

IMAS 08.20

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Incorporating amendments numbers(s)

Land release

Warning!

This IMAS discusses issues related to land release in mine action. It has been produced in 2009 and the content has effectively been accepted by the mine action community. However, the full introduction of land release will require changes to other IMAS; some may need small changes for consistency while a few will change significantly. These changes have been initiated and, when completed, they will be exchanged with the current version and will be published accordingly. At that time, the land release IMAS will be consistently integrated into the complete IMAS series.

It should be noted that the old IMAS 08.20 (Technical Survey) has been archived because the new IMAS 08.21 and 08.22 completely replace that IMAS. The existing IMAS 08.10 will remain in the IMAS framework pending the acceptance by the IMAS Review Board of a new draft IMAS, which will be called 05.10 Information Management.

Pending the full integration of the Land Release IMAS into the IMAS series, care should be taken when encountering inconsistencies or references to General Mine Action Assessment and Technical Survey in other IMAS.

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Warning

This document is current with effect from the date shown on the cover page. As the International Mine Action Standards (IMAS) are subject to regular review and revision, users should consult the IMAS project website in order to verify its status. (<http://www.mineactionstandards.org/>, or through the UNMAS website at <http://www.mineaction.org>)

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Foreword

International standards for humanitarian mine clearance programmes were first proposed by working groups at an international technical conference in Denmark in July 1996. Criteria were prescribed for all aspects of mine clearance, standards were recommended and a new universal definition of "clearance" was agreed. In late 1996, the principles proposed in Denmark were developed by a UN-led working group and the *International Standards for Humanitarian Mine Clearance Operations* were developed. A first edition was issued by the UN Mine Action Service (UNMAS) in March 1997.

The scope of these original standards has since been expanded to include the other components of mine action, in particular those of mine risk education and victim assistance, and to reflect changes to operational procedures, practices and norms. The standards were redeveloped and have now been named *International Mine Action Standards* (IMAS).

The United Nations has a general responsibility for enabling and encouraging the effective management of mine action programmes, including the development and maintenance of standards. UNMAS, therefore, is the office within the United Nations responsible for the development and maintenance of IMAS. IMAS are produced with the assistance of the Geneva International Centre for Humanitarian Demining.

The work of preparing, reviewing and revising IMAS is conducted by technical committees, with the support of international, governmental and non-governmental organisations. The latest version of each standard, together with information on the work of the technical committees, can be found at <http://www.mineactionstandards.org/>. IMAS are reviewed at least every three years to reflect developing mine action norms and practices and to incorporate changes to international regulations and requirements.

Introduction

A principal objective of mine action is to remove the explosive hazards (landmines and explosive remnants of war (ERW)) from areas where they have been laid or abandoned. Mine action operations have typically employed demining assets to do this, such as manual clearance teams, explosive detection animals and mechanical systems, either individually or in combination. These methods have resulted in thousands of square kilometres of land being released back to communities for productive use. However, on some occasions, land has been subjected to full clearance unnecessarily.

While some of the operational principles of survey and clearance have been well understood and used by many mine action operators, inadequate or inaccurate survey can exaggerate the mines/ERW problem. In addition, survey data needs to be reviewed over time as more information becomes available particularly as communities become established and land use further developed in the aftermath of conflict. An objective of mine action is to define, re-define and clear land that is contaminated by mines/ERW.

When no survey has been conducted before, the first survey should be conducted following the guidelines in IMAS 08.21. Inaccessible areas, or areas with limited information available, should not by default be recorded as hazardous and, just because an area has been labelled suspected by an impact survey or technically unqualified source, full clearance should not be the presumed or automatic response to remove this suspicion. Sometimes it may be acceptable to remove the suspicion based on the evidence obtained, and verified, without the need for any physical intervention into the area.

Land Release is the process of applying all reasonable effort to identify or better define Confirmed Hazardous Area and remove all suspicion of mines/ERW through non technical survey, technical survey and clearance using an evidence based and documented approach.

The polygons, from an impact survey or other non-evidence based survey typically labelled SHA, are often incorrectly perceived as boundaries of mined areas and correcting these mistakes is not the same as releasing land. Governments should not seek to use impact survey data to define the geographical extent of a mine problem but rather use data from appropriate non-technical survey. Impact survey data may be useful indicators of where further investigation is required but impact surveys do not make a non-technical survey unnecessary.

Disproportionate or prolonged use of clearance resources in areas where there are subsequently found to be no hazards is often a result of a lack of guidance on how to measure and define the minimum, and therefore most appropriate, mine action approach for the release of land. The aim must be to employ clearance resources only on genuinely hazardous areas.

The Land Release process consists of three main activities, Non-Technical Survey, Technical Survey and Clearance. This IMAS provides guidance on the overall land release process and its sub components and shall assist the development of national policy and standards. The different methodologies for releasing land are detailed in the following IMAS:

IMAS 08.21 Non-technical survey provides guidance on the principles of a non-technical survey, the conduct of a non-technical survey, including how land can be released by non-technical survey;

IMAS 08.22 Technical survey provides guidance on the principles of a technical survey, the conduct of a technical survey, including how land can be released by technical survey;

IMAS 09.10 Clearance requirements provides the requirements for the conduct of clearance and the release of land through clearance; and

IMAS 09.11 Battle area clearance provides the requirements for the conduct of battle area clearance and the release of land through battle area clearance.

Land release

1 Scope

This standard provides guidance on the process of land release to enable the development of a national land release policy and outlines broad responsibilities and obligations of the National Mine Action Authorities, demining organisations and agencies involved.

2 Normative references

A list of normative references is given in Annex A. Normative references are important documents to which reference is made in this standard and which form part of the provisions of this standard.

3 Terms and definitions

A list of terms and definitions used in this standard is given in Annex B. A complete glossary of all the terms and definitions used in the IMAS series of standards is given in IMAS 04.10.

In the IMAS series of standards, the words “shall”, “should” and “may” are used to indicate the intended degree of compliance. This use is consistent with the language used in ISO standards and guidelines.

- a) **Shall** is used to indicate requirements, methods or specifications that are to be applied in order to conform to the standard.
- b) **Should** is used to indicate the preferred requirements, methods or specifications.
- c) **May** is used to indicate a possible method or course of action.

The term “**Land Release**” describes the process of applying all reasonable effort to identify or better define Confirmed Hazardous Areas (CHA) and remove all suspicion of mines/ERW through non technical survey, technical survey and/or clearance. The criteria for “all reasonable effort” shall be defined by the NMAA.

The term “**National Mine Action Authority**” (NMAA) refers to the government department(s), organisation(s) or institution(s) in each mine-affected country charged with the regulation, management and co-ordination of mine action. In most cases, the national mine action centre (MAC) or its equivalent will act as, or on behalf of, the NMAA. In certain situations and at certain times it may be necessary and appropriate for the UN, or some other recognised international body, to assume some or all of the responsibilities, and fulfil some or all of the functions, of an NMAA.

The term “**Suspect Hazardous Area**” (SHA) refers to an area suspected of having a mine/ERW hazard. A SHA can be identified by an impact survey, other form of national survey, or a claim of presence of explosive hazard.

The term “**Confirmed Hazardous Area**” (CHA) refers to an area identified by a non-technical survey in which the necessity for further intervention through either technical survey or clearance has been confirmed.

The term “**Defined Hazardous Area**” (DHA) refers to an area, generally within a CHA, that requires full clearance. A DHA is normally identified through thorough survey.

The term “**Non-technical Survey**” describes an important survey activity which involves collecting and analysing new and/or existing information about a hazardous area. Its purpose is to confirm whether there is evidence of a hazard or not, to identify the type and extent of hazards within any hazardous area and to define, as far as is possible, the perimeter of the actual hazardous areas *without* physical intervention. A non-technical survey does not

normally involve the use of clearance or verification assets. Exceptions occur when assets are used for the sole purpose of providing access for non-technical survey teams. The results from a non-technical survey can replace any previous data relating to the survey of an area.

The term “**Technical Survey**” describes a detailed intervention with clearance or verification assets into a CHA, or part of a CHA. It should confirm the presence of mines/ERW leading to the definition of one or more DHA and may indicate the absence of mines/ERW which could allow land to be released when combined with other evidence.

The term “**All Reasonable Effort**” describes what is considered a minimum acceptable level of effort to identify and document mined areas or to remove the presence or suspicion of mines/ERW. “All reasonable effort” has been applied when the commitment of additional resources is considered to be unreasonable in relation to the results expected.

4 Initial information screening

If conducted correctly, survey will normally provide accurate information on which clearance plans can be based. If conducted carelessly, or conclusions are drawn with inadequate information, a false understanding of the situation will result and may be the cause of inefficient tasking. The following principles apply to good survey in mine action:

- a) Survey and clearance should be conducted by fully trained staff;
- b) Correct management of data using trained staff is essential; and
- c) Correct supervision of the above, using fully trained supervisors, is essential.

Survey is, however, not always conducted adequately and so there may be information in the national database which, when analysed correctly, may enable the removal of incorrect database entries. Removal of redundant/incorrect/double SHA entries in databases through initial screening does not form part of the land release process because these entries do not contain legitimate claims or evidence of mines/ERW. This is not part of the land release process.

There is no uniform method of reassessing and identifying incorrect information in databases but the following broad principles should apply:

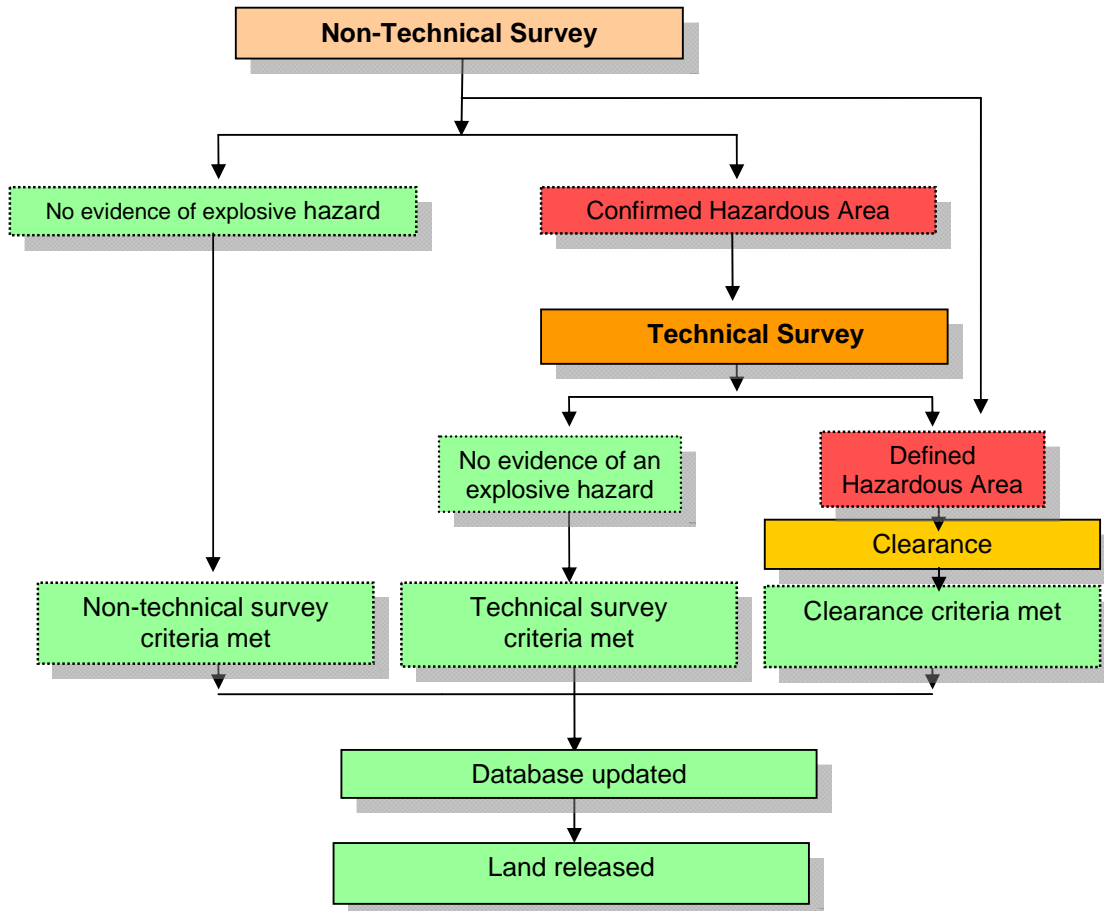
- a) A national policy for the analysis of database information should be developed;
- b) A methodology for the reassessment of information should be developed;
- c) The detailed requirements and criteria for removing incorrect entries should be defined;
- d) The detailed criteria for reclassifying entries that are only partially incorrect should be defined;
- e) Relevant databases should be reconfigured to facilitate a reassessment;
- f) Survey information in databases should be systematically verified to confirm whether there are incorrect entries, evidence of mines/ERW or a need for additional survey; and
- g) An element of quality control (e.g. auditing) should be incorporated into the process.

5 The land release process

The process of releasing land is an evidence based information assessment process that can help determine with confidence which land needs to be cleared and which does not. The following principles should apply when developing a national land release process.

- a) Claim. Land can only be released from a past suspicion (or claim) of mines/ERW if there has been a legitimate claim in an area. Previously recorded SHA may not have been created from legitimate claims and a SHA is often created because there was too little evidence available to conclude definitively that there are no mines. A CHA should only be created if there is evidence of mines/ ERW.
- b) Fear. People's fear of mines/ERW is not on its own a legitimate, evidence-based claim of explosive hazard. Fear needs to be substantiated with other evidence.
- c) Default. **Inaccessible areas, or areas with limited information available, should not by default be recorded as CHA.** CHA should only be recorded in a database when there is sufficient evidence available.
- d) Graduated response. To ensure efficient removal of suspicion or release of land a graduated response should be undertaken when addressing CHA. The process will generally follow sequentially through the activities of non-technical survey, technical survey, and clearance until at some stage in the process the suspicion that the area may contain explosive hazards is removed by either obtaining sufficient information to confidently remove the suspicion, or by removing the suspicion through adequate clearance. There may be occasions where sufficient information exists to make a technical survey unnecessary and an operator may progress directly to clearance.
- e) Clearance. If the process has been followed correctly, the area remaining for clearance will be better defined, thereby resulting in more efficient use of demining resources. Clearance itself is an information gathering process which will lead to the hazardous area being fully defined. IMAS 09.10 specifies the requirements for clearance.
- f) Credibility/documentation. Land should only be released when it is deemed safe to use after a credible and well-documented process has been fully implemented.
- g) Community involvement. Local participation should be fully incorporated into the main stages of the process of releasing land in order to ensure that it will be appropriately used after release.
- h) Low Impact. A CHA assessed as having a low impact on a community should not be released based on lack of impact. It may however be given a low priority.
- i) ERW. Land can be released from the suspicion of mines while there may still be a suspicion of other ERW. Additional measures may be required to establish confidently that land is free from both mines and ERW.

The flow chart below illustrates the process of applying different, but interlinked, criteria for releasing land by non-technical survey, technical survey and clearance.



6 Information gathering methodologies

A number of information-gathering methodologies can be used as part of the land release decision-making process. The principles of information gathering by non-technical survey are described in IMAS 08.21. The principles of information gathering by technical survey are described in IMAS 08.22. IMAS 05.10 (information management) provides further details about the principles and processes of information collation and analysis.

7 Land release criteria

The criteria or the conditions to be met before the release of land can be considered, will vary depending on the prevailing circumstances and techniques, but the required level of confidence that the land is free from explosive hazards remains the same. As a guide, those prepared to release the land should be prepared to walk over it or traverse it in vehicles (depending on the type of hazard that was found in the area or suspected of being present).

The participation and agreement of all stakeholders is key to the development of criteria for land to be released. Stakeholders include the NMAA, demining organisations and, ideally, the beneficiaries of the released land. IMAS 08.21 provides guidance on developing criteria for land release through non-technical survey. IMAS 08.22 provides guidance for developing criteria for releasing land through technical survey.

8 Confidence in released land

8.1 General

Before land can be released from suspicion, it should be established, with a sufficiently high level of confidence, that there is no longer any evidence that the area contains any explosive hazards. This confidence can only be gained after all reasonable efforts to investigate whether mines/ERW are present have been made.

8.2 All reasonable effort

The term “all reasonable effort” is widely used in many industries and legal systems. It refers to the level of effort that required to be expended to achieve a desired level of confidence in the output of a system.

“All reasonable effort”, in mine action, in the process of deciding when land can be released from suspicion, is the level of effort required to achieve the desired level of confidence that the land is free of mines/ERW. “All reasonable effort” may, at one extreme, only be the conduct of a non-technical survey which finds absolutely no evidence of mines/ERW. Clearly the commitment of additional resources in this case is unlikely to justify the expected additional information about the area. However, if the non-technical survey confirms some evidence of mines/ERW, it would be reasonable to expend more effort to gain more confidence about which areas are free of mines/ERW and which are not. In this case, “all reasonable effort” may mean that a technical survey or clearance should be conducted.

“All reasonable effort” for the release of previously suspected land (CHA/DHA) is reached at a point where sufficient and reliable information has been obtained to conclude, with confidence, that there is no evidence of mines/ERW. Varying levels of clearance and survey will be conducted to reach this point. In relation to the achievement of confidence in mine action activities, the point at which it is unreasonable to expect more effort to be expended to achieve the desired result should be determined by the NMAA.

The following should be defined:

- a) Reasonable levels of effort required to investigate evidence of hazards;
- b) Objective criteria for assessing and quantifying the individual survey value of all types of non-technical survey information; and
- c) Criteria for the amount of information required to make survey conclusions.

8.3 Quality management

Quality management in land release is the application of Quality Assurance (QA) and Quality Control (QC). QA involves the accreditation and monitoring of the survey and clearance organisations before and during the land release process. QC involves the process of inspection when land is released by clearance. Where land is released by survey, a conclusion has been made that no mines were present on that land prior to the survey. Inspection of such land would be unlikely to unveil information about the quality of the survey while increasing costs. Inspection of land released by non-technical and technical survey may, however, form part of an initial process where the aim is to verify that a land release concept is appropriately designed.

The NMAA should specify the quality requirement for the survey and clearance organizations in a national standard, or another policy document.

Quality management can be achieved by:

- using operationally accredited survey and clearance organisations (IMAS 07.30) with staff that are appropriately trained and with suitable levels of qualification and competence (IMAS 09.30) applying appropriate management practices and safe and effective operational procedures;
- monitoring the survey and clearance organisations and its sub-units (IMAS 07.40).

9 Documentation

Information management is a key part of the land release process. Proper management procedures, including adequate decision-making mechanisms, recording, training, monitoring and adjustment, are essential requirements of the process. A quality documentation process is also important because:

- a) the assessment of documentation forms the basis for decisions to release land;
- b) documentation forms the basis for internal and external quality control;
- c) if hazards subsequently appear on released land, the documentation used to make the decision to release the SHA or CHA can be examined to identify faulty application of the process or faults in the process itself; the latter may result in adjustments being made; and
- d) documentation is essential evidence where liability is in question.

10 Developing national policy and standards

10.1 General

National policy and standards on land release can be articulated through specific legislation or policy documents issued by the relevant national authority. National policies and standards on land release, particularly in relation to the criteria for releasing land, should be reached through consultation with all stakeholders.

10.2 Developing national policy on land release

A policy defines the purpose and goals of an organisation, and it articulates the rules, standards and principles of action which govern the way in which the organisation aims to achieve these goals. Policy evolves in response to strategic direction and field experience. In

turn, it influences the way in which plans are developed, and how resources are mobilised and applied. A national policy on land release should be issued by the NMAA and contain the following as a minimum:

- a) an overview of agreed terminology;
- b) a statement describing how land will be released (i.e. through non-technical survey, technical survey, and clearance);
- c) a description of the agreed principles of the land release process;
- d) a list of the agreed criteria for land release;
- e) an overview of the land release concept and how it will be applied;
- f) direction on the development of national standards on land release.

10.3 Developing national standards on land release

A standard is an established norm or requirement. It is usually a formal document that establishes uniform technical criteria, methods, processes and practices. Guidance on non-technical survey is provided in IMAS 08.21 and on technical survey in IMAS 08.22.

11 Risks and liability

A potential concern of the land release process is the issue of liability for the consequences of explosive hazards being found in areas that have been released. This standard cannot define conditions that will be acceptable to all countries and regions but gives guidance based on experience and evidence gained to date. Liability refers to any legal responsibility, duty or obligation that a country, organisation or individual may have. Resolving liability questions can be complex when non-technical survey and technical survey procedures are applied to release land. In the absence of physical verification of all released land, there is always an element of risk that explosive hazards may remain. It is also true that conducting full clearance activities will still not guarantee that an area is completely free of explosive hazards. The following IMAS definition is relevant:

“Residual risk” is *“the risk remaining following the application of all reasonable efforts to discredit, remove, or destroy all mine or ERW hazards from a specified area to a specified depth”*.

While it may sometimes be possible to hold a demining organisation accountable for missed mines after full clearance, it is more complex when land has been released by non-technical or technical survey. Liability is normally linked to non-compliance with an agreed policy or procedure.

It is important that the NMAA, on behalf of the government, develops a policy that details liability aspects, including the shift of liability from the mine action organisation to the government or the local community when certain criteria have been fulfilled. The following principles should apply.

- a) Mines and ERW are primarily and ultimately a national responsibility and, as such, the nation state (or relevant national authority) has a responsibility to accept accountability and liability for victims in all areas affected by landmines and ERW. This includes known as well as unknown areas, areas that have been cleared and handed over to the national authority or local population, as well as areas that have been released as a result of the land release process. Only when an implementing agency is directly, and currently, responsible for an affected area could they be considered liable for injuries in that area. Even then the validity of this claim will need to be proved on a case-by-case basis.

- b) An endorsed land release policy implies that all stakeholders agree on the definition of “all reasonable efforts”. A process to identify and quantify these efforts during the design of the land release policy will be likely to prevent disputes related to liability issues.
- c) If a land release policy has been approved by a government, appropriate application of the principles by operators and acceptance of handover by the national authority implies that the level of risk of mines or ERW in the area after survey or clearance is deemed tolerably low by the government.
- d) If explosive hazards are found in areas that have previously been released, liability disputes should in principle be settled based on how well organisations have implemented the land release process that is normally enshrined in national standards. The appearance of an explosive hazard does not automatically imply that the organisation should be held liable.
- e) The organisation will in principle not be liable in cases of missed mines or accidents if an investigation shows that the agreed land release policy has been implemented appropriately and thus that the organisation has made *all reasonable effort* to ensure that the area was safe before release.
- f) An organisation will in principle be liable in cases of accidents caused by missed mines or ERW if investigation shows that:
 - i) the accident was caused by wilful or criminal misconduct, gross negligence, reckless misconduct or a conscious, flagrant indifference to the rights or safety of the individual(s) harmed;
 - ii) the organisation was not properly licensed, certified or authorised to carry out acts leading to the erroneous land release decision;
 - iii) the organisation wilfully infringed prevailing national policy or standards;
 - iv) the organisation has conducted gross procedural errors or grossly deviated from an agreed land release concept; and
 - v) Liability for dealing with items found after land release should be clarified in the national land release policy.¹

12 Post land release actions

The residual risk referred to above can be mitigated to a large extent by monitoring released land and making survey and clearance resources available if mines/ ERW are subsequently discovered. If explosive hazards are discovered, a rapid response with appropriate assets and a transparent investigation process will limit the loss of public confidence in the land release process. The NMAA should provide clear guidelines about what actions should be undertaken. These may include:

- a) monitoring released land after a reasonable period to confirm that local communities are using the land and that explosive hazards have not been discovered;
- b) developing mechanisms to enable the reporting of landmines or ERW that are discovered on land that has previously been released;
- c) regular control of the documentation and decision-making process leading to land release recommendations;

¹ Further information on the issue of risks, liability and insurance can be found in the GICHD publication “A guide to insurance for mine action operators” published in May 2004.

- d) making mine action assets available to deal with unexpected explosive hazards and undertake additional survey;
- e) reclassifying previously released land to CHA or DHA and updating relevant databases if evidence of explosive hazards is found;
- f) initiating investigations into the process that led to the decision to release the land and, if necessary, adjusting the land release policy; and
- g) imposing restrictions on any land that may be subject to special use, e.g. schools, construction sites.

13 Responsibilities and obligations

13.1 National Mine Action Authority

The NMAA shall:

- a) develop a national land release policy and relevant standards;
- b) accredit organisations as capable of undertaking non-technical survey, technical survey and clearance;
- c) prepare and publish standards and guidelines for land release including:
 - i) quality assurance and quality control to be applied to non-technical survey, technical survey, and clearance contracts and agreements;
 - ii) documentation for land release;
- d) define levels of reasonable effort to investigate whether or not there is evidence of hazards;
- e) define agreed criteria for the release of land both after clearance and survey and where there is no evidence of an explosive hazard;
- f) define liability issues relating to survey and clearance organisations, the local community, and the individuals undertaking survey and clearance in accordance with national legislation;
- g) maintain and make available, as required, documentation on the recorded operational use of all assets used during the process of releasing land (who, what, where, when).

13.2 Demining organisations

The organisation undertaking survey or clearance shall:

- a) gain (from the NMAA, Mine Action Centre or equivalent) accreditation needed to conduct land release activities;
- b) apply the national standards for survey and clearance. In the absence of national standards, the organisation shall apply the IMAS standards, or such standards as are specified in their contract or agreement;
- c) collect the necessary information as required by the land release documentation policy and applicable standards;
- d) where applicable, conduct a formal handover of assessed sites to the organisation conducting follow-on activities including, where relevant, technical survey and clearance;
- e) maintain and make available documentation as specified by the NMAA or Mine Action Centre or equivalent;
- f) consult closely with affected communities with regards to all decisions to release land.

In the absence of an NMAA or similar authority, the organisation should assume additional responsibilities. This includes assisting the host nation, during the establishment of a NMAA and Mine Action Centre or equivalent, in framing national standards for land release by non-technical survey, technical survey and clearance, including quality assurance and quality control.

Annex A (Normative) References

The following normative documents contain provisions, which, through reference in this text, constitute provisions of this part of the standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of the standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid ISO or EN:

- a) IMAS 04.10 Terms and definitions
- b) IMAS 07.30 Accreditation of demining organizations
- c) IMAS 07.40 Monitoring of demining organizations
- d) IMAS 08.21 Non-technical Survey
- e) IMAS 08.22 Technical Survey
- f) IMAS 09.10 Clearance requirements
- g) IMAS 09.11 Battle area clearance
- h) IMAS 05.10 Management of Information (to be published)
- i) IMAS 08.30 Post-clearance documentation
- j) IMAS 08.40 Marking mine and ERW hazards
- k) IMAS 09.20 The inspection of cleared land
- l) IMAS 09.50. Mechanical application.
- m) IMAS 09.51 Machine operator's safety specifications (to be published)

The latest version/edition of these references should be used. GICHD hold copies of all references used in this standard. A register of the latest version/edition of the IMAS standards, guides and references is maintained by GICHD, and can be read on the IMAS website (<http://www.mineactionstandards.org/>). National mine action authorities, employers and other interested bodies and organisations should obtain copies before commencing mine action programmes.

Annex B
(Informative)
Terms, definitions and abbreviations

See IMAS 04.10 for a complete list of terms and definitions used in IMAS

Annex C **(Informative)** **Relevant International Instruments**

Two international conventions place special obligations on the Governments of mine-affected countries (who are Party to the treaties) regarding the survey and marking of mined areas.

Amended Protocol II (AP II) to the UN 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 (CCW) requires that "...all reasonable precautions should be taken to protect civilians from the impact of mines, booby-traps and other devices." And Protocol V to the same convention requires that States Parties and parties to armed conflict are required to take action to clear, remove or destroy ERW (Art. 3), and record, retain and transmit information related to the use or abandonment of explosive ordnances (Art. 4). They are also obligated to take all feasible precautions for the protection of civilians (Art. 5) and humanitarian missions and organisations (Art. 6). States Parties in a position to do so should provide cooperation and assistance for marking, clearance, removal, destruction, and victim assistance, among other things (Art. 7 & 8).

In Protocol V on explosive remnants of war, this convention (CCW) emphasises similar obligations regarding UXO and AXO.

Article 5.2 of the Mine Ban Convention (commonly known as the Ottawa Convention) requires each State Party to "...make every effort to identify all areas under its jurisdiction or control in which anti-personnel mines are known or suspected to be emplaced and (to) ensure as soon as possible that all anti-personnel mines in mined areas under its jurisdiction or control are perimeter-marked, monitored and protected by fencing or other means, to ensure the effective exclusion of civilians, until all anti-personnel mines contained therein have been destroyed."

Thus both AP II and the Mine Ban Convention imply an obligation on the Governments of mine-affected countries, who are also States Party to one or both of the agreements, to ensure that all mined areas under their jurisdiction and control are accurately surveyed, and then perimeter-marked by fencing or other means.

The Ninth Meeting of the State Parties also endorsed the application of the contents of a paper titled 'Applying all available methods to achieve the full, efficient, and expedient implementation of Article 5'. The paper stated that ".....

- i Some States Parties have not made use of the full range of actions available to more accurately define suspected hazardous areas and are developing plans for Article 5 implementation that assume that technical surveys and manual or mechanical clearance methods are the only ones that will be used.
- ii Some States Parties only recently have applied the full range of actions available to more accurately define suspected hazardous areas, resulting in several instances in a dramatic increase in the amount of previously suspected hazardous areas released.
- iii In some States Parties, the full range of actions to more accurately define suspected hazardous areas has been used for several years, notwithstanding the absence of a national standard or policy....."

The paper also states that "...three main actions can be undertaken to release land that has been identified and reported as mined areas as defined by the Convention:

- a) Land can be released through non-technical means, such as systematic community liaison, field based data gathering and improved procedures for cross-referencing data and updating databases.
- b) Land can be released through technical survey, that is, through a detailed topographical and technical investigation of an area to more precisely identify a smaller area requiring clearance, thus enabling the release of the balance of the area investigated.
- c) Land can be released through clearance, that is, physically and systematically processing an area manually or with machines to a specified depth in accordance with existing best practices to ensure the removal and destruction of all mines and other explosive hazards.

The paper concludes by recommending that:

- d) Three main activities can be undertaken to assess and, where applicable, to release land that has been previously identified and reported as part of a “mined area”: through non-technical means, technical survey, and clearance.
- e) State Parties in the process of implementing Article 5 are encouraged to develop national plans that deploy, as required, the full range of methods, in addition to clearance, available to release land.
- f) State Parties preparing Article 5 extension requests are encouraged to incorporate into their requests, in accordance with Article 5,4 (d), an indication of how clearance and other methods of land release will be applied in the fulfillment of obligations during the requested extension period.
- g) State Parties providing assistance to mine action activities should ensure that the support provided facilitates the application of the full range of actions for reassessing and releasing “mined areas”.
- h) Just as many States have established national policies and standards on clearance, and technical survey based upon existing best international practices, they are also encouraged to observe and apply, where appropriate, such practices with respect to non-technical land release.
- i) The State Parties acknowledge that land reassessment and release through non-technical means, when undertaken in accordance with high quality national policies and standards that incorporate key principles highlighted in this paper, is not a short-cut to implementing Article 5.1 but rather is a means to more expediently release, with confidence, areas at one time deemed to be “mined areas”.

