Technology and Methodology for better Land Release
MAG Global Foot Print

46 donors supporting operations across 25 countries in Latin America, Africa, Asia, Middle East and Europe.
Mine Action Activities

COMMUNITY LIAISON
- Contamination Impact Surveys
- Conflict Sensitivity Surveys
- Impact Surveys
- Risk Education
- Training of community focal points
- Prioritisation

SURVEY
- Non-Technical Survey
- Technical Survey
- Ammunition storage and Armoury assessment surveys

CLEARANCE
- Manual, ADS and mechanical clearance of improvised and conventional EO
- EOD Spot tasks
- Stockpiles/ caches
- SALW
IMAS Terminology

- Mine action; activities which aim to reduce the social, economic and environmental impact of mines, and ERW including unexploded sub-munitions.
- Land Release; in the context of mine action, the term describes the process of applying all reasonable effort to identify, define, and remove all presence and suspicion of mines/ERW through non-technical survey, technical survey and/or clearance.
- Impact; in the context of mine action, the term refers to- 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.
- Effectiveness; in the context of mine action evaluation, the term refers to- the extent to which the intervention’s objectives were achieved, or are expected to be achieved, taking into account their relative importance.
- Efficiency; in the context of mine action evaluation, the term refers to- a measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results (outputs and outcomes).
- Quality; degree to which a set of inherent characteristics fulfills requirements.
- Quality Management (QM); coordinated activities to direct and control an organization with regard to quality.
- Quality Assurance (QA); part of QM focused on providing confidence that quality requirements will be fulfilled.
- Quality Control (QC); part of QM focused on fulfilling quality requirements.
- Risk; combination of the probability of occurrence of harm and the severity of that harm.
- Risk analysis; systematic use of available information to identify hazards and to estimate the risk.
- Risk assessment; overall process comprising a risk analysis and a risk evaluation.
- Risk evaluation; process based on risk analysis to determine whether the tolerable risk has been achieved.
- Risk reduction; actions taken to lessen the probability, negative consequences or both, associated with a particular risk.
- Residual risk; is the risk remaining following the application of all reasonable effort to identify, define, and remove all presence and suspicion of mines/ERW through non-technical survey, technical survey and/or clearance.
- Information Management System for Mine Action (IMMSA); the United Nation’s preferred information system for the management of critical data in UN-supported field programmes. IMSSMA 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.
- Geographical (or Geospatial) Information System (GIS); an organized collection of computer hardware, software, geographic data, and personnel designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information.
- Priority-setting; the process of deciding which tasks should be undertaken first, given limited resources and time. Priority-setting applies to all aspects of mine-action (MRE, land release stockpile destruction, and advocacy).
IMAS Terminology- Key Words

- Mine action; activities which aim to reduce the social, economic and environmental impact of mines, and ERW including unexploded sub-munitions.
- MRE; acronym for mine risk education, the term describes the process of raising awareness of the risks that mines/ERW pose, and what steps can be taken to reduce the risks.
- Impact; in the context of mine action, the term refers to the level of social and economic suffering experienced by the community resulting from the harm or risk caused by mine and ERW hazards and hazardous areas.
- Effectiveness; in the context of mine action evaluation, the term refers to the extent to which the intervention’s objectives were achieved, taking into account their relative importance.
- Severity; in the context of mine action evaluation, the term refers to a measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results (outputs and outcomes).
- Quality; degree to which a set of inherent characteristics fulfills requirements.
- Quality Control (QC); part of QM focused on fulfilling quality requirements.
- Risk; combination of the probability of occurrence of harm and the severity of that harm.
- QM; an acronym for quality management.
- Risk analysis; systematic use of available information to identify hazards and to estimate the risk.
- Risk reduction; actions taken to lessen the probability, negative consequences or both, associated with a particular risk.
- Residual risk; the risk remaining following the application of risk control efforts (e.g., debris removal, clearance, demining, etc.)
- Information Management System for Mine Action (IMSMA); 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 entry, reporting, information analysis and record management activities. Its primary use is by the staffs of MACs at national and regional levels.
- Geographical (or Geospatial) Information System (GIS); an organized collection of computer hardware, software, geographic data, and personnel designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information.
- Priority-setting; the process of deciding which tasks should be given the highest priority, and which should not. This process of setting priorities applies to all aspects of mine-action (MRE, land release, stockpile destruction, and advocacy).

MINE ACTION
REDUCE RISK
PRIORITY SETTING
INFORMATION
PEOPLE
LAND RELEASE
ALL REASONABLE EFFORT
SURVEY AND CLEARANCE
EFFICIENT AND EFFECTIVE
QUALITY MANAGEMENT
Definitions

• Technology refers to methods, systems, and devices which are the results of scientific knowledge being used for practical purposes.

• Methodology refers to a system of broad principles or rules from which specific methods or procedures may be derived to interpret or solve different problems within the scope of a particular discipline.
Process indicators applicable to the land release process

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Operations Development Team (ODT)
MAG GLOBAL REPORTING REQUIREMENTS

- Minimum reporting requirements agreed and approved 2014
- Since July 2014 all HMA programmes have reported consistently on a monthly basis
- Since March 2015 all AMD programmes have reported consistently on a monthly basis
Improved IM Technology

- Environmental Systems Research Institute (Esri) has offered land use solutions since 1969.
- ESRI support organizations with mapping and spatial analytics technology. ArcGIS provides Esri users with a scientific-based approach to solving problems in real time.
- MAG has worked with ESRI products since 2017 supported by HD R&D in Cambodia.
- In 2018 MAG acquired, with the support from HD R&D, a global license from ESRI, which will allow MAG to fully apply an evidenced based decision making process.
Benefits

- Off the shelf “products” that require minimum adaptation
- Easy to use online and offline
- Will enable “Snap Shot” of projects at any time
MAG Global IM System

• One-time input from the field

• Real time data collection, validation and analysis

• Supports Continual Improvement

• Global, Regional and National KPIs

• Roll-out in 2019 to all MAG country programmes
What is driving us?
Improved QM Methodology in combination with improved IM Technology
What is driving us?

Improved QM Methodology in combination with improved IM Technology
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