

Mine Action Analysis Framework

The mine action analysis framework provides an overview and maps out the different types of information that can be used in the planning and implementation of mine action. Development of the analysis framework is part of a broader information management process which seeks to identify data sources that can enhance analysis and planning. This is a global generic framework which can be adapted to the specific local context.

This document contains the notes that explains the mine action analysis framework in more detail.

CONTEXT

This section outlines the wider context of a situation in a country that could impact mine action.

History of the conflict		
What kind of information?	Why is this information important?	Possible sources
Type of weapons and	Different types of weapons and explosive ordnance utilized by	Landmine and Cluster Munition Monitor
explosive ordnance used in	parties to a conflict will give an indication of the contamination	 Operators in country
conflict	(such as legacy, IEDs, ERW,) and the required mine action	
	response.	
Location of conflict and	Knowledge of conflict location helps to determine where to	•
demarcation lines	prioritize our activities.	•
Ongoing hostilities	Nearby ongoing hostilities might threaten the humanitarian mine	Landmine and Cluster Munition Monitor
	action response in all facets. It might also lead to new	•
	contamination.	
	Actors involved in the conflict and nature of non-state armed	
	groups (who are the combatant – men, women? – Who do they	
	target? Who are the individuals in most vulnerable situations?)	
Peace agreement	In certain contexts, mine action may be incorporated within a	Landmine and Cluster Munition Monitor
	peace agreement, for instance in the 2015 peace deal between the	Mine Action and Peace Mediation (GICHD and
	government of Colombia and the FARC.	SwissPeace, October 2016)

Institutional environment		
The behaviour of mine action actors is shaped by institutions (laws, standards, regulations, norms) that establish the 'rules of the game'.		
What kind of information?	Why is this information important?	Possible sources
Legal frameworks on	The wider legal frameworks and mandates on clearance and	Landmine and Cluster Munition Monitor
clearance and disposal of	disposal of explosive ordnance determine what is allowed and	Mine Action Authority
explosive ordnance	what is not.	Relevant Ministry



International agreements on mine action	International agreements such as treaty obligations of a state, can determine Mine Action priorities including time-bound obligations such as clearance and stockpile destruction.	 Landmine and Cluster Munition Monitor Implementation Support Units of relevant Treaties List of APMBC States Parties and country profiles List of CCM States Parties and country profiles National Action Plan on 1325; CEDAW; CRPD; CRC
Responsibilities for clearance and risk education	Who is responsible and in charge for clearance and risk education on both a national and community level? For instance, for implementing, for quality management, for coordination. This question is especially challenging and important in cross-border crises.	 Landmine and Cluster Munition Monitor
Housing, land, and property rights	Understanding who is entitled to the land that is cleared is important, since it determines future use of the land.	 Inheritance laws; marriage act; constitution, etc.

Infrastructure		
What kind of information?	Why is this information important?	Possible sources
Telecommunications network	Communicating effectively with partners and beneficiaries disaggregated by sex and age (either by phone, radio or internet) is a necessity.	 Displacement Tracing Matrix (DTM) Multi-Sectoral Location Assessments (MSLA) can contribute with list of displacement locations where community has access to phones, phone network or other means (if MA & DTM in country have agreed to include such questions in DTM Field Companion for AAP)
Road network	Roads have an important role in the transportation of goods and passengers for short and medium distances.	 https://data.humdata.org/search?vocab_ Topics=transportation Logistics Cluster
Other transport		Logistics Cluster

Demographics		
What kind of information?	Why is this information important?	Possible sources
Age and gender	Demographic data disaggregated by age and sex – women, girls,	DTM IOM (Mobility Tracking, MSLA) has age and
	boys and men – can influence the planning of activities. Same	gender breakdown estimates, updated over the
	demographic information should be available for the 1) general	months. Furthermore, MSNA/HNO may use DTM or
	population, 2) beneficiary communities, and 3) casualties. Next to	use additional source, once a year.
	age and gender we encourage disaggregated data on disability and	Demographic data from the country, national
	other diversity factors such as education (literacy levels), income,	literacy rates, reports to CEDAW, gender & diversity
	livelihood (by sector), rural/urban breakdown, etc.	analysis from UNICEF, WHO, IOM, etc.



		https://data.humdata.org/search?vocab_Topics=bas eline%20population
Distribution of population	Knowledge of the distribution of the population, (all population, including non-displaced and displaced), even before the crisis, helps to determine where to prioritize our activities. This can be displayed in the form of a table and a map, including urban/rural centers and number of people.	 Census bureaus Sometimes OCHA may have it https://data.humdata.org/search?vocab_Topics=bas eline%20population
Displacement locations and patterns	Displaced people (location names and geographic coordinates) are more at risk when they are moving back. In addition, information about locations of origin and potential resettlement timing and locations can be highly relevant. Data should be disaggregated by sex and age since there are gendered patterns of return.	 DTM IOM (Mobility Tracking, MSLA) has displaced population figures, geo-located locations of displacement, place of origin and potential resettlement when this is planned. Public data: https://displacement.iom.int/ https://data.humdata.org/search?vocab_Topics=dis placed%20persons%20locations%20-%20camps%20-% 20shelters
People in need of	This number is a strong indicator of the severity of a situation.	 OCHA HNO has a severity map and tables of
humanitarian assistance	Mine action activities might be required to ensure the ability of humanitarian actors to reach those people in need safely	population in need.
	Disaggregated by sex, age and disability.	ple%20in%20need%20-%20pin

Geo-Physical environment		
What kind of information?	Why is this information important?	Possible sources
Terrain	Sand, mud, rivers and mountains are examples that can have an	QGIS software and open source data?
Water bodies and hydrology	impact on the contamination, the appropriate measures for	https://data.humdata.org/search?vocab_Topics=
	clearance and the accessibility to affected populations.	water%20bodies%20-%20hydrography
Use of land	Land should be cleared with all reasonable effort to ensure it is	https://data.humdata.org/search?vocab_Topics=
Land use and land cover	free from explosive ordnance independently of land use. However,	land%20use%20and%20land%20cover
	the purpose of cleared or soon to be cleared land might determine	•
	how precise and how deep the areas needs to be investigated and	
	cleared. If land is going to be used for constructing buildings and	
	there is a suspicion that there may be objects deep in the ground,	
	the land needs to be investigated to a deeper level.	
Climate	Natural hazards related to climate, such as floods, landslides and	•
	rain seasons, have consequences for the mine action response.	•
	Besides, weather can shift the landmine danger. For example, due	
	to heavy rain-fall, North Korean landmines drifted along streams	



	between North and South Korea. Fencing and marking are at best only temporary measures. Landmines can and do move as weather conditions change. Areas considered clear and safe can become contaminated. In general, accessibility also for RE and VA, etc. is impacted as a result of (a change in) climate.	
Environmental policies	Mine action organisations need to consider the possible negative impacts of their recovery operations to ensure they do no harm to longer term vulnerability and livelihoods. For example, minimizing soil contamination and degradation can enable communities to restart small-scale farming, contributing to more secure and sustainable livelihoods in the longer-term.	 IMAS 10.70 Safety and Occupational Health – Protection of the Environment provides guidance to mine action operators about the identification and assessment of potential environmental impacts associated with their work. IMAS 07.13 Environmental Management in Mine Action.

Political environment		
What kind of information?	Why is this information important?	Possible sources
Stability	A stable political environment may lead to a more consistent mine	•
	action agenda and greater sustainability of capacity development	•
	and organizational development activities.	
Stakeholders	Any action of political stakeholders might influence the mine	•
	action agenda.	•

Sociocultural environment		
What kind of information?	Why is this information important?	Possible sources
Attitudes	Understanding the attitudes of individuals can impact the activities	•
	and the acceptance and use of its outcomes. Attitudes change	•
	across gender and age groups, and across different ethnicities,	
	religions, etc. Attitudes should be disaggregated by sex, age, and	
	relevant diversity considerations.	
	Questions that could be included are: Risk taking: high or low? Are	
	agreements build from bottom up or top down? Emotionalism:	
	high or low? Sensitivity to time: high or low? Communication:	
	direct or indirect? Personal style: informal or formal?	
Gender roles	Gender impacts exposure and may influence the dissemination of	IASC gender marker
	information. For example, men work on the fields and young boys	 UNDP SWAP, tool for gender mainstreaming
	play outside. In addition to understanding gendered patterns of	GMAP G&D Analysis per country
	exposure, risk taking, behavior, and communication channels,	SIGI platform



	occupation, responsibilities, mobility, capacity to participate in decision-making affect women, girls, boys and men's access to,	
	and participation in, activities.	
Community and social	It is important to understand the community and social structures	•
structures	for resilience purposes. What will be the social status of women,	•
	girls, boys and men after an accident? (Though this also depends	
	on the injury and/or type of accident and care provided.) Is there	
	any form of community support on a local level? How do	
	communities perceive victims and how does this affect the socio-	
	economic inclusion of the victims? A report of victim assistance in	
	Ukraine gave two examples of the inclusion of children who lost a	
	limb after an incident with explosive ordnance. One child was	
	outcasted, while the other child had the status of a hero.	
Social and economic capital	This factor influences the level of resilience of the affected	•
	population.	•
Religious beliefs and practices	Religious beliefs and practices might influence the way	•
	communities perceive the contamination threat. It influences	•
	perceptions of victims, and responsibilities of each age and	
	agender groups. It can also affect relationships between different	
	groups, be part of the history of conflict, influence gender norms	
	and relationships between gender groups, mobility patterns (for	
	instance, women not being able to travel alone without a	
	chaperone), employment opportunities, etc.	

CONTAMINATION

We need to know the contamination and the impact (in terms of death and injuries caused by explosive ordnance) in each location because it tells the severity of the intervention that is necessary in each location.

Size and location of contaminated areas		
What kind of information?	Why is this information important?	Possible sources
Location	Population affected disaggregated by sex and age.	National authority (if any) and IMSMA
		DTM MSLA can contribute with alerts on
		displacement locations where community identify the
		presence of EO. If MA & DTM in country have agreed
		to include such questions in DTM Field Companion for
		Mine Action.



Estimated type and quantity		Landmine and Cluster Munition Monitor
of explosive ordnance		•
Estimated or known date of		Landmine and Cluster Munition Monitor
contamination		■
Number of suspected and	Baseline survey that would include 'finds' of explosive ordnance	Landmine and Cluster Munition Monitor
confirmed contaminated	prior to having caused an accident. For instance, during conflict as	•
areas	in Nigeria or Mali.	
Markings	Differentiating local/informal from official/formal warning signs	•
	and markings. In IED context can include 'markers' to help aim the	•
	attack.	

Impact			
What kind of information?	Why is this information important?	Possible sources	
Deaths and injuries caused by	Reliable EO casualty data informs MA planning and prioritization.	Landmine and Cluster Munition Monitor	
explosive ordnance	Especially if this data is disaggregated by sex and age, activity at	•	
	the time of accidents, location and time of day.		
Displacement	Crucial to plan timely EORE interventions.	 DTM MSLA can provide a list of locations of origin of 	
		IDPs, location of origin of communities who identified	
		EO as a concern in their place of origin, or reason for	
		displacement. If MA & DTM in country have agreed to	
		include such questions in DTM Field Companion for	
		Mine Action.	
		•	
Economic loss	Understanding the economic impact of EO contamination,	 DTM MSLA can provide list of locations where 	
	disaggregated by sex and age, can inform planning of	community identified EO as impacting their access to	
	complementary activities to address additional push factors that	livelihood. If MA & DTM in country have agreed to	
	could be influencing people to engage in risky behaviour.	include such questions in DTM Field Companion for	
		Mine Action.	
Limited access to basic needs	Understanding if EO contamination blocks access to basic needs	DIM MSLA can provide list of locations where	
and services	and services can inform planning of complementary activities to	community identified EO as impacting their access to	
	address additional push factors that could be influencing people to	services. If MA & DIM in country have agreed to	
	engage in risky behaviour.	include such questions in DTM Field Companion for	
		Wine Action.	
Other consequences	Understanding other consequences of EO contamination can	•	
	inform planning of complementary activities to address additional	■	



push factors that could be influencing people to engage in risky	
behaviour.	

RESPONSE ENVIRONMENT

This section contains the information that is necessary to consider in the planning phase for implementing an effective strategy.

Mine action coordination			
What kind of inf	ormation?	Why is this information important?	Possible sources
Standards and	National mine		Landmine and Cluster Munition Monitor
guidelines	action		•
	standards		
	International		https://www.mineactionstandards.org/
	mine action		•
	standards		
	Standing		•
	operating		•
	procedures		
Capacity of	Military and	In certain contexts, military clearance does not fulfil NMAS or	Landmine and Cluster Munition Monitor
national	police	IMAS and where areas cleared by these cannot be assumed to	•
authorities		be fully cleared.	
	National mine	Is there a national mine action authority present, and if so,	•
	action authority	what is their capacity to coordinate?	•
Capacity of	Number and	Including information on VA partners as well.	•
implementing	location of		•
partners	partners		
Information	Information	IMSMA support the coordination and management of	Landmine and Cluster Munition Monitor
management	management	operational activities and is currently in use in more than 80%	•
	system for mine	of mine action programmes around the world.	
	action (IMSMA)		
	Access	Do we have access to the (different) information management	Landmine and Cluster Munition Monitor
		system(s)?	•
	Data quality	Is the available data correct, up to date, trustworthy and	Landmine and Cluster Munition Monitor
		useful?	•
	Users	Are there any other users around with whom we can	• DTM
		collaborate?	• REACH



Other data	Are there any other organisations that can provide us the	DTM MSLA
providers	information and data we need?	■ REACH
		UNHCR

Survey and Clearance			
What kind of info	ormation?	Why is this information important?	Possible sources
Size and	Number of	Knowledge about the suspected type, quantity and depth of	Landmine and Cluster Munition Monitor
location of	explosive	the suspected contaminated areas determines clearance	National authority (if any) and IMSMA
contaminated	ordnance	activities. Number of beneficiaries affected.	
areas	stockpiled		
	and/or	Size is measured in m2 and not by the number of items.	
	destroyed		
		Potential information on survey and clearance that has	
		already been done differentiated in line with IMAS and Land	
		Release terminology, for instance, cancelled, reduced,	
		cleared.	
Resources in	Presence of	Are national actors present that conduct clearance activities	Landmine and Cluster Munition Monitor
the country	national actors	and/or have resources available?	•
and/or			
available		This information is also important for RE and VA activities.	
internationally	Funding	Is there enough budget available to conduct clearance	Landmine and Cluster Munition Monitor
		activities?	•
Ability to access	Conflict	Are there any (ongoing) conflicts in the area that would	•
contaminated		constrain our ability to access the contaminated areas?	•
areas		Where clearance is not yet possible for access reasons, this	
		even further heightens the need for prioritization of the area	
		for EORE.	
	Political	Access to contaminated areas can be restricted due to	•
		political reasons.	•
	Seasonal	Are any access routes under water or under several	•
	conditions	centimeters of snow?	•
	Natural disaster		•
			•
Unintended	Do no harm and	Remnants of conflict typically block access to, and use of,	Landmine and Cluster Munition Monitor
consequences	avoid further	agricultural land, public services, markets and infrastructure,	•
	harm	among other things. The intrinsic value of mine action cannot	



be disputed in that it removes these barriers, saves lives and	
limbs, and restores safe access to key assets, in particular	
land. However, in conflict-affected contexts, where land and	
access to other natural resources are common drivers of	
conflict, releasing land, which was previously inaccessible,	
changes its status and value. Doing so can have unintentional	
negative consequences. It is equally important to know how	
to report contaminated areas in a safe way and how to deal	
with contamination in ongoing conflicts.	

Risk Education			
What kind of inf	formation?	Why is this information important?	Possible sources
Type of	Anti-personnel	In many countries the type of contamination depends on the	 Landmine and Cluster Munition Monitor
ordnance	IEDs	munitions/UXO in the west. Knowledge about the existing	
causing accidents	Cluster munitions	contamination is crucial for risk education activities.	
	ERW		
	Other		
Target audience	At-risk populations: unaware, uninformed, misinformed, reckless and forced Age and gender	There are several reasons why individuals are at risk from explosive ordnance. IMAS Mine Risk Education Best Practice Guidebook 1 puts risk-takers broadly into those five categories. Understanding risk factors informs the design of targeted risk education messages and whether there is need for complementary activities (e.g. alternative livelihood support, improving safe access to basic services) Age and gender need to be considered in the design of risk education materials, methodologies and approaches and composition of RE teams.	 KAP surveys Survivor surveys
	National/ international institutions	Also national and/or international institutions may require EORE, think for instance about local governments, aid workers, media, service providers, etc.	
Capacity of implementing partners	Number and location of partners		• •



Accessibility and barriers	Distances	How far do you have to travel to meet the at-risk population and how far does the population need to travel to reach you?	• •
	Availability of potential venues	Such as schools, community centers, health facilities, IDP and refugee camps, depending on mobility and access capacity.	• •
	Conflict	Are there any (ongoing) conflicts in the area that would constrain our ability to access the contaminated areas?	• •
	Political	Access to contaminated areas can be restricted due to political reasons	•
	Seasonal conditions	You might want to reconsider your strategy of organizing a risk education campaign outside in the middle of the rain season.	• •
	Languages and/or dialects	Local languages and/or dialects need to be considered in the design of a risk education campaign.	 DTM MSLA can provide list of languages/dialects by locations. If MA & DTM in country have agreed to include such questions in DTM Field Companion on AAP.
	Population literacy	Emphasis needs to be on the reading capability of the population.	• •
	Cost of materials	Is there enough money to cover the direct and indirect costs of the required materials?	• •
	Means of communication	What are the appropriate communication media and the appropriate modalities of communication (e.g.: radio, Facebook, images, writing, oral,)? Traditional media and/or social media? Means of communication needs to be adapted to gender and age groups.	 DTM MSLA can provide list of preferred and available means of communication by locations. If MA & DTM in country have agreed to include such questions in DTM Field Companion for Mine Action.

Victim Assistance			
What kind of information?		Why is this information important?	Possible sources
Number of	Type of explosive	This information feeds back into all the other activities.	Landmine and Cluster Munition Monitor the-
individuals	ordnance causing		monitor.org/
killed or	accident		•
injured by	Date and time of		
explosive	accident		
ordnance	Location of	This information feeds back into all the other activities.	
(disaggregated	accident		



by sex and age)	Victim activity at time of accident causing the explosion	With this information, risk education and victim assistance programmes can be adjusted/targeted.	
	Victim status, including type of injury	This information represents how many individuals are killed or injured (including type and severity of injury) by explosive ordnance. Are they civilian/non-civilian?	
Healthcare	Emergency and continuing medical care	Where is the nearest emergency and continuing medical care provided? And are those hospitals and/or other medical facilities still functioning? Can people access them (women/girls/boys/men have different mobility?) Are there people trained in first aid? Is there an information system that registers victims and contribute to their referrals to appropriate services?	 Landmine and Cluster Munition Monitor Health Cluster
	Physical and other rehabilitation	Rehabilitation is care that can help a person get back, keep, or improve abilities that they need for a healthy and active daily lifestyle. These abilities may be physical, mental, and/or cognitive (thinking and learning). Are there rehabilitation services present? And how often do victims have access to them?	 Landmine and Cluster Munition Monitor Health Cluster ICRC
	Psychological and psychosocial support	Psychological and psychosocial support helps victims to heal the psychological wounds and rebuild social structures after the accident. It can help change people into active survivors rather than passive victims.	 Landmine and Cluster Munition Monitor Health Cluster
Livelihood alternatives	Social security	Is there any form of monetary assistance from the state for victims who cannot provide for themselves and/or their family anymore? Are there socio-economic programmes in place? Are there programmes to facilitate the return of children to school (inclusive education)?	 Landmine and Cluster Munition Monitor
	Alternative employment	Are there any opportunities for employment for victims?	 Landmine and Cluster Munition Monitor
Accessibility and barriers	Travel distance to emergency healthcare	A lot of accidents appear to happen in remote settlements with long travel distances to appropriate emergency healthcare.	 Landmine and Cluster Munition Monitor



	Means of transportation	Do victims have the means of transportation to and from the required healthcare?	 Landmine and Cluster Munition Monitor
	Lack of awareness	Some victims might not be aware of their rights and entitlements to assistance. Others might not be aware of the importance of medical examinations and/or might not know where to access it or have little awareness and information about rehabilitation opportunities.	 Landmine and Cluster Munition Monitor
	Level of trust	Some victims might have little trust in for example psychological counselling.	•
	Conflict	Are there any (ongoing) conflicts in the area that would constrain our ability to access the contaminated areas?	 DTM MSLA can provide list of access by locations changes over time. If MA & DTM in country have agreed to include such questions in DTM Field Companion on Protection.
	Political	Access to contaminated areas can be restricted due to political reasons	 Landmine and Cluster Munition Monitor
	Seasonal conditions	Are any access routes under water or under several centimeters of snow?	 DTM MSLA can provide list of access by locations & changes over time. If MA & DTM in country have agreed to include such questions in DTM Field Companion on Protection.
Laws and public policies	Legal status	Feasibility of receiving official recognition that one is injured and disabled as a result of armed conflict.	 Landmine and Cluster Munition Monitor
	Rights of victims	What are the rights and entitlements to different types of assistance that could and/or should be available to mine/ERW victims? Those can be embedded in human rights, children's rights and rights of persons with disabilities. This information tells us the obligations we have towards victims.	 Landmine and Cluster Munition Monitor
	Level of implementation	What is the level of implementation of both the legal status and the rights of victims?	 Landmine and Cluster Munition Monitor

As of 17 February 2020