Glossary of mine action terms and abbreviations

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Foreword

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

This IMAS reflects changes to operational procedures, practices and norms which have occurred over the past three years. The scope of these standards has been expanded to include the other components of mine action, in particular those of mine risk education and victim assistance.

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 is the office within the United Nations Secretariat responsible for the development and maintenance of international mine action standards (IMAS).

The work of preparing, reviewing and revising these standards 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. IMAS will be 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 and abbreviations

1 Scope

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

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) SO 3166, Codes for the representation of names of countries;
b) ISO 8402, Quality management and quality assurance - Vocabulary;
c) ISO 10241, International terminology standards - Preparation and layout;
d) ISO Guide 51, Safety aspects - Guidelines for their inclusions in standards;
e) ISO/IEC Guide 2, Standardization and related activities - General vocabulary;
f) ISO/IEC Directives Part 2, Methodology for the development of International Standards;
g) ISO/IEC Directives Part 3, Rules for the structure and drafting of International Standards;
h) ISO Standards Handbook, Quantities and units;
i) UN International guidelines for landmine and unexploded ordnance awareness education (soon to be superseded by IMAS 12 Series Mine risk education);
j) OHSAS 18001:1999, Occupational health and safety management systems - Specification;
k) OHSAS 18002:2000, Occupational health and safety management systems - Guidelines for the implementation of OHSAS 18001;
l) ILO R164 - Occupational safety and health recommendation 1981;
m) ILO C155 - Occupational safety and health convention 1981; and
n) AAP-6(V), NATO glossary of terms and definitions.

3 Terms and definitions

3.1 access lane

a marked passage leading through a mined area that has been cleared to provide safe movement to a required point or area.
3.2
**acceptance**
the formal acknowledgement by the **sponsor** 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
**accident**
an undesired event which results in **harm**

Note: Modified from definition in OHSAS 18001:1999.

3.4
**accreditation**
the procedure by which a **demining organization** is formally recognised as competent and able to plan and manage **mine action** activities safely, effectively and efficiently.

Note: For most **mine action** programmes, the **national mine action authority** will be the body which provides **accreditation**. International organizations 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 organizations. 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.

3.5
**accreditation body**
an **organization**, normally an element of the **national mine action authority**, responsible for the management and implementation of the national **accreditation** system.

3.6
**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 **threat** from, and the impact of, **mines** and **UXO**.

3.7
**alienation**
*in the context of mine action, the term refers to* .... the transfer of ownership or property rights following the **handover** of **cleared land**.

3.8
**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).

Note: It prohibits the use of all undetectable **anti-personnel mines** and regulates the use of wider categories of **mines**, **booby-traps** and other devices. For the purposes of the IMAS, Article 5 lays down requirements for the **marking** and **monitoring** of **mined areas**. Article 9 provides for the recording and use of information on **minefields** and **mined areas**. The Technical Annex provides guidelines on, inter alia, the recording of information and international signs for **minefields** and **mined areas**.

3.9
**ammunition**
See **munition**
3.10 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. [Mine Ban Treaty]

3.11 anti-personnel mines (APM)
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.

Note: Mines designed to be detonated by the presence, proximity or contact of a vehicle as opposed to a person, that are equipped with anti-handling devices, are not considered anti-personnel mines as a result of being so equipped. [MBT]

3.12 Anti-Personnel Mine Ban Convention (APMBC)
Ottawa Convention

Note: Provides for a complete ban on the use, stockpiling, production and transfer of anti-personnel mines (APMs) and on their destruction. For the purposes of IMAS documents, Article 5 of the APMBC lays down requirements for the destruction of APMs in mined areas. Article 6 details transparency measures required under the Treaty including on the location of mined or suspected mined areas and measures taken to warn the local population.

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

Note: Its principal purpose is to establish the feasibility of applying technology to solve a clearly defined problem, within defined parameters such as cost, time and risk.

3.14 area reduction
the process through which the initial area indicated as contaminated (during the general mine action assessment 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 UXO 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.

3.15 benchmark
in the context of mine action, 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.

3.16 bomblet
see submunition

3.17
booby trap
an explosive or nonexplosive 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]

3.18 boundary lane
a cleared lane around the perimeter of a hazardous area.

3.19 briefing area
in the context of clearance operations .... 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.

3.20 box
a squared area that is developed for the purpose of being searched by mine detection dogs during the license test.

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

3.21 burning ground
an area authorised for the destruction of ammunition and explosives by burning.

3.22 cancelled area
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 UXO.

Note: This change in status will be the result of more accurate and reliable information, and will normally only be authorised by the national mine action authorities, 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.

3.23 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.

3.24 certification committee
a committee appointed by UNMAS to regularly review compliance of the impact component of the general mine action assessment 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 general mine action assessment of a specific country by the international community is dependent on its certification by the UN certification committee.
3.25 clearance
explosive ordnance clearance (EOC)

Tasks or actions to reduce or eliminate the explosive ordnance (EO) hazards from a specified area.
[NATO Study 2187]

3.26 cleared area
cleared land

an area that has been physically and systematically processed by a demining organization to ensure the removal and/or destruction of all mine and UXO hazards to a specified depth.

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

Note: Cleared areas may include land cleared during the technical survey process, including boundary lanes and cleared lanes. Areas cleared for worksite administrative purposes, such as car parks, storage locations, and first aid posts need not be officially documented as cleared, unless national procedures so require.

3.27 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.

3.28 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.

3.29 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 organizations.

3.30 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.

3.31 commonality
in the context of mine action equipment procurement, the term refers to .... a state achieved when groups of individuals or organizations use common procedures and/or equipment.

3.32 community liaison
a process designed to place the needs and priorities of mine affected communities at the centre of the planning, implementation and monitoring of mine action and other sectors.
Note: This shall be one of the major strategic principles of mine action.

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 mine/UXO on individuals and communities until such time as the threat is removed.

3.33 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.

3.34 concept formulation
the first stage in the procurement process, and covers the period of the emergence of the idea to the initial statement of the operational need.

3.35 control area or point
all points or areas used to control the movements of visitors and staff in a demining worksite.

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

3.37 critical non-conformity
the failure of a 1.0m² unit of land during inspection to meet the stated clearance requirements.

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

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

3.40 demilitarisation
the process that renders munitions unfit for their originally intended process.

3.41 deminer
a person, including a public servant, qualified and employed to undertake demining activities or work on a demining worksite.

3.42 demining
humanitarian demining

activities which lead to the removal of mine and UXO 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 organizations, 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 UXO 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.

3.43 demining accident
an accident at a demining workplace involving a mine or UXO hazard (c.f mine accident).

3.44 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.

3.45 demining incident
an incident at a demining workplace involving a mine or UXO hazard (c.f mine incident)

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

3.47 demining sub-unit
an element of a demining organization, however named, which is licensed to conduct one or more prescribed demining activities, such as technical surveys, manual clearance, EOD or the use of mine detection dog teams.

3.48 demolition (dml)
destruction of structures, facilities or material by use of fire, water, explosives, mechanical or other means

3.49 demolition ground
an area authorised for the destruction of ammunition and explosives by detonation.

3.50 destruction
the process of final conversion of ammunition and explosives into an inert state that can no longer function as designed.

3.51 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.
3.52  
**detection**  
*in the context of demining, the term refers to* … the discovery by any means of the presence of mines or UXO.

3.53  
**detonator**  
a device containing a sensitive **explosive** intended to produce a **detonation** wave. [AAP-6]

3.54  
**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**.

3.55  
**development**  
the stage of the project (and its associated costs) prior to production concerned with developing a design sufficiently for production to begin.

3.56  
**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.

3.57  
**disposal site**  
an area authorised for the destruction of **ammunition** and **explosives** by **detonation** and burning.

3.58  
**DNT (Dinitrotolulene)**  
An impurity product of **TNT**. As the vapour pressure of DNT is much higher than that of **TNT** itself, it may prove easier to characterize a **mine** by detecting the vapour from DNT rather than **TNT**.

3.59  
**donor**  
all sources of funding, including the government of mine affected states.

3.60  
**drill**  
an **inert** replica of **ammunition** specifically manufactured for display or instructional purposes.

3.61  
**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.

3.62  
**ensemble**  
the group of protective clothing designed to be worn as a protective measure.

3.63  
**equipment**  
a physical, mechanical, electrical and/or electronic system which is used to enhance human activities, procedures and practices.
3.64 environmental factors
factors relating to the environment and that influence the transportation of scent from the mine, the
detection of the target scent or the ability of people and dogs to work safety and effectively. (i.e.
Wind, rain, temperature, humidity, altitude, sun and vegetation). (Definition for Mine Detection Dog
use only).

3.65 evaluation
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.

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).

3.66 expert opinion
existing information on the location of mine impacted communities at a level higher than the
second administrative level in a given country, (eg: higher than district level).

Note: This information is key to decide which communities to survey. It should be based on information
that is community driven, in accordance with community needs.

3.67 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]

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

3.69 explosive ordnance
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]

3.70 explosive ordnance disposal (EOD)
the detection, identification, evaluation, render safe, recovery and disposal of UXO. EOD may be
undertaken:
a) as a routine part of mine clearance operations, upon discovery of the UXO.

b) to dispose of UXO discovered outside mined areas, (this may be a single UXO, or a larger number inside a specific area).

c) to dispose of explosive ordnance which has become hazardous by damage or attempted destruction.

3.71 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.

3.72 feasibility study
a study to establish the feasibility of the Statement of Tasks and Output (STO) in terms of technology, costs and time.

3.73 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.

3.74 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.

3.75 fragmentation hazard zone
for a given explosive item, explosive storage or mine/UXO contaminated area, the area that could be reached by fragmentation in the case of detonation.

Note: Several factors should be considered when determining this zone; the amount of explosive, body construction, type of material, ground conditions etc. See also [secondary fragmentation].

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

3.77 general mine action assessment
the process by which a comprehensive inventory can be obtained of all reported and/or suspected locations of mine or UXO 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 problem on the individual, community and country.

Note: These elements of the general mine action assessment can be conducted concurrently or separately.

3.78 generic requirement
the performance and environmental characteristics which will be common to all planned uses of the proposed equipment.
3.79  
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.

3.80  
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.

3.81  
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.

3.82  
guide  
an IMAS Guide provides general rules, principles, advice and information.

3.83  
handover  
the process by which the beneficiary (usually the national mine action authority) 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.

3.84  
handover certificate  
documentation used to record the handover of cleared land.

3.85  
hardware  
equipment with physical size and mass; as opposed to software

3.86  
harm  
physical injury or damage to the health of people, or damage to property or the environment [ISO Guide 51:1999(E)]

3.87  
hazard  
potential source of harm [ISO Guide 51:1999(E)]

3.88  
hazard (ous) area  
contaminated area  
a generic term for an area not in productive use due to the perceived or actual presence of mines, UXO or other explosive devices.
3.89 hazard marker
object(s), other than hazard signs, used to identify the limits of a mine and UXO hazard area. Hazard markers shall conform to the specification established by the national mine action authority.

3.90 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.

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

3.92 health
in relation to work, indicated 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]

3.93 humanitarian demining
see demining. (In IMAS standards and guides, the terms demining and humanitarian demining are interchangeable.)

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

Note: Impact is a product of:
   a) the presence of mine/UXO hazard 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 agricultural land, water source etc.
   d) number of victims of mine and UXO incidents within the last two years.

3.95 impact survey
landmine impact survey (LIS)
an assessment of the socio-economic impact caused by the actual or perceived presence of mines and UXO, in order to assist the planning and prioritisation of mine action programmes and projects.

3.96 IMSMA
the Information Management System for Mine Action (IMSMA).
Note: This is the United Nation’s preferred information system for the management of critical data in UN-supported field programmes and at the UN headquarters in New York. IMSMA consists, essentially, of two modules: the Field Module (FM) and Global Module (GM). The FM provides for data collection, information analysis and project management. It is used by the staffs of mine action centres at national and regional level, and by the implementers of mine action projects - such as demining organizations. The GM refines and collates data from IMSMA FMs (and other field-based information systems) and provides the UN and others with accurate, aggregated information for the strategic management of mine action.

3.97 inert
an item of ammunition 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.

3.98 incident
an event that gives rise to an accident or has the potential to lead to an accident [ILO C155]

3.99 inspection
in the context of mine action, the term refers to ...the process of measuring, examining, testing or otherwise comparing a sample of cleared land with the clearance requirements

3.100 inspection body
an organization which conducts post-clearance QC on behalf of the national mine action authority by applying random sampling procedures, or other appropriate and agreed methods of inspection.

3.101 insurance
an arrangement for compensation in the event of damage to or loss of (property, life or 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 (under-writing) schemes, provided they are formally constituted on accepted actuarial principles and provide adequate cover, may be an acceptable alternative

3.102 intended use (land)
use of land following demining operations.

Note: Intended use: use of a product, process or service in accordance with information provided [ISO Guide 51:1999(E)].

Note: Intended land use should be included in the clearance task specification and clearance task handover documentation.
3.103
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.

3.104
intermediate point

**survey markers** used between start and finish markers, or between **turning points** that are more than 50m apart.

3.105
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.

3.106
International Organization 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 organizations who are accustomed to the ISO series of standards and guides.

3.107
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.

3.108
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.
3.109  
lachrymatory ammunition  
lachrymatory ammunition contains chemical compounds that are designed to incapacitate by causing short-term tears or inflammation of the eyes.

3.110  
level 2 survey  
the term previously used for a technical survey.

3.111  
licence  
in the context of humanitarian demining, the term refers to ...... a certificate issued by a national mine action authority to a demining organization which indicates an endorsement of the organization's demining capabilities such as survey, manual clearance or the use of mine detection dogs. (see also accreditation)

3.112  
local requirement  
the performance and characteristics of the proposed equipment which reflect local environmental conditions, operating procedures and operational requirements.

3.113  
logistic disposal  
in the context of humanitarian demining, the term refers to ...... the removal of ammunition 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.

3.114  
lot size  
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.

3.115  
magazine  
in the context of humanitarian demining, the term refers to ...... any building, structure or container approved for the storage of explosive materials.

3.116  
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.

3.117  
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.

3.118  
marking system  
an agreed convention for the marking of hazards or hazardous areas.

3.119  
mechanically-assisted clearance  
the use of appropriate mechanical equipment to augment other procedures in humanitarian demining such as manual clearance and mine detection dogs (MDDs).
3.120 medical support staff
employees of demining organizations designated, trained and equipped to provide first aid and further medical treatment of demining employees injured as a result of a demining accident.

3.121 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.

3.122 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. [Mine Ban Treaty]

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

3.124 mine action
activities which aim to reduce the social, economic and environmental impact of mines and UXO.

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

a) mine risk education;
b) humanitarian demining, ie. mine and UXO survey, mapping, marking and (if necessary) clearance;
c) victim assistance, including rehabilitation and reintegration;
d) stockpile destruction; and
e) advocacy against the use of anti-personnel mines.

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, quality management and the application of effective, appropriate and safe equipment.

3.125 mine action centre (MAC)
an organization that carries out mine risk education training, conducts reconnaissance of mined 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 usually acts as the operational office of the national mine action authority.

3.126 mine risk education (MRE)
a process that promotes the adoption of safer behaviours by at-risk groups, and which provides the links between affected communities, other mine action components and other sectors.
Mine risk education is an essential component of Mine Action. There are two related and mutually reinforcing components:

a) Community liaison; and
b) Public education

Generally, mine action programmes use both approaches, as they are mutually reinforcing. They are not however alternative to each other, nor are they alternative to eradicating the mine/UXO threat by clearance operations.

3.127 mine clearance
the clearance of mines and UXO from a specified area to a predefined standard.

3.128 mine detection dog (MDD)
a dog trained and employed to detect mines, UXO and other explosive devices.

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

3.130 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.

3.131 mine threat
mine and UXO threat
an indication of the potential harm from the number, nature, disposition and detectability of mines and UXO in a given area.

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

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

3.134 monitoring
in the context of humanitarian demining, the term refers to ..... the authorised observation by qualified personnel of sites, activities or processes without taking responsibility for that being observed. This is usually carried out to check conformity with undertakings, procedures or standard practice and often includes recording and reporting elements.

in the context of mine risk education, 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.

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).

c) definition from UNICEF Policy and Programming Manual.
3.135 monitoring body
an organization, normally an element of the national mine action authority, responsible for management and implementation of the national monitoring system.

3.136 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.

3.137 national mine action authority
the government department(s), organization(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 mine action centre (MAC) or its equivalent will act as, or on behalf of, the national mine action authority.

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 national mine action authority.

3.138 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]

3.139 non-sparking material
material that will not produce a spark when struck with other tools, rocks, or hard surfaces

3.140 operational analysis
operational research
a field of research that applies scientifically based quantitative and qualitative analysis to assist management decisions.

3.141 operational research
see operational analysis.

3.142 organiser
the person or organization charged with setting up an equipment trial to meet the Sponsor’s requirements. The organiser is responsible for the design and planning of the trial.

3.143 particle board
a composition board made of small pieces of wood, bonded together.
3.144 permanent marking system
marking system having an indefinite period of use, usually requiring maintenance. (c.f. temporary marking system).

3.145 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.

3.146 policy
defines the purpose and goals of an organization, and it articulates the rules, standards and principles of action which govern the way in which the organization 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.

3.147 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.

3.148 public education
the process aimed at raising general awareness of the mine and UXO threat; through public information, formal and non-formal education systems.

Note: Public education is a mass mobilisation approach that delivers information on the mine/UXO threat. 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.

3.149 public information
information which is released or published for the primary purpose of keeping the public fully informed, thereby gaining their understanding and support.

Note: The objective of PInfo within mine action is to raise general awareness.

Note: PInfo is a mass mobilisation approach that delivers information on the mine/UXO problem.

Note: In an emergency situation, due to time constraints and lack of accurate data it is the most practical means of communicating safety information.

Note: In other situations, PInfo can support community liaison.
3.150 **preliminary development (PD)**
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 must exist between the technical specification and the operational requirements.

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

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

3.153 **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.

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

3.155 **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 throughout the life of the **equipment**.

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

3.157 **protective measure**
means used to reduce **risk** [ISO Guide 51:1999(E)]

3.158 **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.

3.159 **proximity verification**
an activity to observe **mine/UXO** hazard areas reported during the community interview.

Note: Observation must be done from a safe area and in accordance with the relevant protocols.
3.160  
**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.

3.161  
**quality**
degree to which a set of inherent characteristics fulfils requirements. [ISO 9000:2000]

3.162  
**quality management**
coordinated activities to direct and control an organization with regard to quality. [ISO 9000:2000]

3.163  
**quality control (QC)**
part of quality management 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*.

3.164  
**quality assurance (QA)**
part of quality management focused on providing confidence that quality requirements will be met. [ISO 9000:2000]

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

3.165  
**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.

3.166  
**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.

3.167  
**RDX (1, 3, 5-triazacyclohexane)**
RDX is another military explosive which is used extensively as an explosive in many *munitions* formulations, especially in artillery shells. 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.

3.168  
**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*. 
3.169
reference point
landmark

a fixed point of reference some distance outside the hazard(ous) 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 the refer to a pre-surveyed location such as a trig point.

3.170
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.

3.171
reliability
the ability of an equipment, component or sub-component to perform a required function under stated conditions for a stated period of time.

3.172
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.

3.173
research
the systematic inquiry, examination and experimentation to establish facts and principles.

3.174
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 UXO hazards from a specified area to a specified depth. [modified from ISO Guide 51:1999]

3.175
risk
combination of the probability of occurrence of harm and the severity of that harm [ISO Guide 51:1999(E)]

3.176
risk analysis
systematic use of available information to identify hazards and to estimate the risk [ISO Guide 51:1999(E)]

3.177
risk assessment
overall process comprising a risk analysis and a risk evaluation [ISO Guide 51:1999(E)]

3.178
risk evaluation
process based on risk analysis to determine whether the tolerable risk has been achieved. [ISO Guide 51:1999(E)]

3.179
risk reduction
actions taken to lessen the probability, negative consequences or both, associated with a particular risk.

3.180
**safe**
the absence of risk. Normally the term **tolerable risk** is more appropriate and accurate.

3.181
**safety**
the reduction of risk to a tolerable level [ISO Guide 51:1999(E)]

3.182
**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.

3.183
**sample size**
*in the context of humanitarian demining, the term refers to* ..... the number of 1.0m² units of land in the sample.

3.184
**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.

3.185
**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).

3.186
**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.

3.187
**scent**
a distinctive odour.

3.188
**secondary fragmentation**
in an explosive event, fragmentation which was not originally part of the **mine/UXO**.

3.189
**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]

3.190
**specified area**
*in the context of humanitarian demining, the term refers to* ..... that area for which **mine clearance** activity has been contracted or agreed, as determined by the **national mine action authority** or an **organization** acting on its behalf.
3.191 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 UXO hazards, as determined by the national mine action authority or an organization acting on its behalf.

3.192 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 organization) but tolerable to the consumer (national mine action authority or contracting agency).

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

3.193 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 organization, national mine action centre, donor or demining organization.

3.194 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.

3.195 standing operating procedures (SOPs)

standard operating procedures

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 organization, with the aim of improving operational effectiveness and safety. SOPs should reflect local requirements and circumstances.

3.196 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.

3.197 standard operating procedures

see standing operating procedures.
3.198
statement of need (SON)
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.

3.199
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.

3.200
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.

3.201
stockpile
_in the context of mine action, the term refers to ..... a large accumulated stock of EO._

3.202
stockpile destruction
the physical destructive procedure towards a continual reduction of the national stockpile.

3.203
submunition
any munition that, to perform its task, separates from a parent munition. [AAP-6]

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

3.204
survey marker
a durable and long lasting marker used to assist in the management of marked and cleared land demining operations.

3.205
survivor
see victim

3.206
survivor assistance
see victim assistance

3.207
task identification number (ID)
a unique number used to designate a hazardous area. Task identification numbers shall be allocated by the national mine action authority.

3.208
technical survey
previously referred to as a Level 2 survey

the detailed topographical and technical investigation of known or suspected mined areas identified during the planning phase. Such areas may have been identified during the general mine action assessment or have been otherwise reported.
3.209
**temporary marking system**
a marking system having a stated finite period of use (c.f. *permanent marking system*).

3.210
**test**
determination of one or more characteristics according to a procedure. [ISO 9000:2000]

3.211
**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.

3.212
**threat**
see mine and UXO threat

3.213
**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.

3.214
**tolerable risk**
*risk* which is accepted in a given context based on current values of society [ISO Guide 51:1999(E)]

3.215
**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.

3.216
**turning point**
a fixed point on the ground which indicates a change in direction of the perimeter of the hazardous area.

3.217
**undesirable scent**
Factors related to the environment and that influence the transportation of scent from the mine, the detection of the target scent or the capability of people and dogs to work safely and effectively. Such factors can be, wind strength, temperature, humidity, rain, altitude, sun and vegetation

3.218
**unexploded ordnance (UXO)**
explosive ordnance 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.

3.219
**United Nations Mine Action Service (UNMAS)**
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 International Mine Action Standards (IMAS).
Note: UNICEF is the designated focal point for mine risk education, within the guidelines of UNMAS overall responsibility.

3.220
usable area
safe area
areas considered to have no risk or tolerable risk from mines and UXO.

Note: This may include an area known as a “safe play area” for children. It shall be accompanied by an agreed, specific hazard sign.

3.221
user
the individual or organization 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”.

3.222
validation
the act of ratification that takes place after a process of verification.

3.223
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.

3.224
verification
confirmation, through the provision of objective evidence that specified requirements have been fulfilled. [ISO 9000:2000]

3.225
victim
survivor
an individual who has suffered harm as a result of a mine or UXO accident.

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

3.226
victim assistance
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.

3.227
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]