub-munitions under Article 3.6 will:

Ensure the amount of explosive sub-munitions does not exceed the number absolutely necessary for said purposes and shall, in accordance with Article 3.8, report regularly on the past and planned use of retained munitions.

Action 2.4 – Announce declaration of compliance on stockpile destruction

- 18.** States parties that have fulfilled obligations under Article 3 are encouraged to:

Make an official declaration of compliance with Article 3 obligations to meetings of States parties or review conferences of the Convention and in annual submissions of transparency reports under Article 7.

Action 2.5 – Act upon unexpected developments

- 19.** States parties which may identify new, previously unknown stockpiles of cluster munitions after a declaration of compliance has been made, commit to:
- (a)** Report such findings without delay to meetings of the Convention and in Article 7 reports as suggested in form C.
 - (b)** Develop without delay, plans for their destruction and destroy them as a matter of urgent priority.

Results – Stockpile destruction

- 20.** By the Second Review Conference, these efforts will result in
- an increased number of States parties that finished stockpile destruction;

- increased levels of reporting on matters pertaining to Article 3 implementation, including information on the amount and planned use of sub-munitions retained;
- increased exchange of information of good and cost effective stockpile destruction practices including on safety, environmental impact and efficiency.

III. CLEARANCE AND RISK REDUCTION EDUCATION

- 21.** Sixteen (16) States parties have reported to have or had obligations under Article 4. Among them, five (5) have declared compliance with Article 4 and eleven (11) remain with obligations under Article 4.

Action 3.1 – Assess the extent of the problem

- 22.** Affected States parties subject to obligations under Article 4 will:
- (a) Endeavour to, within two years of the First Review Conference or two years after entry into force of the Convention for that State party, make every effort to promote clarity on the location, scope and extent of cluster munition remnants in areas under its jurisdiction or control, drawing on survey approaches (technical and non-technical) as appropriate and needed.
 - (b) Note, to the extent possible, the location, scope and extent of any contamination where contaminated land is identified, allowing national authorities to make evidence-based decisions, using appropriate risk-analysis and allow for effective prioritisation of ongoing clearance activities, taking into account needs, vulnerabilities as well as realities and different priorities on local and national levels, and
 - (c) Release land through cancellation, where no confirmed evidence of contamination is found on land previously recorded and classified as contaminated, taking into account existing standards, best practices and principles for land release. Otherwise, only confirmed hazardous areas should be recorded.

Action 3.2 – Protect people from harm

23. Affected States parties will, as soon as areas under its jurisdiction or control are known to be affected:

- (a)** Take all feasible steps to prevent civilian casualties by immediately developing and providing targeted and focused age, gender and ethnic sensitive risk reduction education programmes that are based primarily on an assessment of need and vulnerability and an understanding of risk-taking behaviour.
- (b)** Mark and fence, to the extent possible, confirmed hazardous areas as soon as possible and enforce legislation that protects the marking.

Action 3.3 – Develop a resourced plan

24. Affected States parties will endeavour to:

- (a)** Develop, within one year of the Review Conference or entry into force of the Convention for that State party, and start the implementation of Article 4 compliant national clearance strategies and plans based on survey results and clearance rates, taking into account best practices, international and national standards and methods.
- (b)** Develop and implement national clearance plans including transparent and consistent criteria for developing clearance priorities and for utilising the most appropriate survey and clearance methodologies and technologies.
- (c)** Identify the national resources that could be allocated to implement plans and relevant activities and explore the need to request international assistance and cooperation from the United Nations system, donor States, non-governmental organizations or other relevant entities.

Action 3.4 – Be inclusive when developing the response

25. Affected States parties will endeavour to, where appropriate and applicable,

- (a)** include affected communities in the development and implementation of national clearance plans;

- (b) mainstream gender and age sensitiveness in the development of plans and programmes, as well as in the conduct of survey, clearance and risk reduction education and other relevant activities;
- (c) involve as far as feasible, affected communities in all appropriate activities related to clearance and destruction of cluster munitions remnants, and to risk reduction education.

Action 3.5 – Manage information for analysis, decision-making and reporting

26. Affected States parties will, based on functioning databases and comparable data, record and provide information to the extent possible on the scope, extent and nature of all cluster munition contaminated areas under its jurisdiction or control, and where applicable, report on the size and location of land released through cancellation where no confirmed evidence of contamination is found on land previously recorded as contaminated.

Action 3.6 – Provide support, assist and cooperate

27. States parties that have used or abandoned cluster munitions prior to the entry into force of the CCM, will endeavour to:

Provide technical, financial, material and human resources assistance, as well as other relevant information, where available, to facilitate clearance, when cluster munitions are located under the control or jurisdiction of another State party at the time of the CCM's entry into force for the latter.

Action 3.7 – Apply practice development

28. States parties will promote and continue to:

Explore methods and technologies which will allow clearance operators to work more efficiently with the right technology to achieve better results as we all strive to attain as quickly as possible the strategic goal of a world free of cluster munitions and its remnants, while also making full use of existing methods and technologies that have proven to be effective.

Action 3.8 – Promote and expand cooperation

29. All States parties will:

- (a) Monitor and actively promote the achievement of survey and clearance goals as well as humanitarian and developmental needs by affected States parties.
- (b) Identify possible means to cooperate and assist affected States parties in need.
- (c) Provide international cooperation and assistance when in a position to do so, either bilaterally to affected States, organizations undertaking survey, clearance, and risk reduction education, or through the United Nations and other international organizations, and non-governmental organizations, including sufficient and predictable funding, to enable affected States parties to complete implementation of Article 4 as soon as possible and no later than their respective clearance deadlines. Cooperation and assistance among affected States parties is equally encouraged. When funding is committed or pledged, consider the possibility of multi-year funding.
- (d) Coordinate efforts in support of cluster munitions survey and clearance in affected States parties, with the aim of ensuring that allocation of funds is more effective at country level (bearing in mind the level of the problem, the needs and the humanitarian and development requirements); and appropriately distributed among the affected countries. Involve, as appropriate, relevant international and non-governmental organizations actively engaged in mine action.

Results – Clearance and risk reduction education

30. By the Second Review Conference, these efforts will result in

- a decreased number of new victims, with the aim of zero;
- increased amounts of suspected land released for subsistence, cultural, social and commercial purposes;
- better targeting of scarce clearance resources;

- larger freedom and safer movement;
- increased exchange of information of good and cost effective clearance practices including on safety, environmental impact and efficiency.

IV. VICTIM ASSISTANCE

31. Twelve (12) States parties have reported that they have, or have been reported to have, obligations under Article 5.

Action 4.1 – Strengthen national capacity

32. States parties with cluster munition victims in areas under their jurisdiction or control will:

- (a) Strengthen their national capacity to provide assistance to cluster munition victims, without discrimination against those who have suffered injuries or impairments from other causes, and accordingly, mobilizing adequate national and international resources through existing and innovative sources of financing, bearing in mind the immediate and long-term needs of cluster munition victims. Concrete actions to that effect are:
 - Designating a focal point within the government to coordinate victim assistance, if States parties have not yet done so as required by Article 5, paragraph 2, by the end of 2016.
 - Ensuring that designated focal point has authority, expertise and adequate resources to develop, implement, and monitor actions to promote inclusion of victims in all relevant national policies, plans and programs.
 - Collecting all necessary data, on an ongoing basis, disaggregated by sex and age, assessing the needs and priorities of cluster munition victims, establishing mechanisms to refer victims to existing services, and identifying any methodological gaps in the collection of data. Such data and needs assessment should be made available to all relevant stakeholders and be integrated into or contribute to national injury surveillance and other relevant data collection systems for use in programme planning.

- (b) Review the availability, accessibility and quality of existing services in the areas of medical care, rehabilitation and psychological support, education, economic and social inclusion, and identify the barriers that prevent access.
- (c) Ensure that existing national policies, plans and legal frameworks related to people with similar needs, such as disability and poverty reduction frameworks, address the needs and human rights of cluster munition victims, or adapt such plans accordingly. States parties that have not yet developed a national disability action plan should do so as soon as possible, or develop a national action plan on victim assistance, by no later than the end of 2018. This includes, *inter alia*:
- Coordination of actions relevant for victim assistance within existing coordination systems created under relevant Conventions including the Convention on the Rights of Persons with Disabilities. In the absence of such mechanisms, the establishment of a comprehensive coordination mechanism, actively involving cluster munition victims and their representative organizations, as well as relevant health, rehabilitation, psychological, psycho-social services, education, employment, gender and disability rights experts.
 - Development and implementation of existing international standards, guidelines, best practices, and recommendations in the areas of medical care, rehabilitation and psychological support as well as social and economic inclusion, recognizing in particular the vulnerability of women and children with disabilities.
 - Identification and consideration of the needs and rights of victims other than survivors.
- (d) Monitor and evaluate the implementation of victim assistance as integrated into national laws, policies, and plans, related to people with similar needs, or as a part of a national action plan, and ensure that such frameworks do not discriminate against or among cluster munition victims and those who have suffered injuries or impairments by other causes, and that cluster munition victims have access to specialized services.
- Raising awareness among cluster munition victims about their rights and available services, as well as within government authorities, service providers and the general public to foster respect for the human rights and dignity of victims, and other persons with disabilities.

- Increasing the availability and accessibility of services also in remote and rural areas so as to remove the identified barriers and to guarantee the implementation of quality services.
- (e) Increase the economic inclusion of victims of cluster munitions through self- or waged employment, as well as social protection measures. This could include, for example:
- Education, training and employment incentive programs of persons with disabilities in both public and private sectors, as well as through the micro-crediting possibilities;
 - Developing national capacity building programs which promote the economic inclusion of victims;
 - Increasing opportunities for victims, particularly in remote and rural areas, to access appropriate employment and training initiatives, and to engage in productive work that delivers a fair income and security;
 - Creating employer incentives that support the employment of victims and other persons with disabilities, while enhancing social protection measures to ensure stability during the process of gaining employment;
 - Promoting the inclusion of quotas for employment of cluster munitions victims, as well as those who have suffered injuries or impairments from other causes.

Action 4.2 – Increase the involvement of victims

- 33.** States parties with cluster munition victims in areas under their jurisdiction or control will:
- (a) Include cluster munitions victims and their representative organizations actively in policy-making and decision-making in the work under Article 5 of the Convention in a manner that is gender and age sensitive, sustainable, meaningful and non-discriminatory.

- (b) Include relevant experts to be part of their delegations in all convention related activities (including cluster munitions victims, and representatives of disabled person's organizations).
- (c) Promote and enhance the capacity of organisations representing women, men and survivors and persons with disabilities as well as national organizations and institutions delivering relevant services, including financial and technical resources, leadership and management training and exchange programmes, with a view to strengthen ownership, the effective delivery of services, and sustainability.

Action 4.3 – Share information

34. States parties will:

Make best use of Article 7 reports, drawing on reports submitted under the Convention on the Rights of Persons with Disabilities as appropriate, and formal and informal fora to provide updates on these actions.

Action 4.4 – Provide support, assist and cooperate

35. States parties, in support of the implementation of Article 5, will seek to:

- (a) Promote further cooperation and assistance for projects relevant to cluster munition victims through existing mechanisms, as well as increasing south-south, regional and triangular cooperation, and in accordance to Article 6 of the Convention.
- (b) Facilitate the sharing of information among victim assistance focal points and other key actors, with a view to exchanging experiences and good practices.
- (c) Develop, by the Second Review Conference, guidance on the implementation of Article 5 by a State party in response to any new cluster munition victims that may occur in future in areas under their jurisdiction or control, with a view to preventing additional victims.

Results – Victim Assistance

36. By the Second Review Conference, these efforts will result in

- An improvement in the quality and quantity of assistance provided to persons with disabilities;
- Strengthened respect for human rights to all persons;
- Increased exchange of information of good and cost effective practices;
- Increased involvement of victims in consultations and policy-making and decisions-making processes on issues that concern them;
- Increased cooperation assistance for victim assistance programmes, through traditional mechanisms, and south-south, regional and triangular cooperation and in linking national focal points and centres;
- Increased demonstration of results achieved and/or expected results in Article 7 transparency reports.

V. INTERNATIONAL COOPERATION AND ASSISTANCE

37. Of sixteen (16) States parties that have reported to have or had obligations under Article 4, eight have highlighted assistance needs in clearance and/or risk reduction. Of thirty-seven (37) States parties that have reported to have or had obligations under Article 3, eight have highlighted assistance needs in stockpile destruction. Of twelve (12) States parties that have reported to have obligations under Article 5, seven (7) have highlighted assistance needs to address the needs of victims.

Action 5.1 – Strengthen partnerships at all levels

38. States parties and expert organisations engaging in cooperation and assistance will:

- (a) Develop and strengthen their partnerships at all levels, including south-south and triangular cooperation, including among and between states, the United Nations, the International Committee of the Red Cross, National Red Cross and Red Crescent Societies and their International Federation, international and regional organisations, the Cluster

Munition Coalition, the Geneva International Centre for Humanitarian Demining and other civil society organisations, survivors and their representatives organisations.

- (b) Share information and good practices, technologies, resources and expertise to implement the Convention effectively and efficiently, maximize opportunities and avoid duplications.

Action 5.2 – Communicate challenges and seek assistance

- 39.** States parties seeking assistance according to the right under Article 6 for the fulfilment of obligations under the CCM, in particular as it pertains to Article 3, 4, 5, 7 and 9, will:

Communicate challenges and needs for cooperation and assistance for the full implementation of these obligations at the earliest possible opportunity, in meetings of the Convention and through Article 7 transparency reporting, as well as through bilateral and regional channels, and engage with States parties, and other relevant expert organizations and stakeholders, that may be in a position to assist in addressing these needs and overcoming these challenges.

Action 5.3 – Evidence base needs for better results

- 40.** States parties seeking assistance should:

- (a) Ensure that requests for cooperation and assistance are based on appropriate surveys, needs assessments and analysis, including an emphasis on gender and age specific requirements.
- (b) Ensure that requests for cooperation and assistance include a focus on capacity building, at national and local level, based on appropriate identification of needs, are clearly embedded in broader national policy and legal frameworks and consistent with international obligations.
- (c) Ensure that requests for cooperation and assistance are clearly embedded in broader national policy and legal frameworks.

Action 5.4 – Take ownership

41. States parties seeking cooperation and assistance will do their utmost to:

Demonstrate high-level national ownership in fulfilling the Convention's obligations and to this end empower and provide relevant state entities with the necessary human, financial and material capacities and resources to implement these obligations.

Action 5.5 – Respond constructively to request for assistance

42. States parties and expert organizations in a position to do so, including the private sector where feasible, will:

- (a) Respond promptly to requests for assistance and will identify and mobilise the necessary technical, material and financial resources and means of cooperation and assistance, at the community, the national and international level.
- (b) Use all possible channels to support States parties seeking assistance and will ensure that such assistance is carried out in line with their humanitarian and development-related strategies and programming in a way to provide predictability and ensure sustainability. Multi-year partnerships of cooperation should be fostered.
- (c) Develop, share and promote cost-effective, innovative and successful practices of cooperation and assistance and promote results-based programming with increased monitoring and evaluation and a closer and more systematic interaction between the donor and the recipient.

Action 5.6 – Make use of existing tools, cost efficiency and effectiveness

43. States parties seeking or in a position to provide assistance and expert organizations will aim to:

- (a) Make most use of existing tools, especially Article 7 transparency reports, to present requests or offers for cooperation and assistance. Special attention should be paid to ensure that needs for and assistance available are clearly communicated.
- (b) Strive for synergies, where appropriate, with other relevant instruments of international humanitarian and human rights law.

Action 5.7 – Support implementation support

44. States parties will do their utmost to:

Ensure the provisions of adequate resources for cooperation and assistance including for support provided by the Implementation Support Unit to facilitate implementation of the Dubrovnik Action Plan.

Results – Cooperation and Assistance

45. By the Second Review Conference, these efforts will result in:

- A decrease in the number of new victims and a better quality of life for victims;
- An increased number of States parties that finish stockpile destruction in advance of their eight-year deadlines;
- A better targeting of scarce resources;
- Increased technical and material assistance, transfer of skills and good practices;
- Increased and improved reporting on challenges and needs for assistance;
- An increase of multi-year partnerships for cooperation including multi-year funding arrangements;
- An increase in the exchange of information of good and cost effective clearance and stockpile destruction practices including on safety, environmental impact and efficiency;
- An increase in cooperation and assistance for victim assistance programming, with the aim to ensure that victims can participate in all aspects of life on an equal basis.

VI. TRANSPARENCY MEASURES

- 46.** Sixty-seven (67) initial transparency reports of the required 84 have been received. One (1) State party has submitted its initial and annual transparency report in advance of the CCM's deadline. Seventeen (17) States parties have yet to submit their initial Article 7 transparency report. Fifty-six (56) States parties of the required 84 have submitted one or more annual report. Twenty-eight (28) States parties have yet to submit one or more annual Article 7 transparency reports.

Action 6.1 – Report in time, initially and annually

- 47.** States parties will fulfil their obligation to:
- (a)** Provide initial transparency reports under Article 7 within the timeframe stated by the Convention, especially as the initial reports are key for establishing the benchmark against which progress will be measured.
 - (b)** Provide annual transparency reports, taking full advantage of the reporting process maximizing their potential as a tool for assistance and cooperation in implementation of the Convention, particularly where States parties must take action to destroy stockpiled cluster munitions, clear cluster munitions remnants and assist victims or take national implementation measures referred to in Article 9.

Action 6.2 – Make practical use of reporting

- 48.** States parties will use formal and informal fora to:
- (a)** Provide updates on the implementation of provisions of the Convention, ensuring that updates are clearly reflected in formal annual transparency reports and in promoting these reports as practical tools for cooperation and assistance; including detailed information on time-bound plans towards treaty compliance, with special emphasis regarding obligations under Articles 3, 4 and 5.
 - (b)** Seek support from relevant partners if in need of international cooperation and assistance to fulfil their obligations under Article 7.

Results – Transparency measures

49. By the Second Review Conference, these efforts will result in:

- An increase in the rate of submissions of transparency reports provided under Article 7;
- Improved quality in reporting;
- Increased exchange of information of good and cost effective reporting practices;
- Increased use of the reporting guide that reflects the actual need for qualitative information and represents a useful tool for States parties to submit initial reports and annual updates.

VII. NATIONAL IMPLEMENTATION MEASURES

50. Forty-eight (48) or 52 per cent of all States parties have adopted legislation specifically aimed at the implementation of the Convention or have indicated that their existing laws and regulations are sufficient to implement it. Twenty-three (23), or twenty-five (25) per cent of States parties have reported that they are currently in the process of adopting legislation and other implementing measures. A number of States parties have not yet shared detailed information on their implementation of the Convention in this area either through their initial and/or annual transparency reports or at formal and informal meetings.

Action 7.1 – Enact national legislation to implement the CCM

51. States parties that have not yet done so will, as a matter of priority, review existing national legislation, regulations and administrative measures to ensure that they have appropriate measures in place to fully implement the Convention.

52. States parties will:

- (a) Prioritise, where necessary, the development and adoption of new comprehensive legislative, administrative or other implementing measures in accordance with Article 9.

- (b) Share information on any reviews as well as on the content and application of implementing measures in their annual transparency reports and at meetings of the Convention with the aim to share good practice and lessons learnt and as a measure of transparency.

53. States parties may wish to consider enacting national legislation prohibiting investments in producers of cluster munitions.

Action 7.2 – Highlight challenges and request assistance

54. States parties are encouraged to:

- (a) Highlight factors and challenges that may be preventing progress in the revision/adoption of national legislation in transparency reports and at meetings of the Convention.
- (b) Make their needs known to States parties, the Implementation Support Unit, and other relevant actors in instances when assistance would be welcomed in the development/revision of implementing measures.

Action 7.3 – Raise awareness of national implementation measures

55. States parties will, as a matter of priority, take steps to:

- (a) Increase awareness among all relevant stakeholders of obligations under the Convention, and of their national implementation measures.
- (b) Ensure that the obligations of the Convention and their national implementation measures are disseminated to their armed forces and, as necessary, reflected in military doctrine, policies and training.
- (c) Report on progress in this area in their Article 7 reports and to meetings of the Convention.

Results – National implementation measures

56. By the Second Review Conference, these efforts will result in:

- All States parties being in compliance with Article 9 and have reported on national implementation in formal meetings of the Convention and through Article 7 transparency reports;
- All relevant national actors, including armed forces being informed of obligations under the Convention and of national implementation measures including as a result of their reflection, where necessary in military doctrine, policies and training.

ANNEX IV

STATE ADHERENCE TO AND IMPLEMENTATION OF THE CONVENTION ON CLUSTER MUNITIONS – ICRC RATIFICATION KIT

The Convention on Cluster Munitions provides a comprehensive framework for addressing the long-standing humanitarian issues associated with these weapons. Ensuring that the Convention fulfils its promises requires the widest possible adherence and implementation among States. This paper describes the procedures that most States have to follow in order to ratify or accede to this treaty. It also contains model instruments of adherence to be filed with the depositary. These instruments have been prepared in consultation with the Treaty Section of the United Nations Office of Legal Affairs in New York.

1. SIGNATURE

The Convention opened for signature on 3 December 2008 at a ceremony in Oslo, Norway. Thereafter, and until its entry into force, it can be signed at United Nations Headquarters in New York (contact: Treaty Section, Office of Legal Affairs). Once the Convention enters into force, the period allowed for signatures will be closed.

By signing the Convention, a State is signaling its intention to become a party to the instrument in the future. Once it has signed, a State must not take any action that would undermine the object and purpose of the Convention (see Article 18, *Vienna Convention on the Law of Treaties, 1969*).

Signing the Convention does not make the State a party to the agreement, legally bind it or require it to begin to implement all the provisions of the Convention. To become formally bound by the Convention's provisions, a signatory State must subsequently ratify the instrument. States that do not sign the instrument may also agree to be bound by the Convention through the act of accession.

2. RATIFICATION AND ACCESSION

To become party to the Convention on Cluster Munitions a State must formally declare its consent to be bound by the agreement. This will normally involve two principal steps: action by the national government and a notification to the depositary.

a. Action by the national government

At the national level, a State must agree to adhere to the Convention in accordance with domestic procedures for becoming party to international agreements. This usually requires discussion within the country and action by its parliament and/or its executive.

b. Notification to the depositary

After domestic procedures have been followed and the decision to be bound by the Convention taken, a State will need to prepare an instrument of ratification or accession.

A **State that has signed the Convention** will generally declare its consent to be bound by preparing an instrument of ratification.

A **State that has not signed the Convention** will usually declare its consent to be bound by preparing an instrument of accession.

For constitutional reasons, certain States use the terms 'acceptance' or 'approval' to describe their adherence to international treaties. These terms have the same legal effect as ratification and consequently express a State's consent to be bound by a treaty.

Instruments of ratification (acceptance, approval or accession) must be deposited with the treaty's depositary, in this case the Secretary-General of the United Nations (contact: Treaty Section, Office of Legal Affairs, United Nations, New York, NY 10017). The filing of this instrument with the depositary is the action which activates a State's commitments under the Convention and giving them international legal force. Once the Convention is in force, the deposit of an instrument with the UN Secretary-General also creates treaty relations, including rights and obligations, with respect to other States Parties. The Convention does not allow for reservations.

The Convention enters into force six months after 30 States have deposited their instruments of ratification (acceptance, approval or accession). The specific date on which the Convention becomes binding on an individual State is determined as follows:

- (a) For the first 30 States to deposit instruments with the UN Secretary-General, the Convention will enter into force on the first day of the sixth month after the 30th instrument of ratification (acceptance, approval or accession) is received.
- (b) For all other States, the Convention will enter into force on the first day of the sixth month after the date on which that State deposited its instrument of ratification (acceptance, approval or accession) with the UN Secretary-General.

In order to reinforce the basic norms laid down in the Convention, Article 18 invites States upon ratification (acceptance, approval or accession) to declare that they intend provisionally to apply its general obligations (contained in Article 1) pending its entry into force. The ICRC encourages States to make such a declaration.

3. NATIONAL IMPLEMENTATION

The Convention (Article 9) requires that States take appropriate legal, administrative and other measures to implement its provisions. This includes the imposition of penal sanctions to prevent and punish any prohibited activity committed by persons or on territory under their jurisdiction or control. Depending on domestic law or procedures, **specific criminal legislation to impose legal sanctions** may be needed. The ICRC's delegations and its Legal Division in Geneva are available for guidance on preparing such legislation.

Administrative measures – including changes in military doctrine and operating procedures and the notification of companies and entities involved in the development, production and transfer of arms – may also be needed to ensure that violations do not occur.

Besides the prevention and punishment of violations, States need to consider a range of positive measures to ensure implementation of the Convention. These may include:

- (a) Development and implementation of plans for the destruction of stockpiled cluster munitions

- (b) Development and implementation of plans for the clearance of cluster munition remnants
- (c) Development and implementation of plans for risk education and victim-assistance programmes
- (d) Development and implementation of assistance programmes for a, b and c above in support of other States Parties (Article 6)
- (e) Preparation and submission to the depositary of annual reports on implementation and other confidence-building measures (Article 7), the first of which is required 180 days after entry into force of the Convention for the State Party concerned

4. MODEL INSTRUMENTS OF RATIFICATION, ACCEPTANCE, APPROVAL OR ACCESSION

Model instruments to be filed with the depositary are attached. Also attached is a model declaration regarding provisional application, which the ICRC encourages States to consider submitting to the depositary at the time of ratification (acceptance, approval or accession).

The ICRC's delegations throughout the world and its Legal Division in Geneva are available to provide any further information or clarification that may be required.

December 2008

MODEL A
For States Signatories

**MODEL INSTRUMENT OF RATIFICATION
[ACCEPTANCE OR APPROVAL]
OF THE CONVENTION ON CLUSTER MUNITIONS**

WHEREAS the Convention on Cluster Munitions was adopted at Dublin on 30 May 2008 and opened for signature at Oslo on 3 December 2008,

WHEREAS the said Convention has been signed on behalf of the Government of _____ on _____ ,

NOW THEREFORE I, [name and title of the Head of State, Head of Government or Minister of Foreign Affairs], declare that the Government of _____ , having considered the above-mentioned Convention, ratifies [accepts, approves] the same Convention and undertakes faithfully to perform and carry out the stipulations therein contained.

IN WITNESS WHEREOF I have signed this instrument of [ratification, acceptance, approval] at _____ on _____ .

[signature] + [seal]

This instrument must be signed by the Head of State, Head of Government or Minister of Foreign Affairs.

MODEL B
For non-signatory States

**MODEL INSTRUMENT OF ACCESSION
TO THE
CONVENTION ON CLUSTER MUNITIONS**

WHEREAS the Convention on Cluster Munitions was adopted at Dublin on 30 May 2008,

NOW THEREFORE I, [name and title of the Head of State, Head of Government or Minister of Foreign Affairs], declare that the Government of _____, having considered the above-mentioned Convention, accedes to the same Convention and undertakes faithfully to perform and carry out the stipulations therein contained.

IN WITNESS WHEREOF I have signed this instrument of accession at _____ on _____.

[signature] + [seal]

This instrument must be signed by the Head of State, Head of Government or Minister of Foreign Affairs.

MODEL C

For both signatory and non-signatory States

MODEL DECLARATION OF INTENT TO APPLY THE CONVENTION PROVISIONALLY

Optional Declaration

I [name and title of the Head of State, Head of Government or Minister of Foreign Affairs] declare herewith that the Government of _____ will provisionally apply Article 1 of the Convention on Cluster Munitions, pending its entry into force.

[signature] + [seal]

This declaration may be submitted to the depositary at the same time as the instrument of ratification or accession to the said Convention.

This declaration must be signed by the Head of State, Head of Government or Minister of Foreign Affairs.

ANNEX V

LEGISLATE THE CONVENTION ON CLUSTER MUNITIONS

New Zealand, in its capacity as CCM Coordinator on National Implementation Measures, has developed a Model Legislation template for possible use by non-possessor and non-contaminated States Parties to assist them meet their Article 9 obligations. Article 9 implementation is critical in ensuring that the CCM lives up to its humanitarian objectives.

1. TITLE

This Act is the Cluster Munitions Act [INSERT YEAR].

2. COMMENCEMENT

This Act comes into force on [INSERT DATE/PROCEDURE].

3. PURPOSE

The purpose of this Act is to implement the Convention on Cluster Munitions (2008) in [INSERT COUNTRY NAME].

4. INTERPRETATION

(1) In this Act: ‘Convention’ means the 2008 Convention on Cluster Munitions (the English text of the Convention is set out in the Schedule to this Act); ‘Minister’ means the Minister of State who is responsible for the administration of this Act; ‘Officer’ means a person authorized by the Minister to give effect to this Act;

‘Transfer’ involves, in addition to the physical movement of cluster munitions into or from [INSERT COUNTRY NAME], the transfer of title to, and control over, cluster munitions. (2) Terms and expressions not defined in this Act but defined in the Convention have the same meaning as in the Convention.

5. OFFENCES RELATING TO CLUSTER MUNITIONS: PROHIBITED CONDUCT

- (1)** A person who does any of the following commits an offence:
 - (a)** Uses a cluster munition;
 - (b)** Develops, produces or otherwise acquires a cluster munition;
 - (c)** Possesses, retains or stockpiles a cluster munition;
 - (d)** Transfers a cluster munition, directly or indirectly, to another person;
 - (e)** Assists, encourages or induces another person to engage in any conduct described in paragraphs (1) (a) to (d) of this section.
- (2)** A person commits an offence who provides or invests funds with the intention that those funds be used, or knowing that they are to be used, in the development or production of cluster munitions.

6. SEIZURE AND DESTRUCTION OF CLUSTER MUNITIONS

Any cluster munition connected with the commission of an offence under paragraphs (1) (a) to (d) of section 5 may be seized without warrant and must be destroyed by an officer.

7. EXCEPTIONS TO OFFENCES IN SECTION 5: PERMITTED CONDUCT

Despite section 5, an officer does not commit an offence by seizing, receiving or acquiring a cluster munition if he or she is doing so in the course of his or her employment and for the purposes of:

- (a)** Destroying it; or
- (b)** Retaining it pending its destruction; or
- (c)** Transferring it so that it can be destroyed.

8. PENALTIES

Any person who contravenes section 5 shall be guilty of an offence and liable upon conviction to imprisonment for a term not exceeding [] years or to a fine not exceeding [] or both.

9. APPLICATION OF ACT

- (1) This Act applies to all acts done or omitted in [INSERT COUNTRY NAME].
- (2) This Act also applies to all acts done or omitted outside [INSERT COUNTRY NAME] by a citizen of [INSERT COUNTRY NAME] or by a company incorporated in [INSERT COUNTRY NAME].

10. CONSEQUENTIAL AMENDMENTS

[If required, for example, to customs legislation dealing with prohibited imports and exports.]

11. ACT BINDING ON THE STATE

This Act binds the State.



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**Geneva International Centre
for Humanitarian Demining**
Maison de la paix, Tower 3
Chemin Eugène-Rigot 2C
PO Box 1300
CH – 1211 Geneva 1, Switzerland
info@gichd.org

**Implementation Support Unit
Convention on Cluster Munitions**
Maison de la paix, Tower 3
Chemin Eugène-Rigot 2C
PO Box 1300
CH – 1211 Geneva 1, Switzerland
info@clusterconvention.org

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