

Afghanistan Mine Action Standards - AMAS 07.06

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Environmental Management in Mine Action

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Environmental Management

1. Introduction

Mine Action operations and activities have significant potential to adversely impact the environment, and not managing environmental aspects of mine action operations and activities properly, can extensively affect expected results and outcomes, and will lead to short and long term adverse impacts on land, water, soil and air and the communities living there. This can also result in direct harm to people, damage to the environment and infrastructure and originate legal action against mine action organisations and substantial claims for compensation. Adverse impacts on the environment can lead to associated negative social, economic and political impacts at local, regional and national levels. Environmental management, therefore, requires comprehensive and inclusive solutions which assess different impacts and an increased awareness towards environmental protection among all mine action organizations.

Nature as a whole warrants value and respect, the integrity of the earth's ecological systems shall be maintained and restored. All forms of life are unique and shall be safeguarded regardless of their value to humanity. Peace and security, sustainable development, environmental protection and conservation, and respect to human rights including persons with disability, gender and diversity groups are interdependent and mine action can significantly contribute to fulfilling these goals.

Directorate of Mine Action Coordination (DMAC) and all Mine Action Organizations working in Afghanistan have the responsibility to ensure that all mine action activities including mine/ERW survey and clearance (Land Release), EOD and stockpile destruction operations, are carried out in accordance with Afghanistan Mine Action Standards, safely, effectively and efficiently, with completely considering the ways that minimize adverse impact on people, wildlife, vegetation and other aspects of the environment. The main and essential aim on environmental management in mine action is to leave the environment in a status that is similar to, or where possible better than, before mine action operations commenced, and that permits the intended use of land once mine action operations have been completed.

Managing environmental aspects of mine action should not be considered as an obstacle or a difficult task. There are many similarities between Environmental Management System (EMS) and Quality Management System (QMS) and basic principles of risk management. The QM principles of the customer focus, leadership, engagement of people, process approach, improvement, evidence-based decision making and relationship management are all entirely applicable to environmental management. It is also important to note that one of the main, and most effective, ways of reducing the direct impact of mine action operations and activities on land is through the application of land release (LR) principles "to minimize the number of square meters that are processed".

DMAC as the authority for mine action in Afghanistan, is charged with the responsibility for developing the requirements for the development and implementation of suitable environment management systems for mine action in Afghanistan and for ensuring that mine action organisations correctly apply them.

2. Scope

This AMAS covers the minimum requirements for environmental management of all mine action operations and activities including planning, protection and mitigation measures to be considered during implementation and handing over processes. This also reflects important elements of ISO 14001:2015, but does not adopt as comprehensive approach as the ISO standards do. Organisations seeking to go beyond implementation of operations in compliance with this AMAS

are encouraged to consider adoption of ISO 14001. These requirements shall be complied with to ensure that the environment is not adversely impacted by mine action work.

3. Terms and Definitions

The term 'Mine Action Organization' refers to any organization (government, military, commercial company, none governmental organization or civil society) responsible for implementing mine action projects or tasks.

The term 'environment' refers to the "surroundings in which an organization operates, air, water, land, natural resources, flora, fauna, humans and their interrelationships" (ISO 14001:2015).

The term 'environmental aspect' refers to an "element of an organization's activities or products or services that interacts or can interact with the environment" (ISO 14001:2015).

The term 'environmental impact' refers to "change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's environmental aspects" (ISO 14001:2015).

The term 'environmental impact assessment' (EIA) refers to "the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant environmental impacts of activities prior to and during operations".

The term 'environmental mitigation measures' refers to actions taken before, during and/or after mine action operations to lower adverse environmental impact.

The term 'environmental management system' (EMS) refers to the "part of the management system used to manage environmental aspects, fulfil compliance obligations and address risks and opportunities" (ISO 14001:2015).

4. General Requirements

Mine action operations and activities shall be conducted in a way that minimize the adverse impact on the environment and are safe for mine action staff, and people inhabited in vicinity of the mine action worksite including men, women and children and other people may use the area.

Planning for mine action operations shall identify and assess relevant environmental aspects and determine appropriate and effective measures to mitigate adverse environmental impacts. This shall be undertaken through following levels:

- a) National level by DMAC as national authority, in order to ascertain environmental requirements in national operational plans and manage inclusion of these requirements in Requests For Proposals (RFP), Calls For Proposals (CFP) and Statement of Work (SoW).
- b) Mine Action Organizations level, in order to incorporate environmental requirements in related documentation including mine action proposals, SOPs, operational plans and QA monitoring and QC plans.
- c) Operational and worksite level by mine action organizations, in order to meet the national and site specific environmental protection requirements.

Mine action organizations shall take all necessary and reasonable measures to ensure that the environment in which mine action operations take place is left in a state that is similar to,

or where possible better than, before mine action operations commenced, and is suitable for its intended use after handing over to the landowner and beneficiaries. Mine action organizations shall get the agreement of DMAC, landowner and beneficiaries if it goes beyond its capability to change the status of released land similar to or better than before mine action operations commenced.

Particular attention shall be given to environmental conditions that are required for subsistence or economic purposes to ensure that these activities can continue after mine action operations have been completed, including but not limited to land used for administrative, logistic, training and/or support purposes.

5. Environmental management

5.1. Environmental Policy

Mine action organizations shall establish, review and maintain an environmental policy that:

- a) Is appropriate to the mine action organization and its activities;
- b) Includes a commitment to protect the environment;
- c) Includes a commitment to comply with applicable legal and other obligations;
- d) Includes a commitment to the continual improvement of the mine action organizations environmental management;
- e) Is communicated to relevant internal and external stakeholders; and
- f) Is reviewed and, where appropriate updated, at least annually.

5.2. Management Responsibilities

The Mine Action Organizations senior management shall ensure that:

- 1) Adequate resources are allocated to enable effective environmental management in accordance with the environmental policy;
- 2) Staff members are adequately trained and have a clear understanding of their role in the protection of the environment;
- 3) Management of environmental aspects is adequately incorporated into SOPs and other relevant documentation;
- 4) Documentation relating to environmental management is openly and transparently available, including in national languages to aid understanding, and is kept up to date;
- 5) Environmental management aspects of the mine action organization's activities are monitored, reviewed and improved.

5.3. Understanding the Environmental Context

DMAC is responsible to:

- a) Identify and assess environmental obligations, relevant to the Mine Action Programme of Afghanistan (MAPA), contained in Afghanistan Environmental Law;

- b) Define and communicate environmental obligations in AMAS and normative references through AMAS relevant for mine action work;
- c) Identify and liaise with other Government Ministries, Agencies and Departments relevant to environmental management in mine action;
- d) Develop liability policy for environmental protection;
- e) Coordinate with national/international stakeholders to support improvement of environmental protection and mitigation measures, avoid duplication of effort and identify and address gaps in environmental management within the mine action programme.

Mine action organizations shall take all reasonable measures to understand the environmental needs and expectations of mine action stakeholders including local communities.

Understanding of the physical environment and the needs and expectations of mine action stakeholders shall inform the planning for, and establishing of environmental protection and mitigation measures.

5.4. Identifying and Assessing Environmental Aspects

As a minimum, mine action organizations shall identify, assess and document environmental aspects of mine action activities, inputs to those activities, products and services arising from mine action operations, including:

- a) Emissions to air;
- b) Releases to water;
- c) Releases to land;
- d) Use of raw materials and natural resources;
- e) Use of energy;
- f) Emission of energy; and
- g) Generation of waste.

Mine action organizations shall identify those aspects that may give rise to an adverse environmental impact, including, as a minimum, the following potential environmental impacts:

- 1) Erosion and soil degradation;
- 2) Desertification;
- 3) Pollution of air, water and soil;
- 4) Disruption, disturbance or harm to local communities, beneficiaries, infrastructure, wildlife and vegetation;
- 5) Litter, debris, residual waste and other degradation of the visible environment; and

- 6) Damage to heritage sites and historical areas.

When assessing the significance of environmental aspects Mine action organizations should take into account the following criteria:

- 1) The type of mine action activity;
- 2) The scope of the mine action operations;
- 3) The frequency of mine action operations;
- 4) Relevant legal and or standards requirements;
- 5) The expectations of environmental stakeholders;
- 6) The potential for one environmental aspect to lead to more than one adverse environmental impact; and
- 7) The potential legal liability associated with impacts arising from environmental aspects.

Environmental aspects shall be documented in plans, SOPs and or other records as appropriate. Mine action organizations should assess and respond to opportunities to protect the environment indirectly through procurement or tasking, logistic, storage and waste disposal processes.

5.5. Determining Environmental Protection and Mitigation Measures

Mine action organizations shall determine appropriate and effective mitigation measures in relation to environmental aspects assessed as bringing a significant risk of adverse environmental impact.

Environmental protection and mitigation measures shall be documented in task folders, operational plans, SOPs and other relevant documentation.

"Environmental Incident Register" shall be maintained in each mine action worksite, in order to record the details of any environmental incident, the current and likely lasting results of the incident, the actions taken to remedy the situation including liaison with communities, local authority and DMAC regional office.

Environmental protection and mitigation measures shall include emergency response plans for potential critical and major environmental incidents.

5.6. Environmental Impact Assessment (EIA)

Under some circumstances a formal Environmental Impact Assessment (EIA) may be appropriate or required. An EIA shall be made whenever:

- a) Mine action operations are expected to take place within, or close to, designated protected environmental areas, or other areas known to be environmentally sensitive;
- b) There is a legal or contractual obligation to do so;
- c) The DMAC determines that an EIA is necessary;
- d) Any other occasion when there is uncertainty about the scale or significance of environmental impact; and

- e) There may be situation where involvement of other relevant environmental management entities are necessary in EIA process, as determined by DMAC.

Guidelines on the conduct of an EIA are provided in Annex A to this AMAS.

5.7. Planning of Mine Action Operations

When planning mine action operations, mine action organizations shall take into consideration the guidelines in Annex B to this standard.

Planning of mine action operations shall:

- a) Be appropriate to the environmental context;
- b) Be in compliance with legal obligations;
- c) Incorporate identified environmental mitigation measures, including any emergency response; and
- d) Be consistent with the environmental policy.

Contracting of mine action operations shall include relevant environmental requirements. Environmental protection and mitigation measures should be part of the proposals, implementation plan, statement of work and other documentation relevant to operational requirements.

5.8. Conduct of Mine Action Operations

Mine action organizations shall comply with the requirements of this AMAS, and refer to it in their SOPs. When conducting mine action especially demining operations, all mine action organizations shall consider the followings:

- 1) Ensure compliance with environmental requirements through project, contract and operational management processes.
- 2) Promote knowledge, awareness and competence for protection of the environment through education and training, and ensure training for emergency preparedness and response in case of environmental incidents.
- 3) Allocate the responsibility of environmental protection to one of their suitably qualified staff member at mine action worksites.
- 4) Mitigation measures shall be taken to prevent adverse environmental impacts and to prevent pollution and degradation of soil, air and waterways. In addition all reasonable effort shall be taken to prevent the adverse impact on wildlife and vegetation during mine action operations.
- 5) The destruction of mines and other ERW using open burning and open demolition (OBOD) techniques shall be carried out in accordance with AMAS 06.03.
- 6) Human waste shall never be discharged into watercourses or onto the soil surface.
- 7) Minimize the environmental impact of mine action operations and remove waste from demining worksites on completion of operations, prior to handover of released land. Rubbish removed from the site shall be disposed off at approved rubbish dumping sites. Any rubbish spilled during the removal process shall be cleaned up. Wastewater shall not to be released onto the ground surface or into watercourses.

- 8) The operation, repair, maintenance and servicing of mine action equipment shall be carried out in a manner that minimizes the adverse impact on the environment and in accordance with the requirements of the EIA.
- 9) Demining operations may occur in areas of cultural or historical significance where appropriate actions and practical steps are needed to be taken to prevent damages to these sites. DMAC and related government ministries shall be consulted in such cases.
- 10) All relevant environmental mitigation measures detailed in SOPs, task folders or otherwise documented, shall be fully and effectively implemented during mine action operations and shall be confirmed to be completed before land is handed over to the beneficiaries.

5.9. Monitoring of Environmental Aspects

Mine action organizations shall implement a monitoring system in accordance with AMAS 03.01 and shall ensure that environmental requirements are included.

Environmental nonconformities shall be managed in accordance with AMAS 03.01, and environmental incidents shall be treated as nonconformities and investigated in accordance with AMAS 07.05.

"Post Demining Impact Assessments" and "Landmine and Livelihood Surveys" undertaken after release of land should include assessment of environmental aspects including the effectiveness of any agreed environmental remediation measures.

5.10. Review and Improvement

As part of continual improvement in mine action sector, all mine action organizations shall conduct management reviews on regular basis. Management reviews shall include environmental aspects and be conducted by the senior management of mine action organizations to ensure the continued effectiveness, suitability and alignment of environmental management with the mine action organization's environmental policy.

Management reviews should be conducted at least annually, or more frequently in light of prevailing circumstances and conditions. Management reviews should take into account:

- a) The status of actions arising from previous reviews;
- b) Changes in the mine action environmental context;
- c) The environmental management performance of the mine action organization including:
 - i. Satisfaction of customers and stakeholders' environmental needs and expectations;
 - ii. Compliance with environmental policy;
 - iii. Environmental nonconformities and corrective actions;
 - iv. Environmental monitoring, measurement, audit and evaluation results;
 - v. Opportunities for improvement of environmental management.

Management reviews shall include decisions and actions related to:

- 1) Opportunities for improvement of environmental management;
- 2) Changes to environmental management;
- 3) Identification of actions to be taken, allocation of responsibility, schedule for completing and verification of effective implementation and validation of actions taken.

The results of management reviews should be communicated to the staff, managers and stakeholders.

6. Responsibilities and Obligations

6.1. Directorate of Mine Action Coordination

On behalf of the National Mine Action Authority in Afghanistan, the DMAC shall:

- 1) Document its environmental management policy;
- 2) Develop National Mine Action Standard for Environmental Management in Mine Action;
- 3) Monitor compliance by mine action organizations with documented environmental management requirements;
- 4) Ensure the implementation of EIA if required as per section 5.6 of this AMAS;
- 5) Ensure that protection of the environment is taken into account during planning for mine action operations;
- 6) Maintain records of reported environmental incidents;
- 7) Conduct investigations into environmental incidents in accordance with AMAS 07.05;
- 8) Disseminate information about significant environmental aspects of mine action, including recommendations for best practices and details of environmental incidents to the mine action organizations working within MAPA; and
- 9) Coordinate environmental protection with national and international stakeholders.

6.2. Mine Action Organizations

Mine action organizations working within MAPA, shall:

- 1) Establish, maintain and communicate an environmental policy that is consistent with the environmental policy established by the DMAC for the mine action programme of Afghanistan;
- 2) Document their environmental management in Standard Operating Procedures (SOPs) or other relevant documents and ensure that all personnel are trained and are aware of relevant environmental requirements;
- 3) Ensure that the protection of the environment is a factor in the planning and conduct of all mine action operations;
- 4) Maintain records of environmental nonconformities and incidents and manage nonconformity in accordance with AMAS 03.01; and

- 5) Report any significant environmental incidents to the DMAC and its regional offices.

6.3. Stakeholders' Responsibilities

Mine Action Stakeholders including donors and contractors of mine action projects can also play a crucial role in improvement of environmental protection in mine action sector through the following:

- 1) Promote awareness and understanding of the role of environmental protection and mitigation in improving the social and economic situation on a local, regional and national scale;
- 2) Emphasize the need to protect the environment among authorities and Mine action organizations;
- 3) Organizations active in the protection of the environment may contribute with resources to improve the awareness, understanding and implementation of environmental protection and mitigation measures;
- 4) Stakeholders should be aware of the challenges of protecting the environment in mine action operations when developing tools or requirements.

7. Specific Requirements

Any item of archaeological, heritage, historical, cultural, or scientific interest identified during demining operations, the operations shall be ceased, DMAC and appropriate government authorities shall be notified. Operations shall not resume until clarification from the appropriate authorities has been received.

When areas require to be burned to remove vegetation before demining operations, burn plans shall be discussed with and approved by land owners/users and local authorities.

The preservation of trees, shrubs, ground cover, fish, and wildlife shall be considered in site selection and construction of temporary support facilities. Harassment of livestock or wildlife in and adjacent to demining sites is prohibited.

All toxic or hazardous materials, including fuels, shall be transported, stored, and used in a way that minimize the likelihood of spills or leaks.

Toxic or hazardous wastes including used batteries shall not be buried on-site, but collected and removed to an approved disposal area. This shall include any razor wire/barbed wire removed from demining worksites.

Suitable equipment and containers should be used to safely transport petroleum products, toxic and hazardous materials both on and off roads. The necessary precautions shall be taken to prevent the loss of these materials during transport on public highways and roads.

Temporary facilities should be located in such areas to ensure the safe provision of drinking water. Water supplies shall be arranged as to avoid disrupting local supplies to nearby land users/owners and communities. The facilities should also be located in consultation with local communities to ensure that they do not affect local activities and social and cultural values.

Human waste shall not be discharged into watercourses or onto the soil surface. Excess water from washing, bathing, and kitchen areas shall be drained to soak-away pits. It shall not be permitted to enter watercourses.

Contingency plans for the clean-up of toxic or hazardous spills, including fuels, should be prepared prior to any commencement of mine action activities, together with a list of required spill clean-up supplies necessary.

Before demining activities commence in a worksite, mine action organization shall discuss with local communities the issue of noise and dust that may result depending on the type of demining asset used.