
Convention on Cluster Munitions

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General status and operation of the Convention

Application of all available methods for the efficient implementation of Article 4

Submitted by: Australia

Background

1. Although the Convention on Cluster Munitions entered into force on 1 August 2010, some States have been dealing with contamination of cluster munition remnants for many years. At the international meeting in Santiago de Chile in June 2010 and at the First Meeting of States Parties in Vientiane in November 2010, States emphasised that while challenges exist, national programmes have often been dealing effectively with contamination of cluster munition remnants and some States have made substantial progress with clearance.

2. Experience gained in the context of a decade of implementation of the Anti-Personnel Mine Ban Convention showed that the challenges faced by many States Parties may have been less than previously thought and efforts to fulfil that Convention's obligations could proceed in a more efficient manner. States Parties to that Convention recognised in 2008 that there was a range of practical methods that could be employed to release areas suspected of containing anti-personnel mines, more rapidly and with a high level of confidence.¹

3. The purpose of this paper is to encourage States Parties in the process of implementing Article 4 of the Convention on Cluster Munitions to identify, rapidly and accurately, contaminated areas and utilise the full range of methods to facilitate the safe and efficient release of land back to communities for productive use. This paper is designed to encourage States Parties, early in their implementation of Article 4, to enhance their understanding of what areas are contaminated by cluster munition remnants and to consider all appropriate methods, including approaches that do not require full clearance, to release land that is deemed not to be contaminated. This will allow clearance efforts to be more

¹ See APLC/MSP.9/2008/WP.2 which the Ninth Meeting of States Parties welcomed and encouraged States Parties to implement.

efficient and concentrated on those areas which are confirmed as being contaminated. This paper is also aimed at assisting States Parties to implement the Vientiane Action Plan through applying all available and relevant methods of non-technical survey, technical survey and clearance, and including these aspects within national standards, policies and procedures in accordance with existing mine action standards.²

4. It is important to note that, when undertaken in accordance with high quality national policies and standards that incorporate key principles highlighted in this paper, releasing land other than through full clearance is not a short-cut to implementing Article 4. Rather it is a means to expediently release, with confidence, areas at one time deemed to be contaminated by cluster munition remnants but which are no longer suspected to be affected. Employing measures that result in the more efficient release of these areas will allow afflicted populations to be reached more quickly and will expedite access to land, which will reduce the economic and social impact of contamination on vulnerable populations.

5. This paper deals with situations where land is suspected of being contaminated only by cluster munition remnants. Different considerations and processes will be required for the release of land contaminated by a mix of cluster munition remnants and mines and/or other explosive remnants of war (ERW).

Characteristics of unexploded submunitions³ compared to mines and other ERW

6. Cluster munition remnants⁴ present a distinct contamination problem that may require specific land release methodologies to deal with it. The characteristics of cluster munition remnant contamination are different from those of mine contamination and also differ in some respects (for example dispersion) from contamination by other types of ERW. Therefore, different survey and clearance methods may be more appropriate in the case of contamination by cluster munition remnants only.

7. Cluster munition remnants typically have a higher metal content than most landmines⁵ and therefore different technologies (such as detection equipment) can be applied to the problem when cluster munition remnants are present in isolation from mines or other types of ERW.⁶ They also create a distinct contamination pattern on the ground when deployed. Several variants are known to have a consistently high failure rate which can be used to predict the likely level and spread of contamination. These characteristics can therefore be exploited to improve the efficiency of survey and clearance methodologies.

² These include: IMAS 8.20 Land Release; IMAS 8.21 Non-technical Survey; IMAS 8.22 Technical Survey; IMAS 9.11 Battle Area Clearance; and Technical Note for Mine Action, TNMA 09.30/06 Clearance of Cluster Munitions based on experience in Lebanon.

³ 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.

⁴ Cluster munition remnants means failed cluster munitions, abandoned cluster munitions, unexploded submunitions and unexploded bomblets.

⁵ For example, minimum metal anti-personnel mines and anti-vehicle mines.

⁶ It should be noted that contamination by remotely delivered mines may have similar characteristics to contamination by cluster munition remnants.

8. Explosive submunitions⁷ are designed to function by detonating an explosive charge prior to, on or after impact with the ground or target. The fact that they are not intended by design to be victim activated can be factored into survey and clearance methodologies. This characteristic can allow early access to contaminated areas by trained explosive ordnance disposal technicians, after a risk assessment has been conducted, in order to carry out an accurate site survey. The risk of activating cluster munition remnants which may be present below the surface by stepping on the area is, under most circumstances, considered low. Therefore, an area suspected of being contaminated by cluster munition remnants can usually be physically entered during survey activities by qualified technical personnel. This early access allows the rapid identification of evidence that can confirm the presence of cluster munition remnants, and will further indicate the extent of the contamination problem prior to the deployment of clearance assets. All these measures allow more rapid, and therefore efficient, survey and follow-on clearance. A summary of the differences between unexploded submunitions, mines and other unexploded ordnance (UXO), including the effect they have on survey and clearance operations, is shown in the table below.

Summary table | Different characteristics of mines, submunitions and other UXO

	<i>Pattern</i>	<i>Metal Content</i>	<i>Failure Rate</i>	<i>Risk of accidental activation (accessibility during survey)</i>
Mines	Laid in a pattern or placed for tactical reasons	Low/ Medium/ High	Not applicable	Victim activated. No access to the area during survey
Submunitions	Create a pattern or footprint as a result of their delivery or dispersal process	High	Variable - can be as high as 30%	Designed to function by detonation prior to, on or after impact. Possible to access the area during survey in most cases
Other UXO	Generally no pattern	High	Depends on type, but in general lower than for submunitions	Generally designed to detonate on impact. Possible to access the area during survey

⁷ 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.

Applying all available methods for the efficient survey and clearance of cluster munition remnants

9. It can be inefficient to address cluster munition remnant contamination using the same approaches that are used for mines or other types of ERW. Cluster munition remnants present different characteristics to mines and other types of ERW, and as such, specific methodologies can be employed to promote efficient survey and clearance when dealing with cluster munition remnant contamination. It should be noted that when cluster munition remnants are combined with mines or other types of ERW then the operational approach taken will need to be adjusted to suit the contamination mix. The following guiding principles should be taken into account when conducting the survey and clearance of cluster munition remnants:

(a) Recording Hazardous Areas: Suspected contamination from cluster munition remnants should normally be recorded as a single point (evidence point or similar), unless the boundaries of the suspected contamination can be accurately recorded at that stage. The recording of an evidence point should be determined by an evidence-based assessment. That is, there should be strong evidence (either physical evidence or a strong claim) of a cluster munition remnant hazard. The level of evidence required to create an evidence point should be outlined in National Mine Action Standards (NMAS) which should also outline the procedures for undertaking the survey and clearance of most ERW, including mines and cluster munition remnants.

(b) Sources of Evidence: All available sources of evidence should be investigated when conducting a non-technical survey⁸ of a suspected contamination of cluster munition remnants. This should include, but not be limited to:

- (i) Information from individuals, including both women and men, or organisations who have knowledge of the suspect area past and present;
- (ii) How the land is being, or has previously been, used and by which groups of the local community within, and around, areas of suspected contamination;
- (iii) Physical evidence that can be identified during a field visit to the suspect area;
- (iv) Incidents and accidents that may have occurred in the area; and
- (v) Bombing data or other sources related to possible contamination of the area with cluster munition remnants.

(c) Technical Survey Approaches: Efficient technical survey approaches such as the application of a 'fade out'⁹ and 'systematic investigation'¹⁰ should be fully employed as opposed to default clearance of a hazardous area.

⁸ Non-technical survey describes an activity which involves collecting and analyzing new and/or existing information about a Suspect Hazardous Area. Its purpose is to:

- Confirm whether or not there is evidence of a hazard;
- Identify the type and extent of any hazard within the area; and
- Define, as far as possible, the perimeter of the actual hazardous areas.

⁹ Fade out is an agreed distance from a specific evidence point where the technical survey/clearance is carried out. The fade out distance is determined by the conditions specific to the area, should be based on operational experience, and described in National Mine Action Standards (NMAS) and/or Standard Operating Procedures (SOPs).

¹⁰ Systematic investigation is a systematic process of applying technical survey. It is typically used where there are no areas within a suspect area that are more likely to be mined, or contain ERW, than

(d) Evidence-based Clearance: Clearance progress should be evidence-based. According to agreed fade out procedures, clearance should stop only when evidence of a hazard is no longer being found. If further hazards are suspected a new non-technical survey, or further technical survey, should be completed in order to establish if additional land is contaminated and further clearance is required.

(e) Appropriate Clearance Technology: Appropriate detector technology, aimed at detecting only the hazard present, should be employed. There is generally no requirement for an area to be cleared to be completely ‘metal free’ if the hazard is known only to consist of cluster munition remnants. Detectors with variable sensitivity, wide-area detectors, and ‘signature’ detectors should be employed where possible.

(f) Clearance Depth: The depth that a suspect hazardous area is cleared to should conform to the expected end-use of the land, or as stipulated by NMAS to address future land use. The condition of the ground in the area should also be taken into consideration because operational experiences have shown that if the ground is hard at the time of impact, cluster munition remnants normally do not penetrate very deeply.

(g) Community involvement and acceptance of decision-making: Local participation should be fully incorporated into the main stages of the process of releasing land in order to make the entire process more accountable, manageable and ultimately cost-effective. Community involvement should include vulnerable groups living in or near suspect areas as well as ensure the participation of both women and men. A high level of local contributions to major decisions will ensure that land is used appropriately after it has been released.

Recommendations

10. The States Parties acknowledge that, in order to reduce the humanitarian impact of cluster munitions, return affected land to communities for productive use and implement efficiently their obligations under Article 4 of the Convention, all available and efficient measures to identify and remove the contamination of cluster munition remnants should be employed.

11. The States Parties acknowledge that three main actions can be undertaken to assess and, where applicable, to release land that has been previously identified and reported as part of an area suspected of being contaminated with cluster munition remnants – through non-technical survey, technical survey, and clearance.

12. Given the unique characteristics of cluster munition remnants these measures will, in most cases, be different to those employed for mines and other types of ERW.

13. States Parties are encouraged to review their approach to the identification and subsequent release of cluster munition-affected land and, if necessary, adjust the methodologies employed bearing in mind the recommendations suggested in this paper in order to determine the most efficient system for their specific situation.

others. When there are no “high risk areas”, the search for evidence should be spread uniformly over the suspected contaminated area. If evidence is located, the search should be further focused on the area where the evidence of unexploded submunitions is found. If no evidence of unexploded submunitions is found upon completion of the systematic investigation, then this may allow the entire area to be released.

14. States Parties are encouraged, where they have not yet done so, to develop National Mine Action Standards, in accordance with the International Mine Action Standards, that detail the land release methodologies and techniques for the efficient survey and clearance of cluster munition remnants.
