IMAS 07.11

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Land release

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Foreword

International standards for humanitarian demining programmes were first proposed by working groups at an international technical conference in Denmark, in July 1996. Criteria were prescribed for all aspects of demining, 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 and to reflect changes to operational procedures, practices and norms. The standards were re-developed and renamed as International Mine Action Standards (IMAS) with the first edition produced in October 2001.

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 organizations. The latest version of each standard, together with information on the work of the technical committees, can be found at www.mineactionstandards.org. Individual IMAS are reviewed at least every five years to reflect developing mine action norms and practices and to incorporate changes to international regulations and requirements.

Introduction

Responding to explosive ordnance (EO) contamination requires scarce and valuable resources. Stakeholders involved in EO programmes work to make sure the use of these resources achieve the maximum possible results at the minimum cost and in the shortest time. Land release is the main approach used to meet this goal.

This standard gives guidance on the minimum requirements for the land release process. It defines key terms, principles, and criteria for each stage, and clarifies the responsibilities of national mine action authorities (NMAAs), mine action organizations (MAOs) and other stakeholders. It highlights the need for quality management, accurate information systems, stakeholder engagement, and alignment with national legal frameworks.

Users apply this standard alongside related IMAS, including IMAS 08.10 *Non-technical survey*, IMAS 08.20 *Technical survey*, IMAS 09.10 *Clearance requirements* and IMAS 09.11 *Battle area clearance*. Together, these standards provide the basis for developing national policies, standards and procedures that are practical, legally sound, and responsive to affected communities.

Many different organizations carry out land release, including NGOs, commercial companies, national mine action teams, and military units when engaged in humanitarian demining. Land release may also form part of an emergency humanitarian response or a development programme that focuses on building national capacity. Often, land release takes place under varied and often shifting political, security and technical conditions. These circumstances demand fast, flexible, and well-managed decisions to keep operations safe, effective, and efficient.

Land release

1 Scope

This document provides guidance and sets out minimum requirements to enable the development of a national land release standard. It outlines broad responsibilities and obligations of the national mine action authorities (NMAAs) and mine action organizations (MAOs).

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 complete glossary of all the terms, definitions and abbreviations used in the International Mine Action Standards (IMAS) series is given in IMAS 04.10.

In the IMAS series, the words “shall”, “should” and “may” are used to indicate the intended degree of compliance:

- “shall” is used to indicate requirements, methods or specifications that are to be applied in order to conform to the standard;
- “should” is used to indicate preferred requirements, methods or specifications; and
- “may” is used to indicate a possible method or course of action.

3.1
all reasonable effort
minimum acceptable level of effort to identify and document contaminated areas or to remove the presence or suspicion of EO

Note 1 to entry: All reasonable effort has been applied when the commitment of additional resources is considered to be unreasonable in relation to the results expected.

3.2
cancelled land
suspected or confirmed hazardous area concluded not to contain evidence of EO contamination, based on reliable information that meets established cancellation criteria

Note 1 to entry: Cancellation may occur at any stage of the land release process, when it is reasonably established that there is no evidence of EO contamination.

Note 2 to entry: Cancelled land is measured in square metres (m^2).

3.3
cleared land
area where all specified EO hazards have been removed and/or destroyed to a specified clearance depth

Note 1 to entry: cleared land is measured in square metres (m^2).

3.4
confirmed hazardous area
CHA
area where the presence of EO contamination has been confirmed on the basis of direct evidence

3.5
direct evidence
information that confirms the presence of EO with certainty and is verifiable

3.6
effectiveness
extent to which the intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance

3.7
efficiency
measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results (outputs and outcomes)

3.8
explosive ordnance
EO
mine action's response to the following munitions:

- mines;
- cluster munitions;
- unexploded ordnance;
- abandoned ordnance;
- booby traps;
- other devices (as defined by CCW APII);
- improvised explosive devices

Note 1 to entry: Improvised explosive devices (IEDs) meeting the definition of mines, booby traps or other devices fall under the scope of mine action when their clearance is undertaken for humanitarian purposes and in areas where active hostilities have ceased.

3.9
explosive ordnance disposal spot task
EOD spot task
disposal of single or multiple EO discovered outside a suspected or confirmed hazardous area (SHA/CHA)

3.10
indirect evidence
information that suggests the possible presence of EO but does not confirm it with certainty

3.11
intrusive intervention
action involving the active investigation of the ground, structures, or objects in a suspected or confirmed hazardous area, undertaken to detect, confirm, or mark explosive ordnance hazards

Note 1 to entry: intrusive intervention involves the active investigation of the ground, structures, or objects in a suspected or confirmed hazardous area to detect, confirm, or mark EO hazards. It includes activities that disturb the ground or actively investigate the subsurface (such as ground-penetrating radar or other sensor technologies), followed by the analysis of the collected data to support evidence-based decision-making. The use of camera-equipped drones is not considered as intrusive intervention.

3.12
land release
process of applying all reasonable effort to identify, define, and remove all presence or suspicion of EO through non-technical survey, technical survey and/or clearance

Note 1 to entry: The criteria for "all reasonable effort" is defined by the NMAA.

3.13
mine action organization
MAO
organization (government, military, commercial, or non-governmental organization/civil society) responsible for implementing mine action projects or tasks

Note 1 to entry: The mine action organization may be a prime contractor, subcontractor, consultant or agent.

3.14
national mine action authority
NMAA
government entity, often an inter-ministerial committee, in country affected by EO, charged with the responsibility for broad strategic, policy and regulatory decisions related to mine action

Note 1 to entry: In the absence of an NMAA, it may be necessary and appropriate for the UN, or some other body, to assume some or all of the responsibilities of an NMAA.

3.15
non-technical survey
NTS
collection and analysis of data, without intrusive interventions, about the presence, type, distribution and surrounding environment of EO contamination, in order to define better where EO contamination is present, and where it is not, and to support land release prioritization and decision-making processes through the provision of evidence

3.16
reduced land
suspected or confirmed hazardous area concluded not to contain evidence of EO contamination, based on reliable information that meets established reduction criteria

Note 1 to entry: Reduction may occur at any stage during the land release process, when it is reasonably established that there is no evidence of EO contamination through the use of intrusive interventions.

Note 2 to entry: Reduced land is measured in square metres (m^2).

3.17
residual contamination
potential presence of EO that may not have been identified or addressed after applying all reasonable effort in accordance with the land release process

3.18
residual risk
risk that remains despite having applied all reasonable effort during the land release process

3.19
suspected hazardous area
SHA
area where there is reasonable suspicion of EO contamination on the basis of indirect evidence

3.20
technical survey
TS
collection and analysis of data, using appropriate intrusive interventions, about the presence, type, distribution and surrounding environment of EO contamination, in order to define better where EO contamination is present, and where it is not, and to support land release prioritisation and decision-making processes through the provision of evidence.

4 The land release process

4.1 General

Land release is an evidence-based decision-making process that helps determine which land should be targeted for action and which land does not require any action, based on available evidence. It involves the identification of hazardous areas, the cancellation of land through gathering evidence using non-intrusive interventions, the reduction of land through gathering evidence using intrusive interventions, and the clearance of land with confirmed EO contamination.

4.2 Principles

The following principles should be applied during the land release process:

- **Continuity –** Land release is a non-linear process that evolves with new evidence, operational developments, and environmental conditions. It is a continuous process that requires regular evaluation, feedback, and repeated use of survey and clearance methods to maintain confidence in released land.

- **Evidence-based approach –** Any decisions relating to contamination shall be based on evidence, not the lack thereof. An area shall not be defined or recorded as SHA or CHA if there is no indirect or direct evidence. Areas presenting only indirect evidence of the presence of EO shall be classified as SHAs. Areas presenting direct evidence of the presence of EO should be classified as CHAs.

- **Graduated response** – A graduated response guides how to address an SHA or CHA. Survey activities should normally take priority over clearance. In some cases, it is appropriate to move directly to clearance, but this should not be the default methodology. The response does not follow one fixed sequence. It should be determined based on local circumstances and conditions.

- **Quality of information –** The land release process relies upon reliable information to support decision making. Information shall meet defined quality standards to be considered reliable and useful. All information-gathering methods should clearly state the requirements for collecting, recording, and reporting data. Land should only be cancelled, reduced, and/or handed over following clearance when it is safe to use after a credible and well-documented evidence-based process has been fully implemented.

- **Fear alone is insufficient to determine a hazardous area –** While fear of the suspected presence of EO contamination can lead people to avoid accessing a particular area, fear on its own is not evidence of contamination. Fear needs to be substantiated with evidence before an area is defined as SHA or CHA.

- **Inaccessible areas –** Inaccessible areas should not be recorded as SHA or CHA by default. An SHA or CHA should only be recorded in a database when there is sufficient evidence to justify doing so. Other processes for managing areas that are inaccessible may be developed by the NMAA.

- **Areas with limited information –** Areas about which there is limited information should not be recorded as SHA or CHA by default. SHA or CHA should only be recorded in a database when there is sufficient evidence to justify doing so. Other processes for managing areas about which there is limited information, may be developed by the NMAA.

- **Low-impact areas –** An SHA or CHA assessed as having a low impact on a community should not be cancelled or otherwise released based solely on its lack of impact. It may however be given a low priority.

- **Local participation –** Land release is a process that requires continuous community engagement with the local population to ensure the relevant communities are informed, heard and understand the Land Release process and behaviour to adopt during the process. Two-way engagement will ensure acceptance of the MAO by the community and mitigate the risk of exacerbating any tensions in the community.

- **Hazard-specific land release –** Land may be released from suspicion of mine or submunition contamination while there may still be a suspicion of other EO. Additional measures may be required to establish confidently that land is free from EO, if required.

4.3 Land release criteria

Land release criteria vary depending on local circumstances. However, the required level of confidence that land is free from EO contamination is always the same, whether the land is cancelled, reduced, or cleared. Stakeholder participation and agreement are essential in developing the criteria. Stakeholders include the NMAA, MAOs, local authorities, landowners, and land users.

In general terms, land release criteria are met when it can be shown that:

- in areas where no evidence of EO was found, the efforts applied can reasonably be expected to have found evidence of any existing contamination; and
- in areas where evidence of EO contamination was confirmed, the efforts applied can reasonably be expected to have found and removed all EO (within specified limits).

Land release criteria form the basis of how evidence is measured, evaluated, and used in analysis at every key stage of the process – from the first survey to the final release of land.

The criteria used under national standards to record an SHA or CHA can differ from those used to cancel it. For example, an area may first be recorded as an SHA based on indirect evidence, and later cancelled if there is evidence of safe human activity over time.

The criteria for identifying and releasing SHAs and CHAs may also differ depending on the type of EO. For instance, the level of evidence required for anti-personnel mine contamination may differ from that for anti-vehicle mines, cluster munitions, or other types of EO.

National standards should clearly define these differences by setting out specific, evidence-based criteria for each type of EO to ensure decisions are consistent, practical, and based on sound risk management.

TNMA 07.11/04 provides guidance on developing criteria for cancellation and reduction.

4.4 Indirect and direct evidence

In land release, evidence provides the basis for classifying areas and guiding subsequent decisions. The collection and classification of evidence shall be based on the scope, reliability, source, and type of information available.

Indirect evidence supports the definition of an SHA and requires further verification through TS before any clearance decision is made. Direct evidence supports the definition of a CHA and leads to TS or clearance operations.

All information shall be assessed for credibility, reliability, and relevance. The assessment process should be transparent, documented, and traceable to the original data sources.

NMAAs shall establish criteria to define SHAs and CHAs. These criteria shall reflect local circumstances and the analysis of the local EO problem, including visible physical evidence, documentation, and testimonies.

Further information and examples on the classification, assessment, and documentation of evidence can be found in TNMA 07.11/04.

4.5 Defining hazard area boundaries

CHA boundaries should be drawn around locations where the direct evidence of EO is present.

Adjacent or surrounding areas with only indirect evidence may be defined as SHAs.

Following further NTS or TS, the boundaries of SHAs and CHAs may change as additional information is acquired concerning the specific task. A credible and well-documented evidence-based evaluation may justify either the decrease or the increase of an area to maximize safety and efficiency.

Efficiency can be significantly improved when NMAAs allow operators to adjust task boundaries during land release, provided this is done through established procedures and supported by robust documentation. At the same time, it is recognized that for NMAAs, boundaries represent a formal designation of responsibility and therefore cannot be adjusted arbitrarily.

National standards should clearly establish criteria and procedures to increase or decrease task boundaries.

National land release systems shall accommodate situations where EO contamination is not area-based, for example during EOD spot tasks, and recognize that EO contamination could exist at a single geographic point without implying further contamination or the need for clearance of the surrounding area. In such instances, EOD spot tasks shall be recorded and reported as a single location or point rather than as a polygon, according to national information management (IM) and reporting standards. In some contexts, EOD spot task may point to evidence of further contamination. When this occurs, further survey work should be conducted to determine whether the initial spot task should be treated as a single geographic point contamination or expanded to a polygon for clearance.

5 All reasonable effort

Effort is reasonable when it can be shown, on the basis of reason (or logic), that the efforts applied can be expected to have discovered evidence of contamination if it had been present, and/or to have found and destroyed/removed all contamination where it was present.

Before land can be accepted as cancelled, reduced, or cleared, it should be established, with a sufficiently high level of confidence, that there is no longer any evidence that the land contains EO contamination. This confidence can only be gained after all reasonable effort has been applied to investigating whether EO contamination is present, and when it is applied to removing any contamination that is found.

In relation to the achievement of confidence in land release activities, the NMAA should determine the point at which it is unreasonable to expect more effort to be expended to achieve the desired result. The NMAA should also differentiate how all reasonable effort is applied to different categories of EO. What is considered reasonable to identify and document contaminated areas, or to remove the presence or suspicion of landmines, may be different for cluster munitions remnants or other types of EO.

All reasonable effort may include, but is not limited to:

- identifying and accessing all relevant sources of information (including women, girls, boys, and men) as well as historical and analytical material;
- establishing and maintaining appropriate and effective IM systems;
- establishing and maintaining appropriate and effective quality management systems;
- carrying out appropriate activities, using resources and procedures in order to define, analyse, and respond to evidence of contamination;
- monitoring the performance of the land release process and improving it in light of the results of monitoring;
- monitoring the quality of cancelled, reduced, and cleared land and taking action to improve the process in light of the results of such monitoring;
- establishing and maintaining appropriate and effective communication systems to ensure that stakeholders understand, agree with, and accept the land release process.

To ensure all reasonable effort is applied during land release, the following six guiding principles should be implemented:

1) a well-documented system for recording the identification and processing of hazardous areas;

2) well-defined and objective criteria for the classification and reclassification of land;

3) involving communities in the land release process;

4) clear procedures for land handover and transfer of responsibility;

5) national policy addressing liability issues;

6) consistent use of common and clearly defined terminology in reporting and documentation.

Further guidance is available in TNMA 07.11/03, *All reasonable effort*.

6 Developing national standards

6.1 General

National land release standards shall be established through official documents issued by the relevant national authority. These standards shall be developed in consultation with all relevant stakeholders, with particular attention to defining the criteria and processes for the cancellation and reduction of land.

National standards should define:

- reasonable levels of effort required to investigate, collect, report, and analyse evidence of EO contamination;
- objective criteria for assessing and quantifying the individual survey value of all types of non-technical survey information;
- criteria for the amount and reliability of information required to make survey conclusions.

6.2 Developing national standards on land release

NMAA shall develop and issue appropriate and effective national standards for land release based on this standard and associated ones.

National standards should reflect local circumstances and conditions and establish uniform technical criteria, methods, rules, processes, and practices. These include, as a minimum:

- an overview of the land release concept and how it will be applied
- standardized terminology as per IMAS 04.10, *Glossary of mine action term, definitions and abbreviations*;
- agreed criteria for cancellation, reduction, and clearance;
- a description of the principles of the land release process;
- definition and application of all reasonable effort;
- definition and description of the tolerability of residual risk in line with IMAS 7.14, *Risk management in mine action*;
- direction for the development of standard operating procedures by accredited implementing partners;
- quality management of land release activities, including accreditation, monitoring, and post-clearance evaluation.

- linkages between land release and other pillars of mine action.

7 Quality management

Quality management in land release includes the application of quality assurance (QA) and quality control (QC).

QA involves the accreditation and monitoring of survey and clearance organizations before and during the land release process. QA should confirm that survey and clearance organizations consist of competent personnel, employing appropriate equipment, applying approved and effective procedures, in compliance with agreed policies, and with effective internal and external systems to identify and correct shortcomings in the land release process or any of its products.

QC consists of checks and inspections to confirm that products of the land release process satisfy specified requirements. Products may include, but not be limited to, land, information, and reports. Any checks of land and reports should be designed, defined, and conducted so that they provide meaningful evidence in an efficient way in support of the maintenance of confidence in the quality of land release process. Formal post-clearance inspections are not always necessary or justified, but longer-term monitoring of cancelled, reduced, and cleared land should be a feature of the overall land release process to maintain confidence in its quality.

In addition to the verification of physical outputs, QC in land release should place explicit emphasis on the review of documentation, data, and evidence that support land release decisions.

As cancellation of land is based on the analysis of indirect and direct evidence rather than intrusive intervention, and reduction of land is based on the analysis of indirect and direct evidence (or lack thereof) following an intrusive intervention, QC should focus on two things. It should assess whether the decisions made conform to nationally defined criteria, and whether the information used is complete, consistent, well documented and credible.

While post-clearance inspections may play a role in validating physical operations, they should be complemented, and not substituted, by rigorous QC of the processes and documentation that underpin those decisions. This approach strengthens confidence in the integrity of the land release system and helps ensure that quality management remains proportionate, risk-informed, and operationally relevant.

Further guidance is available in IMAS 07.12, *Quality management in mine action*.

8 Information management

8.1 General

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.

Quality documentation is needed:

- as evidence to form the basis for decisions to create SHAs and CHAs, and to cancel, reduce, and clear land;
- as the basis for, and evidence of, internal and external quality management processes;
- if EO contamination is subsequently found to be present on previously cancelled, reduced, or cleared land, to form the basis for any investigation into the decision to cancel, reduce, or release the SHA or CHA, and to identify appropriate actions to correct problems or prevent their reoccurrence; and
- as essential evidence where liability is in question.

8.2 Initial information screening

Removing redundant, incorrect, or duplicate hazard area records from mine action databases is an essential part of data QC. This task is not formally part of land release, but it supports planning, prioritization, and resource allocation.

Redundant records often come from earlier surveys, reporting inconsistencies, or outdated inputs. Records shall be regularly reviewed and updated to ensure the database reflects the actual status of contamination on the ground.

The operational unit should be responsible, with the IM unit, to verify records. They identify errors, duplications, missing data, or incomplete information. A key step is using geographic information systems to check the accuracy and relevance of spatial data. Overlaying operational polygons, historical imagery, and survey footprints allows for more precise cross-referencing and detection of anomalies.

Where appropriate, entries should be amended, merged, or removed, but only based on documented and verifiable evidence, ensuring transparency and accountability. This may include reviewing NTS and TS reports, operator notes, and community feedback.

This process should also be aligned with national standards and protocols.

8.3 Minimum data/information collection requirements

While the impacts of EO contamination on a population present a wide range of social and economic features, and are reflected in important decisions about prioritization, the physical nature of EO contamination is essentially a geographical one. Impacts are placed in a geographical context and land release efforts include the geographical targeting of resources and activities to achieve the aim of releasing land for productive use. As such, it is important that geographical aspects of the problem, and responses to it, are recorded accurately and consistently.

In addition to recording the boundaries of SHAs and CHAs, organizations should record:

- what was *found*, where, and when;
- what was *done*, where, and when.

When EO is discovered, organizations should record the type of device (as specifically as possible), the depth of the device, the location of the device (in geographical terms and in relation to other associated devices), and the condition of the device.

Significant activities, such as clearance, technical survey, and non-technical survey should be recorded in relation to the areas/locations where the activities took place. The performance of survey and clearance assets against different EO types should be recorded and analysed.

Geographical data and information should be collected with sufficient accuracy, detail, and frequency to satisfy requirements to perform meaningful analysis in support of the land release process and to satisfy the requirements of report recipients. Data collection and IM systems should be developed such that it is possible to disaggregate data by activity (non-technical survey, technical survey, and clearance) and by type of contamination.

Additional guidance is provided in IMAS 05.10, *Information management in mine action*.

8.4 Associating hazardous areas with type of EO

Wherever possible, hazardous areas should be associated with specified EO types, such as anti-vehicle mines, anti-personnel mines, cluster munitions, IEDs, booby traps, or a combination of EO types. This ensures reporting reflects the nature of contamination and that prioritization decisions reflect the risks to affected people.

If there is sufficient evidence to justify creating an SHA, but not enough to identify the contamination type, the EO type should be recorded as unknown.

8.5 Reporting

Data and information about EO contamination, defined areas, operational activity, asset performance, and decisions taken during land release processes should be made available to all appropriate recipients in a way and formats that meet the reasonable requirements of those recipients.

Higher level reporting (such as in relation to international treaty compliance, or to other recognized authorities) should be done in compliance with any procedures, formats, and schedules promulgated by those authorities.

National-level reporting to NMAAs, IM systems, operational managers, and other users should ensure that data are managed for quality, consistency, and compliance with recipients' requirements. NMAS should define the formats, schedules, and any other national reporting requirements.

Reporting systems should include the capability to disaggregate data by activity (NTS, TS survey and clearance) and by type of contamination.

9 Risks and liability

Liability refers to the legal responsibility, duty, or obligation of a country, organization, or individual. In the context of an adverse event, such as an accident or the discovery of a missed EO in an area, liability is often linked to non-compliance with agreed policies or procedures.

Ultimately, liability is determined by national legal systems. These may define responsibilities through various legal sources, including national laws, contractual agreements, constitutional provisions, mine action legislation, civil codes, and judicial precedents. Such frameworks shape how liability is assigned and assessed.

A well documented, transparent, evidence-based approach to land release, demonstrating the application of «all reasonable efforts» provides the primary mechanism for addressing questions of liability in such a way that decision-makers at all levels have the confidence to take efficient and appropriate decisions.

Residual risk is minimized when the land release process has been applied by competent organizations following approved procedures and processes. Residual risk may be quantified over time through the monitoring of cancelled, reduced, and cleared areas to identify any incidents, accidents, or evidence of missed EO. The results of such monitoring should be used to maintain confidence in land release systems and to identify areas requiring improvement.

It is important that NMAAs, on behalf of the government, ensure that liability considerations are clearly embedded in national mine action standards (NMAS), contractual frameworks, and operational procedures, in line with existing legal and regulatory systems. NMAAs may also develop a policy that details liability aspects, including the procedural and legal clarification of when liability is assumed by the State, particularly upon completion of contracted tasks and formal land handover. Liability should not be transferred to individuals or communities unless national law specifically provides for such arrangements.

The following principles should apply when drafting liability policy.

- EO contamination is, first and foremost, a national responsibility and the State, or relevant national authority, shall accept accountability and liability for victims in all EO-affected areas. This applies to both known and unknown areas.

- An endorsed liability policy implies that all stakeholders agree on the definition of all reasonable effort. A process to identify and quantify these efforts during the design of the liability policy will help to prevent disputes related to liability issues.

- Liability for dealing with EO found after land release shall be clarified in the national land release standards, or other legal and normative frameworks, that are made available to all stakeholders operating within a given mine action programme.

- An implementing agency may only be considered liable for injuries in an area if it is directly and currently responsible for that area. Even then, any such claim shall be assessed and proven on a case-by-case basis.

- If a liability 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 EO contamination in the area after survey or clearance is deemed tolerably low by the government.

- If EO contamination is found in areas that have previously been cancelled, reduced, or cleared, liability disputes should, in principle, be settled based on how well organizations have implemented the land release process that is normally enshrined in national standards. The appearance of EO contamination does not automatically imply that the organization should be held liable.

- In principle, the organization should not be liable in cases of missed EO contamination or accidents if an investigation shows that the agreed land release standards have been implemented appropriately and that the organization made all reasonable effort to ensure the area was safe before cancellation, reduction, and/or handover following clearance. Additional guidance on the conduct of investigations is provided in IMAS 10.60. Investigations should be timely, impartial, and conducted in accordance with national standards and IMAS 10.60. Findings should be transparently documented and fed into liability assessments and corrective actions.

- In principle, an organization is liable in cases of accidents caused by missed EO contamination if investigation shows that:

    - the accident was caused by willful or criminal misconduct, gross negligence, reckless misconduct, or a conscious, flagrant indifference to the rights or safety of the individual(s) harmed;

    - the organization was not properly accredited, licensed, certified, or authorized to carry out acts leading to the erroneous land release decision;

    - the organization willfully infringed prevailing national law, policy, or standards;

    - the organization has conducted gross procedural errors or grossly deviated from an agreed land release concept.

10 Post land release actions

Residual risk can be mitigated to a large extent by monitoring cancelled, reduced, and cleared land and making survey and clearance resources available if EO contamination is subsequently discovered. If EO contamination is discovered, a rapid response with appropriate assets and a transparent investigation process limits 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:

- monitoring cancelled, reduced, and cleared land over a reasonable period to confirm that local communities are using the land and that EO contamination has not been discovered;

- developing mechanisms to enable the reporting and investigation of EO contamination discovered on land that has previously been cancelled, reduced, or cleared;

- regular review of the documentation and decision-making process leading to recommendations to improve the land release process;

- making mine action assets available to deal with unexpected EO contamination and to undertake additional survey;
- reclassifying previously cancelled land to CHA and updating relevant databases if direct evidence of EO contamination is found;
- initiating investigations into the root causes that led to the decision to release the land and, if necessary, adjusting the land release standards; and
- imposing restrictions and/or identifying precautions associated with land to reflect residual risk.

11 Responsibilities and obligations

11.1 National mine action authority

The NMAA shall:

1) accept accountability and liability for victims in all EO-affected areas. This applies to both known and unknown areas, as well as areas that have been released and formally handed over to the national authority or local population;

2) accredit organizations as competent of undertaking land release operations;

3) prepare and publish standards and guidelines for land release including;

   - QA and QC to be applied to non-technical survey, technical survey, and clearance contracts and agreements;
   - documentation for land release;
   - requirements for data collection including accuracy of different types of positional data;

4) define levels of reasonable effort to investigate whether or not there is evidence of hazards;

5) establish criteria for the definition of SHAs and CHAs reflecting specific local circumstances and in the context of the analysis of the local EO problem;

6) ensure that liability considerations are clearly embedded in NMAS, contractual frameworks, and operational procedures, in line with existing legal and regulatory systems;

7) maintain and make available, as required, documentation on the recorded operational use of all assets used during the land release process (who, what, where, when);

8) ensure that appropriate and effective IM systems are established and maintained to record and analyse evidence and to support planning, prioritization, and reporting systems; and

9) Ensure that appropriate monitoring systems are established in relation to cancelled, reduced, and cleared land.

11.2 Demining organization

The organization undertaking survey or clearance shall:

1) gain (from the NMAA, mine action centre, or equivalent) accreditation to conduct land release activities;

2) comply with the national standards for survey and clearance. In the absence of national standards, the organization shall apply IMAS or the standards specified in its contract or agreement;

3) collect and make available the necessary information as required by applicable standards;

4) where applicable, conduct a formal handover of sites to organizations conducting follow-on activities, including all relevant information;

5) maintain and make available documentation as specified by the NMAA, mine action centre, or equivalent;

6) consult closely with affected communities (including women, girls, boys, and men) in all decisions regarding the cancellation, reduction, or handover of cleared land.

In the absence of an NMAA or similar authority, the organization should assume additional responsibilities. This includes assisting the host country during the establishment of an NMAA, mine action centre or equivalent, in framing national standards for the land release process by NTS, TS, and clearance (including QA and QC). In such cases, the organizations should agree on how assistance responsibilities are divided to ensure resources are used efficiently.

Annex A
(normative)

References

[1] IMAS 04.10, *Terms definitions and abbreviations in mine action*

[2] IMAS 05.10, *Information management for mine action*

[3] IMAS 07.12, *Quality management in mine action*

[4] IMAS 07.14 *Risk management in mine action*

[5] IMAS 08.10, *Non-technical survey*

[6] IMAS 08.20, *Technical survey*

[7] IMAS 09.10, *Clearance requirements*

[8] IMAS 09.11, *Battle area clearance*

[9] MAS 10.60 Investig*ations and reporting of accidents and incidents*

[10] TNMA 07.11/03 *All reasonable effort*

[11] TNMA 07.11/04 *[tbc once document is published]*

Amendment record

Management of IMAS amendments

The IMAS series of standards are subject to formal review on a five-yearly basis. However, this does not preclude amendments being made within these five-year periods for reasons of operational safety and efficiency or for editorial purposes.

As amendments are made to this IMAS they are given a number. The date and general details of the amendment shown in the table below. The amendment is also shown on the cover page of the IMAS by the inclusion under the edition date of the phrase "*incorporating amendment #*."

As the formal reviews of each IMAS are completed, new editions may be issued. In this case, amendments up to the date of the new edition are incorporated into the new edition and the amendment record table cleared. Recording of amendments then starts again until a further review is carried out.

The most recently amended IMAS are posted on the IMAS website at www.mineactionstandards.org.

Number	Date	Amendment details