



Islamic Republic of Afghanistan
Afghanistan National Disaster Management Authority
Directorate of Mine Action Coordination

MINE ACTION LIVELIHOOD SURVEY

REPORT - 1397/2018



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Funded by:

U.S. Department of State
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Implemented by:

Directorate of Mine Action Coordination (DMAC)
Afghanistan National Disaster Management Authority



Directorate of Mine Action Coordination (DMAC)

The Directorate of Mine Action Coordination (DMAC) was established in 1989 under the direction of the office of the Prime Minister to coordinate, oversee and regulate mine action activities in Afghanistan. In 1994, DMAC was amalgamated with the Afghanistan National Disaster Management Authority (ANDMA). ANDMA is the principle institution at the national level with the mandate to coordinate and manage all aspects related to disaster management (both natural and man-made disasters) and humanitarian affairs including mine action. DMAC, now one of the directorates of ANDMA, coordinates, monitors and oversees the work of the humanitarian Mine Action Programme of Afghanistan (MAPA).

DMAC is supported by the United Nations Mine Action Service (UNMAS) since 2008. UNMAS provides technical and capacity development support to DMAC.

The U.S. Department of State, Office of Weapons Removal and Abatement (PM/WRA) provides financial contributions to DMAC in support of DMAC's capacity development and promotes national ownership of the programme. PMRWA's contributions to DMAC are made through a Slovenian organization, the International Trust Fund (ITF) – Enhancing Human Security.

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We are very grateful to ITF- Enhancing Human Security for providing logistical support and to the communities that received us in an amicable and hospitable way, and patiently provided the information required for attaining the objectives of the survey. We hope that the information in this report will benefit these and other mine-affected communities in Afghanistan.



Team involved in the Mine Action Livelihood Survey - Khost

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List of abbreviations:

AMAS	Afghanistan Mine Action Standards
ANDMA	Afghanistan Nation Disaster Management Authority
AP	Anti-Personnel (mine)
AT	Anti-tank (mine)
BF	Battlefield
DMAC	Directorate of Mine Action Coordination
DMC	Department of Mine Clearance
EOD	Explosive Ordnance Disposal
ERW	Explosive Remnants of War
GICHD	Geneva International Centre for Humanitarian Demining
ICRC	International Committee for the Red Cross
IDPs	Internally Displaced Persons
IED	Improvised Explosive Device
IM	Improvised Mine
IMSMA	Information Management System for Mine Action
IPs	Implementing Partners
ITF	International Trust Fund
MAPA	Mine Action Programme of Afghanistan
MF	Minefield
MRE	Mine Risk Education
PDIA	Post Demining Impact Assessment
PM/WRA	Political-Military Affairs, Office of Weapons Removal and Abatement
PPIED	Pressure Plate Improvised Explosive Device
QA	Quality Assurance
QC	Quality Control
QM	Quality Management
QMS	Quality Management System
Sq. m	Square Meter
UNMAS	United Nations Mine Action Service
UXO	Unexploded Ordinance

1. Executive summary

This Mine Action Livelihood Survey Report is intended to highlight the contributions made by the MAPA to Afghanistan's development and how to further enhance the focus of demining to the development outcome level. In line with the National Mine Action Strategic Plan (2016-2020) and in particular, the first of its four goals "Facilitating Development", the mine action livelihood survey underlines how this facilitation of development is fulfilled in practice.

The mine action livelihood survey was funded by the U.S. Department of State, Bureau of Political-Military Affairs, Office of Weapons Removal and Abatement (PM/WRA), through ITF-Enhancing Human Security.

DMAC carried out the Mine Action Livelihood Survey 2018 in Khost Province, during 8th-16th August 2018. This survey was carried out by four trained teams in twelve communities located in the five districts of Khost Province.

The communities were selected in a way to give a different sample of cleared and partially cleared hazardous areas, a mix of contamination types (UXO and/or mines), and urban and rural locations. The 12 villages surveyed cannot adequately represent all the affected communities in the region. However, this selection sought to contrast urban and rural settings, different types of contamination and various stages of clearance.

Focus group discussions were held separately with men, women, boys and girls, and included village leaders, farmers and key informants. Opportunities were provided for the members of the teams to discuss the findings during debriefing sessions when the survey was completed.

Main Findings:

The cleared areas directly benefit 7,507 families and are used for agriculture, pastures, housing, schools, clinic, irrigation canals, roads and as a source of wood collection. In summary, land release activities created the following opportunities:

Agriculture and farming:

- Over the course of one year, the 12 communities surveyed, have harvested crops and animal products/dairy, from the cleared lands and attained up to USD 1,436,978.
- 260 Hectares of barren land was rehabilitated and turned into a fertile agriculture land as a result of the clearance of contaminated canals in four villages from mine/ERW.
- Approximately 3,000 trees planted on cleared ground, which makes the surrounding green.
- Approximately 10,124 livestock (sheep, goats, cows) are fed in the cleared areas.

Construction and development:

- Construction of five schools on cleared land and access to seven schools in 12 surveyed village.

- Construction of a clinic on cleared land in Gulan refugee camp, Borikhel village, provide essential health services for the refugees and residence of Borikhel village.
- Construction of 2,795 new houses including 1,500 shelters of North Waziristan refugees on cleared lands.
- Twenty-two thousand cubic meters of construction materials (gravel and sand) over a one-year period obtained from cleared borrow pit.

Access, connectivity and roads:

- Construction of asphalted road on cleared land, which connects Khost city with two districts.
- Over 1,500 refugee families from North Waziristan safely settled into Gulan camp.
- Installation of two mobile phone antenna on cleared land
- Power poles were installed on cleared land, which will transmit electricity from Kabul to Khost.

Case Studies:

The five case studies detailed in part six (VI) of this report provide a snapshot of the situation after clearance and the outcomes of the demining work in the surveyed villages.

Perception of safety:

The clearance operations have enabled the population to farm their lands efficiently, graze livestock and access other facilities without concern for their safety or that of their children.

In total 10,655 explosive devices were found and safely destroyed by demining teams in the 12 villages surveyed. It is evident that the work of mine action clearance serves as a lifesaving operation.

Mine Risk Education:

It was revealed that the coverage of MRE was good during the recent years in the communities visited.

Based on the information collected from the communities and also according to the mine action national database, MRE sessions were provided to all twelve villages surveyed. The level of MRE coverage for women appears to be less than for men and based on the findings of the survey, women in three communities said that they did not receive any MRE sessions.

Victim Assistance:

According to information collected from the twelve surveyed villages, before the clearance 126 people became victims of mine/ERW accidents. The survey teams interviewed 52 mine/ERW victim/ERW who told the survey team how they became victim of mine/ERW accidents. The survey team also interviewed the families of 7 victims who were killed as a result of mine/ERW explosion. The majority of victims interviewed had lost their legs, some others lost arms and some of them lost their eyes.

It was found that all of the victims interviewed received medical support after they survived mine/ERW explosion. Furthermore, those victims who lost their arms or limb received artificial limbs/hands by the International Committee of the Red Cross (ICRC).

Prioritization:

It was found that the villagers are satisfied with the prioritization of cleared areas within their communities and the elders of the surveyed communities stated that the demining teams have consulted with them before the start of clearance operations.

However, none of the women in the communities visited said that they had been consulted. It shows that the viewpoints of the women in the visited communities were not considered while planning the mine action operations in these communities, which can be outlined as an area of improvement for the future.

Quality Management:

Generally, it was found that the community members (men and women) are confident that the area is safe after clearance by demining teams. The findings of the survey indicate that DMAC has successfully established procedures for monitoring and controlling the technical processes and outputs of mine action to make sure that the area after clearance is safe and also the cleared lands are being used for the purposes illustrated in the project proposal of the demining implementing partners.

Capacity Development:

The sixth mine action livelihood survey was planned, managed and conducted by staff from DMAC. The results indicate that the process of training and implementation had no problem and the DMAC survey teams were able to visit all the 12 villages selected for the survey.

2. Introduction

Mine Action Livelihood Survey seeks to understand the development outcomes from demining activities better. This survey is undertaken at community-level and on a periodically to document the achievements and identify changes to policy and practice that could further enhance the contribution that the Mine Action Programme of Afghanistan (MAPA) makes towards Afghanistan's development. The survey findings will contribute to better reporting to the MAPA donors and the Government of the Islamic Republic of Afghanistan (GoIRA) as well as to the mine and ERW affected communities about the contributions made by the MAPA.

Implementation of this survey required female interviewers as well, Afghan women surveyors were included in each survey team to ensure that the views and insights of women and children are noted.

The primary objective of the survey was to get a better understanding of the mine action impact on livelihood and development of the communities and how to further enhance the positive effects of mine action intervention in the communities, particularly in the rural parts of the country where people suffer from underdevelopment and insecurity.

The sustainable livelihood framework is used for the survey as a basis for obtaining a balanced and holistic view of the situation in ERW/landmine-affected communities.

In pursuance to the series of Mine Action Livelihood surveys initiated by the UNMAS in partnership with the GICHD, DMAC was interested in continuing the conduct of regular mine action livelihood surveys in order to understand better the livelihood and development outcomes resulting from mine action operations in the communities.

The following mine action livelihood surveys were conducted from 2010 to 2018.

1. The 1st survey was conducted in 2010, through which 25 communities were surveyed in Kabul, Parwan and Balkh provinces.
2. The 2nd survey was conducted in 2011, through which four communities were surveyed in the western province of Herat.
3. The 3rd survey was conducted in 2012, through which four communities were surveyed in the north eastern province of Badakhshan.
4. The 4th survey was conducted in 2016, through which 21 communities were surveyed in Bamyan and Samangan provinces.
5. The 5th survey was conducted in 2017, through which 24 communities were surveyed in Nangarhar and Takhar provinces.
6. The 6th survey was conducted in 2018, through which 12 communities were surveyed in the south eastern province of Khost.

3. Survey location

This mine action livelihood survey was implemented in the southeast region of Afghanistan in Khost province.

Khost is one of the 34 provinces of Afghanistan, located in the southeastern part of the country. To the east, Khost Province is bordered by Waziristan and Kurram in Pakistan. It is divided into 13 districts and has a population of around **605,177**, which is mostly a tribal society. The city of Khost (Matun) is the capital of Khost province.

Scope of the current contamination in Khost Province:

Based on the national mine action database, as of 1st August 2018, there were 62 recorded mine/ERW hazards covering an area of **9,387,865** square meters and impacting 30 communities in 8 districts of Khost province. The remaining contamination in Khost Provinces constitutes 25% of anti-personnel (AP) mines, 4% of anti-tank (AT) and 71% is ERWs. Out of 9,387,865 square meters area, 4,972,058 square meters are contamination from the post-2001, while the remaining relates to legacy contamination.

The indirect impact of this contamination on other communities is considerable. Each minefield is linked to only one community. If a minefield is between communities, it impacts not on only the nearest one but also neighboring communities which are using the roads, the land for agriculture and grazing.

In addition, contamination impacts people travelling between non-contaminated communities when they pass through the affected community. Furthermore, if development projects aimed to assist a group of impacted and non-impacted communities are hampered due to landmines, this has an impact on all nearby communities who might potentially benefit from the development project such as power lines and other infrastructures, rather than just the contaminated community.

Most of the AP contaminated areas are located in the Tani district, followed by the Gurbuz and Matun, while the other four districts (Sabari, Nadir Shah Kot, Tere Zayi and Shamal) has the fewest AP hazards. The Tani district also remains the most affected in terms of the number of hazards and contaminated area.

The Sabari district is the most affected in terms of the number of AT hazards and contaminated area, followed by the Gurbuz district. The Tani, Mando Zayi and Tere Zayi districts are notably less affected by AT mines.

Note that the Tani district has the highest number of ERW hazards, but the area of contamination is greatest in Mando Zayi district.

See below tables for a more detailed breakdown.

Table 1: Remaining contamination by device type, order of area (square meters)

Type of Hazards	Number of Hazards	Remaining Area
AP	42	2,374,040
AT	15	375,583
ERW	5	6,638,242
Total	62	9,387,865

Table 2: Remaining AP contamination by district, order of area (square meters)

District	Device Type	Number of Hazards	Remaining Area
Gurbuz	AP	12	642,563
Khost (Matun)	AP	8	532,265
Nadir Shah Kot	AP	3	181,703
Sabri	AP	2	202,512
Shamal	AP	1	21,476
Tani	AP	13	698,791
TereZayi	AP	3	94,730
Total		42	2,374,040

Table 3: Remaining AT contamination by district, order of area (square meters)

District	Device Type	Number of Hazards	Remaining Area
Gurbuz	AT	6	96,700
Mando Zayi	AT	1	15,351
Sabri	AT	6	226,000
Tani	AT	1	27,302
TereZayi	AT	1	10,230
Total		15	375,583

Table 4: Remaining ERW contamination by district, order of area (square meters)

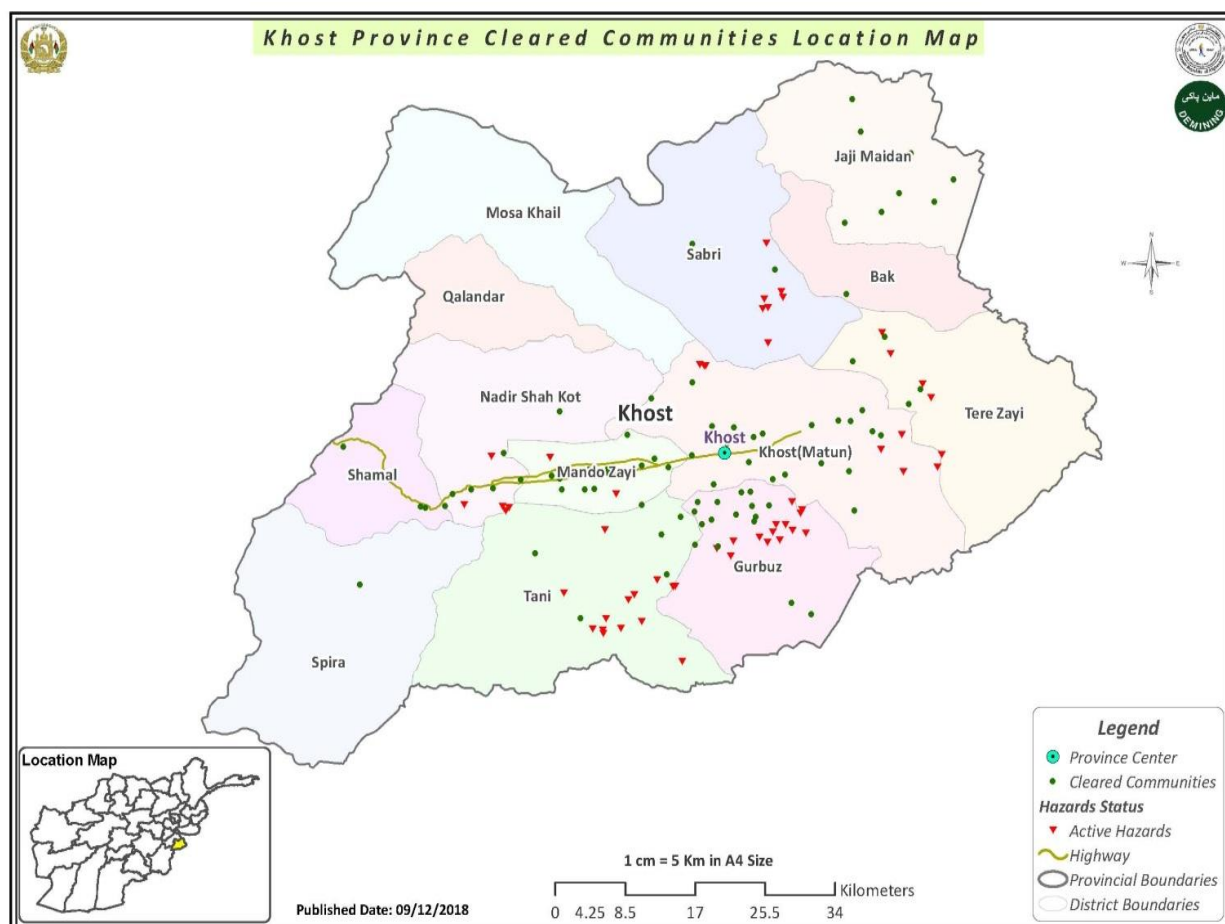
District	Device Type	Number of Hazards	Remaining Area
Mando Zayi	ERW	1	4,972,058
Tani	ERW	4	1,666,184
Total		5	6,638,242

Table 5: Area cleared, remaining contamination and civilian casualties by district, order of area (square meters)

S.#	District	Area Cleared	Remaining Area	Civilian Casualties
1	Bak	2,150,259	0	27
2	Gurbuz	12,699,528	739,263	67

3	Jaji Maidan	2,263,803	0	75
4	KhostMatun	9,190,043	532,265	524
5	Mando Zayi	6,954,555	4,987,409	73
6	MosaKhail	3,094	0	46
7	Nadir Shah Kot	2,755,534	181,703	69
8	Qalandar	0	0	24
9	Sabri	1,589,867	428,512	58
10	Shamal	1,958,665	21,476	15
11	Spira	462	0	17
12	Tani	7,158,946	2,392,277	73
13	TereZayi	1,150,342	104,960	31
Grand Total		47,875,098	9,387,865	1,099

Figure 1: Location of communities in Khost Province



Civilian casualties in Khost province:

Based on the national mine action database from January 2017 to July 2018, in total 110 civilian

casualties due to mine, ERW and IM explosions were recorded in Khost province. In this period, the civilian casualties from AP mine were at 1%, 75% were associated with ERW and IM made up 24% of all civilian casualties. IM is used by anti-government elements to target military personnel and convoys. However, since they are victim-activated (unlike remote-controlled IEDs), many IM incidents result in the loss of civilian life. Under the terms of the Ottawa Treaty, victim-activated mine items are considered to be anti-personnel mines.

The locations of IMs are not recorded precisely, so after every single IM incident, a vast area is suspected of containing more IMs. This poses a long-term challenge for Afghanistan.

Table 6: Civilian casualties by district from January 2017 to July 2018.

District	Mine		ERW		IM		Total
	Injured	Killed	Injured	Killed	Injured	Killed	
Bak	0	0	2	0	0	0	2
Gurbuz	0	0	5	3	0	0	8
JajiMaydan	0	0	4	1	3	0	8
Matun	0	0	1	0	7	2	10
Mando Zayi	0	1	0	0	0	0	1
Nadir Shah Kot	0	0	37	11	6	2	56
Sabri	0	0	1	1	3	0	5
Spira	0	0	11	0	0	0	11
Tani	0	0	6	0	0	0	6
TereZayi	0	0	0	0	3	0	3
Total	0	1	67	16	22	4	110

From the beginning of programme to July 2018, in total 1,099 civilian casualties were recorded due to mine, ERW and IM explosions in Khost province. In this period, the civilian casualties from AP mine were accounting for 19%, 72% were because of ERWs and IM made up to 9% of all civilian casualties.

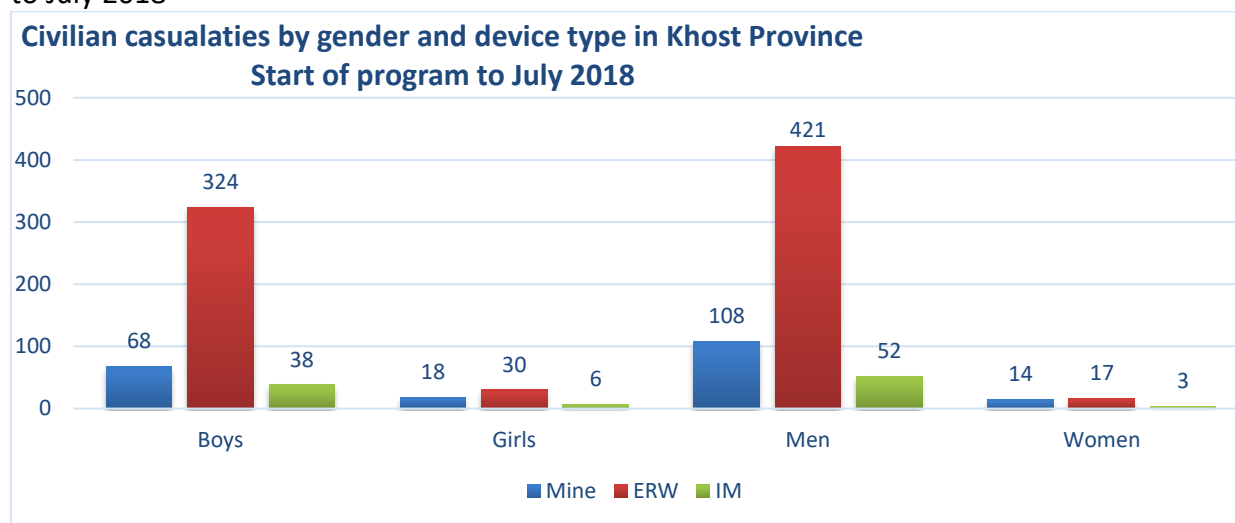
Table7 below shows a summary of civilian casualties from the beginning of programme until July 2018, demonstrating that ERWs have had a significantly higher toll, far greater than mines and IM. The central district of Khost (Matun) had the highest share of mines, ERWs and IM casualties, while the Jaji Maydan, Mando Zayi and Tani had the second, third and fourth highest number of recorded casualties respectively in the province.

Table 7: Civilian casualties by district from the beginning of the programme to July 2018.

District	Mine		ERW		IM		Total
	Injured	Killed	Injured	Killed	Injured	Killed	
Bak	14	0	8	2	3	0	27
Gurbuz	12	2	38	9	4	2	67

JajiMaydan	33	0	27	1	13	1	75
Matun	35	9	315	133	27	5	524
Mando Zayi	23	7	35	7	1	0	73
MosaKhail	4	0	33	4	4	1	46
Nadir Shah Kot	3	0	43	11	10	2	69
Qalandar	1	3	17	0	3	0	24
Sabri	10	1	27	7	12	1	58
Shamal	7	0	5	3	0	0	15
Spira	1	0	15	1	0	0	17
Tani	31	3	36	3	0	0	73
TereZayi	6	3	10	2	8	2	31
Total	180	28	609	183	85	14	1,099

Graph-1: Civilian casualties by gender and device type in Khost, from the start of the programme to July 2018



4. Survey implementation

Human Resources:

This survey was carried out by four trained (2 x male and 2 x female) teams comprised of DMAC and ANDMA provincial staff, in 12 communities located in five districts (Gurbuz, Matun, Mando Zayi, Nadir Shah Kot and Shamal) of Khost province (please refer to Annex-1).

Participation and inclusion of the women surveyors considerably enhanced the breadth of information obtained.

Table-8: List of communities visited by the survey teams in Khost province.

Table of List of communities visited by the survey teams in most province.							
S#	Location			Number of Hazard Cleared		Hazard Area Cleared (Sq. m)	
	Province	District	Community	MF	BF	MF	BF
1	Khost	Gurbuz	Bagikhel	19	1	704,278	5,230
2			Borikhel	117	3	6,222,598	167,850
3			Patlan	12	0	631,628	0
4			Shahid Kalay	9	0	538,120	0
5		Khost (Matun)	KamkayMazghar	21	1	694,534	2,849
6			Kharcin	15	3	713,892	193,206
7		Mando Zayi	Bar Khankhel	13	2	888,425	9,864
8			Dadwal	7	2	367,248	12,889
9			Durnamey	12	0	509,633	0
10			Haydarkhel	60	3	2,993,067	96,506
11		Nadir Shah Kot	SperGhawara	26	0	1,562,611	0
12		Shamal	Dwamanday	14	1	893,488	60,526
Total				325	16	16,719,522	548,920

Gender Considerations:

Since male surveyors cannot generally access female community members due to cultural restrictions, a gender perspective has been mainstreamed throughout the process of this survey.

In order to access both women and men in the affected communities two female survey teams participated in the survey. Women surveyors were involved in the planning, training, implementation and data collection of the survey. This approach enabled the survey to reach out to both female and male community members and to acknowledge, identify and understand the differences, distinct capabilities, responsibilities, needs and priorities of women, girls, boys and men.

Due to their gender-specific mobility patterns, roles, rights and responsibilities, women, girls, boys and men often hold different information on areas that are contaminated, or suspected of being contaminated, in their communities. Each category has different exposure patterns to the threats caused by the hazards, and different responses to the hazards and their consequences.



Surveyors interviewing all groups in the communities

If all groups are not consulted in information gathering activities, vital and life-saving information may be lost. In other areas of mine action, such as Mine/ERW- risk education and participation in the prioritization of hazardous land for clearance, gender determines the access to and impact of activities and services, where women and girls often face more restrictions compared to men. Gender-specific roles and responsibilities can also mean that women, girls, boys and men have distinct clearance priorities.

Cultural restrictions and norms prevent some women from travelling and working away from their families and home area; therefore, female surveyors were hired in Khost accompanied by a Mahram (chaperone) when they were traveling to communities.

Criteria for selection of communities for inclusion in the survey:

Selection of the communities in Khost province was in such a way to know the impact of mine action on both urban and rural communities. The 12 villages surveyed cannot fully be representative of all affected communities in the province. However, selection sought to contrast between urban and rural settings, different types of contamination, different land type

of blockages (agricultural, grazing or residential), the different type of hazards and different stages of clearance.

The villages selected based on the below criteria:

1. Security & accessibility.
2. Region (Southeast).
3. Village contamination status:
 - Fully cleared
 - Partially cleared
4. Type of contamination problem (Only ERW or Mine & ERW contaminated).
5. Areas cleared by different demining methods.
6. MFs/BFs with varied terrain, such as flat, mountainous areas.
7. MFs/BFs with varied outcomes such as:
 - Quantity of crops produced on cleared land.
 - Number of families accommodated on cleared land.
 - Estimated amount of income villagers can secure as a result of their land cleared of mines/ERW.
 - Number of public works constructed on cleared land.

Other key factors:

1. Community Impact Category (high/medium/low).
2. Ethnic make-up.
3. Long-established versus new communities.
4. Degree to which community has alternative livelihood options.
5. High/low numbers of victims in community.

Methodology:

The sustainable livelihood framework was used for the Khost survey as a basis for obtaining a balanced and holistic view of the situation in ERW/landmine-affected communities (please refer to Annex-2).

Meeting with Khost Governmental Authorities:

To ensure that the provincial authorities in Khost province are involved, before the start of the survey, the DMAC accompanied by the provincial director of ANDMA, had meetings with the deputy governor and sector director of Khost and briefed them about the survey and its objectives. Both, the deputy governor and sector director, were keen to know about the positive impacts of mine action on the country's development. They promised support of the governmental authorities for the successful completion of the survey.



Meeting with Deputy Governor of Khost province

Survey team training:

As part of the survey plan, there was a three-day training for the survey teams to ensure a common understanding of the survey objectives and to practice the survey and data collection tools.

The purposes of the training were to:

- Gain a common understanding of the task.
- Understand the principles, approaches and tools to be used in the survey.
- Practice the tools and skills that will be used in the survey.
- Agree on teams, roles, equipment, timetable and logistics for the survey.



Survey teams during training

The training covered the following topics:

- The sustainable livelihoods approach.
- Gender and mine action.
- Sustainable livelihood analysis tools.
- Quantitative data for the economic analysis of mine action.
- Land allocation and land use questions.
- Logistics of the survey.



Survey team's group work during training



5. Survey findings

The survey findings are presented below and represent what communities expressed to the survey teams and all the required measures taken into consideration to reflect the results as accurately as possible.

The survey teams collected information and recommendations from 12 communities on the impact of mine action on development, the economic returns from mine action, and the prioritization, quality management, mine risk education and victim assistance aspects of mine action. Gender and diversity (including age and occupation) are cross-cutting issues that were integrated into the survey findings. The report also examines the capacity of DMAC personnel to be able to design, conduct, analyze and report on future landmines livelihood surveys.

The survey findings of each of the issues mentioned above are reflected separately along with some case studies. There is also a part describing the conclusion on the capacity of DMAC personnel to be able to design, conduct, analyze and report on future landmine and livelihood surveys. Gender and diversity, as well as age and occupations, are cross cutting issues that have been integrated into the above sections.

Economic Returns to Investment in Mine Action:

Community residents provided evidence on economic benefits such as cultivation of agriculture land, the establishment of productive orchards, access to construction materials, tending animals in demined land, construction of irrigation canals, construction of houses, schools, clinic, roads and as a source of wood collection. Furthermore, installing of the power transmission line for electricity energy system in demined land was indicated by locals.

The general descriptions suggest that demining contributed to very significant benefits and enabled follow-on investments.

The wide variety of assets freed and created opportunities following the clearance operations in 12 surveyed communities include:

- In total 7,507 families with an average household size of seven persons (52,549 individuals) in the 12 communities surveyed directly benefited from mine action activities.
- Over the course of one-year, the 12 communities surveyed have harvested 1,175,477 kilograms (kg) cereal crops (wheat, corn, rice); 293,869 Kg green crops (alfalfa, fodder); 195,913 Kg various vegetables, 146,935 Kg various fruits, 106,474 Kg firewood and 1,518,627 Kg animal product/ dairy from the cleared lands. The value of these crops/products equals to **USD1,436,978** which represents growth in the local economy.
- 260 Hectares of barren land was rehabilitated and turned into a fertile agriculture land as a result of clearance of contaminated canals in four village (Borikhel, Kharcin, Bar Khankhel and SperGhawara) from mine/ERW.

- Approximately 3,000 trees have been planted so far in Patlan village and one more hectare of land has been preserved for planting of more trees on the cleared land, this provides ecological green space and a recreational place for villagers.
- Approximately 10,124 livestock (sheep, goats, cows) are fed in the cleared areas, in the surveyed communities food security increased as more food was produced including meat and dairy.
- Construction of the 50 Km paved road on the cleared land, which connects Khost city with two districts. This improved access to markets, reduced travel time and fuel consumption, therefore all of which have improved household incomes.
- Installation of two mobile phone antenna on the cleared land, which improves social contacts of the communities.
- Extension of the power transmission line for electricity to Khost province, improved access to electricity, reduced the need for firewood and the use of generators and overall had a positive environmental effect.
- Construction of five schools on the cleared land and access to seven schools in 12 surveyed villages, provided education facilities for, 12,740 students (8,530 boys and 4,210 girls).
- Construction of 2,795 new houses including 1,500 shelters for North Waziristan refugees on the cleared lands.
- Construction of a clinic on the cleared land in Gulan refugee camp, Borikhel village, provided basic health services for the refugees and residents of Borikhel village.
- Over 1,500 refugees' families from North Waziristan safely settled into Gulan camp.
- 22,000 cubic meter construction materials (gravel and sand) over one-year period obtained from cleared borrow pit.
- As a result of clearance, people have more freedom of movement in the areas cleared.
- The clearance has enabled the population to farm their lands efficiently and grow enough food to support their families, graze livestock and to access other facilities without concern for their safety or that of their children.
- Ability to safely use the grazing land for cows, sheep and goats, both for villagers and nomadic Kuchies (nomads).

**Note: For the purpose of this table, one US dollar was calculated as equivalent to AFN 75*

Table-9: Annual income from cleared land in the 12 surveyed communities:					
S. #	Crop/Product Type	Annual Harvest in Kg	AFN value per Kg	Total AFN Value	Total Value in USD*
1	Cereal Crop (wheat, corn, rice)	1,175,477	35	41,141,711	548,556
2	Green Crop (alfalfa, fodder)	293,869	15	4,408,040	58,774
3	Various Vegetables	195,913	20	3,918,258	52,243
4	Various Fruits	146,935	30	4,408,040	58,774
5	Firewood	106,474	7	745,320	9,938
6	Animal Product/Dairy	1,518,627	35	53,151,954	708,693
Total				107,773,324	1,436,978

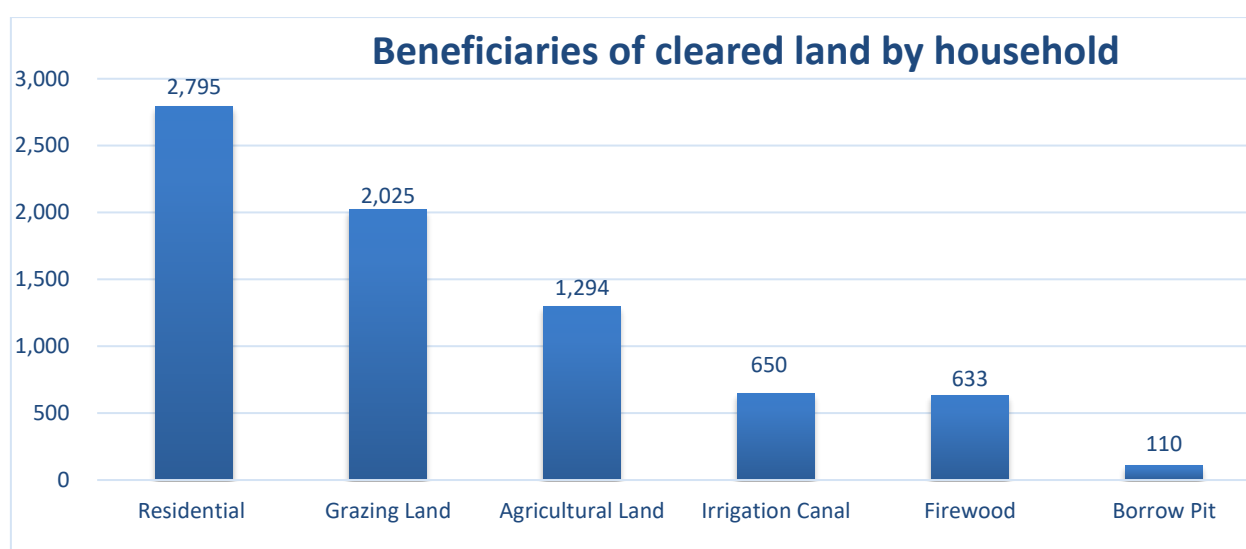
Table-10: Beneficiaries of cleared lands by household

S.#	Land/Facility Type	Number of households ¹ benefitting from the cleared land	Remarks/Description
1	Agricultural Land	1,294	3,882 livestock feeding from cleared agricultural lands
2	Grazing Land	2,025	6,242 livestock feeding from cleared grazing lands.
3	Firewood	633	106.5 metric ton firewood collected from cleared lands over a year
4	Residential	2,795	2,795 houses including 1,500 shelters for North Waziristan refugees and 6 mosques constructed on cleared lands
5	Irrigation Canal	650	260 Hectare barren land rehabilitated and turned into a fertile agriculture land as a result of clearance of contaminated canals from mines/ERWs.
6	Borrow Pit	110	22,000 cu. m construction materials (gravel and sand) over one-year period obtained from cleared borrow pit.

¹Note: Family with an average household size of 7 persons.

7	Road	Construction of the 50 Km paved road on the cleared land in Bar Khankhel village, Mando Zayi district, which connects Khost city with two districts. Through the construction of this road people travel with reduced fare and also transport their agricultural products sooner and with less cost of transportation.
8	Clinic	Construction of a clinic on the cleared land in Gulan refugee camp, Borikhel village, provides basic health services for the refugees and residents of Borikhel village.
9	Schools	Construction of five schools on cleared land and access to seven schools in 12 villages of Khost province, provide education facilities for 12,740 (8,530 boys and 4,210 girls) students.

Graph-2: Beneficiaries of cleared land disaggregated by Outputs:



Economic impact of reducing injury and death:

The national database shows 88 casualties in total from the 12 communities but based on information provided by the villagers there were 126 casualties before demining, while none of the communities reported civilian casualties on the cleared areas since release. This survey ***confirmed that in the 12 villages visited no civilian casualties occurred after the clearance.*** This validates that demining work has delivered a substantial humanitarian benefit in terms of reduced pain and suffering.

There is also a significant economic benefit as the reduction in injury and death has led both to reduced medical and care costs, and to increased productivity. If the contaminated areas were not cleared, similar mine/ERW-related accidents may have happened to people and their animals.

Reduction on civilian casualties following clearance operations:

The people surveyed recalled in great detail those who were killed or injured due to mine and ERW explosions in their villages. According to the information collected from all the 12

communities, in total, there were 126 people injured or killed.

Based on the information given by the villagers, no accidents happened in the areas cleared by demining teams after the release of the land and also no one indicated that they found any mine or ERW after the clearance was completed.

There was some difference in the number of mine/ERW victims between what was told by the villagers and the recorded data in mine action database. Table below demonstrates the differences.

Table 11. Victims before and after clearance

S#	Village	Victims before clearance according to IMSMA database	Victims before clearance according to villagers	Victims after clearance
1	Bagikhel	9	14	0
2	Borikhel	14	16	0
3	Patlan	4	5	0
4	Shahid Kalay	2	4	0
5	KamkayMazghar	4	7	0
6	Kharcin	4	5	0
7	Bar Khankhel	1	6	0
8	Dadwal	25	32	0
9	Durnamey	5	6	0
10	Haydarkhel	7	9	0
11	SperGhawara	9	15	0
12	Dwamanday	4	7	0
Total		88	126	0

The table shows significant discrepancies between the mine action database and villager's figures. In all of the cases, figures provided by the villagers are higher than those provided by the national database. This discrepancy may be due to several factors, including the date at which the data is given, the inaccuracy in the recollection and confusion over the area underestimation.

Impacts of demining on development:

Through the data collected by the survey teams, many observations on the livelihood and development outcomes after clearance were identified. The findings of the livelihood teams encouragingly point towards tangible livelihood gains being made by households after the clearance of areas blocked by mine and ERW contamination.



A school being constructed on demined land in Patlan Village

The 12 villages visited faced different threats from landmines and ERWs. Landmines of different types (AP and AT) have been used since the Soviet invasion of Afghanistan. Many villages have been affected by the

presence of landmines since the early 1980s. In most cases, clearance started 24 years ago, and in several of the villages, clearance had only recently been completed.

Example of a timeline: Borikhel village, Gurbuz district of Khost (according to community members)

1983-Mines planted by Soviet forces and Mujahidin
 1987 - First accident happened to the local population
 1996 -Survey and demining started
 1992 - Mine risk education
 1997 - The cleared area used as grazing, agricultural land, residential and irrigation system.
 2018 - Still there are mine contaminated areas in the village

Table-12: Cleared lands socioeconomic impacts on communities:

S.#	Land/Facility type	Outcomes	Impacts
1	Agricultural Land	<ul style="list-style-type: none"> - Income increased - Employment opportunities enhanced - Cost of agriculture production reduced - income generation and opportunity enhanced - More production of livestock and crops 	<ul style="list-style-type: none"> - Social activities improved - Economic conditions improved - Peaceful and stable community in long terms - Socio-economic development of the local community - Environmental rehabilitation and asset creation

		<ul style="list-style-type: none"> - Disaster risk reduced - Human and asset loss control 	
2	Grazing Land	<ul style="list-style-type: none"> - Income increased - Food security increased as more food was produced, including meat and dairy - Dairy cost of production reduced - More production of livestock - Disaster risk control and well manage pastures 	<ul style="list-style-type: none"> - Social activities improved - Economic conditions Improved - Sustainable social and economic activities in long terms - Peaceful and stable community in long terms - Socio-economic development of the local community
3	Irrigation System	<ul style="list-style-type: none"> - Improved irrigation system in the community - Agriculture system and sector improved, - Water management system improved, - Barren land rehabilitated and turned into a fertile agriculture land, - Disaster management and asset creation 	<ul style="list-style-type: none"> - Price of the key harvested crops reduced, - Water shortage for cultivated land reduced - Cost of canal maintenance reduced - Irrigation rehabilitation - Empowering local community
4	Access Roads and Connectivity	<ul style="list-style-type: none"> - Transportation facilities improved, - Approach of marketers improved - Access of donors and project facilitators improved. - More jobs and business facilities created. - Access to urban and public facilities. 	<ul style="list-style-type: none"> - Social contacts of the communities improved. - Economic condition improved. - Life standard with several accessories improved. - Transportation cost from and to the community reduced - People transfer more fruits and vegetables to the market for sale. - Transportation business increased.

5	Residential and public facility	<ul style="list-style-type: none"> - Resettlement of returnees - Increased number of educated people in the community - Literacy awareness improved - Jobs and business careers improved - Developed educational institutions in the community - Medical expenditure reduced 	<ul style="list-style-type: none"> - Peaceful and stable communities. - All segments of the life improved - Socially strong community. - Healthier and clean environment. - Developed and modern Society. - Access to the nearest school eliminated the transportation cost of the learners. - Free school supplies for learners reduced the burdens of books and stationery. - Cheaper medical treatment for the people.
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Asset use following clearance & development priorities of the communities:

According to Afghanistan mine action national database, **16,719,522** squares meters of minefields and **548,920** square meters of battlefields have been cleared by demining teams in 12 communities visited. As a result of clearance operations, in total **1,502 AP** mines, **1,955 AT** mines, **5,735 UXOs** and **1,463 SAA** were found and destroyed.

Once the threat of mines/ERW was removed, community members were theoretically and practically able to use the assets cleared for productive purposes. During focus group discussion conducted separately with men and women of the communities, they identified their main development priorities, which are summarized in the table below. In addition, the people in communities where there is still mine/ERW contamination expressed the wish in clearance operations being conducted in their areas.

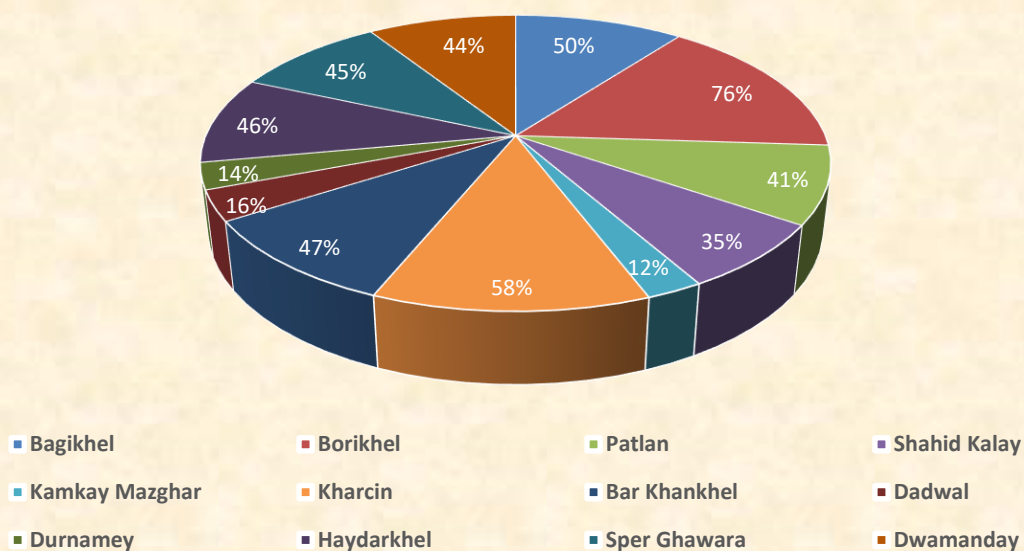
Table-13. Main development priorities of communities visited in Khost Province:

#	Community	Total Community Household	# of Household benefit	%age of households	Cleared land used for	Main Development Priorities	
						Male	Female
1	Bagikhel	500	252	50%	<ul style="list-style-type: none"> - Productive crop lands. - Grazing of animals/woods collection. - Access road. - Building houses and mosque. 	<ul style="list-style-type: none"> - Building for school - Electricity - Clinic - Safe drinking water 	<ul style="list-style-type: none"> - Electricity - Clinic - Safe drinking water
2	Borikhel	5,000	3,792	76%	<ul style="list-style-type: none"> - Productive crop lands. - Grazing of animals/ woods collection. - Irrigation system. - Refugees settlement camp. - construction of schools and clinics. 	<ul style="list-style-type: none"> - Clinic. - Protection wall for flood control - Reservoir for drinking water 	<ul style="list-style-type: none"> - Building for school - Clinic - Reservoir for drinking water
3	Patlan	600	235	39%	<ul style="list-style-type: none"> - Productive crop lands. - Grazing of animals/ woods collection. - Residential. - construction of schools. - Barrow pit (construction material). 	<ul style="list-style-type: none"> - Retention dam for rain water - Clinic - Deep well for drinking water 	<ul style="list-style-type: none"> - School for girls - Safe drinking water - Asphalt road to the village
4	Shahid Kalay	500	177	35%	<ul style="list-style-type: none"> - Productive crop lands. - Grazing of animals/ woods collection. - Residential. 	<ul style="list-style-type: none"> - Water dam - Clinic - School 	<ul style="list-style-type: none"> - Clinic - School - Drinking water reservoir

5	Kamkay Mazghar	900	111	12%	<ul style="list-style-type: none"> - Grazing of animals/ woods collection. - Residential. - Access road. 	<ul style="list-style-type: none"> - Clinic - Building for girls school - Animal husbandry farm 	<ul style="list-style-type: none"> - Clinic - Asphalt road to the village - Drinking water
6	Kharcin	800	465	58%	<ul style="list-style-type: none"> - Productive crop lands. - Grazing of animals/ woods collection. - Irrigation system. - construction of school and clinic. 	<ul style="list-style-type: none"> - Asphalt road to the village - Building for girls' school - Clinic 	<ul style="list-style-type: none"> - Building for girls' school - Water dam - Asphalt road to the village - Clinic
7	Bar Khankhel	1,000	472	47%	<ul style="list-style-type: none"> - Productive crop lands. - Grazing of animals/ woods collection. - Irrigation system. - Access road. 	<ul style="list-style-type: none"> - Drinking water reservoir - Clinic - School - Culverts along the village road 	<ul style="list-style-type: none"> - School - Clinic - Drinking water reservoir - Water dam
8	Dadwal	800	125	16%	<ul style="list-style-type: none"> - Grazing of animals/ woods collection. - Productive crop lands. - Residential. - Access road. 	<ul style="list-style-type: none"> - Clinic - Water dam - drinking water - School buildings for boys and girls 	<ul style="list-style-type: none"> - Clinic - School for girls - Vocational training (tailoring, embroidery & knitting).

9	Durnam ey	400	55	14%	<ul style="list-style-type: none"> - Grazing of animals/ woods collection. - Productive crop lands. - Residential houses. - Irrigation system. 	<ul style="list-style-type: none"> - Clinic - Drinking water - Culverts along village road 	<ul style="list-style-type: none"> - Clinic - School for girls - Asphalt road to village - Drinking water reservoir
10	Haydark hel	2,000	915	46%	<ul style="list-style-type: none"> - Grazing of animals/ woods collection. - Productive crop lands. - Residential. 	<ul style="list-style-type: none"> - Clinic - School - Road gravelling 	<ul style="list-style-type: none"> - Safer drinking water - Clinic - School for girls
11	SperGha wara	1,500	577	38%	<ul style="list-style-type: none"> - Grazing of animals/ woods collection. - Productive crop lands. - Residential. - Irrigation system. - Barrow pit (construction material). - Installation of Antenna. - Extension of power transmission line. 	<ul style="list-style-type: none"> - School for girls - Safe drinking water - Clinic for women 	<ul style="list-style-type: none"> - Clinic - School for girls - Drinking water reservoir - Vocational training (tailoring, embroidery & knitting).
12	Dwaman day	500	220	44%	<ul style="list-style-type: none"> - Grazing of animals/ woods collection. - Productive crop lands. - Residential houses - Extension of the power transmission line. 	<ul style="list-style-type: none"> - School building for girls - Safe drinking water - Clinic for women 	<ul style="list-style-type: none"> - School building for girls - Vocational training (tailoring, embroidery). - Poultry form.
Total		14,500	7,397	51%			

Percentage of households that benefitted from Cleared Areas in the communities visited in Khost



Development opportunities arising from mine action:

All 12 communities are distinct in terms of their natural, human, social and financial assets, which means that they are faced with different challenges and opportunities for development.

In all villages, the people highlighted the importance of mine action work in facilitating further development opportunities, they also stated that mine action is a pre-requisite for implementation of any other development projects.

The blocked assets freed by land clearance include crop and grazing land, orchards, land for housing, and other local infrastructures and services such as schools, mosques, playgrounds, access to construction materials, roads and strategic structures such as phone masts, electricity pylons



and etc.

The Mine Action has also facilitated the secure return of refugees including the safe settlement of North Waziristan refugees in Gulan camp and IDPs back to their communities. Through efforts made by MRE teams, refugees, IDPs and returnees were informed about the presence and dangers of landmines and ERW. After the clearance, IDPs and returnees have been able to rebuild their communities.

The clearance of previously contaminated areas resulted in people having access to livelihood sources, like farming, collecting firewood, tending animals, and building houses.

Based on interviews conducted with women; apart from enabling the development possibilities, the clearance has provided peace of mind to community members, especially for the women. When describing the situation before demining, people in the communities talked of their fear of injury and fatalities from mine accidents. According to villagers, the most valuable outcome of mine action is eliminating the fear and concern of being killed or injured while working in the agriculture lands, tending animals and walking around.

The construction of 2,795 new houses including 1,500 shelters of North Waziristan refugees on cleared lands in Gulan camp for refugees, returnees and displaced families and also construction of asphalted road on cleared in Bar Khankhel village is the prominent signs of infrastructural development as a result of mine action work.

In Sper Ghawara and Dwamanday village, the people were very grateful to the work of deminers and mentioned that apart from being able to walk fearlessly to their agriculture, road and residential areas, the work of mine action will enable them to bring electricity to their village in the near future.

"When there was plan to install electricity pylon, the first question was about the problem of mine and ERW and we told the electricity department of Khost province that our village is cleared of mine and ERW by demining teams. If our village was not cleared of mines, we wouldn't have been able to have the transfer of electricity to our village".

*Residence of
Sper Ghawara Village-
Nadir Shah Kot district*

Land value:

Land value has increased significantly after the clearance in all communities. Construction of houses, mosques, clinics, schools, establishment of productive agriculture, and by the installation of facilities such as electricity, telephone mast and construction of canals and roads are the factors that further increases the value of land in the surveyed areas.

The simplest way to assess the purely economic benefits is by collecting data on land values. The market value of a piece of land should approximate the expected value of discounted economic benefits flowing from that land in the future. People in all the communities mentioned that land values increased substantially after demining.

The increase of land value is most prominent in Borikhel village of Gurbuz district where the contaminated land was used to build new houses.

According to locals in Borikhel village, the cost of one Jerib (2,000 square meters) land was AFN 50,000 (\$667) in a grazing land which was contaminated by mines and ERWs. But after the areas were cleared of mine/ERW; the cost of one Jerib (2,000 square meters) reached to AFN500,000 (\$6,667), which represents a 10-time increase.

Cost-Benefit analysis of freed assets:

The assets freed by demining include agricultural and grazing land, land for housing, irrigation system and other local construction (mosques, schools, clinics etc.), access to construction materials, watercourses, roads and strategic structures such as phone masts, electricity pylons, extension of the power transmission line for electricity and energy system in the cleared land and etc. Most of these have a tangible economic impact at community and/or national levels in the short, medium or long-term.

As with previous mine action livelihood survey conducted in Afghanistan, the survey teams collected insufficient quantitative data to allow a proper economic analysis of the mine action activities in these 12 communities. Still, some partial analysis can be done, which provides insight into the magnitude of benefits and complements the qualitative data obtained through the other survey tools.

Based on average current cost per square meters (\$0.50/square meters) of demining in Afghanistan, about USD 8.6 million, has been spent in demining of 16,719,522 square meters minefields and 548,920 square meters battlefields in these 12 villages. A further USD 900,000 will be required to clear the remaining 1,762,817 square meters of contamination in the 12 villages surveyed entirely. Ignoring the fact that the size of the hazards in each of the surveyed villages is different, it shows that the cost of clearance of an “average community” is of the order of USD 790,000.

Cost of survey:

This survey cost was approximately USD 18,000. While the estimated cost of demining in the 12 communities is about USD 8.6 million, and another USD 790,000 is needed for the clearance of the remaining hazardous areas left in these communities. Thus, the survey represents approximately 0.19 per cent of the demining costs.

6. Case studies

Below are some case studies which provide a snapshot of the situation after clearance and the outcome of the demining work.

Case Study 1: Borikhel village, Gurbuz district, Khost province, Residential areas and land value:

Borikhel is a large-sized village, located about 28 kilometers to the south from the center of Khost, just next to Khost-Ghulam Khan main road. It has approximately 5,000 families with an average household size of 7 members. As it was one of the several villages being at the forefront of fighting between Mujahideen and the Soviet troops, it resulted in the



migration of its inhabitants outside of the country. According to national mine action database, out of 122 recorded mine contaminated areas, 120 hazardous areas covering about 6.4 square kilometers area have been cleared of mines/ERWs, that resulted in the disposal of 754 AP mines, 286 AV mines and 2,245 UXOs. There are still 2 hazardous areas remaining to be cleared in this village. The villages expressed their concerns about these hazards and requested the survey

team to convey their message to DMAC management in order that their village's remaining hazards are taken in to account for clearance in the years to come.



The mine/ERW contamination affected communities' livelihood by blocking their access to natural resources and amenities preventing civilians from supporting themselves properly and efficiently.

According to villagers, before clearance several mine/ERW accidents happened to villagers and

to their animals. In total 16 civilians were killed and injured in Borikhail village, furthermore 98 animals (cows, sheep, goats) were also killed and four vehicles/tractors were destroyed. But after the area was cleared of mines/ERWs, no accidents were recorded. The cleared land was handed over for safe use of the locals, now the villagers have full access to livelihood resources, school, clinics, mosque, roads and water canals, as well as many residential homes have already been built on the cleared land.



The men and the women of the village were found to be very enthusiastic to provide information about the outcome of the demined land.

During the focus group discussions both men and women were asked how they are using the cleared land.

Noor Ahmad Khan, a resident of Borikhel, said that in 2014, the demining teams reacted quickly when refugees from Pakistan settled into Gulan camp Borikhel. The refugees discovered that they had settled in an area contaminated with various explosive hazards, tents were rapidly relocated away from areas considered hazardous and mechanical and manual demining teams were deployed. Over a short period of time, the camp land was cleared of explosive hazards and an estimated 1,500 families from North Waziristan safely settled in the camp. Following the clearance, the refugees were able to walk safely and import building materials by vehicles from surrounding areas to construct dwellings that provided better and safer living conditions than the tents. He added, “the clearance of the camp area had a significant positive impact on the refugee’s lives, not just by improving their accommodations and livelihood opportunities but also by providing a safe environment for their daily lives”.

Respondents in Borikhel village said 60% of the population fled during the conflicts close to their community and returned when demining started. Due to an increase in the size of the village population, as result of the return of refugees, there was a need to expand the village, a portion of cleared land (2.4 square kilometer) used by the villagers for residential purposes in which 1,200 homes have been built.

Furthermore, another portion of cleared land is used for crop agriculture, tending animals, collection of fire/construction woods and a canal also rehabilitated on the cleared land which turned a 60-hectare barren land into a fertile agricultural land.

According to locals in Borikhel village, the cost of one Jerib (2,000 square meters) land was AFN

50,000 (\$667) in a grazing land which was contaminated by mines and ERWs. But after the areas were cleared of mine/ERW; the cost of one Jerib (2,000 square meters) reached to AFN 500,000 (\$6,667), which represent a 10-time increase.

Case study 2: Kharcin village, Matun district, Khost Province – Multiple Benefits:

Kharcin is a village in the northeast side of the Khost city (6kilometers down an unpaved road about 30 minutes' drive). This village was a front line between Mujahideen and Soviet troops. The mine/ERW contamination restricted the residents from collection of firewood and other natural resources and refrained them from constructing buildings because they feared of accidentally detonating mine/ERW. People made long journeys to avoid contaminated areas to get to market, access healthcare and for the children, to get to school. Eighteen hazardous areas, covering about one square kilometer area, were cleared of mine/ERW. Following the clearance operations, in total, 7 AP mines, 15 AV mines and 37 UXO were found and destroyed by demining teams.



The clearance has enabled the population to farm their lands efficiently in order to grow enough food to support their families, graze livestock and to access other facilities without concern for their safety or that of their children. A school building was built and children report that they are able to play and take direct routes to school. Their gardens produce enough vegetables for the consumption and sale purposes for the villagers, which ultimately have positive impact on the living condition and economy of these villagers.

According to villagers, before clearance 5 people were injured/killed and around 50 of their animals (sheep & goats) were killed due to the mine/ERW accident, moreover 2 vehicles/tractors were also destroyed while mines/ERWs existed in their community. But after these mines/ERWs were cleared from their village, no mine/ERW accident were recorded in the mentioned village.

The clearance operations of mine/ERW contaminated areas facilitated the way for the construction of about 9 km long water irrigation canal in Kharcin village.

The Shura head of Kharcin Village stated, “Our village’s economy depends on agriculture which

suffered a lot before the construction of the irrigation canal, our fertile lands and gardens turned into barren deserts due to contamination of the irrigation system. But today we are very happy that the irrigation canal has been built for the community. I am grateful to Mine Action Programme of Afghanistan for the clearance of mines/ERWs from our village and MRRD that made efforts in the construction of the canal. As a result of the irrigation canal revitalization, most of our social and economic problems have been solved to a great extent.”

- 800 hectares of barren land rehabilitated and turned into a fertile agriculture land as a result of clearance of a contaminated canal from mines/ERWs and now we cultivate wheat, vegetable and corn in the land.
- Our living standards will be improved through the income generated from the yield of crop.
- We relinquished cutting of green trees of forest and maintained beauty of the nature against pollution.
- While there was no canal, people in the community fought over water and with construction of this canal all these social problems are solved.

Case study 3: Sper Ghawaravillage, Nadir Shah Kot district of Khost Province- Multiple benefit (productive agriculture land, irrigation system and power line):

Sper Ghawara is a medium-sized village close to the main Khost-Kabul road, located at about 25 km west of Khost city in a strategic location. Due to its strategic location, this area was on the front line of fighting, a number of heavy fights happened between Mujahedeen and the Soviet troops and the village has fallen several times under the cross control of both sides. There were 26 minefields totaling nearly 1.5 sq. km. These minefields were situated fairly close to the village on agricultural, residential and grazing/wood collection land. In all the area cleared, a total of 13 AP mines, 848 AV mines, 79 UXO and 1,463 SAA were found and destroyed by demining teams and villagers are very happy about that and about the performance of the deminers.



Haji Lembad Khan, a resident of Sper Ghawara village, said “Landmines and other unexploded ordnance have killed and injured 15 civilians in our village, moreover, we have lost over 40 animals due to the same reason. ” We have large agricultural lands in our village, but we weren’t



able to make any productive use of our lands due to the presence of landmines and other explosives in the past. We weren't able use our land for production or guide our animals for grazing." He added on "Demining has positively impacted our economic development. After demining operations, agricultural lands have become available for cultivation and tending animals." "There is an improvement in security and stability of the area, before young boys were threatened by the security and the existence of mines deteriorated the

situation, but after demining operations started in our village, there is improvement in the economy, behavior of the people and the security. Moreover, it gave the people of our village a hope and a lesson to learn, especially those who benefited from the employment in the mine action sector, which provided regular salaries in an area where the population could not support themselves. It also facilitated investment in livelihood post-clearance potentially leading to a sustainable impact from the clearance. Those who were employed as community based deminers were proud to be able to help their community and to contribute a regular wage to their household without having to travel abroad for work which entailed risks and separated families."

The cleared land is used for:

- Power poles which were installed and will transmit electricity from Kabul to Khost province.
- Installation of a mobile phone antenna on the cleared land.
- 80 houses have been built on the cleared land
- The clearance operations of AP mine contaminated areas paved the way for the construction of a canal through which 80 hectares of barren land were rehabilitated and turned into a fertile agricultural land.



Further portions of the cleared land were used for crop agriculture, tending animals and collection of fire woods.

Case study 4: Patlan village, Gurbuz district, Khost province-Before and after mine clearance:

Patlan is a small-sized village on the outskirts of Khost about 36 km south from the center of the city. There were 12 minefields totaling nearly 0.64sq. km. These minefields were located fairly close to the village on agricultural, residential and grazing/wood collection land. In the area cleared, 60 AP mines, 28 AV mines and 2 UXO were found and safely destroyed by demining teams and villagers are very happy about that and the performance of the deminers.

During the focus group discussions, Haji Guldar, head of Patlan village, said “Mine/ERW contamination affected our village livelihood by blocking access to natural resources, agricultural/grazing land and facilities preventing civilians from supporting themselves properly and efficiently.” He added, “Mine/ERW have killed and injured 5 civilians in our village, moreover, we have lost over 60 animals due to the same reason.” He continued, “Demining has positively impacted our economic development. Following demining operations, agricultural lands have become available for cultivation and tending animals. Moreover, a number of our village people benefited from the employment in the mine action sector which provided regular inflow of salaries.”

The villagers expressed their gratefulness and showed some areas to survey teams which were contaminated and were cleared from mines/ERWs.

Some of the cleared land is used for:

- 2 schools (for 400 boys and for 100 girls) built on the cleared land, before clearance there were no schools in the village.
- A playground constructed on the cleared land.
- 15 houses have been built on the cleared land.
- 3,000 trees have been planted so far and one more hectare of land has been preserved for planting of more trees on the cleared land, this provides ecological green space and a recreational place for villagers.



- A portion of cleared area is used as borrow pit for construction materials (sand and gravel).

-A portion of cleared area paved the way for the construction of two retention dams, these dams will reserve water on its upstream side during the excess rain fall, snowmelt and flood period, and will be released gradually at a safe rate as and when it is needed for irrigation. On the other hand, these dams will significantly recharge underground water aquifers, raise water's level, help in raising the surface of ground water that will be beneficial to the discharge of water wells and springs. As a result of these water dams' crop will be prevented from being dried



autumn season, more agricultural land will be irrigated, barren land will potentially be brought back into production and greenery of the environment will be maintained, which will broadly decrease the environmental pollution. Aside of these, the dams on its downstream will control/reduce flood damage, flood debris, gravel/sediment deposition, washing of agricultural land, destruction of houses and other infrastructures.

Case study 5: Bar Khankhel village, Mando Zayi district of Khost Province – Return to Farming and Asphalted road:

Bar Khankhel is a medium-sized village close to the Khost-Tani road, located at about 15 km to the southwest of Khost city. The village has shops, a community center building, high schools (separate schools for girls and boys), mobile phone coverage and other amenities. This village was on the front line of fighting. Due to a number of heavy fights the happened between Mujahedeen and the Soviet troops resulted in severe destruction of the village and it was many times crossed over by both parties in the fight. There were 15 minefields/battlefields totaling nearly 0.9sq. km. These minefields were located close to the village on agricultural, residential, grazing/wood collection land, irrigation system and access road. In these minefields cleared, 162 AP mines, 18 AV mines and 66 UXO SAA were found and safely destroyed by demining teams.



The cleared land was handed over for the safe use of the locals, and currently the villagers have full access to livelihood resources. However, the community is suffering from lack of water for drinking and irrigation. The closest river is 2 kms away from Bar Khankhel village.

During focus group discussion a villager said that “Mine/ERW have killed and injured 6 civilians in our village, moreover, we have lost over 80 animals and four vehicles/tractors were destroyed due to the same reason, but after clearance no accident happened on locals.”



The villagers expressed their gratefulness and showed the survey team the orchards, the road and agricultural areas which were heavily contaminated by mines/ERWs. They said “We were in urgent need of demining teams and when they came to our village, we showed them the mined areas and as a result of their hard work, the mined areas have now been put to a productive use.”

The clearance operations of AV mine contaminated areas paved the way for implementation of a development project (construction of 50 km of asphalted road). The road connects Khost city with two districts. Through the construction of this road people travel with reduced fare and also transport their agricultural products in lesser time with less cost of transportation. Some of the village people worked as daily wage workers for the road construction company.

Other portions of the cleared land are used for crop agriculture and building houses.

During the focus group discussion villagers told us that they see unknown hazard items (spot ERW) in village where people are walking every day. In response to a question on why they don't report these to MAPA hotline number, they replied that they weren't aware of this telephone number. While according to mine action IPs, this number is being shared with the villagers by survey, demining or MRE teams. Based on the information provided by locals in Bar Khankhel about location of spot ERWs, a cross trained Survey/EOD/MRE team from a nearby MAPA partner was deployed to this village and destroyed the spot ERWs.

7. Perception of safety

The clearance operations have enabled the residents of communities to have full access to their livelihood resources, farm their land efficiently, graze livestock and access other facilities without concern for their safety.

The table below shows the explosive devices that were found and safely destroyed by demining team in the 12 villages surveyed. This is a clear fact that the work of mine action clearance is justified as a lifesaving operation.

Table-14: Devices destroyed in the villages visited by the survey teams in Khost province.

Village	Devices Destroyed				Total
	AP	AT	UXO	SSA	
Bagikhel	199	24	172	0	395
Borikhel	754	286	2245	0	3,285
Patlan	60	28	2	0	90
Shahid Kalay	33	20	21	0	74
KamkayMazghar	159	1	37	0	197
Kharcin	7	15	37	0	59
Bar Khankhel	162	18	66	0	246
Dadwal	10	162	65	0	237
Durnamey	24	55	180	0	259
Haydarkhel	78	231	1265	0	1,574
SperGhawara	13	848	79	1463	2,403
Dwamanday	3	267	1566	0	1,836
Grand Total	1,502	1,955	5,735	1,463	10,655

This survey recorded no casualties due to mines/UXO after clearance in the released land. Demining output resulted in quick use of the freed assets by men and a great feeling of relief on the part of women. While men emphasized on the productive opportunities made possible by clearance plus the infrastructure installed to date; women emphasized on the safety and recreational benefits that give them peace of mind and a better life for their men and children.

Women's perceptions of safety:

The women interviewed seemed very grateful to the work of the demining teams saying that the teams have saved their lives and the lives of their children and men. The women in the villages, where no hazardous areas are left, shared with us their views and feelings as follows:

- Interviewed women in Bar Khankhel village pointed out that they “feel safe and secure”.

“The work of demining gave us peace of mind; if our children go out of the house or our husbands go to work, we feel relaxed because they are safe”.

- Interviewed women in Sper Ghawara village pointed out that clearance has meant that they can carry out their tasks and responsibilities such as bringing water and collecting firewood safely.
- A group of interviewed women in Kharcin and Haydarkhel villages highlighted moving around freely and safely, sending their children to school, and fetching water from the canal.
- Many women pointed out that the work of demining gave us peace of mind for when our children go out of the house or our husbands go to work, we feel relaxed because they are safe and we do not worry about our children having accidents.

We do not feel comfortable when our children and men go out for work or when we collect firewood, fetch water or graze the animals, because there are still mines in some of the areas."

But in those villages, especially in Borikhel and Dadwal, where there are still recorded mine contaminated areas, the women said they still have concern about their safety but more so about the safety of their children and men who go out for work and other activities on daily basis.

Men receive more information directly from demining teams about the demining process and the areas that have been cleared. They are in the best position to judge safety and are generally more confident than women about safety.

The mine-action (survey, clearance and MRE) teams are well respected by community members, the communities expressed that they appreciate the hard work of deminers and wish them more successes. In those places where demining is on-going, the villagers are very keen to continue supporting the operations until everything has been cleared.

8. Mine/ERW Risk Education

There was a questionnaire about MRE with the survey teams to know if the community received MRE and, in particular, what should be done if any suspicious device of any kind is found.

When asked about the negative impacts of mine/ERW, some groups of men, women and children stated that they know that mines and ERW created many problems in the villages and the mine/ERW damaged different livelihoods, assets of the communities.

Table 15: Over all summary of MRE situation in the surveyed communities

Women	Girls	Men	Boys
Women know about the danger of mines and ERW threats, but access to women in communities still seems to be difficult compared to men, boys and girls. There were still some women that didn't receive any MRE. Women mostly received MRE through the female MRE team and family members.	Most of the girls have been aware of mine/ERW threats, in particular school girls, but there were still some girls that stated that they didn't receive any MRE. Many girls were informed of safe behavior and who to report while facing any dangerous items. Girls mostly received MRE through NGOs and school teachers.	Men were mostly aware of the threats posed by landmines and ERW. Men have been informed about who to report and where the dangerous objects can be found. Men received MRE through their parents and NGOs.	Boys were mostly aware of the threats posed by landmines and ERW. Boys, mostly teenagers, have been aware of risky behaviors and have mostly received MRE through their parents, NGOs and school teachers. MRE was more useful for boys based on their knowledge. Boys shared MRE messages and leaflets with their family members and know about danger signs and to avoid entering destroyed and abandoned houses.

Information obtained through the daily clock (daily activities) and seasonal calendar tools reveals that men and women, boys and girls are differently exposed to risks from landmines/ERW, especially in spring, summer and autumn. However, winter is a quiet time when all are mostly at home, so they are less exposed to landmine/ERW risk. From spring through to autumn, men are more engaged in farming activities, wood collection than are women, and also in marketing and purchasing outside the village, which involves travel and possible risk from landmines/ERW. Boys are also involved in tending the animals, and, like men, are more exposed to risks from mines and ERW.

While men/boys continue to be more at risk, there is a need for MRE for their personal safety. Women also require MRE to give them a sense of safety and security

Men in five villages said that they received MRE in the past years, but women in 3 out of the 12 villages said that no MRE was provided for them.

Table 2 below provides a breakdown of the MRE sessions provided based on IMSMA database for men, women and children, separately for each village surveyed.

Table 16. MRE for the surveyed communities based on IMSMA

Province	Village	Last MRE	Women	Men	Girls	Boys
Khost	Bagikhel	2017	59	1,748	1,293	3,927
Khost	Borikhel	2017	10,534	24,854	15,780	37,801
Khost	Patlan	2017	259	834	879	1,617
Khost	Shahid Kalay	2017	232	1,408	1,525	3,065
Khost	KamkayMazghar	2013	216	727	537	1,356
Khost	Kharcin	2013	0	1,726	401	2,392
Khost	Bar Khankhel	2014	0	147	0	188
Khost	Dadwal	2012	3	225	5	246
Khost	Durnamey	2018	0	515	560	710
Khost	Haydarkhel	2013	20	1,791	1,139	2,819
Khost	SperGhawara	2017	3,616	727	4,537	5,356
Khost	Dwamanday	2017	404	2,325	1,544	3,749
Grand Total			15,343	37,027	28,200	63,226

Based on information collected from the communities and also according to the mine action national database, MRE sessions were provided to all 12 villages surveyed.

The recent MRE for one village was conducted during 2018 and for six other villages during 2017. The other 6 villages received MRE between the years 2012 - 2014.

The level of MRE coverage for women appears to be less than the coverage for men and based on findings of the survey, women in 3 communities said that they did not receive MRE.

The children interviewed in 12 villages mentioned that they received MRE in their schools and it was found that they know about the dangers of mine and ERWs. They told us that they do not touch unknown items and instead inform their elders. The coverage of MRE appears to be good during the recent years in the communities visited.

No sign of MRE posters was observed in the villages visited and also no one, including the head of village Shura, in most of the communities were aware of the MAPA **hotline number** to report about mine and ERW problem.

In some villages, the women said that they received the MRE messages from their husbands and children. For those who said they had received MRE, there was good recall of the main safety messages such as what to do if you find a mine or UXO, and what the different colors represent.

Most of the mine/ERW victims during interviews said that they have not received MRE and most of the victims (69%) said that the incidents happen during wood collection and grazing of

animals. Survey teams interviewed victims and families of killed victims in some villages and found that they have not received MRE in the past, but they said that MRE sessions were delivered to them after the incidents. This demonstrates reactive action rather than proactive actions. Looking at the total figures of locals who received risk education so far and continuation of civilian casualties, it seems that the quality of mine/ERW risk education needs to be reviewed to make sure preventive measures are taken in to account in this regard.

9. Victim Assistance

During the survey, the teams asked about the mine/ERW victims in focus group discussion with men and women and to the extent possible had interviews with mine/ERW survivors in the 12 communities visited. Based on information from villagers, there were 126 mine/ERW victims in 12 villages visited. The survey teams interviewed 59 victims of mine and ERWs. Disabilities due to mine/ERW included damage to hands, arms, legs and eyes. According to villagers, both male and female survivors received free medical treatment in most cases. Such treatments depended on them being able to get to a suitable hospital, which is difficult for more remote villages, especially in the winter.

Eight women interviewed in eight villages were able to recall people in their communities who were landmine or ERW casualties and gave an estimate of the numbers of civilians killed or injured due to mine and ERW accidents. They confirmed that that young men make up the majority of mine/ERW victims. The reason given for this is that men are more exposed through their work in the lands and also from high-risk livelihood activities. In Dadwal, Borikhel and Shahid Kalay villages victims who were injured due to mine/ERW accidents recalled their tragic stories as follows:

Mine victims case studies:

Case Study-1.

Name: Badshah, resident of Dadwal village, Mando Zayi District, Khost Province

Age: 45 years old, 18 years old at the time of the incident

Gender: Male

Occupation: Head of Dadwal village

“It was a spring morning; everyone was busy with wheat cultivation. My father and I came out of our house and went to our agricultural land. My father started to work on land and I began that day's work of collecting bushes from land. While I was busy with the work in the field, an explosion happened, it felt like an earthquake. I held my hands close to my ears, trying to open my eyes and found myself almost about 30 Meters away from that area. After that, due to severe pain, I don't know what else took place. When I opened my eyes for the second time, I was in the hospital and noticed that I didn't have my legs anymore. There were some small injuries on the rest of my body. This made me very disappointed and I started to cry. Following the incident, I could not go to school and this caused a negative impact on my life. I have three sons and a daughter. Currently, I am the head of



Dadwal village and Martyr and Disabled Directorate granted me a disability card and allocated the salary of AFN 60,000 / year. My family members help me daily activities. Although I lost my both of legs, but I want to have a job and work, if the government or other aid NGOs provide some amount of money, I would be able to run poultry farm and will extend my business, and through this contribution I will support my family”.

He went on, “These agricultural lands and green gardens we live in now, were contaminated with mines and explosive remnants of the Soviet regime. They have been recently cleared by the deminers. More than 30 people have got injured or lost their lives due to mine/ERW explosions. Fortunately, after clearance it is a safer place and we can continue our agricultural activities without fear of any explosions.”

“In my opinion, all contaminated areas should be cleared of mines/ERW and the MRE training courses should be conducted especially for women and children to prevent mine/ERW accidents in future”.

Case Study-2.

Name: Bitullah, resident of Shahid Kalay village, Gurbuz District, Khost Province

Age: 48 years old, 5 years old at the time of the incident

Gender: Male

Occupation: Unemployed

“The graze and green mountains of our villages were contaminated with landmines from the soviet regime and they have been recently cleared by the definers’ was injured and became disabled in 1364 (1985), while I was collecting firewood, I stepped over a mine, a huge explosion took place and as a result I lost both of my eyes and my left leg. I shouted for help, later on shepherds arrived and they took me to a clinic for treatment”.



I have two sons and a daughter. My youngest child is four years old. The children are working now for others and grazing animals and that is the way we support ourselves I have three brothers and they helped me during the initial days of my treatment but now my children are supporting me although they are too young to work and earn. The ICRC provided me an artificial leg and Martyr and Disabled Directorate granted me a disability card and allocated the salary of AFN 60,000 / year.

I'm requesting help from NGOs or the government to treat my eyes in order to enable me to support my family by contributing to income of my family".

"I also request the Mine Action Programme of Afghanistan to help in clearing the remaining areas from mines/ERWs and help in avoiding further injuries or killing of our population".

Case Study-3.

Name: Noorz Khan, residence of Borikhel village, Gurbuz District, Khost Province

Age: 40 years old, 16 years old at the time of the incident

Gender: Male

Occupation: Unemployed

"I became disabled due to the explosion of anti-personnel mine in 1373 (1994), while I was grazing animals on a mountain. I stepped over a mine, following that I shouted for help. Later on, my brother arrived and he found me lying on the ground with blood. He asked the villagers for help as I was very seriously injured. It was then that my eyes and ears stopped working for a while, and



when I was able to open my eyes and look at what had happened, I could only see blood everywhere. I was taken to the hospital by my brother and some villagers for treatment. After that, due to severe pain, I don't know what else happened and I was unconscious. When I opened my eyes for the second time, I was in the hospital and noticed that I didn't have my legs anymore".

Previously I grazed animals, but now I cannot do that and cannot fulfill a lot of work overall. Following the incident, I could not work and could not walk and the incident changed my life. I am suffering because of my disability and am disappointed and life does not have any meaning for me. My elder brother and father help me in performing daily activities".

The ICRC provided me with artificial limbs and Disabled Department is giving me a disability pension of AFN 60,000 on annual basis. Currently I am jobless, but in the future, I want to open a shop, so that I don't need to depend on others, I just need financial support in this regard.

"I personally request from the government to increase the salary of disabled people. It is my opinion that all contaminated areas should be cleared of mines/ERW and the MRE training courses should be conducted, especially for women and children, in order to prevent mine/ERW accidents in future".

Support to Mine/ERW Survivors:

Based on the findings of the survey team, there were more men being victims of mines/ERWs than women in the communities.

Disabilities due to mines included damage to hands, arms, legs and eyes. According to villagers, both male and female survivors received free medical treatment in most cases. Such treatment depended on the victims being able to get to a service center, which is difficult for more remote villages, especially in the winter. Furthermore, those victims who lost their leg received artificial limb/s by ARCS and the government of Afghanistan.



Annex 3 is the list of the victims interviewed by the survey teams.

Following is the result of the interviewed victims:

- In total 52(45menand 7women) victims and family members of seven (6 men and one women) victims who were killed as a result of mines/ERWs explosion were interviewed.
- 100% (all 52) mine/ERW survivors received medical assistance/support.
- 33.3% (15 male) receive financial support (60,000 AFN = 800 USD) per year from the Government.
- 66.7 % (30 male) received no financial support.
- 100% (7 female) indicated that they have not received any financial support.
- 64.5% (29 male) indicated that they want financial support.
- 29% (13 male) indicated that they want vocational training and opportunities.
- 6.5% (3 male) indicated that they want financial support for education.
- 57% (4 female) indicated that they want vocational training and opportunities.
- 43% (3 female) indicated that they want financial support.
- 60% (27 male) are employed and the rest 40% are unemployed.
- 100% (all 7 female) are housewives.

Some elderly victims interviewed mentioned that ***they do not wish the future they have for their children and others.***

10. Prioritisation in Mine Action

The present priority-setting process:

In Afghanistan mine action planning and prioritization are based on collection, assessment, analysis and processing of information. This also includes identification of the most suitable course of actions to proceed, and formulation of the detailed method through which mine action tasks are to be carried out and appropriate response to be provided.

DMAC with technical support from the GICHD developed a five years National Mine Action Strategic Plan (NMA SP) in 2016 and one of the main objectives of this strategic plan is to facilitate the development projects and engage with other sectors for better priority setting of mine action operations.

In Afghanistan, determining the priority of hazardous areas for clearance is based on specified impact indicators and scoring (please refer to Annex 4).

The impact scoring is determined based on blockages such as blocking water sources, housing area, agriculture, pasture land, road, canal and infrastructure. The size of mine/ERW contaminated areas and their distance from the communities, IDP camps, and health centers. Types of devices is also an impact indicator with certain scores. For each type of blockages, based on its value and importance, a specific scoring weight is assigned.

Impact classification:

The impact scores from the assigned criteria are summed up making a total score of hazards. The total scores given to hazards are classified into very high, high, medium and low impacts. Hazard that has total score of 10 and above is classified as very high impact, 7 to 9 is high, 4 to 6 is medium and 1 to 3 is classified as low impact.

Based on the impact classification assigned to each hazard and taking into consideration the geographical location of the hazard areas, the hazard area project list is prepared in which all the hazard areas are included in different demining projects. The number of hazardous areas in each project is different based on the location of the hazardous areas.

Since information gathering is a continuous process, the impact classification of the hazards is updated regularly based on new mine or ERW accidents/incidents, new requests from communities, IDP movement and camping, new development projects, impact and other mine and ERW related data.

Once there are funds available for any project, then the project hazard list is shared with the IPs for submission of a proposal, but first of all they need to do an assessment of the project hazard through liaison with the communities. Based on the requirement of the relevant communities, they can suggest changing the priority of hazards through providing justifiable reasons.

Survey findings on prioritization:

In all the communities visited, especially in the villages where there were recently demining projects, it was found that the community Shura was involved in selection of the priority hazard areas for clearance. They mentioned that prior to the start of the survey and clearance operations, the survey and demining teams visited the village Shura and consulted them about prioritization of the mine and ERW contaminated areas for clearance.

The other example of involving the community in selection of the priority areas for clearance is the approach that was taken in the Borikhel village of Gurbuz district. The head of the village Shura, said that the demining team showed him a list of all recorded hazardous areas of the village and then in consultation with him filled out community liaison form in which their priority areas were selected "I then signed this paper" he added. "We explained to them how we will use the area after clearance and what outcome the areas would have for us".

Despite the evidences indicating that the demining teams were consulting the men in the communities on priority setting, it was found that none of the women in communities visited have been consulted and no one asked them which hazard areas has importance to them.

The focus group discussion held with men indicated that they are satisfied with the prioritization of the clearance sequence.



"Landmines and other unexploded ordnance have killed and injured a significant number of civilians in our village and blocked our livelihoods resources. Demining teams consulted with us and we showed them the mine and ERW contaminated areas. They cleared our residential areas, the agriculture land and pasture, and now all those areas are returned to productive lands and we are also building new houses".

**Residence of
Patlan Village- Gurbuz
district**

In villages visited in Mando Zayi district, the villagers were saying that this is the result of hard work of demining teams that there are several development projects in their districts now.

In another example in Dadwal village the locals said that they are satisfied with what demining teams have done for their community.

In nearly all cases, the villagers were very grateful to the work of demining teams, saying that they are brave people and worked hard and effectively. In some villages they stated that only demining teams have helped them with tangible outputs for their village, there were no other organizations that helped their community as much as mine action did. They wonder why demining is not followed up by implementing other development priorities of the communities.

The findings of the survey indicate that the priority setting process used by DMAC is good; however, this process needs to be further improved in terms of ensuring that women are also part of this process. The criteria used to select the contaminated areas for clearance are really useful for directing the focus of demining operations to hazardous areas which have prevented development of the communities and safe access of people to livelihood sources.

The findings of the survey reveal that, although the perception and preference of people on priority of contaminated areas for clearance was different and based on the community need; overall the criteria respondents had in setting priorities were: reduction of risks, development of their community and safe access to agricultural, residential, road, water sources and grazing areas. These are all elements that have been considered in the priority setting criteria.

"We appreciate the hard work of demining teams, but we request that the MAPA should give priority to remaining mine/ERW contaminated areas of our village to be cleared soon and we can help by showing them hazardous areas".

***Resident of
Bagikhel Village- Gurbuz
district***

11. Quality Management

The current DMAC Quality Management process covers the accreditation of the demining organization, projects proposal review, monitoring, QA/QC, Balanced Scorecard, PDIA and mine action livelihood survey.

These processes further improved after the conduct of the previous mine action livelihood survey.

Effective monitoring and controlling systems are essential for programme accountability and quality assurance, and for assessing the full value of outcomes and impact against the resources and money invested. But equally, they are fundamental to learning about processes and problems and thus, to improving performance (especially if performance is defined in terms of attainment of community and national objectives).

In the past, although the Quality Management was successful in terms of monitoring and controlling the technical processes and outputs of mine action, there was no focus of QM on the outcomes and impact on communities.

But now the demining project proposal is evaluated to make sure the expected outcome and impact of demining operations is reflected in the IPs demining project proposals. This is being followed during monitoring, QA/QC and PDIA Surveys.

Survey findings on quality management:

The findings of the survey demonstrate that the community members (men and women) are generally confident that the area is safe after it was cleared by demining teams.

In Khost, although all recorded hazard areas cleared and the people were happy from the demining team work, during focus group discussions villagers in one community raised their concern about problem of spot ERWs, which still can be found from time by time in some locations.



Underground Spot ERWs in Bar Khankhel village

In one of the villages (Bar Khankhel) in Mando Zayi district, the villagers stated that they continued to see spot ERWs in their village and the villagers showed the location of spot ERWs to survey team. According to them these were not in the cleared land, they were brought by floods and people buried them underground in areas that were initially safe.

Based on information provided by the local population of Bar Khankhel about location of spot ERWs, a cross trained Survey/EOD/MRE team from a nearby MAPA partner was deployed to the village and destroyed a total of 2 spot ERWs and also conducted risk education for the communities.

In a war-torn country like Afghanistan finding all the spot ERWs underground without a record is very challenging and no one knows where it might emerge, therefore, possibility of such spot underground hazard items is expected everywhere.

It was found that the villages where the spot ERWs, where indicated by locals, have been covered by the MEIFCS teams. This raises a question of how successful the QM in monitoring of the MEIFCS teams and why these spot ERWs were left in the villages where MEIFCS was completed?

They requested that mine action should find a solution for the problem of spot ERWs and also to increase provision of MRE to the communities, because Afghanistan is a war-torn country and possibility of spot ERW can be expected anywhere.

The result of focus group discussions with male and female members of the communities demonstrates that they are very grateful to the work of demining teams and expressed their trust and confidence that the areas cleared by mine action teams are safe for their use.

According to villagers in all the 12 communities selected for this survey, no incident happened within the cleared area after clearance was completed and the cleared areas were handed over back to the communities.

Apart from confidence about the quality of demining output, the people were satisfied with the way demining teams liaised with them prior to the start of clearance operations. They said that the demining teams consulted them about which areas have priority for them and which hazardous areas should be cleared first. Furthermore, they were asking about the future use of the land, after the clearance operation is completed.

The findings of the survey indicate that DMAC conducts regular Post Demining Impact Assessment (PDIA) of the cleared lands, through which random hazardous areas are selected in different regions and provinces to learn about the socio-economic effects and outcomes of demining operations.

Women

"After the demining teams cleared the contaminated areas, we became confident that there will not be any danger for our children and men who leave the house to work in the field. We feel relaxed because they are safe. Now we can carry out our tasks and responsibilities such as fetching water and collecting firewood collection easily and safely".

Men

"We know how hard and tough the work of demining teams is and therefore, we appreciate the hard work of deminers who put their lives at risk to clear our lands from mines and ERWs, so we should be able to safely use them for our livelihoods."

The findings also indicate that the QM, in addition to focusing on outputs of the demining operations, focuses on the impact and outcome of the cleared lands and designs project proposals.

However, it was found that the QM was weak on proper monitoring of the Sur/EOD/MRE operations and that is why despite the MEIFCS conducted in all the villages of Mando Zai district, some spot ERWs requested by locals remained to be destroyed.

12. Capacity Development

This sixth mine action livelihoods survey planned and designed by a small group of staff from DMAC.

The results indicate that the process of training and implementation had no major problems and the survey teams were able to visit all the 12 villages selected for the survey. The DMAC staff felt that they are now capable of conducting similar surveys. Despite the DMAC staff being able to carry out such surveys, there are some areas that requires further improvement and opportunities will be needed to be provided to fill in these gaps. The areas for improvement are the knowledge on conducting such surveys in an academic manner, designing and implementing the collection of data tools and producing quality reports on its findings.

13. Conclusions

It was found that the people are very grateful for the work of demining teams, which are perceived as saving lives, encouraging the refugees and IDPs to return to their villages, enabling them to cultivate their lands, tend their animals, collect fire wood, build their houses, schools and clinics, and walk free without fear, as well as create opportunities for implementation of development projects.

The overall findings of the survey indicate that mine action activities had many significant impacts on the visited communities. As a result of mine action activities, lands were cleared for growing crops, grazing of animals, building residential houses and other public facilities. It was also found that most of the community members (male/female from different ages) were aware of the mine/ERW risks and a number of mine/ERW victims were provided with physical rehabilitation services by the ICRC within the Khost province.

In the communities where still there are mine/ERW contaminated areas, the villagers wanted demining activities to be continued. The people, especially women and survivors, requested vocational and literacy trainings.

Cleared land is entirely returned to its rightful owners and is used for productive purposes.

The cleared land is normally handed over by the demining teams to the owner of the land and the relevant community Shura. The land completion certificate contains a paragraph indicating that the certificate is only a document confirming that the land is cleared in accordance to Afghanistan Mine Action Standard (AMAS). It does not indicate ownership of the land, because ensuring the correct distribution of cleared assets or the follow-up of any commitments is not part of the mine action process.

Villagers were satisfied with the work and performance of the demining teams. The village men were often involved in deciding the sequencing of demining operations, but there is less opportunity for women, especially in rural areas, to be directly involved in priority selection of the hazardous areas for clearance due to cultural restrictions.

14. Recommendations

- There is a need for academic training on data analysis, especially on economic data analysis and report writing of such surveys for DMAC staff involved in mine action livelihood survey.
- DMAC should continue to ensure, through implementation of the five-year National Mine Action Strategic Plan (2016-2020), that communities' development needs and priorities are shared with development organizations to strengthen the link between mine action and development.
- DMAC should instruct its regional offices to conduct regular case studies of the development projects implemented in areas cleared of mine and ERWs by demining teams.
- DMAC should find practical ways, such as increasing employment of female surveyors in the structure of survey projects, mine/ERW risk education teams and for the PDIA, so that the women can be more directly informed about clearance activities and the safety status of land during clearance.
- DMAC should ensure the provision of risk education to women of the communities.
- The cross trained teams (Sur/EOD/MRE) operations should be properly monitored by DMAC QM staff, as it was found that despite conduct of operations by these teams in Bar Khankhel village of Mando Zayi district, some spot ERWs remained un-destroyed.
- Availability of MRE posters in village Shura will help most of the community members to be familiar with mine/ERW risks.
- DMAC should assess the possibility of providing vocational trainings to mine/ERW and PPIED victims to be part of a demining project.

15. Annexes

Annex 1: Human Resources:

ANDMA &DMAC Staff:

DMAC Operations, R&D and MIS Manager, Abdul Qudous Ziaee, provided technical support on design, planning, analysis of community data and report writing.

Four staff of DMAC, Mr. Mohammad Hamid Wardak, Mr. Fazel Rahman, Mr. Abdul Habib Rahimi and Mr. Gul Aqa Mirzai, who took part in previous surveys were engaged in this survey and are experienced in conducting landmine and livelihood surveys. The mentioned team led the technical aspects of the exercise, including design, planning, practical training and support during field work, analysis of community data, and report writing. They coordinated implementation of the survey with the provincial and district authorities and also took part in the data collection process with the survey teams.

Furthermore, Mr. Mustafa Atayee and Mr. Mohammad Azim Nadery from DMAC were members of the team for this survey, as well as the Provincial Director of ANDMA in Khost was involved in the 6th Mine Action Livelihood survey. He was involved in coordination and implementation of the survey with provincial/district authorities and with the community Shuras.

Survey Teams:

There were two male and two female survey teams from a mix of DMAC and ANDMA staff.

The two staff of DMAC who got experience from previous surveys were roaming between the teams in order to provide support and expert advice to the rest of the teams.

Survey teams' structure:

Team-A (Male)

S. #	Name	Position
1	Mr. Gul AqaMirzaei	Team Leader
2	Mr. Mudir Ahmad	Surveyor
3	Mr. Fazel Rabi	Surveyor

Team-B (Female)

S. #	Name	Position
1	Ms. Setara	Team Leader
2	Ms. Nadia	Surveyor
3	Ms. Mahboba	Surveyor

Team-C (Male)

S. #	Name	Position
1	Mr. Abdul Habib Rahimi	Team Leader
2	Mr. M. Azim Nadery	Surveyor
3	Mr. Mustafa Atayee	Surveyor
4	Mr. Qadir Shah	Surveyor

Team-D (Female)

S. #	Name	Position
1	Ms. Saida	Team Leader
2	Ms. Shamsila	Surveyor
3	Ms. Najila	Surveyor

List of Survey participants:

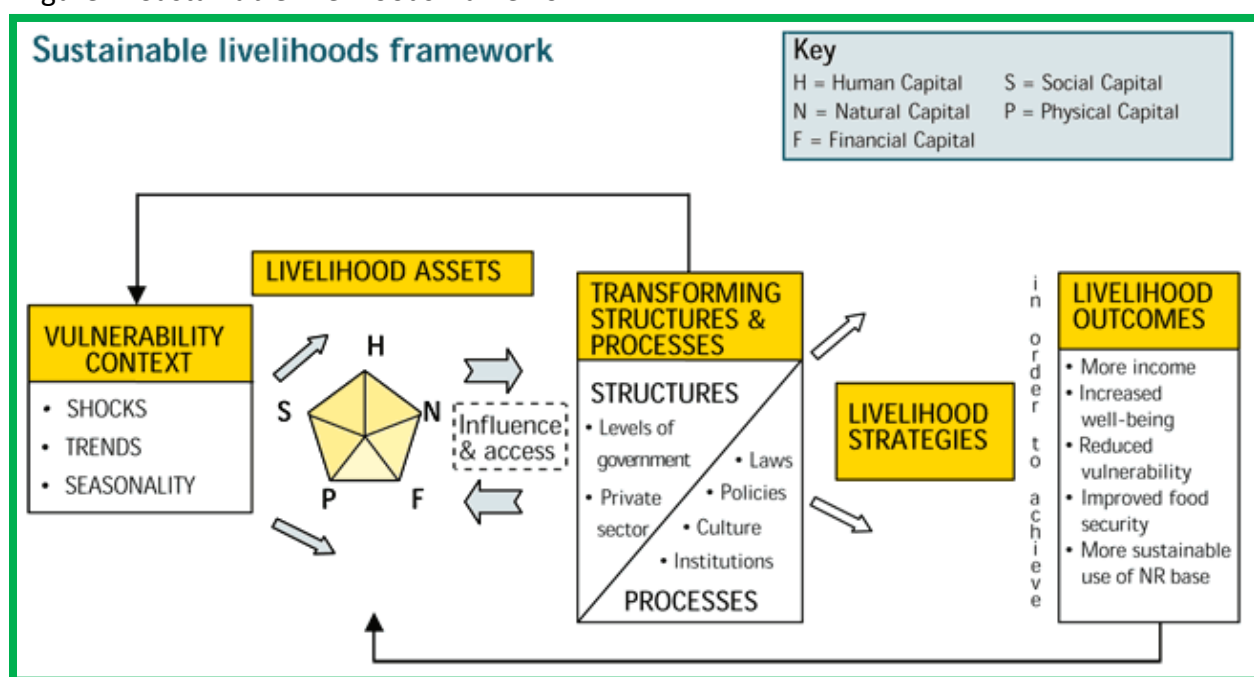
S. #	Name	Position	Organization	Duty station
1	Mr. M. Hamid Wardak	Sr. EOD Manager	DMAC	Kabul
2	Mr. Gul Aqa Mirzaei	Sr. Standard Manager	DMAC	Kabul
3	Mr. Abdul Habib Rahimi	Sr. Manual Manager	DMAC	Kabul
4	Mr. Mustafa Atayee	Sr. MDU/MDD Manager	DMAC	Kabul
5	Mr. Fazel Rahman	OPS Project Manager	DMAC/ITF	Kabul
6	Mr. M. Azim Nadery	Operation Assistant	DMAC/Pay agent	Kabul
7	Mr. Fazel Rabi	Operation Assistant	DMAC/ITF	Gardiz
8	Mr. Sharifullah Hamdard	Coordinator	ANDMA	Khost
9	Mr. Mudir Ahmad	Surveyor	ANDMA	Khost
10	Mr. Qadir Shah	Surveyor	ANDMA	Khost
11	Mrs. Setara	Team Leader	ANDMA	Khost
12	Ms. Nadia	Surveyor	ANDMA	Khost

13	Ms. Mahboba	Surveyor	ANDMA	Khost
14	Mr. Saida	Team Leader	ANDMA	Khost
15	Ms. Shamsila	Surveyor	ANDMA	Khost
16	Mrs. Najila	Surveyor	ANDMA	Khost

Annex 2: The Sustainable Livelihoods Approach:

The Sustainable Livelihoods Framework, which is presented below, has been developed to help understand the result of mine action work on development and livelihoods of the communities.

Figure 1: Sustainable livelihoods framework



The framework views people as operating in a context of vulnerability, shown at the left-hand side of Figure 1. Within this context, they have access to certain assets or poverty reducing factors (human, social, natural, financial and physical capital). The levels and utilization of these assets are influenced by the external political, institutional and legal environments. Together people's assets and the external environment influence household's livelihood strategies in pursuit of beneficial livelihood outcomes that meet their own livelihood objectives. Within this asset-based approach, a number of PRA tools were applied.

The tools used:

Below is a list of the tools that were used by male and female survey teams for collecting the data during survey:

- Review of IMSMA available data about status of mine/ERW cleared and remaining areas in Khost communities selected for the survey.
- Meeting with community Shuras for a comprehensive introduction to provide information on the team, the objectives of the mission, the potential (realistic) benefits that might come to the community, the methods to be used, people to be involved and timetable for the visit.
- A “Timeline” to understand the community’s experiences from the time the area was contaminated with mines/ERW up to present. Once the timeline has been drawn a number of questions were asked about survivors/victims, MRE and the use and economic value of assets cleared.
- “Community Maps” drawn-up with the villagers which was a rapid mapping exercise to show the relationship between the village and the contaminated/cleared areas. Once the map was drawn further questions were asked about the use and economic value of assets cleared.
- Identification of groups of households with sufficient incomes and low incomes in the community for interviews, using separate focus group discussions, daily clocks and seasonal calendars.
- A series of focus group discussions with community leaders, and community members from different ages, genders and socio-economic statuses.
- Daily clocks and seasonal calendars.
- Case studies of landmine/ERW survivors and indirect victims.
- Economic quantitative data collection questionnaire.
- A review by all surveyors to share impressions and conclusions from the visit.

Survey material:

Each male and female survey team were provided with the following equipment when going to the communities for survey:

- Flip charts
- Marker pens
- Notebooks
- Pens/Pencil

- Steel rulers
- Map legends
- Digital cameras

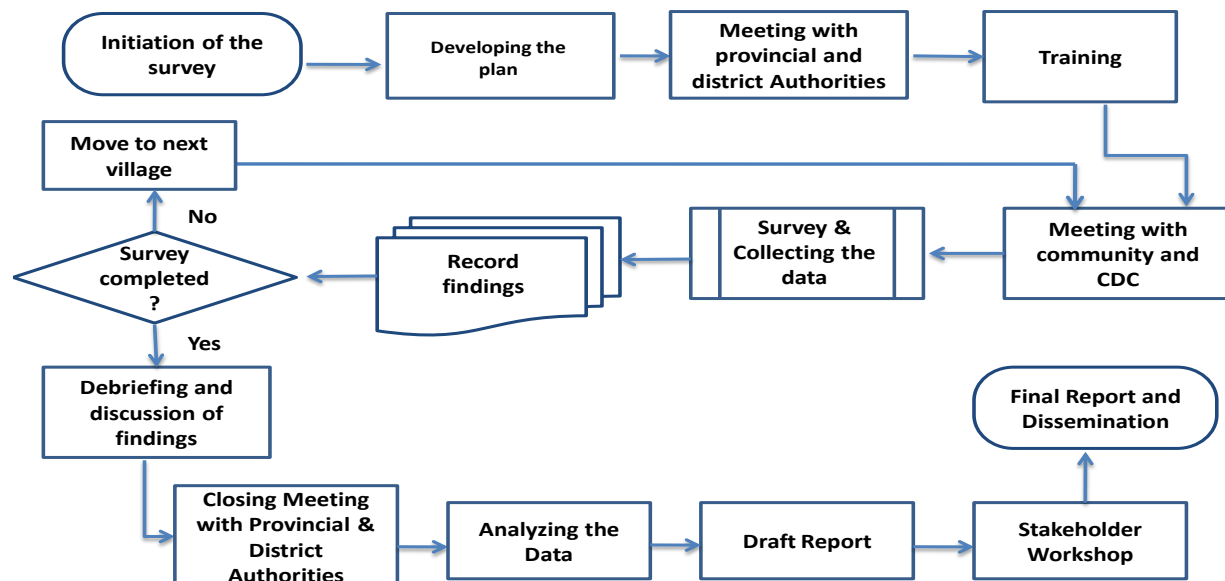
Stakeholders:

The principal stakeholders of the survey are affected communities, ANDMA, US Department of State (PM/WRA), UNMAS, mine action IPs, donors, the development organizations and the Islamic Government of Afghanistan.

Survey process:

Each community was visited by a male and a female team. The community was contacted prior to the team's arrival and the visit started with a formal introduction of the team and its objectives, without raising expectations among community members. The introductions were followed by the timelines and Community Maps. During these processes, community members identified landmine/ERW survivors and indirect victims who were subsequently interviewed. In addition, the communities identified households with sufficient and low incomes, and the teams interacted with these socio-economic groups separately using focus group discussions, daily clocks and seasonal calendar tools. A photographic record was taken of the village and the survey process.

Mine Action & Livelihoods Survey Process Map



Data collection and report writing:

The survey and data collection went very well and in accordance with the plan. People in the communities were eager to participate, and provided detailed information related to survey objectives. The surveyors used questions from the checklists in the local language including follow-up key questions with supplementary “probing” questions (who, what, why, where, when, how). This helped the villagers to provide the detailed information correctly and accurately.

All the collected data, other materials and hard copies of original field materials were used for report writing.

Annex 3: List of Victims Interviewed

S#	Village	Name	Type of injuries	Activity at time of accident	Did victim receive MRE prior to accident Yes/No	Current Job	Support Received	Victim Expectation
1	Bagikhel	Sayed Rahman	Got injury on left foot	On the way to school	No	Student	He did not receive any assistance yet.	To complete his education
2	Bagikhel	Ekhtair Gul	Lost his right foot two fingers	Military service	No	Farmer	He did not receive any assistance yet.	Financial support
3	Bagikhel	Abdul Ghafar	Lost his right leg	Grazing of animals	No	Unemployed	He did not receive any assistance yet, the Red Cross provided him an artificial foot.	Financial support
4	Bagikhel	Haider	Killed	Grazing of animals	No			
5	Bagikhel	Sangin	Got injury on both feet	Grazing of animals	No	Sheep herder	He did not receive any assistance yet.	Financial support

6	Bagikhel	Shaista Bibi	Lost his right leg	Wood collection	No	House wife	She did not receive any assistance yet, the Red Cross provided him an artificial foot.	Vocational training (tailoring)
7	Borikhel	Zari Jan	Lost his right leg	Engaged in agricultural activity	No	Farmer	He did not receive any assistance yet, the Red Cross provided him an artificial foot.	Financial support
8	Borikhel	Noorz Khan	Lost his both feet.	Grazing of animals	No	Unemployed	The Red Cross provided him artificial feet and the Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Shop Financial support
9	Borikhel	Dawlat Khan	Got injury on both feet and hand	Grazing of animals	No	Sheep herder	He did not receive any assistance yet.	Financial support
10	Borikhel	Noorullah	Lost his left eye	Wood collection	No	Farmer	The Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Financial support
11	Borikhel	Haji Khan	Got injury on his body	On vehicle	No	Shopkeeper	Did not receive any assistance.	Financial support
12	Borikhel	Bibi Madina	Lost her right hand	Wood collection	No	Housewife	She did not receive any assistance yet.	Poultry farm

13	Patlan	Safder	Lost his right foot	Wood collection	No	Unemployed	Just the Red Cross provided him an artificial foot.	Financial support
14	Patlan	Mahmm adullah	Lost his foot	Grazing of animals	No	Student	Just the Red Cross provided him an artificial foot.	Vocational training (carpentry)
15	Patlan	Kandah ari Bibi	Lost her left eye	Grazing of animals	No	Housewife	Did not receive any assistance.	Vocational training (tailoring)
16	Shahid Kalay	Bitullah	Lost his left-leg and both eyes	Wood collection	No	Unemployed	The Red Cross provided him an artificial foot and the Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Financial support
17	Shahid Kalay	Sefatullah	Killed	Grazing of animals	No			
18	Shahid Kalay	Gulbat	Lost his right hand	Wood collection	No	Unemployed	Did not receive any assistance.	Financial support for Shop
19	Shahid Kalay	Sabro Bibi	Killed	Wood collection	No			

20	Kamkay Mazghar	Moham mad Zai	Lost his right-hand fingers	On the way to school	No	Student	Did not receive any assistance.	To complete his education
21	Kamkay Mazghar	Aklil Rahman	Lost his left-legs	Wood collection	No	Unemployed	Did not receive any assistance.	Financial support for Shop
22	Kamkay Mazghar	Rabat Gul	Lost his left-legs	Engaged in agricultural activity	No	Unemployed	Did not receive any assistance.	Financial support for Poultry farm
23	Kamkay Mazghar	Zahir Khan	Got injury on his feet and hand	Wood collection	No	Farmer	Did not receive any assistance.	Vocational training (carpentry)
24	Kamkay Mazghar	Gul Sah Bibi	Lost his right hand	Wood collection	No	House wife	Did not receive any assistance.	Financial support for Poultry farm
25	Kharcin	M. Shahzad	Lost his left leg	Grazing of animals	No	Farmer	Just the Red Cross provided him an artificial foot.	Financial support for Poultry farm
26	Kharcin	Rahmat Gul	Got series injuries on both feet.	Wood collection	No	Farmer	Did not receive any assistance.	Financial support for Poultry farm

27	Kharcin	Bibi Asiae	Lost his left-foot	Wood collection	No	House wife	Did not receive any assistance.	Poultry farm Vocational training (tailoring)
28	Bar Khankhel	Fazel Ahmad	Lost his both eyes	Grazing of animals	No	Unemployed	The Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Financial support
29	Bar Khankhel	Sayed Ali Shah	Lost his right-foot	Military services	No	Teacher	Just the Red Cross provided him an artificial foot.	Financial support
30	Bar Khankhel	Wazir Gul	Lost his both eyes	Wood collection	No	Unemployed	The Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Financial support
31	Bar Khankhel	M. Naim	Got series injury on his left-hand	Wood collection	No	Teacher	Did not receive any assistance.	Financial support for shop
32	Bar Khankhel	Mohammad Aziz	Got injuries on his right hand and foot	Engaged in agricultural activity	No	Farmer	Did not receive any assistance.	Financial support for Poultry farm
33	Bar Khankhel	KhairTa mama	Lost her left foot	Wood collection	No	House wife	Just the Red Cross provided him an artificial foot.	Vocational training (tailoring)

34	Dadwal	Badshah	Lost his both feet	Engaged in agricultural activity	No	Head of CDC	The Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Financial support for Poultry farm
35	Dadwal	Yosuf	Lost his both feet	On the way to school	No	Unemployed	The Red Cross provided him artificial feet & the Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Vocational training (tailoring)
36	Dadwal	Badar	Lost his right leg	Grazing of animals	No	Shopkeeper	The Red Cross provided him an artificial foot & the Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Vocational training (tailoring)
37	Dadwal	Noor Jamil	Lost his left leg	Engaged in agricultural activity	No	Unemployed	The Red Cross provided him an artificial foot & the Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Vocational training (tailoring)

38	Dadwal	M. Roshan	Lost his right leg	Wood collection	No	Unemployed	The Red Cross provided him an artificial foot & the Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Vocational training (tailoring)
39	Dadwal	Gul Qadir	Lost his right hand	Wood collection	No	Unemployed	Did not receive any assistance.	Financial support for shop
40	Dadwal	Ezatullah	Lost his right foot	Playing with children	No	Teacher	The Red Cross provided him an artificial foot.	Financial support for shop
41	Dadwal	Karamat Khan	Got injuries on his body	Wood collection	No	Farmer	He did not receive any assistance yet.	Vocational training (tailoring)
42	Dadwal	Afzal Khan	Got injuries on feet	Grazing of animal	Yes	Student	He did not receive any assistance yet.	To complete education
43	Dadwal	Hayatullah	Lost his left-eye	Wood collection	No	Shopkeeper	He did not receive any assistance yet.	Vocational training (tailoring)
44	Dadwal	Farid	Got injuries on his body and feet	Engaged in agricultural activity	No	Unemployed	He did not receive any assistance yet.	Financial support

45	Dadwal	Khalida	Lost her left-hand	Playing with ERW	No	Student	She did not receive any assistance yet.	Vocational training (tailoring)
46	Dadwal	Hakim Jana	Lost her left foot	Engaged in agricultural activity	No	Unemployed	She did not receive any assistance yet.	Vocational training (tailoring)
47	Durnamey	Shira Khan	Lost his right foot	Engaged in agricultural activity	No	Unemployed	The Red Cross provided him an artificial foot & Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Financial support for shop
48	Durnamey	Alam Khan	Got injuries	Wood collection	Yes	Farmer	Did not receive any assistance.	Financial support for shop
49	Haydarkhel	Gulab Khan	Lost his left foot	Military service	No	Farmer	Government provided him an artificial foot & Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Financial support for animal husbandry farm

50	Haydark hel	Aminull ah	Lost his left- foot and got injury on hands	Military service	No	Unemployed	Government provided him an artificial foot & Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Financial support for animal husbandry farm
51	Haydark hel	Moham mad Akbar	Got injuries on his right- eye	Wood collection	No	Farmer	He did not receive any assistance yet.	Financial support for animal husbandry farm
52	Nadir Shah Kot	Noor Zaman	Killed	Grazing of animals	No			
53	Nadir Shah Kot	M. Bashir	Lost his right foot	Wood collection	No	Shopkeeper	The Red Cross provided him an artificial foot & Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Financial support
54	Nadir Shah Kot	Malangi	Killed	Grazing of animals	No			
55	Nadir Shah Kot	Gul Hazim	Killed	Grazing of animals	No			

56	Nadir Shah Kot	AnarGul a	Lost her right foot	Wood collection	No	House wife	The Red Cross provided her an artificial foot.	Vocational training (tailoring)
57	Dwaman day	M. Anwar	Killed	Wood collection	No			
58	Dwaman day	Noor Moham mad	Got injuries on his body	Wood collection	No	farmer	He did not receive any assistance yet.	Vocational training (carpentry)
59	Dwaman day	Khan Moham mad	Lost his right foot	Wood collection	No	Unemployed	The Red Cross provided him an artificial foot & Martyr and Disabled Department gave him a disability card and allocated the salary of AFN 60,000 / year.	Financial support for shop

Annex 4: Hazards impact indicators and scoring:

S-No	Impact Indicators	Descriptions	Scoring Category				
			1 score	2 scores	3 scores	4 scores	5 scores
1	Detonation with human casualty	Any mine/ERW/AIM detonation linked to a known hazard which resulted human loss or casualty		beyond 10 years back	between 4 to 10 years back	between 2 to 4 years back	within recent two years
2	Water blockage	Drinking water, irrigation systems				4 scores	
3	Infrastructure blocked	Houses, Mosques, Education facilities, Health Centers, Public buildings, Markets, roads and bridges				4 scores	
4	Local authority/Communities request	The request be confirmed by related DMAC Regional Office		Community request	authority request		
5	Agriculture blocked	Crop land, fruit farms and forest			3 scores		
6	Small hazards (up to 5000 sqm)	To release communities, districts, provinces and or change the map with recorded hazards.			3 scores		

7	Anti-Personal (AP) Hazards	prevention of civilian casualties		Mountain top	Mountain sides	Flat land	
8	Hazards with ERW device	prevention of civilian casualties		Mountain top	Mountain sides	Flat land	
9	IDPs around hazards	If IDPs settled within 5 km buffer zone from the hazard		2 scores			
10	Grazing/pasture land blockage	Grazing/pasture land	1 score				
11	No. of affected families (200 family factor)	If hazard is affecting 200 families or more	1 score				
12	Contaminated area size in the community 200,000 sqm or above.	If contaminated land within a community is 200,000 sqm or above, create more tension to the residents	1 score				
13	Distance from health center	for hazards located in more than 10 km distance from health centers	1 score				

Impact Classification	Total Score	Ranks
Very High Impact	10 and above	1
High Impact	7 to 9	2
Medium Impact	4 to 6	3
Low Impact	1 to 3	4