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Glossary of mine action terms, definitions and abbreviations

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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 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/. Individual 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.
Glossary of mine action terms, definitions and abbreviations

1. **Scope**

This Glossary provides a summary of the mine action terms, definitions and abbreviations used in mine action. If two or more alternative definitions are in common use, then both are given in this glossary.

**Note** Definitions can change and new definitions may be added to this IMAS. In order to set the definitions in time, new definitions or changed definitions will have the relevant date in the brackets below the word or term to be defined. All other definitions are assumed to have been included in the second edition of IMAS 04.10 dated 01 January 2003.

2. **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) ISO 3166, Codes for the representation of names of countries.
d) ISO 10241, International terminology standards - Preparation and layout.
e) ISO Guide 51, Safety aspects - Guidelines for their inclusion in standards.
f) ISO/IEC Guide 2, Standardization and related activities - General vocabulary.
g) ISO/IEC Directives Part 2, Methodology for the development of International Standards.
h) ISO/IEC Directives Part 3, Rules for the structure and drafting of International Standards.
i) ISO Standards Handbook, Quantities and units.
k) OHSAS 18002:2000, Occupational health and safety management systems – Guidelines for the implementation of OHSAS 18001.
m) ILO C155 - Occupational safety and health convention 1981.
n) AAP-6(V), NATO glossary of terms and definitions.
o) Convention on Certain Conventional Weapons (CCW), amended protocol II and protocol V.
United Nations - Gender guidelines for mine action programmes.

3. Terms, definitions and abbreviations

3.1. Abandoned Explosive Ordnance (AXO)
(2005)
explosive ordnance that has not been used during an armed conflict, that has been left behind or dumped by a party to an armed conflict, and which is no longer under control of the party that left it behind or dumped it. Abandoned explosive ordnance may or may not have been primed, fuzed, armed or otherwise prepared for use. (CCW protocol V)

3.2. acceptance
(2005)
the formal acknowledgement by the sponsor, or the sponsor's nominated representative that the equipment meets the stated requirements and is suitable for use in mine action programmes. An acceptance may be given with outstanding caveats.

3.3. access lane
a marked passage leading through a hazardous area that has been cleared to provide safe movement to a required point or area.

3.4. accident
an undesired event which results in harm.

Note: Modified from definition in OHSAS 18001:1999.

3.5. accreditation
(2004)
the procedure by which a demining organisation is formally recognised as competent and able to plan, manage and operationally conduct mine action activities safely, effectively and efficiently.

Note: For most mine action programmes, the NMAA will be the body which provides accreditation. International organisations such as the United Nations or regional bodies may also introduce accreditation schemes.

Note: ISO 9000 usage is that an 'Accreditation' body accredits the 'Certification or Registration' bodies that award ISO 9000 certificates to organisations. The usage in IMAS is completely different to this, and is based on the main definition above, which is well understood in the mine action community.

3.6. accreditation body
an organisation, normally an element of the NMAA, responsible for the management and implementation of the national accreditation system.

3.7. advocacy
in the context of mine action, the term refers to … public support, recommendation or positive publicity with the aim of removing, or at least reducing, the risk from, and the impact of, mines and ERW.

3.8. agreement
(2004)
an alternative term for a contract. An agreement includes all the crucial elements of a contract.
3.9. alienation
in the context of mine action, the term refers to ... the transfer of ownership or property rights following the handover of cleared land.

3.10. Amended Protocol II (APII)
Amended Protocol II (APII) to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons which May be Deemed to be Excessively Injurious or to have Indiscriminate Effects (CCW).

3.11. ammunition
see munition

3.12. anti-handling device
a device intended to protect a mine and which is part of, linked to, attached or placed under the mine and which activates when an attempt is made to tamper with or otherwise intentionally disturb the mine. [MBT]

3.13. Anti-Personnel Mine Ban Convention (APMBC)
Ottawa Convention
Mine Ban Treaty (MBT)

a mine designed to be exploded by the presence, proximity or contact of a person and that will incapacitate, injure or kill one or more persons.

3.15. applied research
research focused at clearly defined problems and market opportunities.

3.16. area reduction
(2004)
the process through which the initial area indicated as contaminated (during any information gathering activities or surveys which form part of the GMAA process) is reduced to a smaller area.

Note: Area reduction may involve some limited clearance, such as the opening of access routes and the destruction of mines and ERW which represent an immediate and unacceptable risk, but it will mainly be as a consequence of collecting more reliable information on the extent of the hazardous area. Usually it will be appropriate to mark the remaining hazardous area(s) with permanent or temporary marking systems.

Note: Likewise, area reduction is sometimes done as part of the clearance operation.

3.17. Audit
(2006)
an assessment of the adequacy of management controls to ensure the economical and efficient use of resources; the safeguarding of assets; the reliability of financial and other information; the compliance with regulations, rules and established policies; the effectiveness of risk management; and the adequacy of organisational structures, systems and processes.

3.18. Battlefield
(2007)
refers to an area in which ERW including UXO and AXO have been found. This may include former battle areas, defensive positions and sites where air delivered or artillery munitions have been left, fired or dropped.

3.19. Battle Area Clearance (BAC)
(2005)
the systematic and controlled clearance of hazardous areas where the hazards are known not to include mines.

3.20. benchmark
(2004)
in the context of humanitarian demining, the term refers to … a fixed point of reference used to locate a marked and recorded hazard or hazardous area. It should normally be located a short distance outside the hazardous area.

Note: A benchmark may not be necessary if the reference point is sufficiently close to the perimeter of the hazardous area.

3.21. Bomb Live Unit (BLU)
(2004)
part of the nomenclature of a type of submunition e.g. BLU 26 or BLU 97.

3.22. bomblet
see submunition.

3.23. booby trap
an explosive or non-explosive device, or other material, deliberately placed to cause casualties when an apparently harmless object is disturbed or a normally safe act is performed. [AAP-6]

3.24. boundary lane
a cleared lane around the perimeter of a hazardous area.
3.25. **box**  
(2005)  
a squared area that is developed for the purpose of being searched by **MDDs**.  

Note: A box normally measures 10m x 10m, but other sizes may be preferred.

3.26. **briefing area**  
(2004)  
in the context of **humanitarian demining** ... a clearly identifiable **control point** intended to be the first point of entry to a **demining worksite**.  

Note: The briefing area contains a plan of the **minefield** and its current level of clearance, at a scale large enough for briefing purposes, showing the location of control points (car park, first aid point, explosive storage areas, the areas where **mine clearance** work is progressing and distances), and where safety equipment is issued to **visitors**.

3.27. **burning site**  
(2005)  
an area authorised for the destruction of **munitions** and **explosives** by burning.

3.28. **cancelled area**  
(2004)  
an area previously recorded as a **hazardous area** which subsequently is considered, as a result of actions other than **clearance**, not to represent a **risk** from **mines** and **ERW**.  

Note: This change in status will be the result of more accurate and reliable information, for example from technical survey, and will normally only be authorised by the **NMAA**, in accordance with national **policy**. The documentation of all **cancelled areas** shall be retained together with a detailed explanation of the reasons for the change in status.

(2007)  
The 1980 Convention on Conventional Weapons  

Note: The 1980 Convention on Prohibitions and Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to be Excessively Injurious or to Have Indiscriminate Effects as amended on 21 December 2001. It has five parts, or "protocols." Only two of them are related to mine action. **Amended Protocol II** deals with landmines, booby-traps and other devices, and **Protocol V** deals with the problem of explosive remnants of war (ERW).

3.30. **CEN (Committee European Normalisation)**  
CEN is the European Committee for Standardisation.  

Note: The mission of CEN is to promote voluntary technical harmonisation in Europe in conjunction with worldwide bodies and its European partners. European standards (referred to as EN (Europe Normalisation)) form a collection which ensures its own continuity for the benefit of users.

3.31. **CWA (CEN Workshop Agreement)**  
(2007)  
an agreement developed by a CEN Workshop, which reflects the consensus of identified individuals and organizations responsible for its contents.
3.32. certification committee
a committee appointed by UNMAS to regularly review compliance of the impact component of the GMAA process with the UN certification guidelines based on the reports of the UN quality assurance monitor from the field.

Note: Acceptance of the findings of the impact component of the GMAA of a specific country by the international community is dependent on its certification by the UN certification committee.

3.33. clearance
(Explosive Ordnance Clearance (EOC))
tasks or actions to reduce or eliminate the Explosive Ordnance (EO) hazards from a specified area. [NATO Study 2187]

3.34. cleared area
cleared land
(2004)
an area that has been physically and systematically processed by a demining organisation to ensure the removal and/or destruction of all mine and ERW hazards to a specified depth.

Note: IMAS 09.10 specifies the quality system (i.e. the organisation, procedures and responsibilities) necessary to determine that land has been cleared by the demining organisation in accordance with its contractual obligations.

Note: Cleared areas may include land cleared during the technical survey process, including boundary lanes and cleared lanes.

3.35. cleared lane
safety lane
the generic term for any lane, other than a boundary lane, cleared by a survey or clearance team to the international standard for cleared land. This may include access lanes outside the hazardous area or cross/verification lanes inside a hazardous area.

3.36. Cluster Bomb Unit (CBU)
an expendable aircraft store composed of a dispenser and sub-munitions. [AAP-6]

a bomb containing and dispensing sub-munitions which may be mines (anti-personnel or anti-tank), penetration (runway cratering) bomblets, fragmentation bomblets etc.

3.37. collaboration
in the context of mine action equipment procurement, the term refers to .... an activity which applies solely to the procurement of common equipment by two or more organisations.

3.38. Commercial off the Shelf (COTS)
in the context of mine action equipment procurement, the term refers to .... an equipment that is available direct from the manufacturer and requires no further development prior to introduction into service apart from minor modifications.

3.39. commonality
in the context of mine action equipment procurement, the term refers to .... a state achieved when groups of individuals or organisations use common procedures and/or equipment.
3.40.
community liaison
community mine action liaison

(2004)
liaison with mine/ERW affected communities to exchange information on the presence and impact of mines and ERW, create a reporting link with the mine action programme and develop risk reduction strategies. Community mine action liaison aims to ensure community needs and priorities are central to the planning, implementation and monitoring of mine action operations.

Note: Community liaison is based on an exchange of information and involves communities in the decision making process, (before, during and after demining), in order to establish priorities for mine action. In this way mine action programmes aim to be inclusive, community focused and ensure the maximum involvement of all sections of the community. This involvement includes joint planning, implementation, monitoring and evaluation of projects.

Note: Community liaison also works with communities to develop specific interim safety strategies promoting individual and community behavioural change. This is designed to reduce the impact of mines/ERW on individuals and communities until such time as the hazard is removed.

3.41.
compatibility
in the context of mine action equipment procurement, the term refers to …. the capability of two or more components or sub-components of equipment or material to exist or function in the same environment without mutual interference.

3.42.
concept formulation
the first stage in the procurement process, and covers the period of the emergence of the idea to the initial SON.

3.43.
contract
(2005)
a formal agreement with specific terms between two or more entities in which there is a promise to do something in return for a valuable benefit known as a consideration.

3.44.
contractor
(2004)
any organisation (governmental, non-government or commercial entity) contracted to undertake a mine action activity. The organisation responsible for the conduct of the overall contract is referred to as the ‘prime contractor’. Other organisations or parties the prime contractor engages to undertake components of the larger contract are referred to as ‘sub-contractors’. Sub-contractors are responsible to the prime contractor and not to the principal.

3.45.
control area or point
(2004)
all points or areas used to control the movements of visitors and staff on a demining worksite.

3.46.
cost-effectiveness
an assessment of the balance between a system’s performance and its whole life costs.

3.47.
cost-plus contract
(2004)
a contract in which the contractor is reimbursed all costs incurred in undertaking a specific scope of work and is paid an additional lump sum or fixed percentage of the reimbursable costs.
3.48.  
critical non-conformity  
(2004)  
the failure of a 1.0m² unit of land during inspection to meet the stated clearance requirements. IMAS identifies two types of critical non-conformities:

a) the discovery of a mine or ERW; and  
b) other critical non-conformities as defined by NMAAs.

3.49.  
decontamination  
a process of removing undesired contamination from test items, tools and accessories that are used when preparing a field test. (Definition for MDD use only).

3.50.  
deflagration  
the conversion of explosives into gaseous products by chemical reactions at or near the surface of the explosive (c.f. detonation).

3.51.  
demilitarisation  
(2004)  
the process that renders munitions unfit for their originally intended purpose.

Note: Definition from NATO Maintenance and Supply Agency (NAMSA), Peter Courtney-Green, May 2000.

3.52.  
deminer  
(2004)  
a person qualified and employed to undertake demining activities on a demining worksite.

3.53.  
demining  
humanitarian demining activities which lead to the removal of mine and ERW hazards, including technical survey, mapping, clearance, marking, post-clearance documentation, community mine action liaison and the handover of cleared land. Demining may be carried out by different types of organisations, such as NGOs, commercial companies, national mine action teams or military units. Demining may be emergency-based or developmental.

Note: in IMAS standards and guides, mine and ERW clearance is considered to be just one part of the demining process.

Note: in IMAS standards and guides, demining is considered to be one component of mine action.

Note: in IMAS standards and guides, the terms demining and humanitarian demining are interchangeable.

3.54.  
demining accident  
an accident at a demining workplace involving a mine or ERW hazard (c.f. mine accident).

3.55.  
demining accident response plan  
a documented plan developed for each demining workplace which details the procedures to be applied to move victims from a demining accident site to an appropriate treatment or surgical care facility.
3.56.  
**demining incident**

an incident at a **demining workplace** involving a **mine** or **ERW hazard** (c.f. **mine incident**).

3.57.  
**demining organisation**

refers to any organisation (government, NGO, military or commercial entity) responsible for implementing demining projects or tasks. The demining organisation may be a prime contractor, subcontractor, consultant or agent.

3.58.  
**demining sub-unit**

(2004)

an element of a **demining organisation**, however named, which is operationally accredited to conduct one or more prescribed **demining** activities, such as **technical surveys**, manual **clearance**, **EOD** or the use of **MDD teams**.

3.59.  
**demining worker**

(2004)

all employees who work at a **demining worksite**.

3.60.  
**demining worksite**

(2004)

any workplace where **demining** activities are being undertaken.

Note: Demining worksites include workplaces where survey, **clearance** and **EOD** activities are undertaken including centralised disposal sites used for the destruction of mines and ERW identified and removed during clearance operations.

Note: Survey, in relation to a demining worksite includes general survey undertaken to identify mine and ERW hazards and hazardous areas.

3.61.  
**demolition (dml)**

destruction of structures, facilities or material by use of fire, water, **explosives**, mechanical or other means.

3.62.  
**demolition ground**

(2004)

an area authorised for the **destruction** of **munitions** and **explosives** by **detonation**.

3.63.  
**destroy (destruction) in situ**

**blow in situ**.

the **destruction** of any item of ordnance by **explosives** without moving the item from where it was found, normally by placing an **explosive** charge alongside.

3.64.  
**destruction**

(2004)

the process of final conversion of **munitions** and **explosives** into an **inert** state whereby they can no longer function as designed.

3.65.  
**destruction organisation**

(2004)
refers to any organisation (government, military or commercial entity) responsible for implementing stockpile destruction projects or tasks. The destruction organisation may be a prime contractor, subcontractor, consultant or agent.

3.66. detection
(2004)
in the context of humanitarian demining, the term refers to … the discovery by any means of the presence of mines or ERW.

3.67. detonation
the rapid conversion of explosives into gaseous products by means of a shock wave passing through the explosive (c.f. deflagration). Typically, the velocity of such a shock wave is more than two orders of magnitude higher than a fast deflagration.

3.68. detonator
a device containing a sensitive explosive intended to produce a detonation wave. [AAP-6]

3.69. development
the stage of the project (and its associated costs) prior to production concerned with developing a design sufficiently for production to begin.

3.70. disarm
the act of making a mine safe by removing the fuze or igniter. The procedure normally removes one or more links from the firing chain.

3.71. disposal site
(2004)
an area authorised for the destruction of munitions and explosives by detonation and burning.

3.72. DNT (Dinitrotolulene)
(2005)
a residual product of TNT manufacture, and a breakdown product of TNT decay. Is normally present in varying amounts in any explosive device containing TNT. The vapour pressure of DNT is much higher than that of TNT, and under some conditions it may be easier to detect DNT than TNT.

3.73. donor
all sources of funding, including the government of mine affected states.

3.74. drill munition
(2005)
an inert replica of a munition specifically manufactured for drill, display or instructional purposes.

3.75. durability
the ability of an item or material to continue to perform its required function under stated conditions as time progresses. Durability is a function of reliability with time.
Note: Durability involves resistance to degradation, corrosion, cracking, de-lamination, thermal shock, wear and the effects of foreign object damage.

3.76. **education**
(2004)
the imparting and acquiring over time of knowledge (awareness or possession of facts, ideas, truths or principles), attitude and practices through teaching and learning. [Oxford Concise English Dictionary]

3.77. **ensemble**
the group of protective clothing designed to be worn as a protective measure.

3.78. **environment**
surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelation. [ISO 14001:2004 (E)]

3.79. **environmental aspects**
element of an organisation's activities or products or services that can interact with the environment. [ISO 14001:2004 (E)]

3.80. **environmental factors**
factors relating to the environment and that influence the transportation of odour from the mine, the detection of the target odour or the ability of people and dogs to work safety and effectively. (i.e. Wind, rain, temperature, humidity, altitude, sun and vegetation). (Definition for MDD use only).

3.81. **environmental impact**
(2006)
any change to the environment, whether adverse or beneficial, wholly or partly resulting from an organisation's environmental aspects. [ISO 14001:2004 (E)]

3.82. **Environmental Impact Assessment (EIA)**
(2007)
in the context of mine action, the term refers to the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant environmental effects of mine action activities prior to decisions being taken and commitments made.

3.83. **Environmental Management System (EMS)**
(2006)
part of an organisation's management system used to develop and implement its environmental policy and manage its environmental aspects. [ISO 14001:2004 (E)]

3.84. **environmental policy**
(2006)
overall intentions and direction of an organisation related to its environmental performance as formally expressed by top management. [ISO 14001:2004 (E)]

3.85. **equipment**
a physical, mechanical, electrical and/or electronic system which is used to enhance human activities, procedures and practices.
3.86. European Normalisation (EN) (2005)
See CEN (Committee European Normalisation)

3.87. evaluation (2006)
the analysis of a result or a series of results to establish the quantitative and qualitative effectiveness and worth of software, a component, equipment or system, within the environment in which it will operate.

Note: Definition when used in context of equipment test and evaluation.

an assessment, as systematic and objective as possible, of an on-going or completed project, programme or policy, its design, implementation and results. The aim is to determine the relevance and fulfillment of objectives, developmental efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and donors.


a process that attempts to determine as systematically and objectively as possible the merit or value of an intervention.

Note: The word ‘objectively’ indicates the need to achieve a balanced analysis, recognising bias and reconciling perspectives of different stakeholders (all those interested in, and affected by programmes, including beneficiaries as primary stakeholders) through use of different sources and methods.

Note: Evaluation is considered to be a strategic exercise.

Note: Definition when used in relation to programmes. (UNICEF Policy and Programming Manual)

3.88. explosive materials
components or ancillary items used by demining organisations which contain some explosives, or behave in an explosive manner, such as detonators and primers.

3.89. Explosive Ordnance (EO)
all munitions containing explosives, nuclear fission or fusion materials and biological and chemical agents. This includes bombs and warheads; guided and ballistic missiles; artillery, mortar, rocket and small arms ammunition; all mines, torpedoes and depth charges; pyrotechnics; clusters and dispensers; cartridge and propellant actuated devices; electro-explosive devices; clandestine and improvised explosive devices; and all similar or related items or components explosive in nature. [AAP-6]

the detection, identification, evaluation, render safe, recovery and disposal of EO. EOD may be undertaken:

a) as a routine part of mine clearance operations, upon discovery of ERW;

b) to dispose of ERW discovered outside hazardous areas, (this may be a single item of ERW, or a larger number inside a specific area); or
c) to dispose of EO which has become hazardous by deterioration, damage or attempted destruction.

3.91. Explosive Remnants of War (ERW)
(2005)
Unexploded Ordnance (UXO) and Abandoned Explosive Ordnance (AXO). (CCW protocol V).

3.92. explosives
a substance or mixture of substances which, under external influences, is capable of rapidly releasing energy in the form of gases and heat. [AAP-6]

3.93. failure
an event in which any system, equipment, components or sub-components does not perform as previously specified.

Note: Failures may be classified as to cause, degree, relevance, dependence and responsibility.

3.94. Feasibility Study (FS)
a study to establish the feasibility of the STO in terms of technology, costs and time.

3.95. field editor
an individual whose main responsibility is to ensure accuracy, consistency, readability and clarity of the information gathered by enumerators in the field.

Note: The field editor must work closely with the survey teams in order to ensure that the review process is done shortly after the survey has been completed and while the teams are in the same general vicinity as the community being reviewed.

3.96. fixed price contract
(2004)
a contract in which a contractor is paid a fixed price to undertake a specific scope of work or to provide a specific number of assets (demining teams, MDD teams or mechanical equipment) over an agreed time-frame. The fixed price covers the whole of the works, supplies and services to be provided by the contractor.

3.97. force majeure
(2004)
unforeseeable circumstances that prevent a party from completing a task required by a contract.

3.98. Full Development (FD)
the procedure containing all of the engineering processes, trials and tests necessary to establish the final detailed design to enable full production to commence.

3.99. fuze
a device which initiates an explosive train. [AAP-6]

3.100. gender mainstreaming
(2006)
the process of assessing the implications for women and men in any planned action. For mine action, gender mainstreaming focuses attention on ensuring that the concerns and experiences of individuals of both sexes are taken into consideration in the design, implementation, monitoring and evaluation of programmes.

the continuous process by which a comprehensive inventory can be obtained of all reported and/or suspected locations of mine or ERW contamination, the quantities and types of explosive hazards, and information on local soil characteristics, vegetation and climate; and assessment of the scale and impact of the landmine and ERW problem on the individual, community and country.

3.102. generic requirement
the performance and environmental characteristics which will be common to all planned uses of the proposed equipment.

3.103. georeferencing
a process whereby graphic coordinates or other indirect referencing codes are added to tabular data in order to allow simple comparison, compilation and analysis of disparate datasets based on common locations.

3.104. GIS
Geographical (or Geospatial) Information System an organised collection of computer hardware, software, geographic data, and personnel designed to efficiently capture, store, update, manipulate, analyse, and display all forms of geographically referenced information.

Note: GIS allows a user to graphically view multiple layers of data based on their geographic distribution and association. GIS incorporates powerful tools to analyse the relationships between various layers of information.

preparing of ground in a minefield or hazardous area by mechanical means by reducing or removing obstacles to clearance e.g. tripwires, vegetation, metal contamination and hard soil to make subsequent clearance operations more efficient. Ground preparation may or may not involve the detonation, destruction or removal of landmines.

3.106. group interview
the conduct of a formal interview with a group of key informants in an impacted community on what to survey within that community.

3.107. guide
an IMAS guide provides general rules, principles, advice and information.

3.108. handover (2005)
the process by which the beneficiary (for example, the NMAA on behalf of the local community or land user) accepts responsibility for the cleared area. The term ‘alienation’ is sometimes used to describe a change of ownership of the land which accompanies the handover of a cleared area.
3.109. **handover certificate**
documentation used to record the *handover* of cleared land.

3.110. **hardware equipment** with physical size and mass; as opposed to **software**.

3.111. **harm**
physical injury or damage to the **health** of people, or damage to property or the environment. [ISO Guide 51:1999(E)]

3.112. **harmful event**
(2004)
ocurrence in which a **hazardous situation** results in **harm**. [ISO Guide 51:1999(E)].

3.113. **hazard**
potential source of **harm**. [ISO Guide 51:1999(E)]

3.114. **hazard (ous) area**
contaminated area
a generic term for an area not in productive use due to the perceived or actual presence of **mines** or **ERW**.

3.115. **hazard marker**
object(s), other than **hazard signs**, used to identify the limits of a **mine** and **ERW hazard area**. Hazard markers shall conform to the specification established by the **NMAA**.

3.116. **hazard marking system**
a combination of measures (signs and barriers) designed to provide the public with warning and protection from **mine** and **ERW hazards**. The system may include the use of signs or markers, or the erection of physical barriers.

3.117. **hazard sign**
a permanent, manufactured sign which, when placed as part of a marking system, is designed to provide warning to the public of the presence of **mines** or **ERW**.

3.118. **hazardous situation**
(2004)
circumstance in which people, property or the environment are exposed to one or more **hazards**. [ISO Guide 51:1999(E)].

3.119. **health**
(2004)
in relation to work, indicates not merely the absence of disease or infirmity, it also includes the physical and mental elements affecting health, which are directly related to safety and hygiene at work. [ILO C155]
3.120. humanitarian demining
see demining. (In IMAS standards and guides, the terms demining and humanitarian demining are interchangeable.)

3.121. impact
the level of social and economic suffering experienced by the community resulting from the harm or risk of harm caused by mine and ERW hazards and hazardous areas.

Note: Impact is a product of:
a) the presence of mine/ERW hazards in the community;
b) intolerable risk associated with the use of infrastructure such as roads, markets etc;
c) intolerable risk associated with livelihood activities such as use of agricultural land, water sources etc; and
d) number of victims of mine and ERW incidents within the last two years.

3.122. impact free
(2004)
a term applied to countries that may still have mines but where the mined areas are not having a negative socio-economic impact on communities, e.g. the mines may be in remote, marked and unpopulated areas.

3.123. impact survey
see Landmine Impact Survey (LIS)

3.124. IMSMA (Information Management System for Mine Action) 
(2007)

Note: This is the United Nation's preferred information system for the management of critical data in UN-supported field programmes. IMSMA provides users with support for data collection, data storage, reporting, information analysis and project management activities. Its primary use is by the staffs of MACs at national and regional level, however the system is also deployed in support of the implementers of mine action projects and demining organizations at all levels.

3.125. incident
(2004)
an event that gives rise to an accident or has the potential to lead to an accident.

3.126. inert
a munition that contains no explosive, pyrotechnic, lachrymatory, radioactive, chemical, biological or other toxic components or substances.

Note: An inert munition differs from a drill munition in that it has not necessarily been specifically manufactured for instructional purposes. The inert state of the munition may have resulted from a render safe procedure or other process to remove all hazardous components and substances. It also refers to the state of the munition during manufacture prior to the filling or fitting of explosive or hazardous components and substances.

3.127. inspection
the observation, measurement, examination, testing, **evaluation** or gauging of one or more components of a product or service and comparing these with specified requirements to determine conformity.

3.128. **inspection body**
an organisation which conducts post-clearance **QC** on behalf of the **NMAA** by applying random **sampling** procedures, or other appropriate and agreed methods of **inspection**.

3.129. **insurance**
an arrangement for compensation in the event of damage to or loss of (property, life of a person).

Note: Insurance should include appropriate medical, death and disability coverage for all personnel as well as third party liability coverage.

Note: Such insurance need not necessarily have to be arranged through an insurance broker or company, unless otherwise required by contractual arrangements. Self insurance (underwriting) schemes, provided they are formally constituted on accepted actuarial principles and provide adequate cover, may be an acceptable alternative.

3.130. **intended use (land)**
use of land following **demining** operations.

Note: Intended use: use of a product, process or service in accordance with information provided by the supplier. ([ISO Guide 51:1999(E)](https://www.iso.org/standard/51739.html))

Note: Intended land use should be included in the **clearance** task specification and clearance task **handover** documentation.

3.131. **interchangeability**
in the context of **mine action** equipment **procurement**, the term refers to …. a condition which exists when two or more items of **equipment** possess such functional and physical characteristics as to be equivalent in performance and durability, and are capable of being exchanged for one another without alteration of the items themselves, or of adjoining items, except for adjustment, and without selection for fit and performance.

3.132. **intermediate point**
(2004) **survey markers** used between **turning points** that are more than 50m apart.

3.133. **International Mine Action Standards (IMAS)**
documents developed by the UN on behalf of the international community, which aim to improve safety and efficiency in **mine action** by providing guidance, by establishing principles and, in some cases, by defining international requirements and specifications.

Note: They provide a frame of reference which encourages, and in some cases requires, the sponsors and managers of mine action programmes and projects to achieve and demonstrate agreed levels of effectiveness and **safety**.

Note: They provide a common language, and recommend the formats and rules for handling data which enable the free exchange of important information; this information exchange benefits other programmes and projects, and assists the mobilisation, prioritisation and management of resources.
3.134. International Organisation for Standardization (ISO)

Note: A worldwide federation of national bodies from over 130 countries. Its work results in international agreements which are published as ISO standards and guides. ISO is a NGO and the standards it develops are voluntary, although some (mainly those concerned with health, safety and environmental aspects) have been adopted by many countries as part of their regulatory framework. ISO deals with the full spectrum of human activities and many of the tasks and processes which contribute to mine action have a relevant standard. A list of ISO standards and guides is given in the ISO Catalogue [www.iso.ch/infoe/catinfo/html].

Note: The revised mine action standards have been developed to be compatible with ISO standards and guides. Adopting the ISO format and language provides some significant advantages including consistency of layout, use of internationally recognised terminology, and a greater acceptance by international, national and regional organisations who are accustomed to the ISO series of standards and guides.

3.135. Intrusive machine

(2007)
in the context of mine action, the term refers to a machine designed to work inside a hazardous area, while the term 'non-intrusive machine' refers to those designed to operate from a cleared or known safe area, with its mechanical tool working in the hazardous area.

3.136. investment appraisal
the process of defining the objectives of expenditure, identifying the alternative ways of achieving those objectives and assessing which way is likely to give best value for money.

3.137. key informants
individuals who have relatively good knowledge on the hazardous areas in and around their community.

Note: Key informants may include, but are not limited to, community leaders, mine-affected individuals, schoolteachers, religious leaders etc.

3.138. lachrymatory ammunition
lachrymatory ammunition contains chemical compounds that are designed to incapacitate by causing short-term tears or inflammation of the eyes.

3.139. Landmine Impact Survey (LIS) impact survey
(2004)
an assessment of the socio-economic impact caused by the actual or perceived presence of mines and ERW, in order to assist the planning and prioritisation of mine action programmes and projects.

3.140. letter of agreement
(2004)
a simpler form of contract that states the essentials of the agreement without including all the detail. It may be used as a precursor to a formal contract or, in some cases, may be used in place of a more formal contract.

3.141. level 2 survey
the term previously used for a technical survey.
3.142. licence
(2004)
_in the context of mine action, the term refers to ..... a certificate issued by a NMAA in relation
to the capacity or capability of a facility, for example a demolition site may be licensed for
certain explosive limits and explosive storage areas may be licensed for certain types and
quantities of munitions. Demining organisations receive organisational or operational
accreditation from an accreditation body authorised by a NMAA.

3.143. local requirement
the performance and characteristics of the proposed equipment which reflect local
environmental conditions, operating procedures and operational requirements.

3.144. logistic disposal
(2004)
_in the context of mine action, the term refers to ..... the removal of munitions and explosives
from a stockpile utilising a variety of methods, (that may not necessarily involve destruction).
Logistic disposal may or may not require the use of RSP.

3.145. lot size
(2004)
_in the context of humanitarian demining, the term refers to ..... an area (comprising a number
of 1.0m² units of cleared land) offered for inspection.

3.146. machine
(2007)
_in the context of mine action, the term refers to a unit of mechanical equipment used in
demining operations.

3.147. magazine
(2004)
_in the context of mine action, the term refers to ..... any building, structure or container
approved for the storage of explosive materials.

3.148. maintainability
the ability of an equipment, component or sub-component under stated conditions of use, to be
retained or restored to a specific condition, when maintenance is performed by personnel
having specific skill levels, under stated conditions and using prescribed procedures and
resources.

3.149. marking
emplacement of a measure or combination of measures to identify the position of a hazard or
the boundary of a hazardous area. This may include the use of signs, paint marks etc, or the
erection of physical barriers.

3.150. marking system
an agreed convention for the marking of hazards or hazardous areas.

3.151. mechanical demining operations
(2007)
refers to the use of machines in demining operations and may involve a single machine employing one mechanical tool, a single machine employing a variety of tools or a number of machines employing a variety of tools.

3.152. mechanical demining unit
(2007)
a single machine or it may refer to more than one machine that works as part of a system for example, a front end loader and a screening plant.

3.153. mechanical tools
(2007)
the working component(s) attached to a machine, such as flails, tillers, sifters, rollers, excavators, ploughs, magnets etc. A single machine may utilise a number of different tools, which may be fixed or interchangeable.

3.154. medical support staff
employees of demining organisations designated, trained and equipped to provide first aid and further medical treatment of demining employees injured as a result of an accident.

3.155. Memorandum of Understanding (MOU)
a document used to facilitate a situation or operation when it is not the intention to create formal rights and obligations in international law but to express commitments of importance in a non-binding form.

3.156. mine
munition designed to be placed under, on or near the ground or other surface area and to be exploded by the presence, proximity or contact of a person or a vehicle. [MBT]

3.157. mine accident
an accident away from the demining workplace involving a mine or ERW hazard (c.f. demining accident).

3.158. mine action
(2004)
activities which aim to reduce the social, economic and environmental impact of mines and ERW.

Note: Mine action is not just about demining; it is also about people and societies, and how they are affected by landmine and ERW contamination. The objective of mine action is to reduce the risk from landmines and ERW to a level where people can live safely; in which economic, social and health development can occur free from the constraints imposed by landmine and ERW contamination, and in which the victims’ needs can be addressed. Mine action comprises five complementary groups of activities:

a) MRE;
b) humanitarian demining, i.e. mine and ERW survey, mapping, marking and clearance;
c) victim assistance, including rehabilitation and reintegration;
d) stockpile destruction; and
e) advocacy against the use of APM.
Note: A number of other enabling activities are required to support these five components of mine action, including: assessment and planning, the mobilisation and prioritisation of resources, information management, human skills development and management training, QM and the application of effective, appropriate and safe equipment.

3.159.
Mine Action Centre (MAC)
Mine Action Coordination Centre (MACC)
(2004)
an organisation that carries out MRE training, conducts reconnaissance of hazardous areas, collection and centralisation of mine data and coordinates local (mine action) plans with the activities of external agencies, of (mine action) NGOs and of local deminers. [UN Terminology Bulletin No. 349] For national mine action programmes, the MAC/MACC usually acts as the operational office of the NMAA.

3.160.
Mine Action Coordination Centre (MACC)
see Mine Action Centre (MAC)

3.161.
mine action organisation
(2004)
refers to any organisation (government, NGO, military or commercial entity) responsible for implementing mine action projects or tasks. The mine action organisation may be a prime contractor, subcontractor, consultant or agent.

3.162.
mine awareness
(2004)
see Mine Risk Education (MRE).

3.163.
mine clearance
the clearance of mines and ERW from a specified area to a predefined standard.

3.164.
Mine Detection Dog(s) (MDD)
a dog trained and employed to detect mines, ERW and other explosive devices.

3.165.
mine free
(2004)
a term applied to an area that has been certified as clear of mines to a specified depth. Also applied to a country or an area that has not had a mine contamination problem.

3.166.
mine incident
an incident away from the demining workplace involving a mine or ERW hazard (c.f. demining incident).

3.167.
mine risk
(2004)
the probability and severity of physical injury to people, property or the environment caused by the unintentional detonation of a mine or ERW. [Adapted from ISO Guide 51:1999(E)]

3.168.
Mine Risk Education (MRE)
(2005)
activities which seek to reduce the risk of injury from mines/ERW by raising awareness and promoting behavioural change including public information dissemination, education and training, and community mine action liaison.

3.169. mine risk reduction
(2004)
those actions which lessen the probability and/or severity of physical injury to people, property or the environment. [Adapted from ISO Guide 51:1999(E)] Mine risk reduction can be achieved by physical measures such as clearance, fencing or marking, or through behavioural changes brought about by MRE.

3.170. mine sign
a sign which, when placed as part of a marking system, is designed to provide warning to the public of the presence of mines.

3.171. mined area
an area which is dangerous due to the presence or suspected presence of mines. [MBT]

3.172. minefield
an area of ground containing mines laid with or without a pattern. [AAP-6]

3.173. monitoring
(2004)
_in the context of mine action, the term refers to …_ the authorised observation, inspection or assessment by qualified personnel of worksites, facilities, equipment, activities, processes, procedures and documentation without taking responsibility for what is being monitored. Monitoring is usually carried out to check conformity with undertakings, procedures or standard practice and often includes recording and reporting elements.

_in the context of MRE, the term refers to …_ the process of measuring or tracking what is happening. This includes:

a) measuring progress in relation to an implementation plan for an intervention – programmes/projects/activities, strategies, policies and specific objectives; and

b) measuring change in a condition or set of conditions or lack thereof (e.g., changes in the situation of children and women or changes in the broader country context).

Note: Definition from UNICEF Policy and Programming Manual.

3.174. monitoring body
an organisation, normally an element of the NMAA, responsible for management and implementation of the national monitoring system.

3.175. MRE organisation
(2004)
any organisation, including governmental, non-governmental, civil society organisations (e.g. women’s union, youth union, red cross and red crescent societies), commercial entities and military personnel (including peace-keeping forces), which is responsible for implementing MRE projects or tasks. The MRE organisation may be a prime contractor, subcontractor, consultant or agent. The term ‘MRE sub-unit’ refers to an element of an organisation, however named, that is accredited to conduct one or more prescribed MRE activities such as a public information project, a schools based education project or a community mine action liaison project evaluation.

3.176. MRE partner
(2004)
an institution or agent within the mine-affected community who is able to work with an MRE organisation to facilitate, establish and implement an MRE project.

3.177. munition
a complete device charged with explosives, propellants, pyrotechnics, initiating composition, or nuclear, biological or chemical material for use in military operations, including demolitions. [AAP-6]

Note: In common usage, ‘munitions’ (plural) can be military weapons, ammunition and equipment.

3.178. national authority
(2004)
in the context of stockpile destruction the term refers to …. the government department(s), organisation(s) or institution(s) in each country charged with the regulation, management and coordination of stockpile destruction.

3.179. National Mine Action Authority (NMAA)
the government department(s), organisation(s) or institution(s) in each mine-affected country charged with the regulation, management and coordination of mine action.

Note: In most cases the national MAC or its equivalent will act as, or on behalf of, the NMAA.

Note: 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 the functions, of a NMAA.

3.180. neutralise
the act of replacing safety devices such as pins or rods into an explosive item to prevent the fuze or igniter from functioning.

Note: It does not make an item completely safe as removal of the safety devices will immediately make the item active again (c.f. disarm).

Note: A mine is said to be neutralised when it has been rendered, by external means, incapable of firing on passage of a target, although it may remain dangerous to handle. [AAP-6]

3.181. non-sparking material
(2004)
material that will not produce a spark when struck with tools, rocks, or when the material itself strikes hard surfaces.
3.182. Operational Analysis (OA)
operational research
a field of research that applies scientifically based quantitative and qualitative analysis to assist management decisions.

3.183. operational research
see Operational Analysis (OA)

3.184. particle board
a composition board made of small pieces of wood, bonded together.

3.185. permanent marking system
a marking system having an indefinite period of use, usually requiring maintenance (c.f. temporary marking system).

3.186. Personal Protective Equipment (PPE)
all equipment and clothing designed to provide protection, which is intended to be worn or held by an employee at work and which protects him/her against one or more risks to his/her safety or health.

3.187. pilot test
a process ahead of the commencement of wide range data collection to ensure that all survey project elements, such as team deployment, data collection, reporting and administration, are functioning as planned.

3.188. 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.

Note: 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. Policy is prescriptive and compliance is assumed, or at least is encouraged.

3.189. post clearance inspection
(2004)
in the context of humanitarian demining, the term refers to ...the process of measuring, examining, testing or otherwise comparing a sample of cleared land against the clearance requirements.

3.190. Post Design Services (PDS)
further services such as ongoing development and modification of equipment, subsequent to the acceptance of the equipment.

Note: PDS may be used after the initial contract in order to update the equipment in response to changing circumstances and requirements.

3.191. Preliminary Development (PD)
(2004)
the planning, design and engineering work necessary to explore areas of technical uncertainty and to provide detailed estimates of duration and cost before the decision to proceed to full development is made.

Note: During PD a relatively flexible relationship should exist between the technical specification and the operational requirements.

3.192. preliminary study
a study to give an indication of the practicability of the idea in terms of technological possibilities and cost.

3.193. pre-test
a process at the start of a survey to validate clarity and appropriateness of the selected survey instrument.

3.194. primer
a self-contained munition which is fitted into a cartridge case or firing mechanism and provides the means of igniting the propellant charge.

3.195. principal
(2004)
the entity that contracts another entity to undertake the required mine action activity. The principal may be a donor, a NMMA, an organisation acting on behalf of the NMMA, a commercial organisation or any entity that desires mine action to be conducted and engages a mine action organisation to do so.

3.196. procurement
the process of research, development and production or purchase which leads to an equipment being accepted as suitable for use, and continues with the provision of spares and Post Design Services (PDS) throughout the life of the equipment.

3.197. prodding
a procedure employed in the process of demining whereby ground is probed to detect the presence of sub-surface mines and/or ERW (c.f. sapping).

3.198. programme
(2004)
a group of projects or activities which are managed in a co-ordinated way, to deliver benefits that would not be possible were the projects and/or contracts managed independently.

3.199. project
(2004)
an endeavour in which human, material and financial resources are organised to undertake a unique scope of work, of given specification, within constraints of cost and time, so as to achieve beneficial change defined by quantitative and qualitative objectives.

3.200. project management
(2004)
the process by which a project is brought to a successful conclusion.
3.201.
proposal
(2004)

an offer for consideration or acceptance by another entity.

protective measure

means used to reduce risk. [ISO Guide 51:1999(E)]

3.203.
Protocol V
(2007)

Protocol V to the CCW on Explosive Remnants of War

Note: Under Protocol V, 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 organizations (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). Protocol V entered into force on 12 November 2006.

3.204.
prototype

an equipment, component or sub-component built as nearly as possible to the final design and build standard.

Note: Prototypes are used to aid development of the final production standard and/or to demonstrate performance or specification compliance.

3.205.
proximity verification

an activity to observe mine/ERW hazard areas reported during the community interview.

Note: Observation must be done from a safe area and in accordance with the relevant protocols.

3.206.
public education

the process aimed at raising general awareness of the hazards of mines and ERW; through public information, formal and non-formal education systems.

Note: Public education is a mass mobilisation approach that delivers information on mine and ERW hazards. It may take the form of formal or non-formal education and may use mass media techniques.

Note: In an emergency situation, due to time constraints and the lack of available data, it is the most practical means of communicating safety information. In other situations it can support community liaison.

3.207.
public information dissemination
(2004)

information concerning the mine and ERW situation, used to inform or update populations. Such information may focus on particular issues, such as complying with mine ban legislation, or may be used to raise public support for the mine action programme. Such projects usually include risk reduction messages, but may also be used to reflect national mine action policy.
3.208. pure research
research activities not linked to any specific application. The outcome of pure research may eventually lead to a product, but its immediate aim is to establish generic principles.

3.209. quality
degree to which a set of inherent characteristics fulfils requirements. [ISO 9000:2000]

(part of QM) focused on providing confidence that quality requirements will be fulfilled. [ISO 9000:2000]

Note: The purpose of QA in humanitarian demining is to confirm that management practices and operational procedures for demining are appropriate, are being applied, and will achieve the stated requirement in a safe, effective and efficient manner. Internal QA will be conducted by demining organisations themselves, but external inspections by an external monitoring body should also be conducted.

3.211. Quality Control (QC)
(part of QM) focused on fulfilling quality requirements. [ISO 9000:2000]

Note: QC relates to the inspection of a finished product. In the case of humanitarian demining, the ‘product’ is safe cleared land.

3.212. Quality Management (QM)
coordinated activities to direct and control an organisation with regard to quality. [ISO 9000:2000]

3.213. random sampling
selection of samples by a process involving equal chances of selection of each item. Used as an objective or impartial means of selecting areas for test purposes.

3.214. raster data
the use of an imaginary grid of cells to represent the landscape. Point features are stored as individual column/row entries in a grid; lines are identified as a set of connected cells; and areas are distinguished as all of the cells comprising a feature.

3.215. RDX (1, 3, 5-triazacyclohexane)
(2005)
RDX is another military explosive which is used extensively as an explosive in many munitions formulations. RDX is relatively insensitive; it has a high chemical stability, although lower than that of TNT. RDX is never handled pure and dry because of the danger of accidental explosion. It is used as a component in explosive mixtures, especially plastic explosives.

3.216. reasonably foreseeable misuse
(2004)
use of a product, process or service in a way not intended by the supplier, but which may result from readily predictable human behaviour. [ISO Guide 51:1999(E)]

3.217. recognition piece
(2004)
A metal piece, which is placed under test items to make them recognisable with a metal detector.

3.218. reduced area
see area reduction
the area of hazardous land remaining after the process of area reduction. It is still referred to as a hazardous area.

3.219. reference point
landmark
a fixed point of reference some distance outside the hazardous area. It should be an easily recognised feature (such as a cross-roads or a bridge) which can be used to assist in navigating to one or more benchmarks.

Note: Internationally these are often also referred to as Geodetic Points when they refer to a presurveyed location such as a trig point.

3.220. Relational Database Management System (RDMS)
as opposed to a single table with numerous fields for each record entered, a RDMS uses identification codes to link multiple tables of data. The codes used establish the relationship between data tables. RDMS are very effective in managing large amounts of data and permitting detailed queries to determine the relationship among data compiled against different records.

3.221. reliability
the ability of an equipment, component or sub-component to perform a required function under stated conditions for a stated period of time.

3.222. reliable (mine action) information
(2004)
information deemed acceptable and reliable by the NMAA for the conduct of demining operations.

3.223. Render Safe Procedure (RSP)
the application of special EOD methods and tools to provide for the interruption of functions or separation of essential components to prevent an unacceptable detonation.

3.224. research
the systematic inquiry, examination and experimentation to establish facts and principles.

3.225. residual risk
in the context of humanitarian demining, the term refers to ….. the risk remaining following the application of all reasonable efforts to remove and/or destroy all mine or ERW hazards from a specified area to a specified depth. [Modified from ISO Guide 51:1999]

3.226. risk
combination of the probability of occurrence of harm and the severity of that harm. [ISO Guide 51:1999(E)]
3.227.  
risk analysis  
systematic use of available information to identify hazards and to estimate the risk. [ISO Guide 51:1999(E)]

3.228.  
risk assessment  
overall process comprising a risk analysis and a risk evaluation. [ISO Guide 51:1999(E)]

3.229.  
risk evaluation  
process based on risk analysis to determine whether the tolerable risk has been achieved. [ISO Guide 51:1999(E)]

3.230.  
risk reduction  
actions taken to lessen the probability, negative consequences or both, associated with a particular risk.

3.231.  
safe  
the absence of risk. Normally the term tolerable risk is more appropriate and accurate.

3.232.  
safety  
the reduction of risk to a tolerable level. [ISO Guide 51:1999(E)]

3.233.  
sample  
in the context of humanitarian demining, the term refers to one or more 1.0m² units of land drawn at random from a lot.

3.234.  
sample size  
in the context of humanitarian demining, the term refers to the number of 1.0m² units of land in the sample.

3.235.  
sampling  
in the context of humanitarian demining, the term refers to a defined procedure whereby part or parts of an area of cleared land are taken, for testing, as a representation of the whole area.

3.236.  
sampling plan  
in the context of humanitarian demining, the term refers to a specific plan that indicates the number of 1.0m² units of land from each lot which are to inspected (sample size or series of sample sizes) and the associated criteria for determining the acceptability of the lot (acceptance and rejection numbers).

3.237.  
sapping  
in the context of humanitarian demining, the term refers to a procedure employed in the process of demining whereby, in conjunction with other procedures, ground is cleared by digging forward to a specified depth from a safe start point.

3.238.  
scent  
a distinctive odour.
3.239. **secondary fragmentation**
in an *explosive* event, fragmentation which was not originally part of the mine/ERW.

3.240. **self-neutralisation**
action generated by means of a device integral to a *mine*, which renders the mine inoperative, but not necessarily *safe* to handle. In landmines, this process may be reversible. [AAP-6]

3.241. **specified area**
_in the context of humanitarian demining, the term refers to .... that area for which mine or ERW clearance activity has been contracted or agreed, as determined by the NMAA or an organisation acting on its behalf._

3.242. **specified depth**
_in the context of humanitarian demining, the term refers to .... the depth to which a specified area is contracted or agreed to be cleared of mine and ERW hazards, as determined by the NMAA or an organisation acting on its behalf._

3.243. **Specified Quality Limit (SQL)**
_in the context of humanitarian demining, the term refers to .... an indication of the quality required from clearance operations._

  **Note:** For acceptance *sampling* purposes, the SQL is a specified borderline between what can be considered reasonable as a process average and what can not. It has to be attainable by the producer (*demining organisation*) but tolerable to the consumer (*NMAA* or contracting agency).

  **Note:** In the case of mine and ERW clearance, the SQL indicates the average contamination (in terms of non-conforming items per square metre) following a lengthy and steady process run.

3.244. **sponsor**
the sponsor of an *equipment trial* is the authority requiring the trial to be carried out.

  **Note:** This is most likely to be an international organisation, national MAC, donor or demining organisation.

3.245. **standard**
a standard is a documented agreement containing technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics to ensure that materials, products, processes and services are fit for their purpose.

  **Note:** *Mine action standards* aim to improve safety and efficiency in mine action by promoting the preferred procedures and practices at both headquarters and field level. To be effective, the standards should be definable, measurable, achievable and verifiable.

3.246. **Standard Operating Procedures (SOPs)**
_**Standing Operating Procedures (SOPs)**_ instructions which define the preferred or currently established method of conducting an operational task or activity.

  **Note:** Their purpose is to promote recognisable and measurable degrees of discipline, uniformity, consistency and commonality within an organisation, with the aim of improving operational effectiveness and safety. SOPs should reflect local requirements and circumstances.
3.247. **standards**
requirements, specifications or other precise criteria, to be used consistently to ensure that materials, products, processes and services are fit for their purpose.

**Note:** Mine action standards aim to improve safety and efficiency in mine action by promoting the preferred procedures and practices at both headquarters and field level.

3.248. **Standing Operating Procedures (SOPs)**
see Standard Operating Procedures (SOPs).

3.249. **Statement of Operational Need (SON)**
(2004)
the document that describes the user's operational needs.

**Note:** The SON should be prepared by the User who has identified the need, or by a sponsor acting on a user's behalf.

3.250. **Statement of Requirement (SOR)**
the document that provides a detailed statement of the characteristics and performance expected of the equipment, based on the preferred solution.

3.251. **Statement of Tasks and Outputs (STO)**
the document that articulates the user’s needs in broad terms, giving the tasks of the equipment and the key characteristics, with the emphasis on the output required rather than the means of achieving it, so as to enable full consideration of alternative solutions.

3.252. **steel**
(2004)
general purpose (hot or cold rolled) low-carbon such as ASTM A366b or equivalent.

3.253. **stockpile**
in the context of mine action, the term refers to a large accumulated stock of EO.

3.254. **stockpile destruction**
the physical destructive procedure towards a continual reduction of the national stockpile.

3.255. **submunition**
any munition that, to perform its task, separates from a parent munition. [AAP-6]

mines or munitions that form part of a CBU, artillery shell or missile payload.

3.256. **survey marker**
(2004)
a durable and long lasting marker used to assist in the management of marked and cleared land during demining operations.

3.257. **(2004)**

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survivor (landmine/ERW)
persons either individually or collectively who have suffered physical, emotional and psychological injury, economic loss or substantial impairment of their fundamental rights through acts or omissions related to the use of mines or the presence of ERW. Mine/ERW survivors or victims include directly impacted individuals, their families, and communities affected by landmines and ERW.

3.258. survivor assistance
see victim assistance

3.259. Suspected Hazardous Area (SHA)
see hazard (ous) area
(2006)

3.260. task identification number (ID)
a unique number used to designate a hazardous area. Task identification numbers shall be allocated by the NMAA.

3.261. technical survey
(2004)
previously referred to as a Level 2 survey
the detailed topographical and technical investigation of known or suspected hazardous areas identified during the planning phase. Such areas would have been identified during any information gathering activities or surveys which form part of the GMAA process or have been otherwise reported.

3.262. temporary marking system
a marking system having a stated finite period of use (c.f. permanent marking system).

3.263. tender
(2004)
to present to another entity an unconditional offer to enter into a contract.

3.264. tender process
(2004)
the process of calling for and evaluating tenders to select a preferred contractor.

3.265. test
determination of one or more characteristics according to a procedure. [ISO 9000:2000]

3.266. Test and Evaluation (T&E)
activities associated with the testing of hardware and software.

Note: Activities include the formation and use of procedures and standards, the reduction and processing of data and the assessment and evaluation of test results and processed data against criteria such as defined standards and specifications.

3.267. test site
(2005)
the site at which a series of test boxes or lanes are prepared for the purpose of operational accreditation testing of MDD.

3.268. 
**theft resistant**
(2004)
construction designed to deter and/or delay illegal entry into facilities used for the storage of explosives.

3.269. 
**TNT (2, 4, 6 Trinitrotoluene)**
one of the most widely used military high explosives. TNT is very stable, non-hygroscopic and relatively insensitive to impact, friction, shock and electrostatic energy. TNT is the most widespread type of explosive used in mines and munitions.

3.270. 
**tolerable risk**
risk which is accepted in a given context based on current values of society. [ISO Guide 51:1999(E)]

3.271. 
**trial**
a series of tests organised in a systematic manner, the individual results of which lead to an overall evaluation of a component, equipment or system.

3.272. 
**turning point**
(2004)
a fixed point on the ground which indicates a change in direction of the perimeter of the hazardous area. It shall be clearly marked and recorded. Buried metal objects should be used to mark all turning points for permanent future reference.

3.273. 
**Unexploded Ordnance (UXO)**
EO that has been primed, fuzed, armed or otherwise prepared for use or used. It may have been fired, dropped, launched or projected yet remains unexploded either through malfunction or design or for any other reason.

3.274. 
**unit rate**
(2004)
the rates agreed and accepted for specific priced activity items and quantities stated in a contract.

3.275. 
**United Nations Mine Action Service (UNMAS)**
(2004)
the focal point within the UN system for all mine-related activities.

Note: UNMAS is the office within the UN Secretariat responsible to the international community for the development and maintenance of IMAS.

Note: UNICEF is the focal point for MRE, within the guidelines of UNMAS overall coordination.

3.276. 
**user**
the individual or organisation that will operate the equipment.
Note: For the purpose of mine action, the user could also be defined as ‘a composite body of informed and authoritative opinions on the needs of national commercial and NGO users, today and in the future’.

3.277. validation
the act of ratification that takes place after a process of verification.

3.278. vector data
the use of X, Y coordinates to locate three basic types of landscape features; point, line and areas.

Note: Points (towns, incident locations etc) are represented by a single pair of X, Y coordinates. Lines (roads, rivers etc) are represented by a series of X, Y coordinate points connected in order. Areas or polygons (lakes, boundaries etc) are represented by a set of X, Y coordinates closing on itself and implying its interior.

3.279. verification
confirmation, through the provision of objective evidence that specified requirements have been fulfilled. [ISO 9000:2000]

3.280. victim
(2004)
an individual who has suffered harm as a result of a mine or ERW accident.

Note: In the context of victim assistance, the term victim may include dependants of a mine/ERW casualty, hence having a broader meaning than survivor.

3.281. victim assistance
survivor assistance
(2004)
refers to all aid, relief, comfort and support provided to victims (including survivors) with the purpose of reducing the immediate and long-term medical and psychological implications of their trauma.

3.282. village demining
(2004)
self-supporting mine and/or ERW clearance and hazardous area marking, normally undertaken by local inhabitants, on their own behalf or the behalf of their immediate community. Often described as a self-help initiative or spontaneous demining, village demining usually sits outside or in parallel with formal mine action structures, such as demining undertaken by militaries or humanitarian demining such as is supported by the UN, international and national non-governmental organisations, private enterprise and governments, among others.

3.283. visitor
(2004)
for the purposes of IMAS, a person who is neither a member of the demining organisation, nor a demining worker accredited by the NMAA.

Note: In circumstances where the NMAA does not have an accreditation system the demining organisation should determine the status of non-employees.

3.284. White Phosphorous (WP)
(2004)
a chemical smoke screening agent which burns in contact with air, (with serious anti-personnel affect if the phosphorous comes in direct contact with people).

3.285. workplace
all places where employees need to be or to go by reason of their work and which are under the direct or indirect control of the employer. [ILO R164]
Amendment record

Management of IMAS amendments

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

As amendments are made to this IMAS they will be given a number, and the date and general details of the amendment shown in the table below. The amendment will also be shown on the cover page of the IMAS by the inclusion under the edition date of the phrase ‘incorporating amendment number(s) 1 etc.’

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

The most recently amended IMAS will be the versions that are posted on the IMAS website at www.mineactionstandards.org.

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Amendment Details</th>
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| 1      | 1 Dec 2004 | 1. Formatting changes.  
2. Minor text editing changes.  
3. Substantive changes:  
a) New definitions: Abandoned Explosive Ordnance (AXO); agreement; air sampling machine; audit; Bomb Live Unit (BLU); buffer zone; CEN Workshop Agreement (CWA); contract; contractor; cost-plus contract; demining worker; demining worksite; destruction organisation; ductility; education; emanation; epidemic disease; filter box; filter cartridge; filter container; fixed price contract; flexible tube or pipe; force majeure; ground preparation; ground processing; harmful event; hazardous situation; historical verification; IATA; i/m; i/v; impact free; inspection; Landmine Impact Survey (LIS); letter of agreement; mechanical application; Mine Action Coordination Centre (MACC); mine action organisation; mine awareness; mine free; mine risk; mine risk reduction; mine safe; Mine Threat Level (MTL); MRE organisation; MRE partner; national authority; positive, negative and blank filters; post clearance inspection; preventative maintenance; principal; programme; project; project management; proposal; public information dissemination; quarantine; reasonably foreseeable misuse; recognition piece; reliable (mine action) information; s/c; steel; target substance; tender; tender process; test site; theft resistant; toughness (tensile); unit rate; village demining; visitor; weather resistant; White Phosphorous (WP). (72 definitions).  
b) Deleted definitions: expert opinion; mechanically-assisted clearance; public information.  
c) Changed definitions: accreditation; area reduction; benchmark; box; briefing area; burning ground; cancelled area (note only); cleared area (note only); community liaison (and note); control area or point; critical non-conformity; demilitarisation (note only); deminer; demining sub-unit; demolition ground; destruction; detection; disposal site; drill; General Mine Action Assessment (GMAA) (and note); health; inspection; IMSMA (note only); incident (change to the reference only); inert; intermediate point; licence; logistic disposal; magazine; mine action; Mine Risk Education (MRE); monitoring; non-sparking material; Preliminary Development (PD) (note only) (includes a ‘must’ changed to ‘should’); Quality Assurance (QA); Statement of Operational Need (SON); survey marker; survivor (landmine/ERW); technical survey; threat; turning point; United Nations Mine Action Service (UNMAS) (note only); usable area (note only); victim; victim assistance. |
| 2      | 23 Jul 2005 | 1. Clause 1, change to scope.  
2. Clause 2, new sub clause n).  
3. New definitions: Battle Area Clearance (BAC); European Normalisation (EN); Explosive Remnants of War (ERW). (3 definitions).  
4. Deleted definitions: air sampling machine; buffer zone; ductility; emanation; epidemic disease; filter box; filter cartridge; filter container; flexible tube or pipe; historical verification; i/m; i/v; I.A.T.A; mine safe; mine threat levels; organisation; positive, negative and blank filters; preventative maintenance; quarantine; s/c; target substance; toughness; weather resistant; undesirable smell; usable area. (25 definitions).  
5. Changed definitions: Abandoned Explosive Ordnance (AXO); acceptance; box; burning site; contractor; DNT (Dinitrotoluene); drill munition; Explosive Ordnance Disposal (EOD); handover; Mine Risk Education (MRE); Quality Assurance (QA); RDX (1,3,5-triazacyclohexane; test site. |
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<td>1 Aug 2006</td>
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<td>1 Dec 2007</td>
<td>1. Minor changes/additions to the first and second paragraph of the foreword.</td>
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<td>2. <strong>New definition:</strong> environment; environmental aspects; environmental impact; Environmental Management System (EMS); environmental policy; gender mainstreaming; Suspected Hazardous Area (SHA). (7 definitions).</td>
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<td>3. <strong>Deleted definitions:</strong> ground processing; fragmentation hazard zone; mechanical application; mine threat; and threat. (5 definitions).</td>
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<td>4. <strong>Changed definitions:</strong> audit; and an additional definition for ‘evaluation’ added.</td>
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<td>5. Inclusion of the term <strong>ERW</strong>.</td>
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<td>6. Removal of the term ‘threat’ from throughout the glossary.</td>
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<td>7. CWA &amp; IMSMA definitions modified.</td>
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<td>8. <strong>New definitions:</strong> battlefield, CCW, environmental impact assessment, intrusive machine, machine, mechanical demining operations, mechanical demining unit, mechanical tools.</td>
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<td>9. A note added to Clause 1 “scope” – amended and new definition include a date.</td>
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