

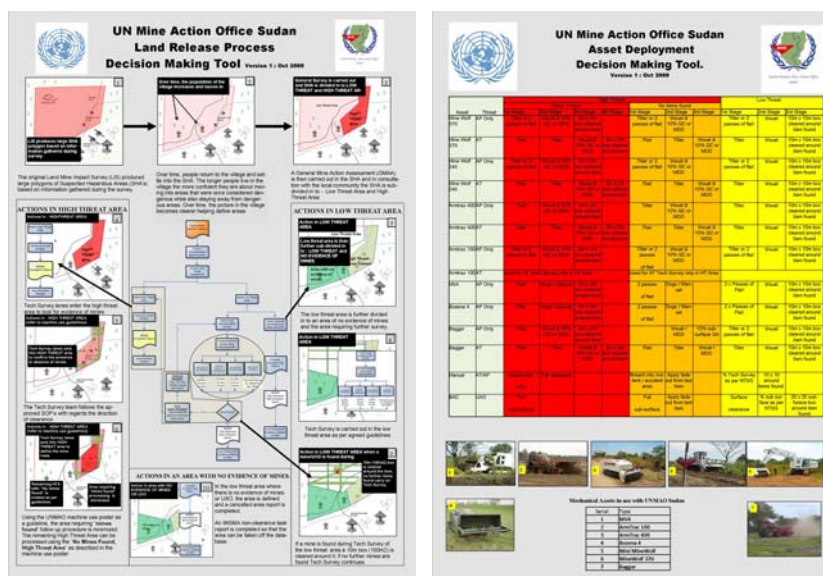
LAND RELEASE IN SUDAN

1. Introduction

Land release back to the community is the overall aim of any particular mine action activity and this NTSG provides a basic methodology to be applied in using the demining assets available in Sudan. This methodology relies upon the mine action operator and the UNMAO to grade all Dangerous Areas (DA's) into high and low threat areas and then into areas where mines/UXO have or have not been found.

The land release process can be applied to a minefield; a suspect hazardous area; and a dangerous area right from the beginning of tasking (in other words to hazards which are already reflected in the IMSMA database) or it can be applied to potential hazards which are not yet reflected in the IMSMA database. This allows the hazard or suspected hazard to be subjected to the same probing process of confirming, clearing and or releasing areas based on actual threat rather than the perceived threat.

UNMAO Sudan produced two “decision making tools” to help visualise the land release process and to give practitioners in the field a ready reference for deploying clearance assets. Reference is made throughout this NTSG to the “Land Release Process” and Asset Deployment” decision making tools, both documents are attached to this NTSG as Annex A & B respectively.



Land Release Process and Asset Deployment decision making tools are attached to this NTSG as Annex A & B.

2. Implementation & Tasking

Refer to Chapter 24 of Sudan NTSG's.

3. All reasonable effort

3.1 "All reasonable effort", in the Sudan Mine Action programme is the process of deciding when land can be released from suspicion, is the level of effort required to achieve the desired level of confidence that the land is free of mines/ERW. "All reasonable effort" may, at one extreme, only be the conduct of a non-technical survey which finds absolutely no evidence of mines/ERW. The commitment of additional resources in this case is unlikely to justify the expected additional information about the area. However, if the non-technical survey confirms some evidence of mines/ERW, it would be reasonable to expend more effort to gain more confidence about which areas are free of mines/ERW and which are not. In this case, "all reasonable effort" may mean that a technical survey or clearance should be conducted.

3.2 "All reasonable effort" for the release of previously suspected land (SHA/CHA/DHA) is reached at a point where sufficient and reliable information has been obtained to conclude, with confidence, that there is no evidence of mines/ERW. Varying levels of clearance and survey shall be conducted to reach this point. In relation to the achievement of confidence in mine action activities, the point at which it is unreasonable to expect more effort to be expended to achieve the desired result should be determined by UNMAO.

4. Methodology

4.1 The Land Release methodology is based on the universal application of the references IMAS; the UNMAO Land Release Process and the Asset Deployment Guidelines against both suspected *and* hazardous areas.

4.2 The application of land release assumes a level of risk based on verification of threat. It recognises that just because a hazard is reflected on the IMSMA database, the details are not necessarily accurate and that all hazards benefit from thorough application of the LRP at all levels of intervention.

5. Asset Deployment Decision Making Tool.

5.1 The Asset Deployment Decision Making Tool is a guide on how to deploy clearance assets in high threat and low threat areas. This is the minimum requirement which should be implemented on each land release site. On site where mechanical assets are deployed calibration tests or ground condition may dictate that further passes of the flail or tiller are required to achieve the required depth.

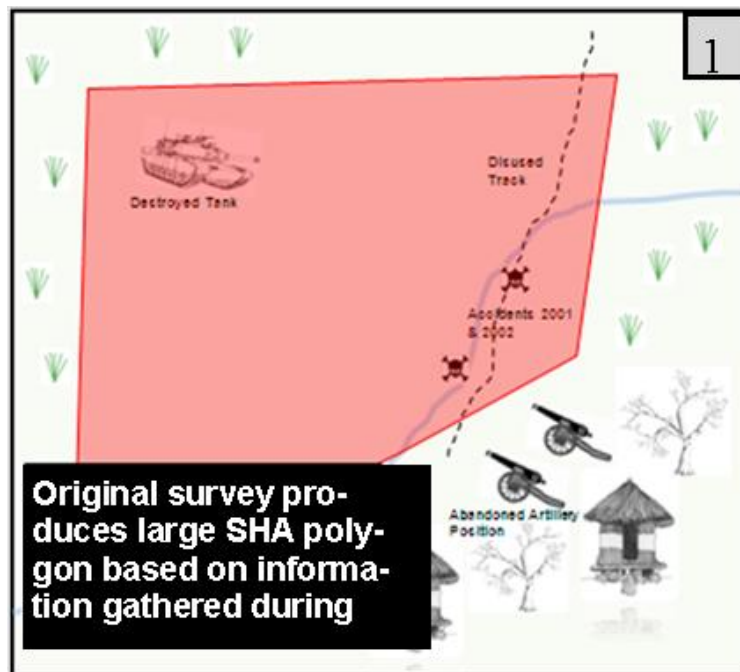
6. Land Release Process

6.1 The document (Annex A) is structured in a user friendly format with both pictograph representation of decision making points and a work/document flow chart.

6.2 The pictographs are numbered – the user can choose at which point to enter into the decision making process depending on the perceived threat and the amount of information available on the S/HA.

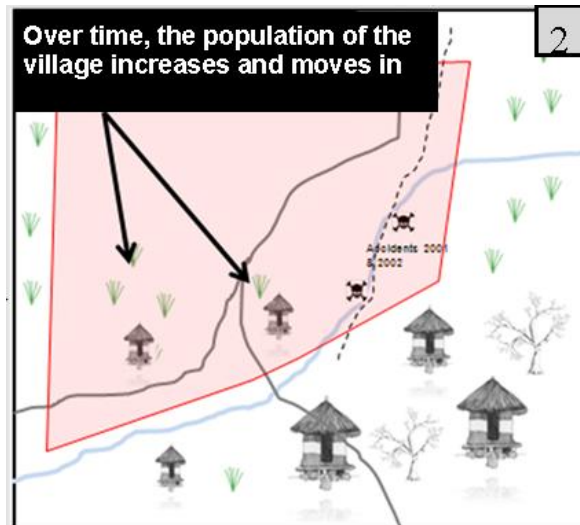
Further explanation of each pictograph is described below:

6.3 Picto One: The Original DA from the IMSMA Database.



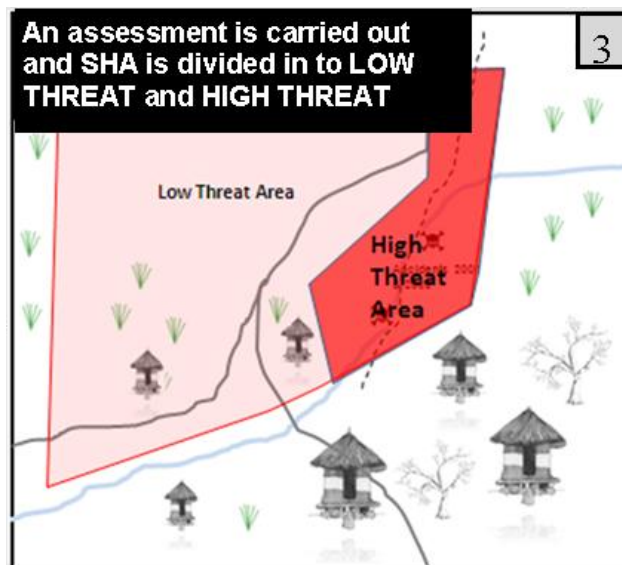
The original survey has produced large polygons of Suspected Hazardous Areas (SHA's) based on information gathered during the survey. Often there was very little time to assess the true extent of contamination in a community and frequently the polygons produced were exaggerated in size. In many cases after years of habitation or cultivation the perceived threat has been removed and there is no need for clearance and the area can be cancelled from the IMSMA Data base by carrying out a resurvey of the area and by completing a IMSMA **Cancelled Area Report**. (see Annex C).

6.4 Picto Two: Information Gathering



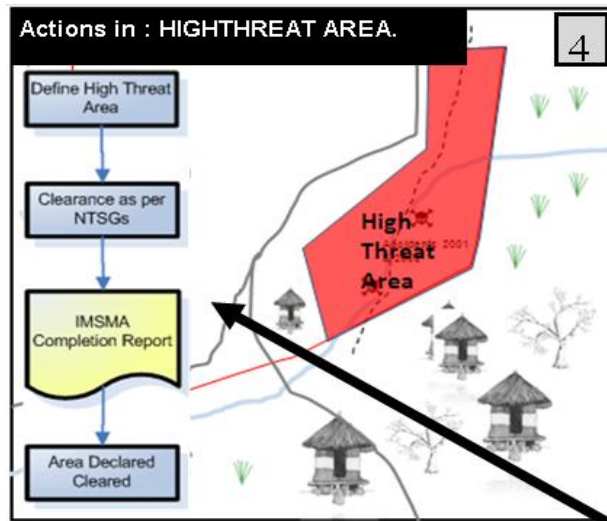
During the resurvey of the DA use local sources of information to identify the areas which the community still consider to be hazardous and the areas which the community is happy to use on a daily basis.

6.5 Picto Three: The result of the resurvey.



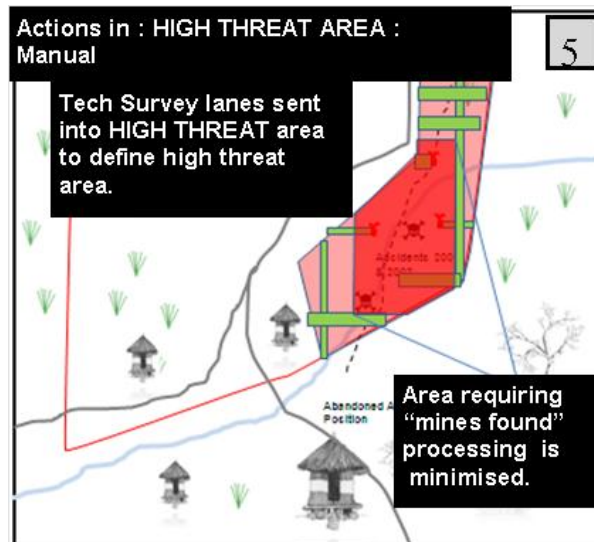
An assessment is then carried out of the SHA and in consultation with the local community the SHA can then be sub-divided in to - Low Threat Area and High Threat Area.

6.6 Picto Four : Actions in the high threat area – Mechanical



Mechanical : Due to their productivity and efficiency, the Sudan mine action programme relies heavily on machines to treat high threat areas. If machines are available, the entire high threat area should be treated following the “Asset Deployment Decision Making Tool” for an area with mines found and then the remaining High Threat Area can be processed using the “No Mines Found, High Threat Area” as described in the decision making tool.

6.7 Picto 5 : Actions in the high threat area – Manual

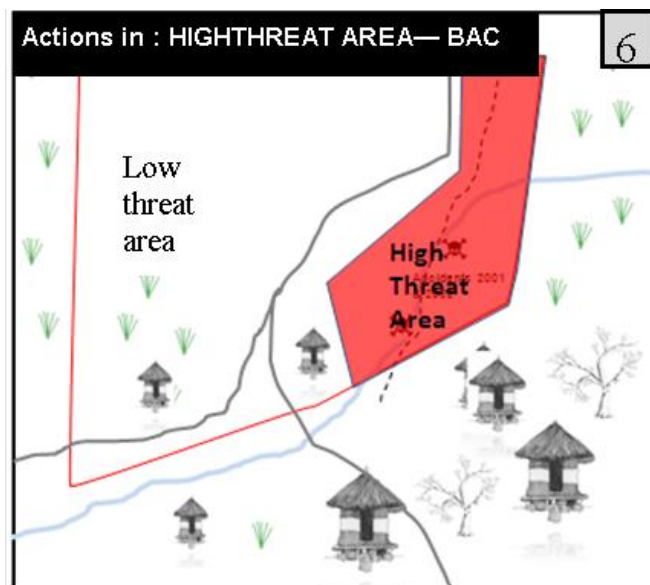


With manual clearance teams the object should be to get into the mined area as quickly as possible and only clear the area which is known to be mined. When the mined area has been cleared the remaining area should be considered low threat area and should be treated accordingly. In nuisance mined areas rather than technically survey the entire area the clearance teams should breach into the site of previous accidents or incidents and work out from the seat of the mine accident applying procedures as per “high threat, no mines found” guidelines.

“Fade out” should also be applied when treating the high threat area, a buffer of 20 meters should be applied to mines found. Clearance should continue 20 meters past the last mine found in a patterned minefield. In a nuisance minefield a buffer of “double the distance between the last and second last mines found” may also be applied.

Fade out distance can also be site specific and can be dictated by the patterns of mines found, any deviation from the distance stated above should be agreed between UNMAO and the clearance agency.

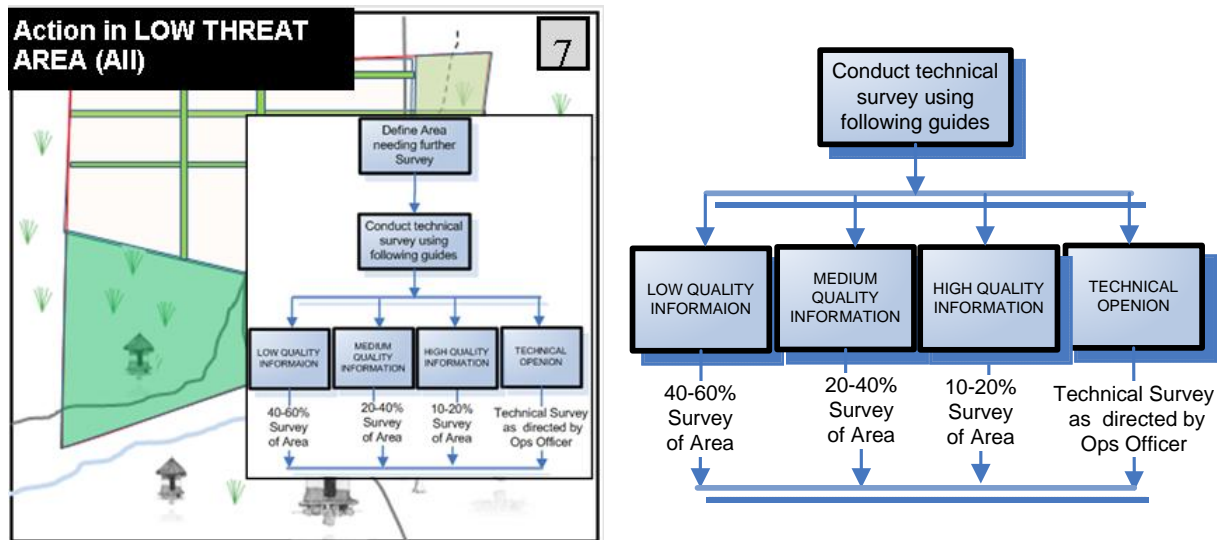
6.8 Picto 6 : Actions in a high threat area – BAC



“Fade out” should also be applied when treating the high threat Battle Area Clearance (BAC) task, a buffer of 20 meters should be applied to the last item found, either surface or sub-surface. Where items are found outside a known “footprint” then a box of 20 x 20m is checked around the item, surface/sub-surface depending on the tasking.

Fade out distance can also be site specific and can be dictated by the patterns of items found, any deviation from the distance stated above should be agreed between UNMAO and the clearance agency.

6.9 Picto Seven: Survey Calculation



The percentage of ground in the low threat area which should be subjected to technical survey should be based on the quality of information collected. All information collected during non technical survey shall be classified based on the following criteria;

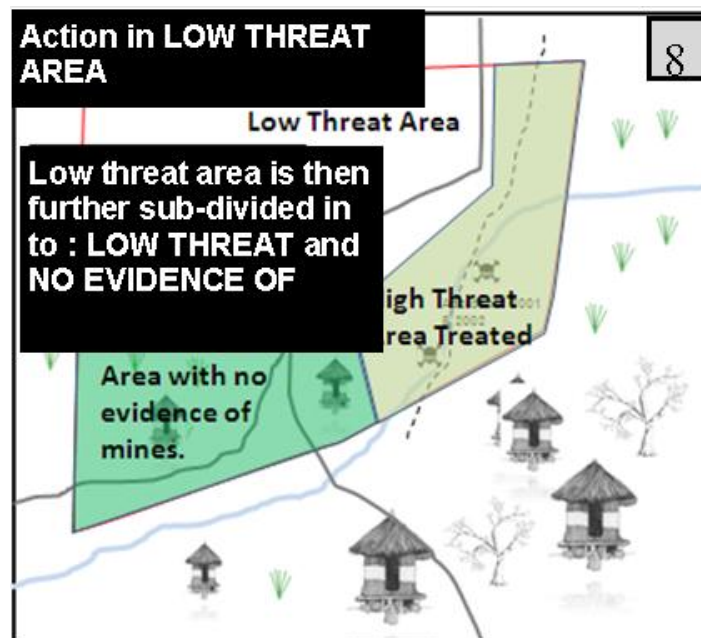
- Low Quality Information : This is information gathered from people or institutions who have newly arrived into an area or have no direct knowledge of the presence or location of mines. This may also include information from villagers of dubious repute. Where there is only low quality information available it may be necessary to technically survey between 40-60% of the low threat area.
- Medium Quality Information : This is information gathered from people and institutions that did not form part of, or observe the mine laying or accidents but have been told about the mine threat. Second-hand sources of information may include villagers, pedestrians, local authorities, farmers, hunters, hospitals etc. Where only medium quality information is available then it may be necessary to technically survey between 40-60% of the low threat area.

- **High Quality Information** : This is information gathered from people and institutions with first hand knowledge of the threat. First hand sources of information may include military, police, victims, others who observed mine laying or accidents etc. Where high quality information is available it may be only necessary to technically survey between 10-20% of the low threat area.
- **Technical Opinion** : The mine clearance agency along with UNMAO may also on the percentage of ground which has to be technically surveyed based on the technical opinion of the operations officer. This percentage may be based on carrying out a tactical appraisal of the former battlefield or conflict area.

Survey Calculations – BAC

During BAC Operations the above criteria can be used to calculate the percentage of ground in the low threat area which should be subjected to sub-surface clearance.

6.10 Picto Eight : Actions in the low threat area.



Once the High Threat has been treated and the Low Threat Area has been surveyed and no further items have been found, the remaining low threat area is assessed as per the criteria below to verify that no further action is required.

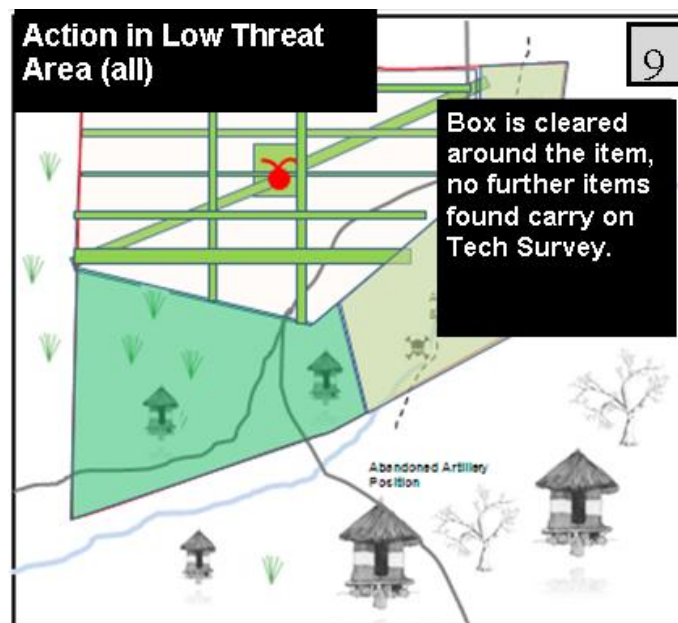
- a) A systematic assessment of how land has been used, how long it has been used, and how many people have used it should be made. Attention shall be given to the precise limits of areas used, together with any areas which have not been used,

- b) A systematic assessment shall be made of whether mines or ERW have been found during the use of the land, the circumstances under which these hazards were found, and how long ago they were found.

If land has been used extensively for cultivation over a number of seasons and no evidence of mines/UXO has occurred, this should be deemed sufficient information to remove this area of land from the database.

Community involvement in the verification process is necessary to ensure that they have confidence in the methods used and that the threat has been removed from the area.

6.11 Picto 9 : Procedure when an item is found in the low threat area.



Finding a mine in a low threat area – Mineclearance

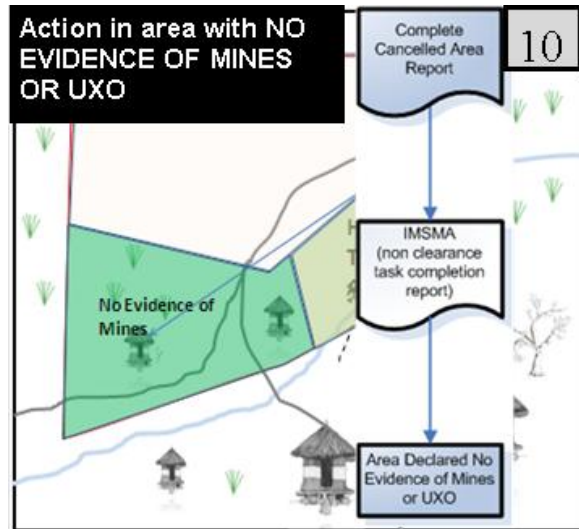
Finding a single mine in the low threat area does not necessarily mean the area should be treated as a high threat area. If a mine is found during Tech Survey of the low threat area a 10m box (100m²) is cleared around it; if no further mines are found Tech Survey continues. If further mines are found then the area should be reclassified as a high threat area and treated accordingly.

Finding an item in a low threat area – BAC

Finding a single item in the low threat area does not necessarily mean the area should be treated as a high threat area. If an item is found during BAC surface search of the low threat area a 20m sub-surface box (400m²) is cleared around it; if no further items are found BAC surface continues. If multiple items or further

mines are found then the area should be classified as a high threat area and treated accordingly.

6.12 Picto Ten: Removing the area with No Evidence of from the database.



After the high threat area has been cleared and the low threat area has been surveyed the remaining piece of land can be classified as “**no evidence of**” and can be removed from the database using an IMSMA non clearance task completion report.

Annexure:

- A. Land Release Process
- B. Asset Deployment Decision Making Tool