

**LMAS 10.60**

REPORTING AND INVESTIGATION OF DEMINING INCIDENTS AND ACCIDENTS

Responsible Local entity:

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Note:

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Critical safety, control and quality elements of the International Mine Action Standards (IMAS) have been retained in the Local Mine Action Standards (LMAS), so ensuring that they maintain the principles agreed in IMAS guidelines.

The work of preparing, reviewing and revising LMAS is conducted by a technical committee with the support of international, governmental and non-governmental organisations in Western Sahara, East of Berm (EoB).

In the LMAS, the following words are used to indicate the intended degree of compliance and are to be reflected in Mine Action Organisation Standard Operating Procedures (SOPs):

'Shall', 'will' and 'must' are used to indicate requirements, methods or specifications that are to be applied in order to conform to the standard;

'Should' is used to indicate the preferred requirements, methods or specifications.

'May' is used to indicate a possible method or course of action.

In LMAS:

The term “Demining Organisation” refers to any organisation (government, NGO or commercial entity) responsible for implementing demining projects or tasks. Demining Organisations include headquarters and support elements.

The term “Mine Action Organisation” refers to any organisation (government, military, commercial or NGO/civil society) responsible for implementing mine action projects or tasks. The mine action organisation may be a prime contractor, subcontractor, consultant or agent.

For the purpose of the LMAS, the words “Demining Organisation” and “Mine Action Organisation” are interchangeable and used to describe the same body.

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1. Introduction

- a. The need to report and investigate Incidents and Accidents in a clear, comprehensive and timely manner is an essential part of mine action management.
- b. The aim of any investigation is to establish the facts and to make deductions from them. To ascertain the cause of the incident or accident and to make recommendations that may be implemented to prevent any similar re-occurrence and to improve the safety and quality of the demining process.
- c. The effective management and supervision of Mine Action programmes will reduce the likelihood of harm, but there will always be the potential for incidents and accidents to occur.
- d. There are legal and moral obligations on managers at all levels in mine action to ensure that the likelihood of harm is reduced to the lowest realistic levels.
- e. Effective and accurate reporting and the thorough investigation of incidents and accidents can play an essential part in meeting this objective. It also obliges the investigators to look

critically at the events surrounding the incident or accident and identify ways of preventing any repetition.

- f. Information collected and presented in a clear and accessible format will contribute to the 'lessons learned' process through the sharing of relevant details, and thereby assisting in any future emergency response, improving the quality of the demining process and reducing the likelihood of future demining incidents and accidents
- g. To make sharing possible, it is essential that the investigation is well documented. Any judgment must be logically set out so that the conclusion is compelling. The discipline involved in this can help the investigators to stand back from events and be objective.
- h. The purpose of the investigation is not to apportion blame. It is to fully understand what occurred, assess the information and what can be deduced or inferred from it (Conclusions), then make practical recommendations for any improvements that may be necessary (Recommendations). There are times when nothing practical can be done to prevent recurrence, and other times when corrective measures may be obvious.
- i. Because the incident or accident report may be read by someone in another country several years later, it is important that all details are recorded in a way that will prevent misunderstanding. Clear photographs with an accompanying narrative are the preferred way of describing the area, the worksite, equipment and injuries.
- j. This standard is applicable for the reporting and investigation of incidents and accidents that occur at the demining workplace.
- k. Incidents and accidents away from the workplace should be investigated by the Western Sahara (EoB) authorities however in circumstances where a Mine Action Organisation is requested to conduct such investigations then reference shall be made to this standard, unless otherwise decided by the SMACO.
- l. Mine Action Organisations operating in Western Sahara (EoB) must include in their SOPs pertinent details on the reporting and investigation of incidents and accidents.

2. Definitions

The following definitions shall be used for reporting and investigation purposes in Western Sahara (EOB):

2.1 Accident

An undesired event, which results in harm.

2.2 Incident

An event that gives rise to an accident or has the potential to lead to an accident.

2.3 Demining Incident

An incident at a demining workplace involving a mine or ERW hazard.

2.4 Demining Accident

An accident at a demining workplace involving a mine or ERW hazard.

2.5 Mine Incident

An incident away from the demining workplace involving a mine or ERW hazard.

2.6 Mine Accident

An accident away from the demining workplace involving a mine or ERW hazard.

3. Formal Investigations

- a. Following a demining incident or demining accident, the SMACO shall confirm any arrangements with the Mine Action Organisation involved, for an investigation of the incident or accident. The investigation shall be conducted as soon as practically possible; however should be no later than the day following the incident or accident.
- b. A comprehensive and impartial formal investigation shall be conducted to identify the cause, and to recommend preventative action for future demining operations.
- c. The aim of any investigation is to identify problems or opportunities to improve the safety and quality of the demining process.
- d. As such, all employees of Mine Action Organizations must provide complete and accurate information about the circumstances surrounding the incident or accident and opinions on ways to improve procedures that may assist in preventing similar incidents or accidents occurring.
- e. The following demining Incidents or accidents shall be reported to the SMACO as soon as possible and should be subject to an **internal and external** formal investigation by investigation staff approved by the SMACO:
 - A demining accident resulting in injury or death, i.e. to a mine action employee, visitors to the worksite or local indigenous population.
 - A demining incident resulting in damage to property, vehicles or equipment.
 - A demining incident causing damage that may result in a major claim for compensation from a member of the public.
 - A demining incident involving a major event causing significant damage.
 - A demining incident involving the discovery of a mine or ERW in an area which has been recorded and/or marked as cleared.
 - A demining incident where demining workers, visitors or the local population are exposed to intolerable risk that result from the application of approved standards or procedures including the failure of equipment.
 - A demining incident involving the unplanned detonation of a mine, ERW or explosives on a demining worksite.
 - A Demining Incident which could attract media attention or media report.
 - If determined by the SMACO, a non-mine, ERW or explosive related accident on a demining worksite that requires the urgent evacuation of a casualty to an advanced medical facility for treatment.
- f. A formal external investigation shall always be conducted into the circumstances surrounding a significant demining accident.
- g. It is essential that investigators are aware that people involved in accidents, particularly if resulting in severe injuries or death, may be suffering from shock.
- h. Often people are uncertain about the events leading up the accident and are afraid of being blamed.

- i. The investigation must be conducted with patience and understanding, particularly when dealing with those directly involved in the incident or accident. The emphasis should be on gathering and analysing to draw accurate conclusions, and not to make unsubstantiated assumptions or apportion blame during the investigation.

4. Types of Formal Investigations

There are three types of incident or accident formal investigations:

4.1 Internal

Internal investigation conducted by the Mine Action Organisation involved in the incident or accident. This is the minimum requirement for demining incidents or accidents involving the Mine Action Organisation, and may be required for other incidents / accidents, or mine incidents / accidents, involving the Mine Action Organisation, or on request by the SMACO.

4.2 External

Independent Investigation conducted by the SMACO and/or a third party Mine Action Organisation approved by the SMACO (i.e. advising or supporting the SMACO). This is the minimum requirement for **less significant** demining incidents and accidents, and may be required for other incidents / accidents, or mine incidents / accidents.

4.3 Board of Inquiry (BOI)

Conducted by the SMACO and/or a third party Mine Action Organisation approved by the SMACO (i.e. advising or supporting the SMACO). This is the minimum requirement for **significant** demining incidents and accidents.

5. Structure for Formal Investigations

5.1 Internal Investigation

The internal investigation shall be carried out by an appropriate qualified and experienced member of the Mine Action Organisation involved, however not directly in the demining incident or accident.

5.2 Independent Investigation

The independent investigation shall be carried out by at least one appropriately qualified and experienced investigation officer from the SMACO or from a third party Mine Action Organisation approved by the SMACO (i.e. advising or supporting the SMACO).

The Mine Action Organisation involved in the demining incident or accident, shall appoint at least one person to assist the investigation team (i.e. to liaise and facilitate access to Mine Action Organisation personnel, facilities and records). This person must however not have been directly involved with the incident or accident.

5.3 Board of Inquiry (BOI)

- A BOI Team shall comprise at least two appropriately qualified and experienced investigation officers from the SMACO or from a third party Mine Action Organisation approved by the SMACO (i.e. advising or supporting the SMACO).
- The BOI Team Leader shall be approved by the SMACO Director (or another senior member of staff).

- The SMACO may request for at least one person from the Mine Action Organisation involved to be included in the BOI team. This person must however not have been be directly involved with the incident or accident.
- The SMACO may request for additional personnel with specific expertise to be included in the investigation team. These people may be from within or outside the Western Sahara (EoB) mine action programme.
- The Mine Action Organisation involved in incident or accident, shall nominate at least one person to assist the BOI team (i.e. to liaise and facilitate access to Mine Action Organisation personnel, facilities and records). This person must however not have been be directly involved with the incident or accident.

6. General Requirements at the Demining Site after an Incident or Accident

- a. Demining operations shall cease at the demining site where the incident of accident occurred, all personnel and MDD shall be accounted for and remain in a safe location.
- b. The incident or accident site shall be secured and remain undisturbed, pending the investigation. This may require installing additional marking, barriers, and positioning sentries (guards) to ensure that nobody enters the incident or accident site.
- c. Arrangements shall be made for an external and/or internal investigation.
- d. All personnel who may be relevant to the investigation (i.e. supervisors and witnesses) shall remain at the site pending the arrival of the investigation team, unless otherwise authorised by the SMACO, i.e. in circumstances where it is not possible to conduct the investigation on the same day.
- e. The Mine Action Organisation involved in the demining incident or accident should endeavour to separate witnesses and obtain individual statements as soon as possible. This should be conducted at the demining site (and medical facility in the case of victims) if possible.
- f. The witness statements shall be recorded and include: the date and time, the witness's name, position, statement in his/her own words.
- g. The statement may be written by or on behalf of the witness, however the witness must acknowledge that they understand and agree to the contents of the statement.
- h. The statement must be signed by the person conducting the interview, the witness, and any other person who has been involved in written or translating the statement on behalf of the witness.

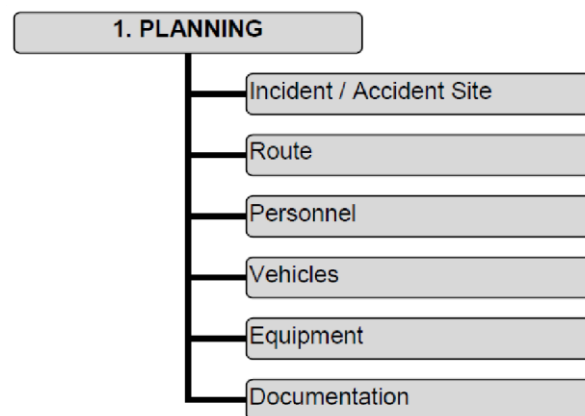
6.1 Internal Investigations of Demining Incidents and Accidents

In the event of a demining incident or accident the Mine Action Organisation shall conduct an internal investigation as soon as possible, however it should be no later than the following day.

6.2 External Investigations of Demining Incidents and Accidents

- a. An external demining incident or accident investigation should be initiated by the SMACO issuing a written Terms of Reference (TOR) that appoints the people who shall carry out an investigation.

- b. Depending on the circumstances (i.e. where there is a limited period by which the investigation must begin), the SMACO may however provide a verbal order to commence the investigation, however this must be recorded and be included in the investigation report.
- c. For BOI's a team is convened to conduct the investigation on behalf of the SMACO Director.
- d. The SMACO Director (or another senior member of staff) shall appoint a BOI Team Leader (as soon as possible after the occurrence of the incident / accident, or in advance).
- e. Other members of the BOI team shall be appointed by the SMACO Director (or another senior member of staff), or by the BOI Team Leader.
- f. The diagrams below details the general requirements and consideration for planning and executing a demining incident or accident investigation:



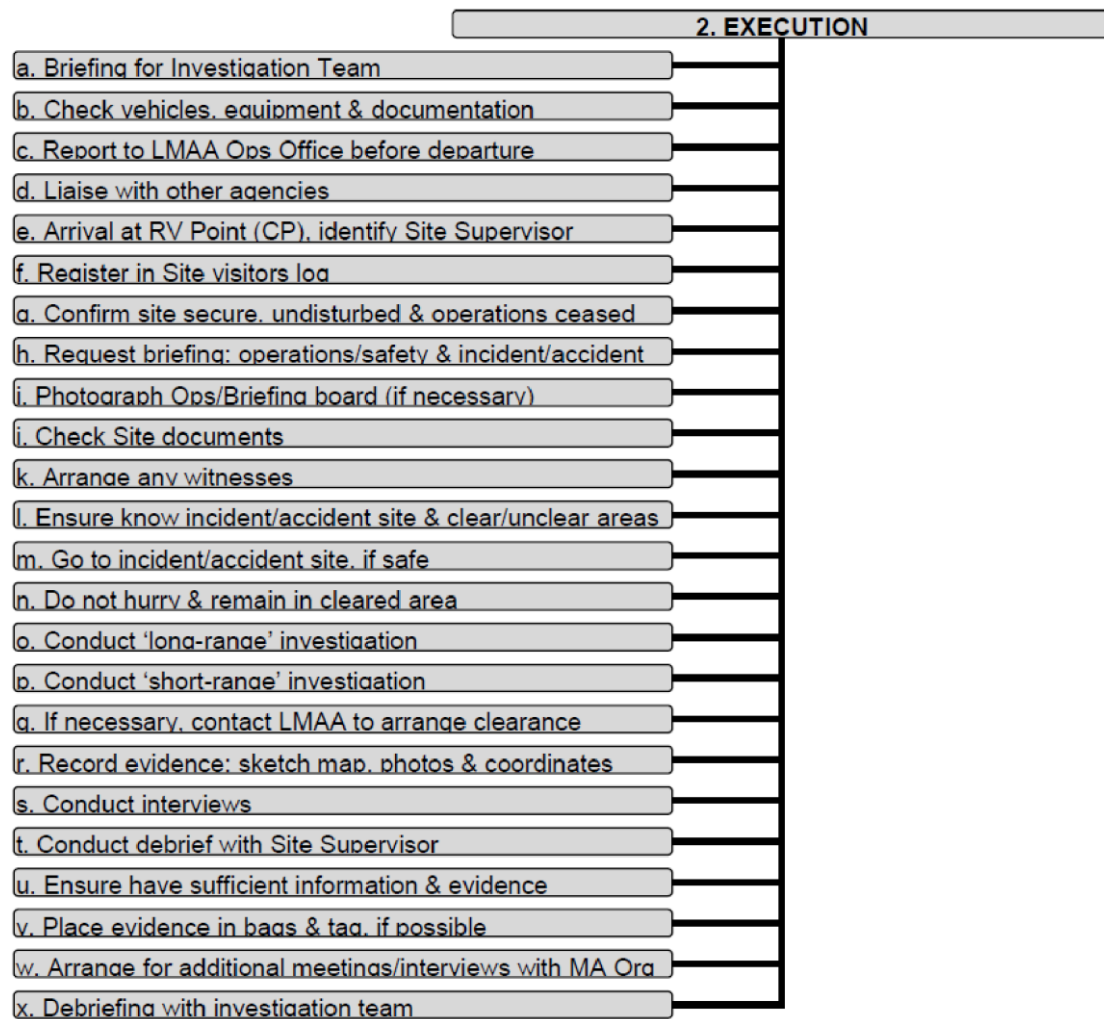


Figure 1 and 2: Example of Planning and Execution of Investigation

7. Reporting of Demining Incidents and Accidents

7.1 Internal Incident or Accident Reporting

- a. Reports that are conducted by the Mine Action Organisation involved in an incident or accident are "internal incident" or "internal accident reports", and there are two types, "Initial" and "Detailed" reports.
- b. If the incident or accident occurs at the workplace then they should be titled "Demining Incident", or "Demining Accident", "Initial" or "Detailed" "Report".
- c. Any significant demining incidents, and all demining accidents shall be reported by the Mine Action Organisation involved to the SMACO, verbally and in writing as soon as possible, however no later than thirty (30) minutes from their occurrence.
- d. Demining accidents involving the death of personnel (or MDD), or evacuation from the worksite for further medical treatment, should be verbally reported to the SMACO beforehand, however the reporting of incidents or accidents shall not cause a delay to the evacuation process.

7.1.1 Internal Incident or Accident Initial (Verbal) Report

- a. The internal initial (verbal) report shall be transmitted to the SMACO by the fastest reliable means, which is normally radio or telephone.
- b. Upon receipt of this report the SMACO shall continue to monitor the situation and provide support as required.
- c. The report may be transmitted in stages if necessary, as more information becomes available, for example, at the demining site, during the evacuation, and at the medical facility, providing the SMACO with an update and clarification on previous details communicated.
- d. It is paramount that the time of reports transmitted, received and all details are accurately logged as this information should be reviewed during any subsequent investigation.
- e. The following are two examples of an internal initial incident or accident (verbal) report which may be used by Mine Action Organisations on approval by the SMACO:

Phonetic

ALPHA: Time of incident or accident
BRAVO: Location of incident or accident
CHARLIE: Grid Reference of incident or accident
DELTA: Type of incident or accident
ECHO: Number of victims
FOXTROT: Identification of victim(s)
GOLF: Type of injuries
HOTEL: Destination of victim(s)
INDIA: Time of evacuation
JULIET: Other assistance required
KILO: Contact person, phone number or radio call sign

METHANE

M: Major incident / accident
E: Exact location
T: Type and time of incident / accident
H: Hazards (mines/ERW, fire, hostilities, etc.)
A: Access (best access route for emergency services)
N: Number of casualties and nature of injuries
E: Emergency services present and required

7.1.2 Internal Incident or Accident Initial (Written) Report

- a. The internal initial (written) report shall be sent to the SMACO after the verbal report, by email, fax, or by hand.
- b. As with the verbal report, the time that the report was written was sent and received must be recorded, as it should be crosschecked against the verbal report during any subsequent investigation.
- c. Effective reporting by the Mine Action Organisation allows SMACO to help with any emergency response and if necessary to provide a general warning to other Mine Action Organisations who may be at risk from an unforeseen hazard. It also allows SMACO to assess the need to conduct a formal investigation.
- d. A format for the internal initial incident or accident report is detailed in section 8 below.

- e. On receiving the initial report the SMACO should try to clarify the situation with regards to the victim(s) (location and condition), and the demining site (that operations have ceased, the incident or accident site is secure and undisturbed).
- f. In circumstances where there is a significant demining incident, or a demining accident which may be of relevance to other demining operations in the region, then these operations shall cease pending confirmation from the SMACO that it is safe to continue.

7.2 Detailed Incident or Accident Reports

7.2.1 Internal Incident or Accident Detailed Report

- a. The Mine Action Organisation shall prepare a detailed report for the internal investigation conducted, which shall be submitted to the SMACO within five (5) days of the incident or accident occurring.
- b. The SMACO shall inform the Mine Action Organisation if there is a requirement for them to submit the report earlier, and the Mine Action Organisation must request in writing to the SMACO Director for an extension, which will be considered on a case by case basis.
- c. Depending on whether the SMACO require an external investigation or not, the internal report may be all that is required, or may be included with an external investigation report.
- d. The detailed internal investigation report should use the same format as the external investigation report, unless the SMACO authorises the Mine Action Organisation to use another format.

7.2.2 External Incident or Accident Detailed Report

- a. The SMACO or from a third party Mine Action Organisation approved by the SMACO, shall prepare a detailed report for external investigation (Independent or BOI) conducted.
- b. The report shall be submitted to the SMACO Director for approval, within ten (10) days of the incident or accident occurring. If an extension is required then the senior investigating officer (i.e. team leader) shall submit a request to the SMACO Director in writing, who shall consider this on a case by case basis. The Mine Action Organisation involved in the incident or accident shall be informed by the SMACO of any extensions.
- c. In addition to the detailed investigation report in section 9 below, the following should be included or attached to the report:
 - Internal detailed Incident or Accident Report.
 - Injury data sheet (for each victim).
 - Witness statements.
 - Medical reports.
 - Photographs and sketches of incident or accident site □ Photographs and sketches of evidence.
 - Site documentation (i.e. copy of implementation plan, daily worksheet, QA reports).
- d. A format for the detailed incident or accident report is detailed in section 9 below.

7.3 Reporting and Dissemination of Investigation Findings

- a. Following the conclusion of the incident or accident investigation the SMACO should ensure that certain details from the investigation are distributed to Mine Action Organisations and other relevant agencies operating in Western Sahara (EoB), which should include:

- The circumstances surrounded the accident and the injuries resulting from it;
 - An analysis of the information collected during the investigation; and □
- Conclusions and recommendations that are made.
- b. SMACO must distribute information about demining accidents to all Mine Action Organisations accredited to work in Western Sahara (EoB) and to the UN's database of demining accidents. This allows others in the humanitarian demining community to learn the essential lessons from each accident. No names of victims, staff, investigators or Mine Action Organisations shall be published.

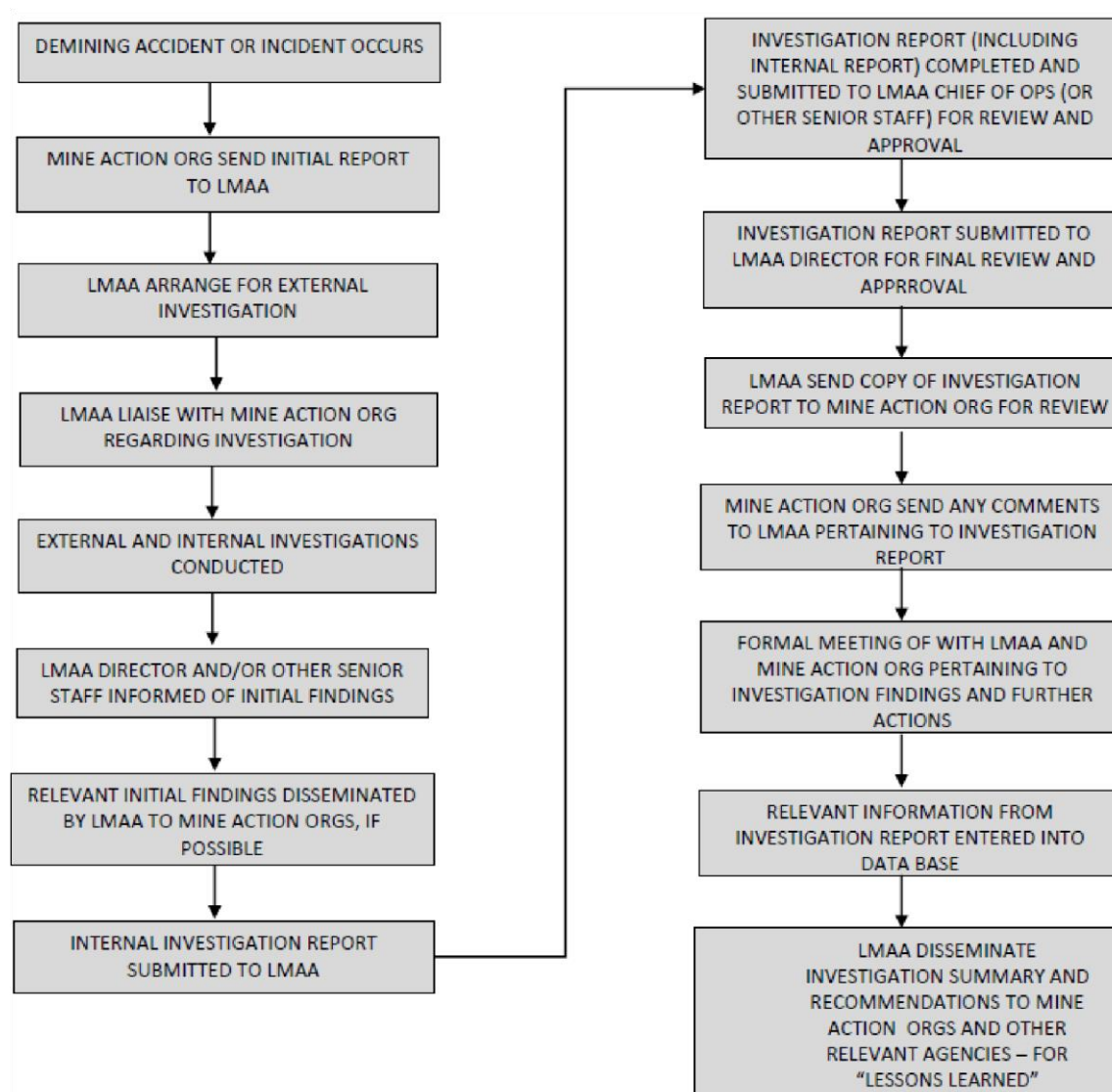


Figure 3: Example of Investigation Reporting Process

8. Example of Internal Incident or Accident Initial (Written) Report

- a. The following format can be used to provide an internal incident or accident initial report. Mine Action Organisations operating in Western Sahara (EoB) may use other report formats by agreement with SMACO:

From: Mine Action Organisation name.	Date & time report submitted.
To: LMAC	
Subject: Demining Accident Initial Report	
1.	Organisation, site office/project number, team name/number.
2.	Location (province, district, village, task no).
3.	Date and time of accident.
4.	Details of victim(s) to include:
a)	Names. [See Note 1]
b)	Description of injuries. [See Note 2]
c)	Treatment given.
5.	Evacuation methods, routes, destinations and estimated arrival times.
6.	Damage to equipment or infrastructure.
7.	Describe how the incident occurred. [See Note 3]
8.	Contact details of key staff: [See Note 4]
9.	Any other information including: [See Note 5]
a)	Did the accident occur in a cleared, safe or suspected hazardous area? b)
	Device type (if known):
10.	Any other relevant information.

The information highlighted in grey must be sent by radio or telephone to SMACO as soon as it is known. The complete Initial accident report must then be sent by fax or email as soon as possible after the needs of the victims have been addressed. As soon as the report is sent, a radio or telephone message should advise that the report has been sent. The Subject shall be changed depending on the type of incident or accident, i.e. demining "incident" or "accident".

Note 1: For Mine Action Organisation workers, include the name (or an identification number) and their position in the organisation (deminer, team leader, surveyor, etc). For nondemining workers include contact details of the injured person or their "point of contact". Contact details for non demining workers do not need to be sent with the initial report but the fact that a non demining worker was injured must be reported.

Note 2: List the injuries for each victim separately, referenced to their name.

Note 3: Include a short description of how the accident occurred. In the case of a mine/or ERW item located in a cleared area, a failure in standards or SOPs or a failure with equipment include details of how the mine/ERW was discovered or the failure occurred.

Note 4: Provide contact details of the person(s) responsible for coordinating the response to the accident and investigation activities. For example, this might be the worksite supervisor or the Operations Manager. Provide radio call-signs or telephone numbers as appropriate.

Note 5: Provide as much information as is readily available about the circumstances surrounding the accident but do not delay sending the report while waiting for more complete information.

9. Example of Demining Incident or Accident Detailed Report

- a. An example of a report format that may be used by a Mine Action Organisations during an internal investigation of an accident is given below. The same format should be used

by SMACO when making an External investigation. When a Mine Action Organisation prefers to use another reporting format, that format must be detailed in their SOPs and submitted for approval by SMACO. Any alternative format must contain at least as much information as that required below.

- b. The following sections describe the contents of the report.

SECTION 1: Incident or Accident Summary

- a. The first part of the report is a summary in table form, giving date, time and place, the device involved, the activity at the time of the accident and the probable causes. The investigators will not be able to enter probable causes until the investigation has been completed.
- b. The address of the relevant investigation office should be included on the front page of the report.

Incident or Accident details

Incident or Accident date:		Incident or Accident time:	
Where it occurred:		Country:	
Primary cause:		Secondary cause:	
Class of accident:		Date of main report:	
Internal document ID:		Name(s) of investigator(s):	
Mine/device:		Ground condition:	
No of victims:			

Map details

Longitude:		Latitude:	
Alt. coord. system:		Coordinates fixed by:	
Map east:		Map north:	
Map scale:		Map series:	
Map edition:		Map sheet:	
Map name:			

- c. Map details must be entered in the format required by SMACO. The physical address and minefield ID should be recorded under "Incident or Accident details: Where it occurred". It is important to include a GPS record of the place where the accident occurred under "Map details".

SECTION 2: the Incident or Accident report

The report of an incident or accident should give a narrative under the following headings. These should be completed even when the investigator does not think they are relevant.

History of the working area

The investigators should report on when the mines were laid, what is known about the threats, and the current conditions in the minefield (vegetation and ground conditions). They should include details of how long the team had been at the site, and how much work had been completed.

Procedures in use

The investigators must describe the demining procedures that were in use at the site at the time of the accident. They should include a description of the equipment and PPE, the team size and the level of supervision.

Activity surrounding the incident or accident

The investigators must describe what happened before, during and after the incident or accident. Their record should include CASEVAC reaction time.

Injuries sustained

The investigators must record all injuries, even minor ones, and damage to equipment.

Timeline

This should be from at least an hour before the incident or accident, including when it was reported, and until the Victim(s) is in hospital. The investigators must make the timeline longer when the information is relevant. When there is any question of a communications failure, they should include the relevant parts of the communications log.

Photographs and sketches

- a. Relevant pictures and sketches that will help others to understand the circumstances surrounding the accident should be included in the report. These may include a sketchmap of the area but that is not essential. Photographs of the area and the accident site should always be included. Photographs of any damaged PPE and tools should also be included.
- b. Each sketch or photograph should be accompanied by a brief explanatory narrative.

Statements

- a. Witness statements are very important and often provide the main justification for the conclusions and recommendations that can be drawn. Witnesses need not have actually seen the incident or accident, but should have been witness to some of the surrounding circumstances or events. The investigators must interview witnesses separately and in a way that leaves them without fear of the consequences. This can be hard to achieve, and may mean that the interviews must be conducted by someone else. When translation is required, field supervisors should not be used as translators because the witnesses may be intimidated and/or the translation may be inaccurate.
- b. Witnesses should be interviewed with gentle persistence, so enough time must be allowed for this. If the accident was caused by things being done incorrectly, the investigator must try to find out why so that they can address the cause rather than the symptom.
- c. Generally, any threat to the Victim or the Supervisors will be counter-productive. If a stupid error has been made, retraining may be more appropriate than dismissal because a dismissal will make deminers less inclined to be honest in future, and because there is no better lesson than an accident. The person who made the mistake is usually the person least likely to make it again – as long as that person has acknowledged that a mistake was made. If the person has successfully hidden the mistake, that person may be a real danger in future.

Conclusions

The investigators must list the conclusions they have reached (including obvious ones) and refer to the evidence or statements that justify those conclusions. They should not simply state – “From what I saw, it was deminer error”. Later readers need to know what was seen and why a conclusion was reached. Investigators should not be afraid to write, “There is not enough information to determine quite what happened, but it seems likely that....”

Recommendations

Recommendations should follow logically from the conclusions. They can often be suggestions rather than requirements. Investigators should not feel obliged to make any recommendations at all. If they do make them, the recommendations must be presented to the staff involved in the accident for approval. Whether they agree or disagree, that fact should be added to the recommendations.

SECTION 3: Victim Report

- a. A victim report must be completed for each Victim.

Internal Victim ID:		Name:	
Age:		Gender:	
Work title:			
Compensation:		Time to hospital:	
Protection issued:		Protection used:	

- b. The "Work title" of the Victim is based on his or her job. Referring to the record of previous accidents, this may be one of: Deminer; Supervisor (covering all levels of supervisor); Paramedic; Driver; civilian; Dog handler; Trainer; Surveyor. Add any other work title that is appropriate.

Summary of injuries

The investigators should summarise the Victim's injuries in a simple list. Each injury should be referred to as either "minor" or "severe". A "Minor" injury is one that does not seem to require hospital treatment. A severe injury requires some hospital treatment. For example, light fragmentation on a hand might be a "Minor" injury but a fragment that needs to be removed by a doctor would be "Severe". Amputation or loss of function is always "severe".

Medical report

- Some kind of medical report should be included. The field paramedic's report may be enough, but if the Victim is taken to a hospital, a hospital report should be included. This must be added later if it is not available when the report is compiled.
- Good photographs of the injuries can be very useful for both paramedic and deminer training. Unless the face or eyes are injured, the pictures should not include a recognisable face. Photographs that do include recognisable faces must not be included in training materials without the consent of those shown.
- The hospital medical report should be augmented by a follow-up entry later that gives the Victim's status after treatment. This should indicate whether the Victim has returned to work, has suffered complications, has subsequently become disabled, etc. This information is essential when assessing the seriousness of the accident.
- An Injury Data Sheet should be completed for each human victim, see below:

Example of an injury data sheet (see note 1)

Mine Action Organisation name: _____ Organisation sub unit, site office/project number, team name/number: _____

Location (province, district, village, task no): _____ Date and time of incident: _____

Casualty name or CIN: _____ Gender and age: _____

Explain the cause of injury (ies): **See note 2**

Right eye ☐ Left eye ☐

Right hearing ☐ Left hearing ☐

Chest ☐ Abdomen ☐

Right lower arm ☐ Left lower arm ☐

Right hand/fingers ☐ Left hand/fingers ☐

Right lower leg ☐ Left lower leg ☐

Right foot/toes ☐ Left foot/toes ☐

Neck ☐ Back ☐

Left upper arm ☐ Right upper arm ☐

Pelvis/buttocks ☐

Right upper leg ☐ Left upper leg ☐

Code	Meaning
A	Abrasions
AM	Amputation
TAM	Traumatic amputation
B	Burn/dyscolouration
D	Dislocation
F	Fracture
FR	Fragment
H	Haemorrhage
IH	Internal haemorrhage
L	Lacerations
LO	Loss of function

Note 1: Instructions for completing the form. Place an 'X' in each box indicating parts of the body where there was a noticeable injury. For parts of the body that were injured place the relevant code(s) in the box. Codes are shown in the legend. It may not be possible to indicate all injuries without specialist medical advice.

Note 2: Case of injuries should be kept to one phrase for example, 'stepped on AP mine', or 'primary fragmentation from hand grenade'.

SECTION 5: Analysis

- a. The investigators should assign a Primary and Secondary cause to each accident. Two causes are preferred because there is rarely a single reason for an accident to occur. There may be many reasons.
- b. Assigning a cause does not apportion blame, but does point towards areas where improvements in procedure, equipment, training or support might be expected to make a repetition of the accident less likely. This is the only part of an accident report where investigators must put aside their desire to be objective and use their best judgement.
- c. Having decided on a Primary and Secondary cause and entered them in the form in SECTION 1, the investigators should briefly explain why these causes have been assigned under this heading. When only one cause is apparent, the investigators should use the same cause for both Primary and Secondary.

SECTION 6: Signing off

- a. Accident reports should be signed by the investigators and the supervisory staff from the place where the accident occurred. They must always be dated, so showing how much time has passed between the accident and the completion of the report.
- b. When the supervisory staff do not agree with the investigators, the reasons for their disagreement must be recorded in the report.
- c. To allow subsequent assessment of the injuries sustained, the investigators should remember to add post-accident medical information as it becomes available.

10. Responsibilities

10.1 Local Mine Action Centre (SMACO)

SMACO will:

- a. Maintain procedures for the reporting and investigation of demining accidents and the distribution of findings;
- b. Appoint people to investigate demining incidents and accidents when necessary; and
- c. Ensure that the results of any medical examination, post mortem or coroner's report about a victim are made available to the demining organisation.

Note: When the medical results cast any doubt on the findings of an accident investigation, SMACO will re-open the investigation to take into account this new evidence.

10.2 Mine Action Organisations

Mine Action Organisations must:

- Report demining accidents to LMAC as required in this standard;
- Take immediate photographs of a demining incident or accident site (if safe to do so), and then leave it undisturbed until after the investigation(s) have been completed;
- Provide access to people conducting an external accident investigation;
- Show the investigators the original worksite records, SOPs, training records and communications record; and
- Assist people conducting an External accident investigation.

10.3 Mine Action Organisation Employees

Mine Action Organisation employees must:

- Apply appropriate standards and SOPs designed to prevent demining accidents;
- Report weaknesses in equipment, training or procedures; and □
Assist in the investigation of accidents.

11. General References

- a. International Mine Action Standards (IMAS), in particular, 10.60 S&OH Reporting and Investigation of Demining Incidents.
- b. LMAS 10.40 Medical Support to Demining