

Landmine Impact Survey

REPUBLIC OF AZERBAIJAN



Certified by the United Nations Certification Committee

**Implemented by the Survey Action Center and
the International Eurasia Press Fund**

Republic of Azerbaijan

PROJECT ABSTRACT

The *Landmine Impact Survey* report summarizes the results of a socioeconomic survey of the effects of landmines and unexploded ordnances (UXO) on communities in the Republic of Azerbaijan. This survey was conducted from September 2002 to June 2003. This document is only one in a series of reports which collectively constitute the *Global Landmine Survey* initiative. This initiative aims to catalog the socioeconomic impacts caused by landmines and UXO and to store this data in a manner that supports strategic national planning and resource allocation decisions. The report on Azerbaijan is designed to be read in conjunction with a document entitled the *Global Landmine Survey Initiative*, which describes the global project as well as the general methodologies used to conduct impact surveys.

Funding for this survey has been provided by the European Community.



Quality assurance monitoring has been independently provided by UNMAS/UNOPS.



Foreword

The Azerbaijan Landmine Impact Survey (LIS) Project was aimed at producing quality data, to internationally recognized standards, to improve mine action management and enhance the capacity to eliminate or minimize the impact of landmines on communities and internally displaced persons in Azerbaijan.

The Survey Action Center (SAC) executed and a national NGO, International Eurasia Press Fund (IEPF), implemented the survey under the auspices of the Azerbaijan National Agency for Mine Action (ANAMA), the responsible national agency for planning, coordination and monitoring of all mine related activities in support of rehabilitation and reconstruction of war-torn territories and their development in the Republic of Azerbaijan. The survey was conducted in accordance with the principles and operating protocols established by the Survey Working Group.

The European Community funded the survey. The United Nations Development Programme (UNDP) provided technical support and material assistance. The UN Mine Action Service (UNMAS) provided a quality assurance monitor to assist with the certification process.

The LIS was conducted from September 2002 to June 2003. The survey was not conducted in the areas occupied by Armenia, the Autonomous Republic of Nakhichevan, or other discrete locales where military or local authorities did not allow access.

Hereby, we would like to emphasize that the survey covered all communities to a high degree of confidence. The survey achieved its objectives to provide Azerbaijan and international donors with quantifiable, standardized data regarding the impact of landmines and unexploded ordnance upon communities in that country, to provide national authorities in Azerbaijan with the capacity to plan and prioritize scarce resources with maximum effect, allowing planners to focus national strategies for landmine risk education, technical survey, victim assistance, training, and clearance. The community impact scoring and community clustering schemes have been developed based on thorough discussions with ANAMA.

Cranfield Mine Action (CMA) facilitated the strategic planning exercise (2-6 June 2003) and the workshop (24-27 November 2003) targeted at working out an Azerbaijan Strategic Plan for Mine Action. During these sessions, the history of mine action in Azerbaijan has been summarized, local mine clearance capacity has been quantified and FREEWAY planning software and LIS data usage in long term mine action planning has been demonstrated. As a result, the Azerbaijan five-year Strategic Plan for Mine Action has been developed with the LIS and other relevant information taken into account.

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Director of ANAMA

Baku, Azerbaijan

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Introduction

Growing out of the wide collaborative efforts of the International Treaty to Ban Landmines, Landmine Impact Surveys (LIS) are executed to meet the needs of the international humanitarian mine action community, including donors, national authorities and mine action implementers.

The overall LIS vision is to “facilitate the prioritizing of human, material and financial resources supporting humanitarian mine action at the national, regional and global levels.” To fulfill this vision, Landmine Impact Surveys are executed across the globe to the same rigorous standard.

Landmine Impact Surveys provide the three major partners of mine action—national authorities, donors and implementing agencies—with a common dataset. This data, as collected during the impact survey, offers clear improvements over past efforts in that it:

- Defines the entire problem in terms of scale, type, location, hazard and socio-economic impacts experienced by local communities
- Improves national planning efforts by allowing for clear prioritization of resources
- Fosters development of national plans with well-defined immediate intermediate and end-state objectives
- Establishes baseline data for measuring performance

In sum, this implies nothing short of a major revision of how mine action programs are managed and how resources for such programs are allocated. Impact surveys are the first and most vital step in the overall transformation of humanitarian mine action. Impact surveys improve the quality of information available to support management decision making at all levels. The findings and information presented in this report are stored in the Information Management System for Mine Action (IMSMA) database and are intended to be descriptive in nature, providing the most comprehensive picture of the nature of the mine and UXO threat experienced by communities in Azerbaijan. While essential for national planning, this report is not a substitute for a national plan. It does not relieve national authorities or mine action professionals from their collective responsibility to gain a full understanding of the results of the survey and to use these results to set priorities, mobilize funding and allocate mine action resources in the most effective and rational manner. The survey has transformed the unknown into information and knowledge. The challenge now is for others to use this knowledge to bring about positive, constructive action.

As a global initiative with a stated goal of standardizing information across countries, Landmine Impact Surveys make a concentrated effort to ensure conformity of methods, procedures and processes. These are based on best practice in the fields of social science research and mine action. To ensure confidence in the results, impact surveys are supported by both internal and external quality

control mechanisms. All surveys executed with the involvement of the Survey Action Center measure and score impacts in impacted communities in a uniform manner. The true value and nature of the impacts, however, cannot be ascertained by a quick tallying of colored dots on a map; instead readers should make a concentrated effort to comprehend all aspects of the landmine problem and then develop plans to address the problem.

MAP 1

REPUBLIC OF AZERBAIJAN

- Azerbaijan
- Azeri land occupied by Armenia (edge between this area and the rest of Azerbaijan is a non-administrative boundary)
- Nakhchivan (not surveyed)



Executive Summary

SUMMARY OF CONCLUSIONS

The Azerbaijan Landmine Impact Survey conducted interviews in 643 communities in 18 districts and exclusively identified 480 mine-impacted communities and 163 unique communities in Aghstafa district impacted by unexploded ordnance (UXO). Altogether 970 suspected hazard areas (SHA) were identified. The land contaminated by mines and/or by UXO directly impact the safety and livelihoods of an estimated 514,000 people and has led to the death or injury of 52 people in the last two years. The survey was not conducted in the areas occupied by Armenia, the Autonomous Republic of Nakhchivan or other discrete locales where military or local authorities did not allow access (see Map 1, facing page). Preliminary Opinion Collection (POC) identified 47 districts in Azerbaijan as not impacted by landmines. The survey covered all mine-impacted communities to a high degree of confidence in the Republic of Azerbaijan.

The data collected during this effort affords extensive opportunities for research, analysis and project planning, and leads to several central conclusions relevant to mine action:

- The survey recorded 51 victims of mine/UXO incidents in 33 communities in the past two years, of which nine were recorded as fatalities. All but two of the victims were male. Nearly 60 percent of mine victims were between the ages of 15-44 and 71 percent of the victims were harmed while farming and herding.
- Eleven communities were identified as highly impacted, 101 were medium impact, and 368 were low impact. High- and medium-impact communities comprise 23 percent of all impacted communities.
- Fizuli and Aghstafa districts reported the largest numbers of victims. Although the number of victims in Fizuli is a reflection of the scale of fighting there, the victims in Aghstafa, on the other hand, are the result of dispersed UXO. Saloglu village alone reports 32 victims killed and 110 injured, although no fatalities and only 2 injuries occurred within the last two years.
- The majority of recent mine/UXO victims were adults engaged in agriculture at the time of the incident. The second leading activity that leads to frequent mine/UXO incidents is tampering with individual mines or pieces of UXO.
- The most prevalent resource blockage is pasture land followed by cropland.
- Forty-five percent of the impacted communities (287) in 13 districts reported some form of mine risk education (MRE) activity within the last 24 months. The most commonly used methodology was posters. Although fewer than one-tenth reported MRE presentations in their schools, educational brochures and booklets were distributed in a third of the communities, including distributions at schools.

- MRE should target more communities impacted by UXO.
- Villages and smaller units (170 or fewer residents), including many farms and seasonal communities, made up 353 of the 643 impacted communities (55 percent). Many of these rural communities lie in former battlefields and along the present front line with occupied areas.

PROJECT OVERVIEW

A Landmine Impact Survey was conducted in Azerbaijan from September 2002 to June 2003. Data collection was conducted between December 2002 and May 2003. The Survey Action Center (SAC) executed and the International Eurasia Press Fund (IEPF) implemented the survey under the Azerbaijan National Agency for Mine Action (ANAMA) in accordance with the principles and operating protocols established by the Survey Working Group. Cranfield Mine Action facilitated the strategic planning exercise.

The European Community (EC) funded the survey. The United Nations Development Programme (UNDP) entered into a project agreement with the EC and a contractor services agreement with SAC. UNDP and the Geneva International Center for Humanitarian Demining (GICHD) provided technical support and material assistance. The UN Mine Action Service (UNMAS) and the UN Office for Project Services (UNOPS) provided a quality assurance monitor to assist with the certification process.

IEPF conducted the survey with 51 national staff during data collection. Field staff consisted of five field supervisors, five field editors and 19 interviewers operating out of field offices in Ganja city, Fizuli and Beylagan. Data collected was entered into the Information Management System for Mine Action at ANAMA in Baku by three data entry staff.

SCOPE OF THE PROBLEM

The survey covered all mine suspected communities to a high degree of confidence in the Republic of Azerbaijan. The Preliminary Opinion Collection (POC) indicated that 26 districts of the non-occupied part of Azerbaijan are impacted by landmines and UXO. This survey confirmed that 18 of these districts, slightly more than one-quarter of the country, had landmine/UXO contamination. The survey was not conducted in Yardymly district, in the Autonomous Republic of Nakhchivan, or in the areas occupied by Armenia. A total of 643 communities were found to be mine/UXO impacted and 970 suspected hazard areas were identified. Fifty-five percent of the impacted communities are in Fizuli and Aghstafa, while 59 percent of the SHAs are in these two districts. One large cluster in Aghstafa, which includes 163 communities representing the Saloglu contamination area, is from a single military training facility and large arms depot that was destroyed when the Soviet army withdrew in 1991. In addition, 327 SHAs were identified as having UXO with low impact that could be targeted for immediate spot clearance. Fifty-one victims in the past 24 months were identified.

IMPACT ON COMMUNITIES

A scoring mechanism categorizes communities by their degree of mine/UXO impact. Indicators for this mechanism include the number of victims within the past 24 months, blocked access to resources and the type of contaminating munitions. Based on this mechanism and with 163 survey sites clustered for reporting and analysis to form one community around Saloglu village, the survey scored 11 communities as 'high impact' (2 percent), 101 as 'medium impact' (21 percent), and 368 as 'low impact' (77 percent) in the surveyed regions for a total of 480 communities. For reporting and analysis purposes 163 survey sites in Aghstafa were clustered to form one community around the Saloglu village. The mean population of these 163 sites is 8 and they are impacted by UXO only. This clustering has been done in order to recognize these sites as not being individual conflict areas but rather one area impacted both by an explosion in 1991 at the Soviet ammunition depot and by training at an adjacent military range in the 1970s.

IMPACT ON SECTORS

The survey collected information regarding the types of resources that are denied to individuals and communities because of mine/UXO contamination in the surveyed area. The communities most frequently reported pasture as an economic resource blocked by contamination. Cropland was the second most frequently mentioned. Drinking water and other infrastructure such as hospitals and schools were mentioned less frequently by the communities reporting these blockages.

MINE INCIDENTS

The survey recorded 51 victims of mine/UXO in 52 incidents in 33 communities in the past two years, of which nine were recorded as fatalities. All but two of the victims were male. Nearly 60 percent of mine victims were between the ages of 15-44 and 51 percent of victims were harmed while farming and herding, while tampering was the third leading activity when incidents occurred. The only two female recent victims were reported to have been herding and farming, respectively, when the incidents occurred. All of the recent victims were civilians. In general terms, the typical profile of an average victim in Azerbaijan is a male adult engaged in agriculture.

The survey also identified 1,164 victims previous to the 24-month period. Of these, 436 were fatalities and 728 survived the incidents.

CAUSALITY

Over three quarters (77 percent) of all recent victims live in the four districts of Fizuli, Tovuz, Aghstafa and Gazakh. Due to the low number of victims compared to the total number of communities, however, there is an insufficient volume of data to analyze and generate conclusions regarding causal factors that determine mine impact and the probability of mine incidents in a given community.

BUDGET AND EXPENDITURE

The budget of US\$1,500,000 for the survey was developed following the SAC advance survey mission in December 2000. In August 2002, the budget was revised to US\$1,236,000 to reflect the revised estimated number of communities affected by the landmines. Funds expended by the United Nations to cover the costs of the quality assurance monitoring and certification are not reflected in these figures.

CONCLUSION

The results of the survey indicate that Azerbaijan suffers from extensive landmine and UXO contamination in the war-torn districts along the cease-fire line and the border with Armenia, especially in the Fizuli district. UXO contamination is extensive throughout the Aghstafa district. Spot clearance tasking can partially reduce the impact of UXO contamination in Aghstafa. Increased MRE and targeting herders and farmers are recommended. The Landmine Impact Survey provides Azerbaijan with the information it needs to put in place a program that will one day free it from the fear of landmines. Given sustained funding support, these initiatives will allow Azerbaijan to free itself from the most adverse consequences of mines and UXO within a reasonable amount of time.

SPECIAL NOTE

This document has been produced with the financial assistance of the European Community. The views expressed herein are those of the Survey Action Center, IEPF and ANAMA and do not in any way reflect the official opinion of the European Community or the United Nations.

ABBREVIATIONS USED IN THIS REPORT

AMEZ	Aghstafa Munitions Explosion Zone
ANAMA	Azerbaijan National Agency for Mine Action
AP	Anti-personnel Landmines
ASM	Advance Survey Mission
AT	Anti-tank Landmines
CMA	Cranfield Mine Action
EC	European Community
FNS	False Negative Sampling
GICHD	Geneva International Center for Humanitarian Demining
GIS	Geographic Information Systems
GPS	Global Positioning System
ICRC	International Committee of the Red Cross
IDP	Internally Displaced Person
IEPF	International Eurasia Press Fund
IFRC	International Federation of Red Cross and Red Crescent Societies
IMAS	International Mine Action Standards
IMSMA	Information Management System for Mine Action
LIS	Landmine Impact Survey
MDD	Mine Detecting Dogs
MRE	Mine Risk Education
MTT	Monitoring, Training and Quality Assurance Team
NGO	Non-governmental Organization
POC	Preliminary Opinion Collection
QAM	Quality Assurance Monitor
SAC	Survey Action Center
SHA	Suspected Hazardous Area
SWG	Survey Working Group
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children’s Fund
UNMAS	United Nations Mine Action Service
UNOPS	United Nations Office for Project Services
UXO	Unexploded Ordnance

Survey Results & Findings

Survey Results & Findings

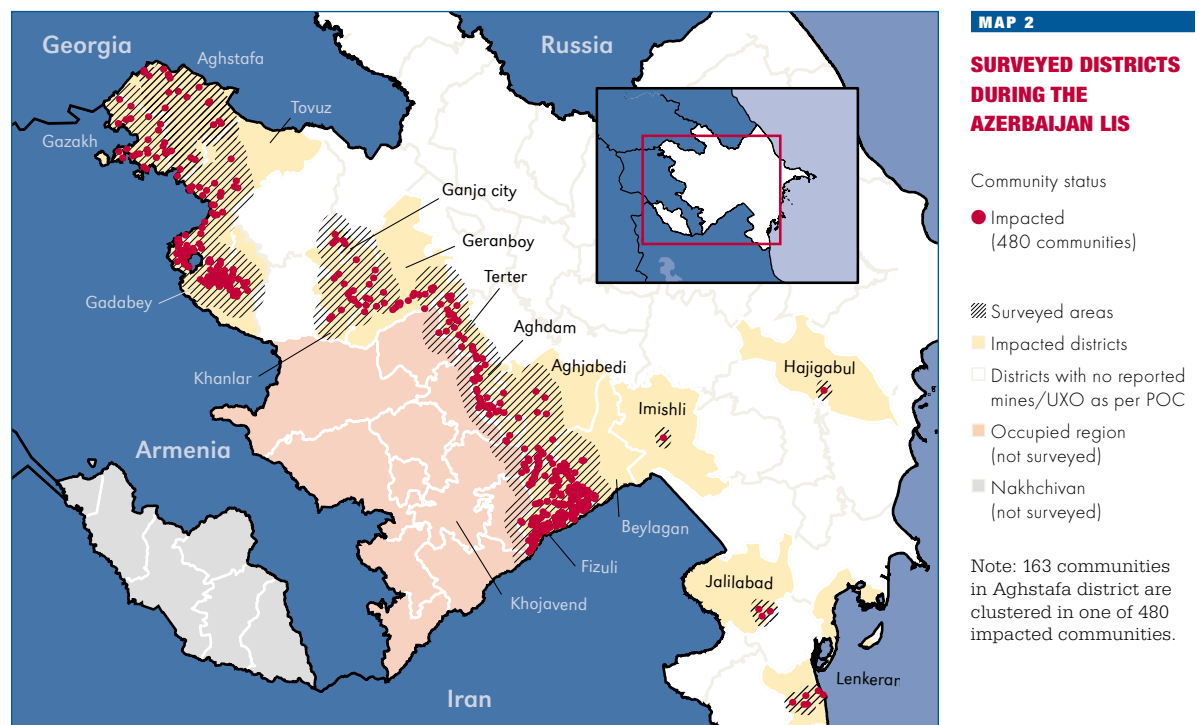
Scope of the Problem

NUMBER OF COMMUNITIES IMPACTED

The Azerbaijan LIS identified 480 landmine/UXO impacted communities in 18 districts. In addition, 163 communities were identified within the Aghstafa Munitions Explosion Zone (AMEZ). These communities were contaminated by a non-military incident when a Soviet depot at Saloglu was blown up in 1991. For purposes of impact analysis, this zone has been treated as one community, located at Saloglu. Districts are the highest administrative unit. The survey does not cover areas of Azerbaijan presently occupied by Armenia, the Autonomous Republic of Nakhchivan, or other discrete locales where military or local authorities did not allow. In the areas surveyed, an estimated 514,000 people live in communities with some level of mine impact.

GEOGRAPHIC DISTRIBUTION OF IMPACTED COMMUNITIES

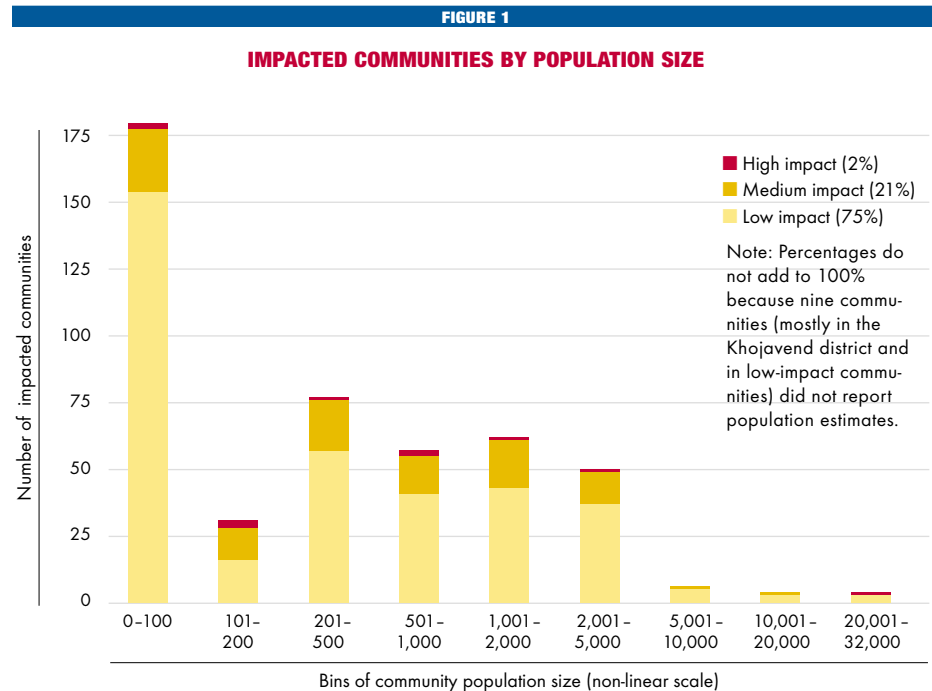
The location of impacted communities as determined by the survey are shown in Map 2. The belt of surveyed regions running northwest from Fizuli to Gazakh represents areas affected by war with Armenia since 1988. One large cluster, in Aghstafa district in the northwest, represents contamination from a single military training facility and large arms depot that was destroyed when the Soviet army withdrew from Azerbaijan in 1991.



The LIS identified 163 locations in Aghstafa district in which the median population in each location is eight and each is affected by UXO. Most of the SHAs associated with these locations are the result of a single event: the explosion and destruction of a munitions warehouse at one of the largest Soviet military bases in the south Caucasus in 1991. The remaining SHAs contaminated with UXO are the result of military training in the 1970s. The impact score of these 163 locations was categorized as low with no recent victims and minimal socioeconomic blockage. For purposes of reporting and analysis the 163 locations were clustered to one community around the Saloglu village and based on the scoring system and weights has been categorized as high impact. The complete list of the 163 locations, along with their coordinates, can be found in Annex A of this report.

SETTLEMENT TYPE AND POPULATION SIZE

With few exceptions, mines and UXO in Azerbaijan primarily affect rural communities. As seen in Figure 1, villages and smaller units (population under 170), including many farms and seasonal communities, make up 204, or 43 percent, of the 480 impacted communities. Many of these rural communities lie in former battlefields and along the present front line with occupied areas. The twelve urban and suburban communities in Lenkeran, Ganja city, Jalilabad, and Hajigabul districts, whose affects from ordnance and munitions are associated with former Soviet military facilities, make up only 7 percent of the total impacted population. Although community populations range from 4 to 31,600, the median community population is 285. As a result of the conflict there are hundreds of thousands of



Note: 163 communities in Aghstafa district are clustered in one of 480 impacted communities.

Internally Displaced Persons (IDPs)

The 1988-94 war with Armenia resulted in the displacement of more than an estimated 5,700,000 IDPs from the occupied areas of southwestern Azerbaijan. According to the United Nations High Commissioner for Refugees (UNHCR), as of mid-2002, an estimated 35 percent of the IDPs had returned to their communities of origin in former battle-field and front-line areas, primarily in Fizuli district.

Although the remaining IDPs are dispersed throughout Azerbaijan and found in every district, many are concentrated in settlements in areas fairly close to their communities of origin and adjacent to the former front lines including Barda, Aghjabedi, Aghdam, Imishly and Beylagan.



New settlement for refugees and IDPs in Geranboy district.

The IDPs form two basic groups—those whose homes remain in occupied territory and therefore cannot return to their homes of origin, and those whose homes lie in areas now under firm government control but where return is impeded primarily by security and economic concerns in their homes of origin. To encourage and facilitate return among this latter group, the government and international community have in recent years initiated programs to reconstruct houses and community infrastructure, provide economic incentives, and improve security, notably through integrated mine action activity including the removal of landmines and UXO.

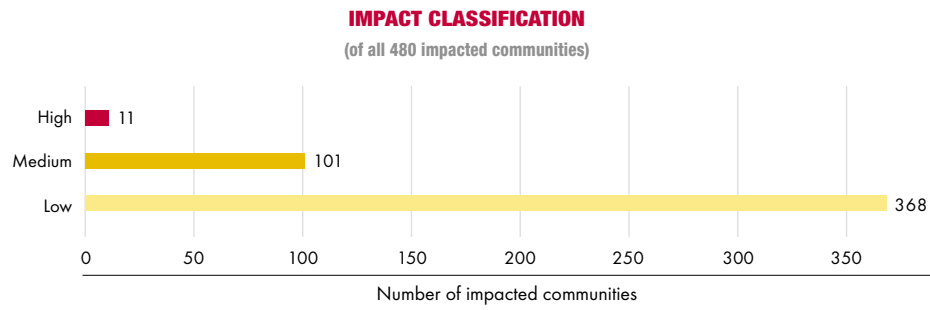
displaced persons in Azerbaijan. The Internally Displaced Persons (IDP) situation related to landmine impacted communities is described above.

IMPACT LEVELS AND DISTRIBUTION

The survey categorizes each impacted community based on standard criteria relating to types of ordnance present, number of mine accidents within the previous two years, and numbers and types of socioeconomic blockages. The Azerbaijan LIS categorized the surveyed communities as follows in Table 1, and Figure 2 (see next page) is a graphical summary.

The geographic distribution of these communities is shown on Map 3 (see page 17). Most of the impacted communities are along conflict lines with Armenia.

FIGURE 2



Note: 163 communities in Aghstafa district are clustered in one of 480 impacted communities.

TABLE 1

NUMBER OF COMMUNITIES IN EACH IMPACT LEVEL, BY DISTRICT

Districts	Low	Medium	High	Total
Fizuli	135	35	4	174
Gadabey	68	16	1	85
Tovuz	21	12	1	34
Aghdam	19	6	0	25
Gazakh	18	6	1	25
Tertter	13	9	1	23
Aghjabedi	21	1	0	22
Aghstafa	16	2	2	20
Khanlar	16	4	0	20
Geranboy	10	8	1	19
Khojavend	11	0	0	11
Beylagan	6	0	0	6
Lenkeran	5	1	0	6
Jalilabad	2	1	0	3
Naftalan city	3	0	0	3
Ganja city	2	0	0	2
Hajigabul	1	0	0	1
Imishly	1	0	0	1
TOTAL	368	101	11	480
	77%	21%	2%	100%

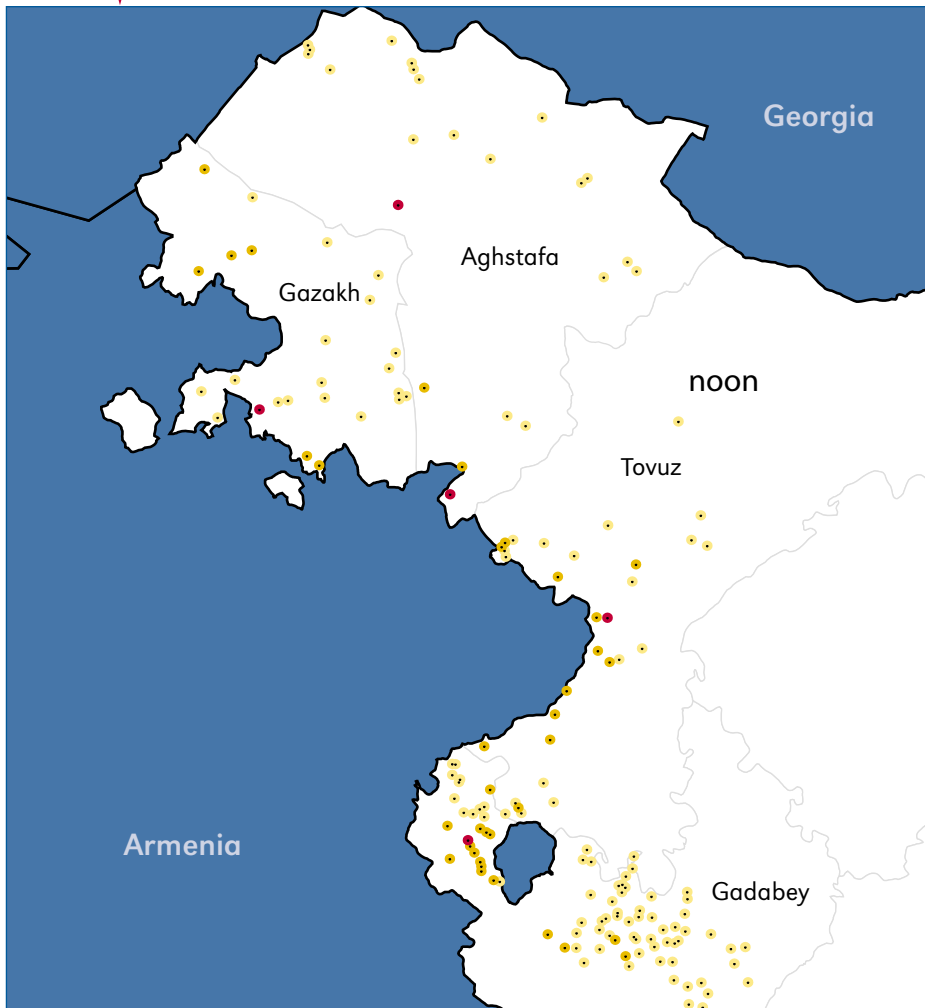
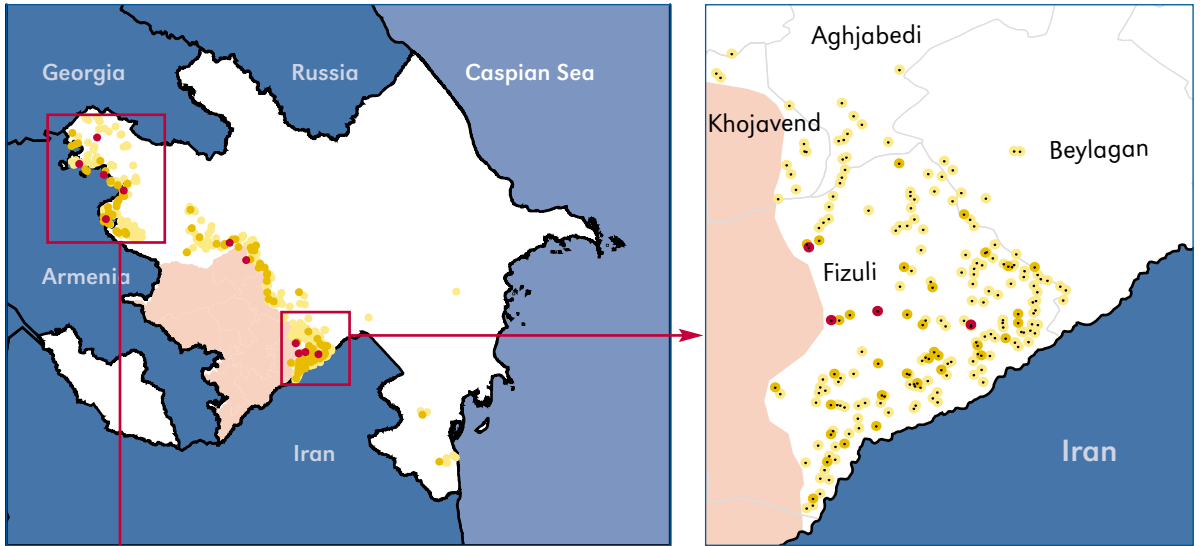
Note: 163 communities in Aghstafa district are clustered in one of 480 impacted communities.

HISTORY OF POLLUTION BY MINES AND UXO

The two major events that have led to landmine and UXO contamination are the destruction of the Soviet military bases, in particular the base in Aghstafa and the conflict with Armenia. Although most reported military activity relates directly to the war with Armenia, some occurred at and around military bases before the withdrawal of the Soviet military from bases in Azerbaijan in 1991.

The existence and scale of military activity experienced in an area generally correlate directly with levels of mine/UXO contamination. Although LIS community respondents described the extent of any military activity in their community as having been the full-range of “none,”

“little,” “moderate,” or “a lot,” three-quarters (362) of all impacted communities in Azerbaijan, as seen in Table 2 (see page 18), experienced moderate to high levels of military activity. This reflects clearly the proximity of most impacted communities to former battlefield and front lines. Impacted communities that reported no military activity are generally affected by ordnance found at former Soviet munitions depots or by munitions taken from the unguarded depots, usually defused and emptied of explosives to be sold as scrap metal.



MAP 3

GEOGRAPHICAL DISTRIBUTION OF THE 480 IMPACTED COMMUNITIES

- Community impact
- High (11 communities)
 - Medium (101 communities)
 - Low (368 communities)
- Occupied region

Note: 163 communities in Aghstafa district are clustered in one of 480 impacted communities.

TABLE 2

REPORTED COMMUNITY MILITARY ACTIVITY

Communities	Much	Moderate	Little	None	Unknown	Total
Number	241	121	88	16	14	480
Percent	50%	25%	18%	3%	3%	100%

SUSPECTED HAZARD AREAS (SHAS)

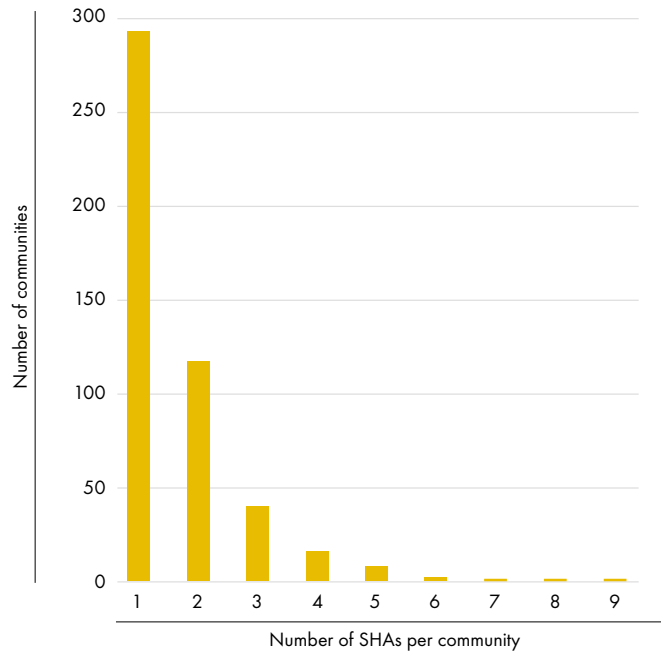
The Survey Working Group (SWG) protocols characterize all areas known or thought to have landmines and/or UXOs as Suspected Hazard Areas (SHAs). SHAs are identified by community respondents during the interview process. In Azerbaijan 970 suspected hazard areas were identified. The number of SHAs reported within individual communities ranged from one to nine, and as seen in Figure 3, with almost 90 percent reporting two or fewer SHAs.

In Fizuli, the community of Yukhari Kurdmahmudlu reported nine SHAs. Interestingly, Yukhari Kurdmahmudlu, with nine SHAs, reported only two recent victims and blockages of pasture and cropland for a total score of ten and an impact categorization of medium. A further assessment will indicate whether marking or clearance is required for each SHA in order to reduce or eliminate impact.

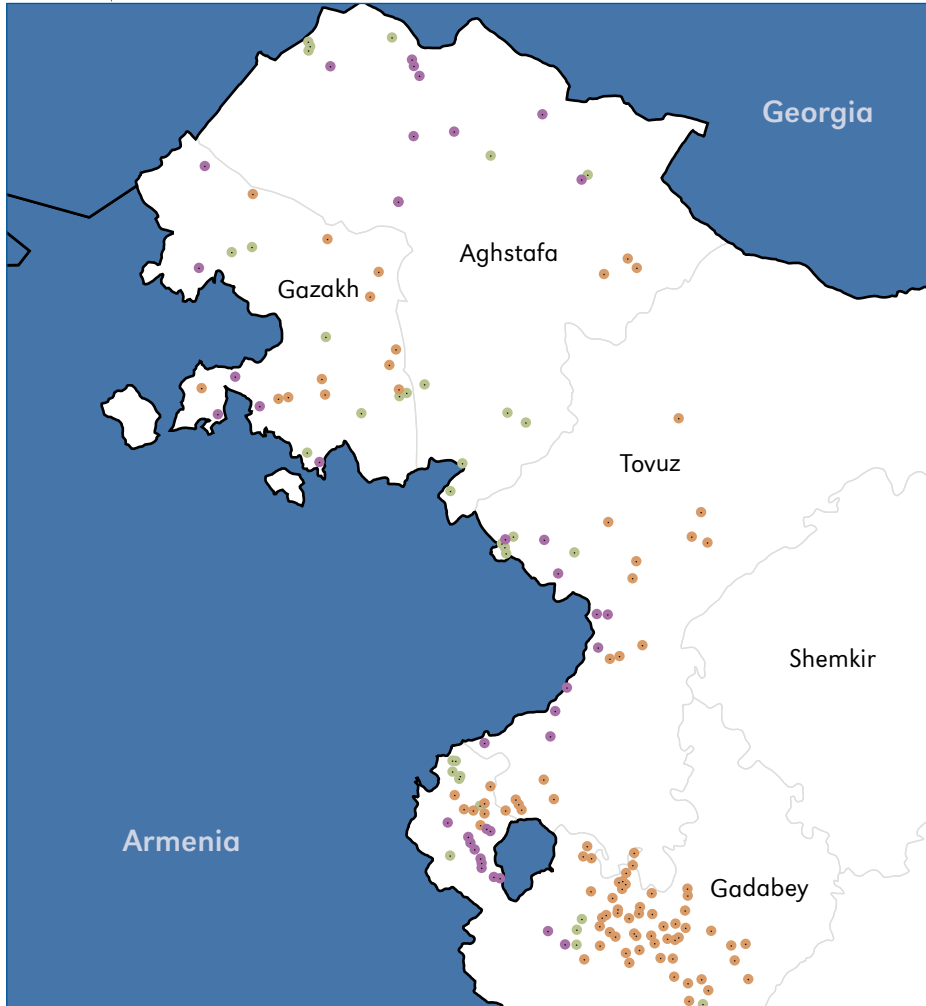
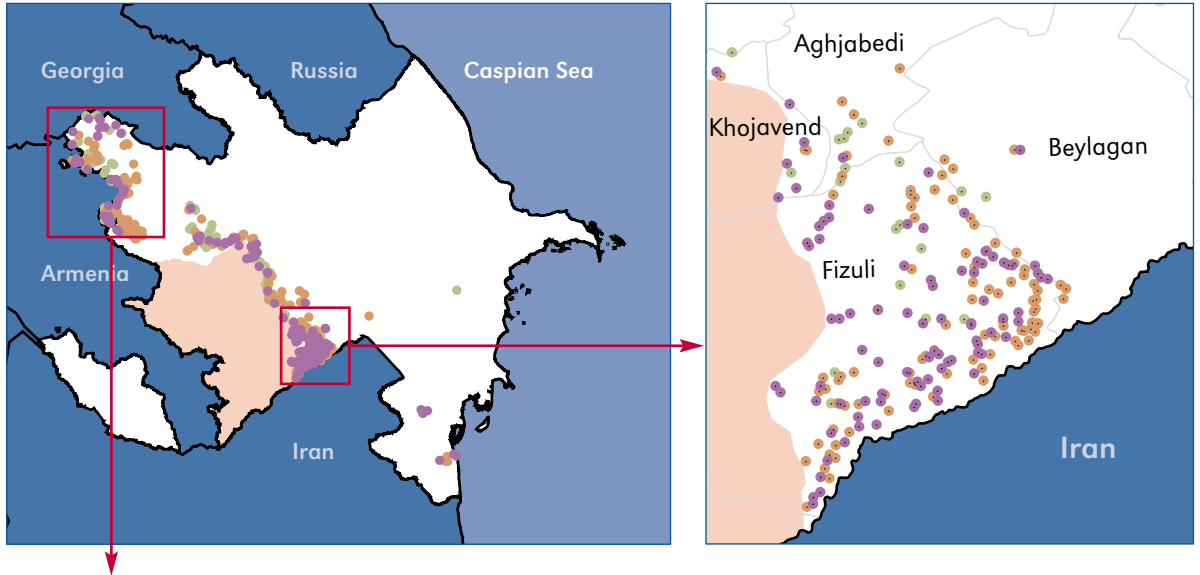
The level and type of contamination vary widely. Of the 480 impacted communities identified in the survey, 83 contain only landmines, 233 contain only UXO, while 164 contain both (Map 4). Further characteristics of SHAs are described in “Class of Munitions” on page 42 of this report.

FIGURE 3

COMMUNITIES, BY NUMBER OF SUSPECTED HAZARD AREAS



Note: There is one special case (not shown) near Saloglu village in Aghstafa that has 183 SHAs.



MAP 4

IMPACTED COMMUNITIES, BY ORDNANCE TYPE

- Community status
- UXO only (233 communities)
 - Mines and UXO (164 communities)
 - Mines only (83 communities)
 - Occupied region

Note: 163 communities in Aghstafa district are clustered in one of 480 impacted communities.

Community Profile — Yukhari Oba Village

Yukhari Oba village, situated in Fizuli district close to the military front line with Armenia-occupied territory, was surveyed during the LIS. This village was assessed as having medium impact by the presence of anti-tank mines, anti-personnel mines, and UXO ordnance laid until the end of 1993. There have been no mine/UXO victims within the last two years but three victims prior to that, including two fatalities.



Suspected Hazard Area in a residential area of Yukhari Oba village.

Before the war, Yukhari Oba had an estimated population of 650, or 130 families. Yukhari Oba had the second largest wine production facility in the country, processing grapes from its own and other vineyards, and employing 500 residents of Yukhari Oba and four neighboring communities. The facility produced 1,000 tons of wine per year and several types of fruit juice including tomato and pomegranate. Other industries included a shoe factory, a small clothing factory, and a large garage.

The entire population fled Yukhari Oba when it came under fire from the Armenians in 1993. The family of Abdullah Gahraman, chief economist at the wine factory, went first to a nearby IDP camp which was subsequently shelled. They moved to Jalilabad, in south-east Azerbaijan, and then back to Imishly in 1994. That year, on 29 November, the Gahramans and three other families returned to Yukhari Oba. Finding the entire village, including their houses, destroyed, the three families constructed houses of mud brick and began raising sheep and growing medicinal herbs. More recently, they began clearing land and planting crops.

Yukhari Oba has grown to a current level of 32 families, or 162 people. At least five families returned in the last 12 months, and more are arriving under a under an International Federation of Red Cross and Red Crescent Societies (IFRC) economic revitalization pilot project that reconstructs houses and provides seed and fertilizer to each family. Adding to the community's prospects, an American non-governmental organization (NGO), "Humpty Dumpty" that recently visited Yukhari Oba wants to help restore the vineyards

as a prerequisite to restarting wine production. They have survived on what they produce plus the \$5-per-person monthly food subsidy they receive from the government. The village still has no running water, no electricity, and no schools. It does, however, have a health clinic.

Efforts to repopulate, reconstruct, and revitalize Yukhari Oba are hampered by two very serious security concerns: proximity to the front line and landmines. The Armenian front line is close and ceasefire violations occur. During the night of 7-8 April 2003, for example, Azerbaijani army forces based in Yukhari Oba exchanged rounds with nearby Armenia using mortars, machine guns, and grenade launchers. Fortunately, there were no casualties. The residents of Yukhari Oba have had no mine accidents over the last two years, though they did lose several sheep to landmines. They are perhaps just very lucky, as Abdullah Gahraman and many of his neighbors have removed, by themselves, scattered UXO and dozens of anti-tank mines before tilling their fields. On the day we visited Yukhari Oba to research this case study, a child found another anti-tank mine.

Yukhari Oba lies in the middle of what was a large and fiercely contested battlefield. During the LIS interview, community members identified six discrete SHAs covering a residential area, the vineyard and wine production facility, the garage, pasture and formerly irrigated cropland, and an irrigation pump facility.

ANAMA began mine-action operations in Yukhari Oba in 2002 at the request of the IFRC. ANAMA staff has conducted mine risk education throughout the community and posted warning signs near dangerous areas. Deminers from the national NGO Dayag are presently clearing residential areas targeted for housing reconstruction.

As he discusses his plans to expand his cropland, repair the irrigation system, and begin mechanical cultivation, Abdullah Gahraman also muses the irony that, though one of the first returnees, he will be among the last to re-inhabit his former house. Though eligible for reconstruction under the community revitalization program, it lies too near the front line, in an area where the military prohibits resettlement.

Impact on Communities

SEVERITY OF IMPACTS

Landmines and UXO adversely impact communities in a variety of ways. The LIS identifies and categorizes these impacts, and assigns each surveyed community an impact score indicating the relative severity of the various impacts. This score is based on three important actors:

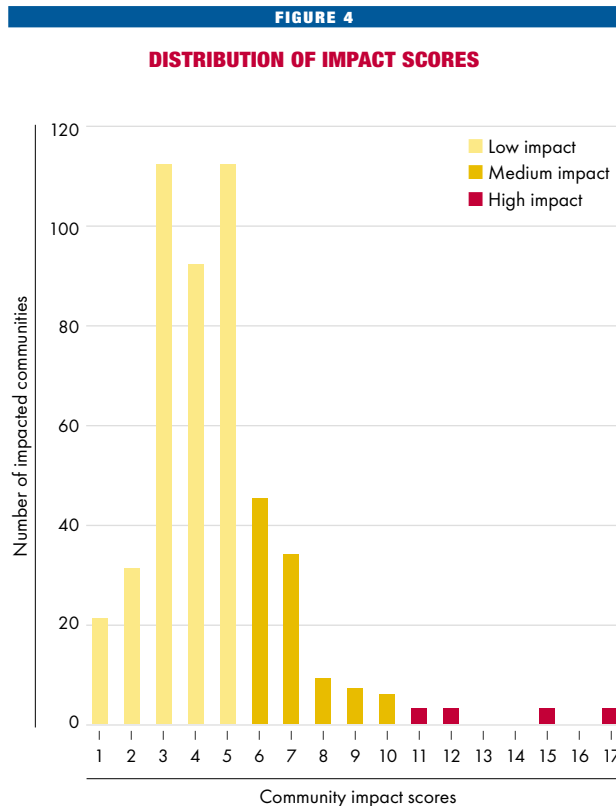
- The number of recent victims (accidents within last 24 months)
- The different types of socioeconomic and institutional blockages present
- The nature of munitions present (landmines and/or UXO)

Impact scores are used to classify communities as low, medium or high impact using a framework common to all Landmine Impact Surveys (0-5 points = low impact; 6-10 points = medium impact; and 11 or more points = high impact). (See “Community Scoring, Weighting, and Classification” section on page 69 for further details of the scoring.)

Community impact scores in Azerbaijan ranged from one to 17, with a median of four. Three hundred and sixty eight (77 percent) impacted communities were categorized as “low

impact” and the most common scores were 3 and 5 points as shown in Figure 4. Typically accumulated by UXO (one point) and blockage of a single resource, usually pasture. A hundred and one communities (21 percent) were categorized as “medium impact” and eleven were “high impact” (2 percent).

Although scoring is based on community impact and not directly by the number of Suspected Hazard



Note: 163 communities in Aghstafa district are clustered in one of 480 impacted communities.

Areas (SHAs) it is worth noting that 153 or 16 percent of the SHAs are reported to have no blockages. Another 545 SHAs are reported to have only one blockage type. Thus, the LIS identified 698 SHAs, or 72 percent of all SHAs, that had one or no blockages. The implications for mine action planning are discussed in “Consequences for Mine Action” on page 43 of this report.

Figure 4 (preceding page) indicates that 52, or 11 percent, of the communities received a score of one or two points only. The low score indicates there were no victims or blockages in these communities.

POPULATIONS BY IMPACT CATEGORY

Table 3 categorizes communities by impact. It is estimated that 514,000 people live in mine and/or

UXO contaminated communities in Azerbaijan. The 18 impacted districts contain no large populated and contaminated urban areas. The impacted population percentages track the percentages of impacted communities in each category. The high-impact areas affect 38,000 people.

Community category	Communities		Population impacted	
	Number	Percent	Number	Percent
High impact	11	2%	37,888	7%
Medium impact	101	21%	102,799	20%
Low impact	368	77%	373,386	73%
TOTAL	480	100%	514,073	100%

Note: 163 communities in Aghstafa district are clustered in one of 480 impacted communities.

LANDMINE INCIDENTS

The SWG protocols for the Landmine Impact Survey define “recent victims” as survivors and fatalities from landmine/UXO incidents within the 24-month period prior to when the survey was conducted. “Non-recent” victims are defined as all victims from incidents more than 24 months in the past. The survey identified 51 recent victims from 52 incidents in 33 communities.

Community category	Number of communities	Fatal incidents	Non-fatal incidents	All incidents
Had recent victims	33	9	43	52
Had non-recent victims	183	436	728	1164
Had victims (all time frames)	192*	445	771	1216
Had no victims (all time frames)	451	n/a	n/a	n/a

* Note: The “had victims” set of communities is a union of the “recent” and “non-recent” sets, not a simple sum. The “had victims” and “had no victims” communities sum to the 643 total.

Table 4 (facing page) indicates that 192 different communities reported 1,216 incidents, of which 52 were recent incidents. Of the 643 communities surveyed, just 33, or 5 percent reported recent incidents. Of the 52 recent incidents, 83 percent of the victims survived their accidents.

DEMOGRAPHY OF RECENT VICTIMS

Table 5 shows that only two of the 51 recent victims were female. Twenty percent of the victims were 60 years and older including the two female victims. None was under five years of age.

Table 6 indicates that recent victims were predominantly herders and farmers, reflecting the importance of agricultural activity to most impacted communities. The third largest category (unemployed) comprises children aged five to 14 and the elderly. All of the recent victims were civilian.

INCIDENTS AND CONSEQUENCES

Table 7 shows that over two-thirds of all recent victims were either involved in herding or tampering with a landmine or piece of UXO at the time of their incident. Two separate incidents involving the same victim both occurred while herding.

TABLE 5

RECENT VICTIMS, BY AGE AND GENDER

Age	Male	Female	Total	
			Number	Percent
5-14	7	0	7	13%
15-29	19	0	19	37%
30-44	10	0	10	20%
45-59	5	0	5	10%
60+	8	2	10	20%
TOTAL	49	2	51	100%

TABLE 6

OCCUPATION BEFORE INCIDENT

Occupation	Male	Female	Total	
			Number	Percent
Herding	24	1	25	48%
Farming	11	1	12	23%
Unemployed	11	0	11	21%
Other	2	0	2	4%
Household work	1	0	1	2%
Office work	1	0	1	2%
TOTAL	50	2	52	100%

TABLE 7

ACTIVITY AT TIME OF INCIDENT

Activity	Male	Female	Total	
			Number	Percent
Herding	20	1	21	39%
Tampering	15	0	15	29%
Other	6	0	6	12%
Farming	5	1	6	12%
Collecting food or water	2	0	2	4%
Playing	2	0	2	4%
TOTAL	50	2	52	100%

TABLE 8

INCIDENTS AND FATALITIES, BY GENDER

Fatality status	Male	Female	Total	
			Number	Percent
Fatal	9	0	9	17%
Non-fatal	41	2	43	83%
TOTAL	50	2	52	100%

TABLE 9

ASSISTANCE RECEIVED BY SURVIVORS

Assistance	Male	Female	Total
Emergency	36	2	38
Other	17	0	17
Rehabilitative	9	1	10
Fatal incident	9	0	9
None	3	0	3
Vocational	0	0	0

A majority of the recent victims survived the incidents, as shown in Table 8. Table 9 shows the type of assistance victims received. Thirty-eight people, or 90 percent, of all surviving victims of mine incidents received emergency medical treatment after the incident and 25 percent received rehabilitative care later, usually in the form of a prostheses. Only three survivors, or 7 percent, received no treatment or other care.

As a result of their wounds, 18 of the survivors required amputation, one lost his sight and 30 sustained other kinds of injuries. Six of the 43 survivors (14 percent) had multiple injuries.

MAP 5

RECENT INCIDENTS IN IMPACTED COMMUNITIES

- Communities with recent victims
- Occupied region

Note: The number of recent incidents are indicated by 1) the number in parentheses after the community name, and 2) the relative dot size.

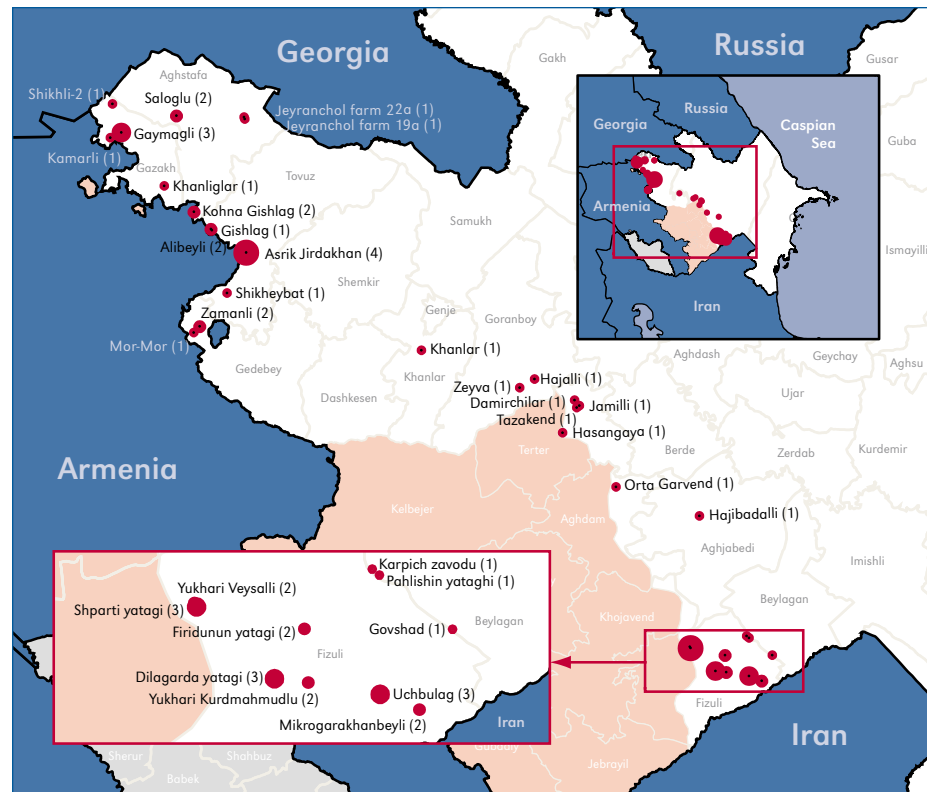


TABLE 10

COMPARISON OF RECENT AND NON-RECENT VICTIMS

District	Non-recent victims (>24 months)			Recent victims (<24 months)		
	Fatal	Non-fatal	Total	Fatal	Non-fatal	Total
Fizuli	121	161	282	2	17	19
Aghstafa	68	146	214	2	4	6
Gazakh	54	82	136	1	5	6
Tovuz	39	93	132	0	8	8
Geranboy	25	97	122	0	2	2
Tertter	40	40	80	1	3	4
Gadabey	34	21	55	2	1	3
Aghjabedi	20	20	40	1	0	1
Beylagan	18	21	39	0	0	0
Aghdam	11	16	27	0	1	1
Khanlar	2	18	20	0	1	1
Ganja city	2	7	9	0	0	0
Imishly	1	4	5	0	0	0
Khojavend	1	2	3	0	0	0
Hajigabul	0	0	0	0	0	0
Jalilabad	0	0	0	0	0	0
Lenkeran	0	0	0	0	0	0
Naftalan city	0	0	0	0	0	0
Total	436	728	1164	9	42	51

Of the 33 communities reporting recent victims, the village of Asrik Jirdakhan in Tovuz district had four recent victims. Four communities had three victims and eight communities had two victims. The other 20 communities reported only one victim each. Over three quarters (77 percent) of all recent victims live in the four districts of Fizuli (19, or 37 percent), Tovuz (8, or 16 percent) and Aghstafa and Gazakh (each with 6, or 12 percent). Communities with recent victims are shown on Map 5 (see facing page).

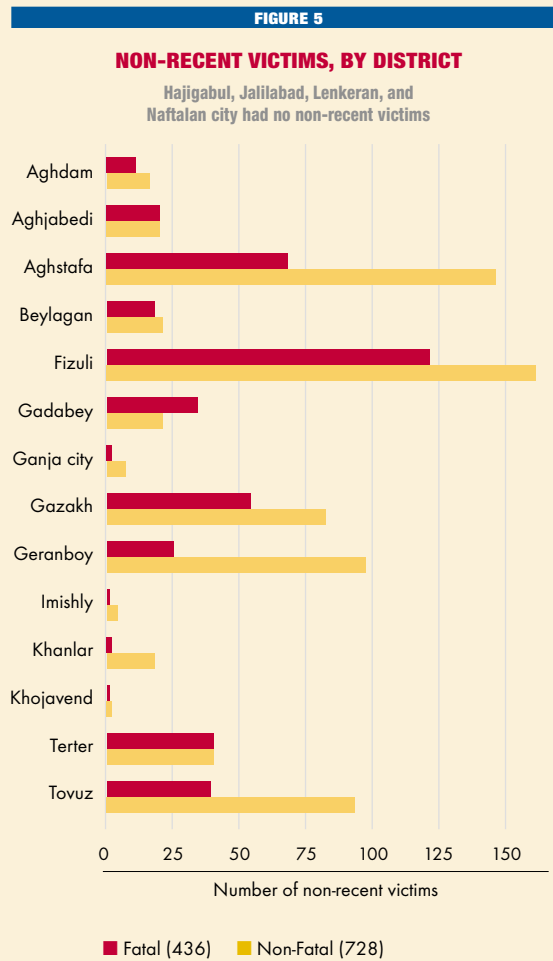
Table 10 shows the reduction in landmine incidents in the past 24 months (recent victims) as compared to the past.

Non-Recent Victims

In addition to the comprehensive victim information, the LIS acquired basic information about victims killed or injured not covered under the 24-month period prior to the survey. The LIS identified 1,164 such victims. Of these victims, 436 were fatalities and 728 survived the incidents.

The numbers from the previous years compared with those from the last two years (52) indicates that the number of incidents and victims has significantly decreased. As indicated in Figure 5, Fizuli and Aghstafa districts reported the largest numbers of previous victims. The number of victims in Fizuli is not surprising, considering the scale of the fighting there. In Aghstafa, on the other hand, which experienced no fighting at all, virtually all previous victim accidents relate to dispersed UXO contamination from the former Soviet training facility and armory at Saloglu.

The community of Saloglu alone reports 32 previous victims killed and 110 injured. The districts of Gazakh, Geranboy and Tovuz reported more than 80 victims each.



Analysis of Blockage Impacts

TYPES OF BLOCKAGE

Table 11 sorts socioeconomic blockages in descending levels of frequency, and Table 12 shows the impact by district. Reported socioeconomic blockages emphasize the importance of agriculture in impacted communities.

Survey respondents most frequently cited pasture as a blocked resource.

TABLE 11

SOCIOECONOMIC BLOCKAGE IMPACTS

Blocked resource	Impacted communities		Impacted population
	Number	Percent	
Pasture	347	72%	273,709
Irrigated cropland	119	25%	116,923
Rain-fed cropland	116	24%	115,366
Other water use	57	12%	66,497
Roads	43	9%	60,181
Non-agricultural land	40	8%	58,390
Other infrastructure	27	6%	111,841
Housing	26	5%	61,779
Drinking water	19	4%	44,660

Note: Communities may have multiple resource blockages (so percentages sum to more than 100%)

TABLE 12

MOST FREQUENT BLOCKAGES, BY DISTRICT

District	Most frequent blockages
Aghdam	■ Pastureland + irrigated cropland
Aghjabedi	■ Pastureland ■ Irrigated cropland
Aghstafa	■ Pastureland
Fizuli	■ Pastureland ■ Pastureland + other water, incl. irrigation ■ Pastureland + rain-fed cropland ■ Pastureland + irrigated cropland ■ Pastureland + irrigated cropland + other water, incl. irrigation ■ Irrigated cropland ■ Rain-fed cropland
Gadabey	■ Pastureland ■ Pastureland + rain-fed cropland
Gazakh	■ Pastureland
Khanlar	■ Pastureland + roads (some)
Geranboy	■ Pastureland + others (some)
Tertir	■ Pastureland ■ Pastureland + irrigated cropland
Tovuz	■ Pastureland ■ Pastureland + rain-fed cropland

Note: + means "in combination."

Although irrigated and rain-fed cropland were cited almost equally as a blockage it should be noted that some major irrigation canals that would normally provide water to the impacted communities are obstructed upstream, through a lack of maintenance, damage from the war, or by diversion of the water inside occupied territory, rather than by the presence of mines or UXO. Roads, houses and infrastructure were not cited often as blockages. Although “other infrastructure” (hospital, school, factory, market, etc.) is listed as the second lowest blockage, this blockage affected 111,800 people, or 22 percent of the total population impacted by landmines and UXO.

Community Profile — Shafibeyli Village

The small, compact village of some 100 families and 600 inhabitants, Shafibeyli lies a few dozen kilometers to the southwest of Geranboy, the center of the district. This village was surveyed and assessed as having medium impact by the presence of anti-tank mines, anti-personnel mines, and UXO ordnance laid between 1991 and 1993.

Today, as before the war, the villagers survive on basic agriculture and animal livestock. Wheat for bread and a few green vegetables, such as runner beans, accompany meals of chicken, goat, lamb or beef. The village benefits from electricity and access to running water in the stream that runs beside it, and even has a telephone. There is a basic medical facility but no primary or secondary school.

Fierce combat raged close to Shafibeyli during the conflict and both sides buried mines within a few kilometers of the village. Azeri troops warned the villagers at the time, and their warnings have been heeded, as villagers still keep clear of the front line areas formerly occupied by Armenian troops. In areas of former combat they “try to be a bit careful.” Occasionally shelling and small arms fire breaches the cease-fire that had been in force for almost a decade.

Despite its proximity to the front line, the village has still to receive outside mine awareness training, although the head of the local authority has specifically told parents and their children to beware of suspicious objects, never to touch them, and when shooting starts, they should head home as fast as they can and remain indoors. A few young children, fearful of the continual noise of battles, were sent to neighboring villages by their parents.

There have been no victims to mines or unexploded ordnance since the cease-fire as the villagers have learnt which areas are dangerous. Neighboring villages have not been so fortunate, however, with several killed or injured due to landmines over the years.

Summary of Past Mine Action

Under contract to SAC, Cranfield Mine Action facilitated a strategic planning session with ANAMA and other stakeholders from 2-6 June 2003 in Baku. This section is largely based on the Cranfield Mine Action summary compiled during the strategic planning workshop.

In July 1998, the Azerbaijan National Agency for Mine Action (ANAMA) was created by presidential decree with a mandate to conduct planning, priority setting, coordination and management of all mine/UXO related activities in the country. In April 1999 the government signed a project document with UNDP for the development of a mine action capacity in Azerbaijan. Since that time UNDP has provided support to ANAMA in the form of technical advisors and contracted services. Additional support has been provided by the United States in the form of military to military support, and contracted services through the Department of State.

Mine action operations in Azerbaijan are essentially limited to three local organizations and several international NGOs/commercial companies. Initial indications that the military would be able to assist have proved unfounded to date. ANAMA itself implements the quality assurance component of the program with technical assistance from UNDP. The national NGO Dayag conducts mine and UXO clearance, survey operations, and field operations management. Technical support to Dayag has been provided by the Mines Advisory Group (MAG), Mine-Tech and RONCO at various times since 2000. The other national NGO involved in mine action, International Eurasia Press Fund (IEPF), conducts both clearance operations and general surveys. SAC contracted IEPF to conduct the data collection phase of the Landmine Impact Survey. As of July 2003 there are no international NGOs conducting mine clearance in Azerbaijan.

GENERAL SURVEY

Two general surveys have been conducted in the country prior to the LIS, with the IEPF conducting the most comprehensive of these since 2000. The survey was primarily focused in 11 districts on identifying mined areas, UXO-contaminated battle areas and mine/UXO victims. The information from that survey formed the basis of initial planning for reconstruction and rehabilitation programs aimed at facilitating IDP return. It did not, however, gather the information needed by the program for strategic planning and priority setting based on the socioeconomic impact on affected communities.

TECHNICAL SURVEY

Two technical survey teams are operating in the country consisting of a team leader, four surveyors and a mine detecting dog (MDD) set. ANAMA planned to field one additional technical survey team during 2003, and has already updated procedures to comply with International Mine Action Standards (IMAS) and the National Standards.

Additional amendments are planned to allow for area reduction utilizing mechanical equipment. The program aims to survey all high priority areas in the accessible regions as soon as possible. The expected outputs for 2003 were as follows:

- Technical survey of 900,000 square meters of high-priority land.
- A reduction of a total of 300,000 square meters of contaminated areas.
- Marking and mapping of a total area of 600,000 square meters of land for subsequent clearance.

MANUAL MINE CLEARANCE

The two national NGOs Dayag and IEPF currently manage and operate one team each with tasking coming from ANAMA. One team operates in the southwest based in the Fizuli region, while the second team, has been deployed to the northwest. ANAMA is providing MDD support to both locations and plans to raise and deploy a third manual team during 2003. ANAMA reported that as of 1 July 2003 with the support of 18 dogs a total of 4,777,384 square meters has been cleared. Tasks have included, for example, clearance in support of the rehabilitation of a power line in the Fizuli region, Battle Area Clearance (BAC) in support of a school reconstruction project in the Geranboy region, and the clearance of land for the reconstruction of houses for returning IDPs in Alkhanly village. The expected outputs for 2003 were as follows:

- Train and equip a third manual demining team.
- Clear 500,000 square meters of minefields.
- Clear 1,000,000 square meters of battle areas.

MINE DETECTION DOGS (MDD)

RONCO Consulting Corporation, with funding through the US Department of State, provided MDD support. Fourteen MDDs and handlers are currently operating in Azerbaijan, with one national instructor and two national supervisors trained by RONCO to become operational in 2003. It is expected that an additional 6 MDDs and handlers will be trained in 2003. The expected outputs for 2003 were as follows:

- 1 national MDD/handler instructor trained
- 2 national MDD supervisors trained
- 6 additional MDDs and handlers trained
- Clear 750,000 square meters of minefields

MECHANICAL ASSISTANCE

No national mechanical clearance or support capacity currently exists. A feasibility study was conducted by the US Department of Defense in mid-2002 which confirmed the need for the integration of mechanical equipment into the program.

ANAMA planned to test and procure one machine and train the necessary operators and support staff. The expected outputs for 2003 were as follows:

- Test two types of mechanical equipment
- Select and procure one machine
- Train personnel and prepare for implementation
- Reduction of 1,000,000 square meters of minefields

TRAINING AND QUALITY ASSURANCE

The Monitoring, Training and Quality Assurance Team (MTT) was established in September 2001 in order to provide an integral training and quality assurance capacity within ANAMA. The team is drawn from experienced operators and is capable of conducting training for: supervisors, surveyors, deminers, and UXO specialists. The MTT was expected to expand during 2003 to keep pace with the expanding program. The expected outputs for 2003 were as follows:

- Training needs identified and addressed
- 25 monitoring missions performed.

MINE RISK EDUCATION

The International Committee for the Red Cross (ICRC) was the first organization to carry out MRE in Azerbaijan when it disseminated material and information among IDPs since 1996. ICRC support continued until 2000 when responsibility was handed over to ANAMA. In 2001 the United Nations Children's Fund (UNICEF), in close cooperation with ANAMA and the Ministries of Health and Education, launched a major MRE initiative with funding from the US government. The project involved the training of 508 health workers and 1,043 teachers and saw the mainstreaming of MRE into the health system and national curriculum. Mine Risk Education programs have been conducted in 14 regions throughout the conflict zone, border areas and IDP settlements. The government has also recently established a special committee with representatives from ANAMA, the Ministry of Education, and the Ministry of Health, which will review training and materials and make recommendations on their improvement.

VICTIM SUPPORT

Following a victim needs assessment conducted as part of the ongoing mine awareness project, it was determined that while the ICRC and government prosthetic centers have provided orthopedic assistance to mine and UXO victims, their vocational rehabilitation has been neglected. As a result, UNICEF is seeking to develop an integrated approach towards victim assistance, incorporating components such as social adaptation, and vocational training. ANAMA has assisted in the process through data collection and information management of victim related data, and intends to assist with coordination and information sharing.

The LIS identified 51 recent victims and 1,164 victims from the previous years for a total of 1,215 victims, of whom 445 were killed or died later, leaving 770 survivors in need of physical rehabilitation, vocational training and/or a prostheses. Prior to the LIS, ANAMA had 1,400 mine victims in their database. These two sets of data need to be cross-checked. ANAMA is planning to conduct a victim-specific survey to determine the specific needs of victims and to follow this up with the creation of an interagency joint working group to help develop priorities and mobilize resources. The expected outputs for 2003 were as follows:

- Data collected during “special survey” on mine victims’ medical, physical and economic rehabilitation needs
- Development of projects in priority for mine victim support

PLANNING AND MANAGEMENT

Planning activities within ANAMA are currently focused on opening access to blocked infrastructure, with priorities to be determined by national requirements and a balance of development/humanitarian imperatives. Information from the LIS—when analyzed in the broader national context—will allow mine action priorities to be developed that will be consistent with the needs of the government of Azerbaijan, as well as the various other stakeholders.

Clearance and survey operations are primarily conducted by the two local NGOs, Dayag and IEPF. Additional technical assistance is provided by international NGOs, commercial companies, and foreign militaries.

ANAMA operational capacity, as of 1 July 2003, included the following:

- Monitoring, Training and Quality Assurance Team (MTT)
- Mine Detection Dogs (MDD Team), 2 Supervisors, 13 Dog Handlers, 18 MDDs
- UXO Clearance Capacity (UXO Team), Supervisor and 9 UXO Operators
- Manual Demining Capacity—105
- Supervisors—3
- Team Leaders—2
- Deputy Team Leaders—4
- Section Leaders—13
- Deminers—75
- Paramedics—8

The survey gathered information about the nature of mine action activities—mine risk education, marking, surveys, mine clearance, and victim assistance—that have already taken place in impacted communities. These activities, whether implemented by outside agencies or locally initiated, are the foundation for future mine action programs. These activities also reveal the magnitude of potential needs not yet fulfilled.

Table 13 presents the total number of communities engaged in some type of mine action activity during the past two years, and the incidence of mine action by external agencies.

Based on information provided by ANAMA,

Table 14 represents the level

of funding received from international donors since 1999. Twelve different donors contributed more than \$11 million towards mine action projects. Since 2000 at least four donors each year have supported mine action. The European Community funded the Landmine Impact Survey in 2002-2003.

Mine action	Communities	Percent of impacted communities
Mine risk education	287	45%
Marking	211	33%
Clearance	40	6%
Victim assistance	3	0.5%

	1999	2000	2001	2002	Jan-June 2003	Total
Gov. of Azerbaijan (direct)	\$124,111	\$145,740	\$242,000	\$171,134	\$183,600	\$866,585
World Bank Loan		457,797				457,797
UNDP	167,849	232,177	420,000	265,410		1,085,436
United States*		520,000	1,303,039	1,345,723*	922,050	4,090,812
European Community				1,760,000**		1,760,000
Japan		486,724		78,807		565,531
Norway		112,140				112,140
Italy					220,330**	220,330
Canada		65,000				65,000
United Kingdom					250,000	250,000
TOTAL	\$291,960	\$2,019,578	\$1,965,039	\$3,621,074	\$1,575,980	\$9,473,631

* In addition, \$400,000 in equipment provided to ANAMA

** Represents USD figures converted from Euro contributions at \$1 = 1.1 Euro

MARKING

Reports of marking might pertain to some or all of a community's Suspected Hazard Areas. The breakdown of marking by SHA and by the type of marking better indicates the degree and, to some extent, the quality of actual coverage. The most commonly used markings were fences and signs that meet international standards.

Table 15 (see next page) illustrates that nearly 87 percent of the SHAs did not have marking of any kind. This table provides a summary of the relevant data by district and type of marking. When considering the 210 communities and the associated 307 SHAs where spot clearance could be conducted the requirements for

TABLE 15

**MARKING AND FENCING IN
970 SUSPECTED HAZARD AREAS, BY DISTRICT**

District	Fenced	Signs	None	Unknown
Aghdam	0	3	29	0
Aghjabedi	4	1	23	0
Aghstafa	3	2	199	0
Beylagan	0	0	6	0
Gadabay	0	5	91	0
Ganja city	0	2	0	0
Gazakh	10	1	26	1
Geranboy	23	3	26	2
Fizuli	1	23	337	3
Hajigabul	0	0	1	0
Imishly	0	0	1	0
Jalilabad	0	0	3	0
Khanlar	12	6	13	0
Khojavend	0	0	12	0
Lenkeran	0	0	8	0
Naftalan city	3	0	0	0
Tertter	9	3	29	0
Tovuz	4	4	38	0
Total	69	53	842	6

marking should decrease in scope, although not in importance. MRE should also be considered in these areas.

CLEARANCE

Based on the LIS data just eight percent of impacted communities reported having benefited from mine clearance activity conducted to international standards. Local mine clearance organized by the community constitute the most common type of mine clearance. These local initiatives included the collection or removal, at risk of injury or death, of dangerous items that represent an imminent threat or serious socioeconomic hardship. While some communities still toss them into ravines or rivers, or bury them; others will often collect them and re-locate them in one place and then ask ANAMA to remove them. Tables 16 and 17 summarize



Marker on mined canal (top); marker on mined road (middle); minefield sign (bottom)

TABLE 16

LANDMINE CLEARANCE IN COMMUNITIES, BY DISTRICT

District	International standard clearance	Local clearance initiatives
Fizuli	28	39
Geranboy	5	5
Khanlar	3	3
Aghstafa	1	1
Gadabey	0	3
Ganja city	2	1
Tertter	0	2
Tovuz	0	2
Aghdam	1	0
Aghjabedi	0	1
Beylagan	0	1
Khojavend	0	1
Gazakh	0	0
Hajigabul	0	0
Imishly	0	0
Jalilabad	0	0
Lenkeran	0	0
Naftalan city	0	0
Total	40	59



Anti-tank mine fuses collected by villagers

mine clearance activities by community. Fifty-nine communities (12 percent) in 11 districts have conducted mine clearance on their own; of these, 39 are in Fizuli district. The local initiatives demonstrate the demand for clearance, but they are performed neither with proper training and support nor to international humanitarian mine clearance standards.

Forty communities (8 percent) in six districts reported clearance activities by mine action agencies within the last two years. Communities attribute most clearance work to ANAMA, although actual demining is conducted by Dayag and IEPF, the ANAMA national implementing partners. The most clearance activity has been in Fizuli district.

TABLE 17

MINE CLEARANCE IN IMPACTED COMMUNITIES

Type of clearance	Communities	Subtotal	Total
Total receiving any mine clearance	86		18%
Local mine clearance initiative	59	12%	
International standard clearance	40	8%	
Both international standard and local mine clearance	13	3%	
No mine clearance	391		81%
Unknown	3		1%

Note: Communities can denote more than one type of clearance; 163 communities in Aghstafa district are clustered in one of 480 impacted communities.

TABLE 18

MARKING AND CLEARANCE REPORTED IN COMMUNITIES AND THEIR ASSOCIATED NUMBERS OF SHAs AND RECENT VICTIMS, BY DISTRICT

District	Surveyed communities	SHA's		Recent victims		Communities reporting marking		Communities reporting clearance	
		Number	Percent	Number	Percent	Number	Percent*	Number	Percent*
Fizuli	174	364	38%	19	37%	51	29%	57	33%
Aghstafa	183	204	21%	6	12%	10	5%	3	2%
Gadabey	85	96	10%	3	6%	64	75%	3	4%
Geranboy	19	54	6%	2	4%	6	32%	9	47%
Tovuz	34	46	5%	8	15%	22	65%	2	6%
Terter	23	41	4%	4	8%	3	13%	2	9%
Gazakh	25	38	4%	6	12%	16	64%	0	0%
Aghdam	25	32	3%	1	2%	24	96%	1	4%
Khanlar	20	31	3%	1	2%	4	20%	6	30%
Aghjabedi	22	28	3%	1	2%	6	27%	1	5%
Khojavend	11	12	1%	0	0%	0	0%	1	9%
Lenkeran	6	8	1%	0	0%	0	0%	0	0%
Beylagan	6	6	1%	0	0%	3	50%	1	17%
Jalilabad	3	3	0%	0	0%	0	0%	0	0%
Naftalan city	3	3	0%	0	0%	0	0%	0	0%
Ganja city	2	2	0%	0	0%	2	100%	2	100%
Hajigabul	1	1	0%	0	0%	0	0%	0	0%
Imishly	1	1	0%	0	0%	0	0%	0	0%
TOTALS	643	970	100%	51	100%	211	43%	88	18%

* Percentages in these two columns are relative to the number of surveyed communities in each respective district.

TABLE 19

MINE RISK EDUCATION REPORTED, BY METHODOLOGY

Type of MRE	Number of communities	Percent of communities reporting MRE (287)	Percent of all mine-impacted communities (643)
Posters and signs	275	96%	43%
Other (mostly booklets and brochures)	97	34%	15%
Performances	9	1%	11%
School presentations	25	9%	4%
TOTAL UNIQUE COMMUNITIES	287		

Table 18 illustrates that Fizuli is the district impacted most by landmines in Azerbaijan. It has the most SHAs and recent victims, and understandably, more clearance activities than other districts. Seventy percent of all humanitarian clearance has occurred in Fizuli. However, unusually, several other districts reported more marking in communities than did Fizuli. Additionally, in Aghstafa, where UXO predominate, the communities reported virtually no clearance and little marking activities.

A higher percentage of total SHAs were marked in Gadabey, Aghdam, Tovuz and Gazakh than in the other districts.

MINE RISK EDUCATION (MRE)

Some form of mine risk education activity within the last 24 months was reported by 274 impacted communities in 13 districts and by 13 in the AMEZ. There was no MRE reported in five of the impacted districts. MRE was primarily executed by ANAMA, UNICEF and the Ministry of Education, and often in combination. Table 19 indicates that nearly 96 percent of

these communities received MRE through posters. Although fewer than one-tenth reported MRE presentations in their schools, educational brochures and booklets were distributed in just over a third of the communities, including distributions at schools. No use of mass media, including television and radio, was reported.



Mine risk education signs

Factors Influencing Mine Clearance

CONTAMINATED LAND BY VEGETATION AND GROUND PROFILE TYPES

Although a detailed analysis by community is beyond the scope of this report, LIS data information on terrain and vegetation can be used in weighing mine clearance options ranging from manual demining through light to heavy mechanical clearance devices. Respondents characterized Suspected Hazard Area terrain as “Gully,” “Ridge,” “Hillside,” or “Flat.” The data in Table 20 suggests that machinery may have a role in clearing 50 percent of the sites, considering the 428 SHAs have been identified as “flat.” Thirty percent of the SHAs, or 293, are situated on flat ground with short grass.

Fifty-seven percent of all SHAs in the 18 impacted districts are in Fizuli and Aghstafa. In Fizuli landmines predominate while in Aghstafa UXOs are the major concern. Tables 21 and 22 (see next page) show a significant portion of the SHAs in both districts is flat land with short grass.

TABLE 20

ALL 970 SHAs, BY VEGETATION TYPE AND GROUND PROFILE

Ground profile difficulty	Other	Bushes and trees	Tall grass	Short grass	Unknown	None	Total	
							Number	Percent
Contains gullies, hillside, or ridge	14	132	29	314	1	6	496	51%
Flat land only	16	69	19	293	1	30	428	44%
Other	8	2	1	23	1	6	41	4%
Unknown	0	2	1	0	2	0	5	1%
Total	38	205	50	630	5	42	970	100%
	4%	21%	5%	65%	1%	4%		100%

TABLE 21

AGHSTAFI DISTRICT SHAs, BY VEGETATION TYPE AND GROUND PROFILE

Ground profile difficulty	Other	Bushes and trees	Vegetation type				Total	
			Tall grass	Short grass	Unknown	None	Number	Percent
Contains gullies, hillside, or ridge	1	20	4	89	0	0	114	56%
Flat land only	0	18	0	59	1	8	86	42%
Other	0	0	0	4	0	0	4	2%
Total	1	38	4	152	1	8	204	100%
	0.5%	19%	2%	74%	0.5%	4%		100%

TABLE 22

FIZULI DISTRICT SHAs, BY VEGETATION TYPE AND GROUND PROFILE

Ground profile difficulty	Vegetation type						Total	
	Other	Bushes and trees	Tall grass	Short grass	Unknown	None	Number	Percent
Flat land only	9	20	4	149	0	13	195	54%
Contains gullies, hillside, or ridge	2	4	1	134	1	4	146	40%
Other	5	0	1	16	0	1	23	6%
Total	16	24	6	299	1	18	364	100%
	4%	7%	1.5%	82%	0.5%	5%		100%

CLASS OF MUNITIONS

Ordnance type is a key factor in determining clearance methods and equipment requirements. The LIS data provides breakdowns of ordnance types and combinations found in each of the 970 reported SHAs that can be used, in conjunction with SHA size, terrain, and vegetation, to select appropriate mine action interventions and methods. While relatively light mechanical devices are appropriate for removal of anti-personnel (AP) mines, other, heavier and more expensive devices are required for the safe removal of anti-tank (AT) mines.

Additionally, the relatively inexpensive use of “spot” clearance teams to clear many UXO-only sites has already been suggested.

Table 23 shows there are 108 SHAs with both anti-personnel and anti-tank mines. If machine

applications are to be considered for clearance activities careful research into mechanical use should be undertaken before introducing any machines. Without adequate research investments in machinery it may prove to be wasteful.

TABLE 23

SHAs, BY ORDNANCE TYPE

Ordnance Type	Number of SHAs	Percent of SHAs
UXO only	610	63%
AP, AT, UXO	140	14%
AP & AT	108	11%
AT & UXO	36	4%
AT only	32	3%
AP & UXO	24	3%
AP only	20	2%
Total	970	100%

Consequences for Mine Action

GENERAL PLANNING CONSIDERATIONS

Planning for mine action should consider many factors. They include topography and ordnance characteristics that affect mine clearance, age, gender and occupation of the most affected population for MRE activities and national capacities to absorb the medical and rehabilitation needs into existing structures and programs for landmine survivors. It should be noted that most of these are well known to ANAMA and other mine-action players and are incorporated to varying extents in current programming.

STRATEGIC PLANNING

On 2-6 June 2003 Cranfield Mine Action facilitated an initial strategic planning exercise with ANAMA. The seminar summarized the history of mine action in Azerbaijan, quantified local mine clearance capacity and demonstrated Freeway software used in mine action planning and how LIS data can be used to assist in long term planning.

COMMUNITY CATEGORIZATION BY IMPACT LEVEL

Using standard criteria applied to all Landmine Impact Surveys, the Azerbaijan LIS identified 112 communities out of 480 as high or medium impact. While the primary focus should go to high- and medium-impact communities, it may be useful, even necessary, to establish second-rank priorities within the very large low-impact category. Two hundred ten of the low-impact communities, for example, report only UXO contamination in 307 SHAs with minimum blockage (defined as one impact point or less) and no recent victims. Most of these have relatively small SHAs and a low density of UXO contamination, and could conceivably be effectively dealt with at any time through deployment of spot clearance teams.

RETURN OF IDPS

The government of Azerbaijan has made the return of IDPs to their former homes and communities a priority in national planning in liberated areas in primarily central Azerbaijan. A complete analysis of the relationship between mine action and IDP return can only be made when data from their place of origin is analyzed.

TECHNICAL PLANNING CONSIDERATIONS

Landmine Impact Surveys define the nature and scope of the landmine/UXO problem at the national level. They are not substitutes for technical surveys that mine clearance organizations routinely conduct prior to clearance activities. The LIS does provide information to assist subsequent technical surveys and gives an

indication of some of the challenges that will be faced by future mine-action planners. The database itself contains comprehensive information on a wide variety of variables that can be analyzed and used to assess mine-action options at the community level. Four key factors affecting mine clearance are ordnance type, terrain, vegetation and SHA surface area.

MINE RISK EDUCATION

Mine risk education has taken place, in one or more forms, in 13 of 18 impacted districts and has reached 45 percent of all mine or UXO-impacted communities. The vast majority of MRE has been in the form of posters, only sometimes followed up with presentations and distribution of brochures. Mine victims are predominantly adult males, involved in agricultural activities including herding and farming, and a full one third were tampering with a device when killed or injured.

Presently, agencies implementing MRE rely mostly on widespread usage of posters and roadside signs, and primarily focus more intensive MRE efforts on schoolchildren. Based on survey data, these agencies should consider additional methods to increase coverage and depth of mine-risk education, perhaps through a more comprehensive community-based approach, with special provisions made to ensure inclusion of adult males, especially those engaged in agricultural activities. The agricultural communities should be targeted for MRE as herding and farming were the most common activities when an incident occurred. National or regional campaigns using radio and or television might also be considered as an efficient and effective way to deliver basic MRE messages to the wider public.

VICTIM ASSISTANCE

With virtually all surviving mine victims identified in the LIS having already received emergency care, additional assistance should ensure that all victims receive the most appropriate follow-up rehabilitative assistance, including prostheses and physical therapy, as required. Survivors should also be included in general vocational support programs, provision of agricultural and other inputs, including micro-credit, where available.

Community Profile — Damirchilar Village

Damirchilar is a village in Terter district in central Azerbaijan, close to the front line areas occupied by Armenian troops. This village was surveyed and assessed as having medium impact by the presence of anti-tank mines, anti-personnel mines, and UXO ordnance laid between 1988 and 1992. There have been two mine/UXO victims, one being within the last two years but neither being fatal.

The village is home to some 200 families, a little over a thousand people. A few left during the conflict but later returned, once the ceasefire had been agreed upon. There is still sporadic shooting across the front line.

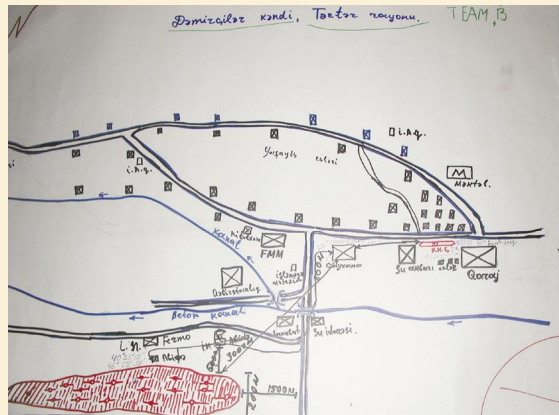
Once thriving, Damirchilar is now in decline, the cotton farm that provided jobs and salaries, long since closed, is a

different kind of victim of the conflict between Azerbaijan and Armenia. During the war, shells and rockets regularly fell on the village “like rain,” according to one of its elder women, causing them to flee on foot to the nearby woods or to the relative safety of one of the neighboring villages. Untold numbers of soldiers and civilians were killed or injured (“too many ‘martyrs’!”) in the combats that raged across the southwestern tip of the Soviet Union.

The one recent victim—a thirty-year-old shepherd, was grazing his flock on what was, unbeknownst to him, a field filled with anti-tank and anti-personnel mines. There were no warning signs, just a trench dug years ago by Azeri soldiers that might have alerted someone who had received mine risk education training to the possible dangers lurking beyond.

Since that incident, which occurred at the end of 2000, Azeri soldiers have sought to prevent the local villagers from using the contaminated land for their sheep to graze, but such is their need for pasture that they take every opportunity to slip past with their flocks, cognizant of the threat and the possible consequences.

Mine awareness has now, belatedly, reached the village school, with the Red Cross bringing pamphlets and posters, though not enough to go around, so the children must share. A six-year-old girl beamed proudly as she declared that if she saw something suspicious she would run away and tell her parents.



Community sketch map of Damirchilar village

Previously, some five or six years past, a schoolteacher endowed with more military prowess than common sense, had taken it upon himself to go beyond the military training foreseen in the senior curriculum to teach the 16- and 17-year-olds how to clear mines. Some of these children, eager to put into practice their new skills, went and dug up an anti-tank mine. Other villagers passing by saw what they were doing and informed some of the Azeri soldiers stationed locally. The soldiers came and inspected the mine and reported that it had been booby-trapped but, fortunately for these reckless children, the mechanism had failed to detonate. Happily, no such incidents have been repeated.

Today, high unemployment, restricted access to grazing land and the scant availability of water plague the village and its attempt to rebuild. Until two years ago, the river flowing from the area occupied by Armenia had been blocked, and villagers were forced to rely on the single artesian well in the village, or to exchange precious wheat for water delivered by car from nearby villages. Electricity is irregular, better in summer than in winter, though for some its cost is prohibitive. The village has no telephone, although there is one in the post office in a nearby village.

As July approaches, harvest time is upon the village, and few this year will have the money needed to hire a combine. Those who can leave, do so, heading for Baku or to Russia in search of work. But travel costs money; even a passport must be paid for, so few have this opportunity. Most are forced to remain, living day to day, growing wheat for bread on the land that once hosted the cotton farm.

Background & Methodology

Background & Methodology

Project Timeline

The Azerbaijan Landmine Impact Survey began in September 2002 and was completed in June 2003. The following timeline provides an overview of the LIS process from conception to completion.

■ **December 2000–August 2002—Advance Survey Mission**—The Survey Action Center deployed a two-person Advance Survey Mission (ASM) to Azerbaijan from 8-16 December 2000. The team coordinated at the national level with ANAMA and the UNDP Chief Technical Advisor, who provided access to areas suspected of contamination. Meetings with key stakeholders and senior national authorities allowed the team to produce a comprehensive ASM report that included the recommendation to have the International Eurasia Press Fund implement the survey. This report served as a basis for the proposal provided to UNDP for submission to the European Community.

Proposal Submission—In June 2001 SAC submitted a proposal to the EC to conduct a Landmine Impact Survey in Azerbaijan.

Funding agreement—UNDP and the European Community signed the project agreement on 28 March 2002.

SAC contract approved—UNDP and SAC signed a Contractor Services Agreement on 29 August 2002, with an effective starting date of 1 September.

■ **September 2002—SAC Orientation**—The SAC Azerbaijan team leader, geographical information system (GIS) and mapping officer, and administration and finance officer attended an LIS orientation at SAC HQ in Takoma Park, U.S.A. from 3-9 September.

SAC team arrives in Baku—The SAC international team arrived in Baku on 10 September and established a temporary office on the IEPF premises.

SAC-IEPF sub-contract signed—IEPF signed a sub-contract with SAC on 12 September.

Senior staff hired—IEPF hired supervisors, field editors and data entry staff.

■ **October 2002—Senior field staff trained**—SAC conducted training for the ten IEPF senior field staff members and two data entry personnel in Baku between 30 September and 8 October.

Pre-test—After senior staff training, SAC and IEPF conducted the pre-test between 11-14 October in twelve communities in the Ganja city and Khanlar districts. The questionnaire was found to be relatively clear and appropriate, and only a few minor changes were made.

Preliminary opinion collection (POC)—SAC obtained preliminary information on contaminated areas from a survey of from government and non-governmental organizations between 21 October and 8 November. Seven agencies responded and identified 35 districts completely or partially under Azeri con-

trol as being potentially impacted by mines and UXO. Subsequent visits to these districts by IEPF resulted in an initial list of over 400 mine suspected communities in 27 districts. Additional communities identified through referrals received during the survey period were later added to the list.

First quality assurance monitor (QAM) visit—Stuart Maslen, the UN Quality Assurance Monitor, conducted his first monitoring visit between 23 October and 4 November.

■ **November 2002—Interviewers recruited and trained**—IEPF recruited 20 interviewers in early November and trained them at the IEPF field office in Ganja city from 14-21 November. Three IEPF supervisors, who had participated in the earlier SAC senior staff training conducted the training.

Pilot-test survey—Following the interviewer training, the pilot test took place 26-29 November in 29 communities in central Azerbaijan. The results were satisfactory with no need to conduct a second pilot test.

Finance/administration training—The SAC administration and finance officer provided two days of administrative and financial training in mid-November to ANAMA, IEPF, Relief Azerbaijan, and CARE International.

GIS/IMSMA training—The SAC GIS & mapping officer and the national GIS officer conducted training for the three data entry staff between 27-30 November. At the end of the training, the three trainees demonstrated the required skills.

Second QAM visit—The QAM conducted his second visit from 20 November to 6 December.

■ **December 2002–April 2003—Data collection**—IEPF staff began data collection on 7 December. Primary data collection, entailing visits to 1,162 communities. The five survey groups conducted preliminary visits to confirm whether communities were mine impacted or not, and then carried out 643 full surveys. Full surveys entailed group interviews, community mapping, and visual verification of SHAs.

Data review and entry—Review of the questionnaires and data entry occurred simultaneously with data collection in the field. Data entry personnel returned approximately 20 percent of survey questionnaires to the field for clarification or correction of mistakes, frequently relating to global positioning system (GPS) coordinates or SHA size. Primary data entry was completed by 30 April.

SAC HQ monitoring visit—The SAC Director for Survey, Mike Kendellen, visited Azerbaijan between 29 January and 1 February. He met with the UNDP senior and program staff, the ANAMA and IEPF directors, visited the IEPF field staff and office in Ganja city, and observed two community interviews in western Azerbaijan.

Third QAM visit—The QAM made his third monitoring visit from 26 February to 12 March.

Project extension and budget revision approved—The European Community approved a budget revision and three-month extension of the project on 25 March. SAC had requested the extension and revision to meet the needs associated with conducting interviews in more than 600 communities as compared to the originally planned 200 mine-impacted communities.

Departure of SAC administration and finance officer—The SAC administration and finance officer departed Azerbaijan on 9 April after the completion of most of the data collection and the reduction in IEPF financial transactions. The SAC team leader assumed administrative and financial responsibilities.

■ **May-July 2003—Fourth QAM visit**—The QAM conducted his fourth monitoring visit from 1-9 May.

Cleanup operations—IEPF retained a small number of staff to complete field activities through the end of May. IEPF revisited 32 communities to confirm or correct information on circumstances of accidents and follow-up treatment, 86 communities to re-assess the surface areas of large SHAs, and 134 communities to reassess socioeconomic blockages. Entry of corrections continued through May 30.

IEPF Phase-out—With data collection complete, IEPF closed their financial books on 31 May and was audited by the Caspian Consulting Company in early June.

Cranfield Mine Action (CMA) strategic planning workshop—Two consultants from the Cranfield Mine Action program led a five-day strategic planning exercise for ANAMA from 2-6 June. Outputs included a revised vision statement and strategic objectives, installation and training in the Freeway software package, and projected mine-action options based on multiple resource scenarios.

Data analysis and report preparation—The SAC team completed drafting of Background and Methodology sections of the report by mid-May. During June, with assistance from a GIS specialist from SAC HQ, the team conducted data analysis; prepared tables, maps, and charts; and completed drafting the final report.

Fifth QAM visit—The QAM conducted his fifth and final visit from 26 June-2 July.

Departure of SAC staff—The SAC GIS and mapping officer departed Baku on 27 June; the team leader left three days later.

Key Participants

The Landmine Impact Survey in Azerbaijan was a collaborative effort involving the participation of the following local governmental, United Nations, and international and national non-governmental agencies (NGOs).

- **The Azerbaijan National Agency for Mine Action (ANAMA)** is the primary national mine action institution in Azerbaijan. Established by Presidential Decree in 1998 under the State Commission for Reconstruction and Rehabilitation, ANAMA is tasked with the overall management, planning, coordination, resource mobilization, and quality assurance of mine action in Azerbaijan. ANAMA implements a variety of mine action activities directly and through local partners. ANAMA provided technical support and facilities to the LIS.
- **The Cranfield Mine Action (CMA)** program at Cranfield University in the United Kingdom supports national authorities, donors, NGOs, and commercial entities involved in strategic planning and the implementation of mine action activities at headquarters and field levels. Under a contract to SAC, CMA facilitated strategic planning at ANAMA.
- **The International Eurasia Press Fund (IEPF)** is an Azerbaijani NGO established in 1992 by journalists, members of the arts communities, and diplomats from former Soviet states. Active in mine action since the year 2000, IEPF previously completed a general survey in eleven war-impacted districts and presently conducts demining operations in central Azerbaijan. Under contract to SAC, IEPF carried out data collection for the Azerbaijan LIS.
- **The Survey Action Center (SAC)** is the executing arm of the Survey Working Group. It is the primary organization to execute and/or coordinate surveys, provide technical support, and raise funds for the conduct of Landmine Impact Surveys worldwide. As the main executing agency for the Azerbaijan LIS, a three-person international SAC team provided overall management support and technical guidance to the local implementing partners, conducted routine monitoring of all LIS activity, supervised data analysis, and prepared and distributed the final survey narrative report.
- **The United Nations Development Programme (UNDP)** has a large development program in Azerbaijan, much of which is focused upon reconstruction following Azerbaijani conflicts with Armenia and assistance to internally displaced persons (IDPs) in camps and settlements throughout the country. Since April 1999, UNDP has assisted the government in addressing the landmine/UXO problem through resource mobilization and technical assistance. UNDP administered funding and provided logistical support for the LIS in Azerbaijan.
- **The United Nations Mine Action Service (UNMAS)** was formed in 1997 as the UN focal point for mine action. Globally, it coordinates all aspects of mine action within

the UN system. At the field level, it provides mine-action assistance in the context of humanitarian emergencies and peacekeeping operations. UNMAS supported the Azerbaijan LIS by providing a quality assurance monitor.

■ **Other governmental departments and non-governmental agencies** that responded to the POC questionnaire include the Ministry of Social Welfare, the Ministry of Health, UNICEF, RONCO Consulting Corporation, and Relief Azerbaijan.

■ **The European Community** provided the funding for the Azerbaijan LIS.

Administrative Structures

- **Cooperative arrangements:** IEPF, and SAC implemented the LIS project with support from ANAMA. IEPF was responsible for data collection, entailing fielding and supporting interview teams; SAC provided technical support, staff training, and quality assurance. ANAMA facilitated all support for the survey. Administratively, in-country operations were supported under a sub-contract from SAC to IEPF. IEPF processed routine in-country financial transactions relating to the project, including salaries, vehicle operating costs, etc. with SAC providing financial oversight. For administrative reasons, IEPF also covered all direct LIS expenses incurred at ANAMA, including GIS and data entry personnel costs and associated office supplies and equipment. UNDP procured non-expendable equipment, including vehicles, furniture, computers, compasses and global positioning systems. ANAMA and its partners will use these assets in support of future mine-action activities in Azerbaijan.
- **Headquarters:** LIS operations were directed from the IEPF office in Baku until the formal end of data collection in April. The ground floor of the IEPF premises, renovated in October 2002 and provided with separate electricity and telephone lines, was dedicated to the use of the LIS project and personnel, including the SAC team and IEPF support staff. A network of three fixed desktop computers and two laptops, allowed common access to shared files, a printer, and the internet. An enclosed parking lot provided secure storage of project vehicles.
- **Staff and organization:** IEPF deployed five field-based survey groups, each consisting of two pairs of interviewers, a supervisor, a field editor and a driver. In order to provide broad geographical coverage while minimizing distances of daily travel for the survey, IEPF established primary bases of operation in Ganja city, Horadiz, and Beylagan. In each location IEPF rented modest housing with sleeping and working space. Thirteen operations staff based in Baku supported the field survey groups. They included the program director, the operations manager, the logistics officer, the finance officer and a team of administrative, translation and clerical personnel.

As noted earlier, the national GIS officer and three data entry staff members were placed on the IEPF payroll and were based at ANAMA where data entry occurred.

The SAC team consisted of three full-time international staff: a team leader, an administration/finance officer, and a GIS and mapping officer. Following the departure of the administration and finance officer in April 2003, the team leader assumed these responsibilities. Additional SAC technical support included the deployment of two staff from Takoma Park, U.S.A., a social scien-

tist and a GIS expert, for 13 days in September and October 2002, to conduct senior staff training and supervise the pre-test.

- **Coordination:** ANAMA, IEPPF, and SAC agreed to senior-level weekly coordination meetings. It was the ANAMA director's intent to coordinate activities within the project. Although the frequency of these meetings became somewhat irregular, especially during the data collection period when one or more of the parties was often traveling, the meetings themselves provided an invaluable forum for open and frank discussions between all three agencies on the status of the LIS, planning issues, and the identification of constraints and the resolution of problems. SAC team members also communicated and met frequently with the UNDP project advisor, usually to discuss routine administrative and logistical issues, and, occasionally, with UNDP's deputy resident representative.
- **Reporting:** The SAC team submitted weekly and monthly reports covering project activities and outstanding issues to SAC HQ in Takoma Park, U.S.A. SAC provided quarterly narrative progress reports to UNDP.
- **UN quality assurance:** The UNMAS Quality Assurance Monitor, Stuart Maslen, made five visits during critical periods of the LIS. They included start-up, data collection and analysis, reporting and strategic planning. The QAM monitored and documented the progress of the project, based on certification guidelines, and gave recommendations to the survey staff based on his observations and analysis, thereby assisting the survey and ensuring compliance with UN certification guidelines. Relations between the QAM and SAC were excellent.

Finances

BUDGET AND EXPENDITURES

Table 24 is a breakdown of the budget for the LIS. The budget of US\$1,500,000 for the survey was developed following the SAC advance survey mission in December 2000. In August 2002, the budget was decreased to US\$1,236,000 to reflect the revised estimated number of communities

affected by the landmines. Funds expended by the United Nations to cover the costs of the quality assurance monitoring and certification are not reflected in the figures in Table 24.

FUNDING MECHANISMS

Funding for the Azerbaijan LIS—US\$1,236,000—was provided to SAC by the European Community through UNDP, Baku.

SURVEY BUDGET	
IEFP (data collection)	\$235,500
SAC (technical support)	541,200
UNDP (equipment and support)	440,100
CMA (strategic planning)	14,800
Other	4,400
TOTAL	\$1,236,000

Methodology

SAC and its partners conducted the survey in Azerbaijan according to the standard LIS practices outlined in protocols developed by the Survey Working Group, with a few adjustments made to meet local conditions and requirements. IEPF systematically collected and analyzed “preliminary opinion” information to identify communities likely to be impacted by landmines and UXO. They then conducted the community interview, with its associated components of interviewing, mapping, and visual inspection, in all mine-impacted communities identified through the collecting of preliminary opinion. The information from the community interviews was entered into the IMSMA database, which formed the basis for subsequent analysis at ANAMA and the basis for this report.

A notable deviation from standard methodology, necessitated by an incomplete Azerbaijani national gazetteer, was the incorporation of a full census of all communities in impacted areas to identify false negatives, rather than a randomly selected sample. A second deviation was the designation of areas for false negative sampling using distance from impacted community or contamination source rather than by administrative unit.

Azerbaijan is technically still at war with its neighbor, Armenia, with twenty percent of its land under the control of Armenian forces. A cease-fire agreement signed in May 1994 has generally held, though there are occasional cross-border incursions and exchanges of artillery and gunfire.¹ According to the UNHCR, an estimated 570,000 people are internally displaced due to the war, and an additional 220,000 are ethnic-Azeri refugees from Armenia. Together, these groups represent over ten percent of the entire population of Azerbaijan. Virtually everyone has family members or friends lost or otherwise directly affected by the conflict. Emotions over the war and the continuing occupation of Azeri land remain very strong among the population. Azerbaijan is also a secular Moslem republic, with levels of conservatism varying widely from major urban areas to remote villages and communities. Given both considerations, the Azerbaijan LIS procedures emphasized effective communication with local authorities and community leadership prior to community interviews, tactful and courteous questioning of community respondents, and the active promotion of women’s participation in community interviews.

PERSONNEL

Training of senior staff

SAC trained five IEPF supervisors, five field editors, and two data-entry personnel in Baku between 30 September and 8 October. The training covered theoretical and practical aspects of the LIS and was conducted in the Azeri language with the use of interpreters. Feedback from the trainees was sparse but positive,

¹ Resulting in five dead and 28 injured in 2002 alone, according to US Department of State figures. 31 March 2003, *Azerbaijan: Country Report on Human Rights Practices*

especially regarding the interactive nature of the methodology.

After the training, a pre-test was conducted between 11-14 October in twelve communities in the Ganja city and Khanlar districts. The trainees divided into four groups, each with a SAC international observer. While most interviews went

smoothly, minor problems occurred. Most were concerned with usage of technical equipment, mainly the digital cameras. In one instance, however, military authorities detained one group, including its SAC trainer for taking photographs near a military installation, and in another, a trainee walked into a suspected hazardous area (SHA) and began picking up ordnance. Both occasions were later used to reinforce messages regarding permissions, communications, and personal safety.

According to IEPF staff the questionnaire was clear and appropriate, and they recommended only a few minor changes. Following an additional review in the ANAMA Information Department, SAC revised the questionnaire and subsequently had it re-translated back into English. A community scoring scheme based on the SWG protocols was used for allocating points for socioeconomic blockages and determining impact levels.

Recruitment and training of interviewers

IEPF recruited interviewers with input from both ANAMA and SAC. SAC encouraged IEPF to recruit female candidates. Although the desired gender balance among field interviewers was not achieved, seven of the ten interviewer teams did include women.

Three IEPF supervisors, all of whom had participated in the earlier SAC senior staff training, trained 20 interviewers at IEPF's office in Ganja city from 14-21 November. They conducted the training in the Azeri language and used a

curriculum based on the SAC senior staff training model. The IEPF trainers covered all primary theoretical and practical aspects of the LIS; and ANAMA staff



SAC social scientist Saeed Ahmad training senior LIS staff



Map-reading training by ANAMA senior GIS officer Timur Obukhov



IEPF interviewer trainees and field staff

conducted sessions on geographic information systems (GIS), IMSMA, mapping, land navigation using compass and GPSs, mine safety and first aid. The five IEPF field-team drivers also attended the sessions on mine safety and first aid. The SAC team leader or the GIS & mapping officer observed most of the sessions.

Following the training, based on the performance of individual interviewers, IEPF split the interviewers into five survey groups, each consisting of a supervisor, a field editor and two pairs of interviewers. These groups remained virtually unchanged for the full duration of the LIS.

During the three-day pilot test that followed the interviewer training, interviewers and groups practiced their interview and other survey-related skills. The pilot test took place, from 26-28 November, in 29 villages in the districts of Terter and Geranboy. Each pair of interviewers, accompanied by a supervisor or field editor, surveyed one community each day. After returning to base at IEPF's Ganja city office each afternoon, they would rejoin their designated survey group to discuss and critique their interviews, and to score and rate the communities they had visited. The survey groups then presented and discussed their day's activities at a joint daily wrap-up session. The SAC team leader observed an interview each day and participated each day's wrap-up session. The QAM observed two interviews.

The SAC team deemed the results of the pilot test to be satisfactory, with significant improvement seen in interview techniques and field logistics over the three-day period. They considered interviews on the third day to be especially good, though subsequent review of the completed questionnaires revealed some areas for improvement. Although formal refresher training and a second pilot test were not considered necessary, the SAC team briefed the interviewers, verbally and in writing, on common problems found in the pilot test questionnaires.

In mid-December, the SAC GIS and mapping officer met with field staff in Ganja city to identify and resolve any problems interviewers were having. Most errors were due to carelessness (incomplete or skipped questions) or incorrect configuration or use of GPS receivers. Additional training in false negative control procedures and equipment usage took place at all three IEPF field offices, in Ganja city, Fizuli, and Beylagan, over two visits in January. SAC team members reinforced these and other training messages throughout the survey during frequent field visits.

GIS/IMSMA training

The SAC GIS and mapping officer and the national senior GIS officer held a formal training program for the three IMSMA data entry staff at ANAMA, from 27-30 November. They learned the interrelationships between IMSMA, LIS, and GIS; reviewed all Azerbaijan LIS questionnaire modules question by question; and received hands-on training in data entry using Version 2.2 of IMSMA. At the end of the training, all three trainees demonstrated the required skills. During a follow-up meeting on 4 December, SAC and ANAMA staff together reviewed and corrected the database. This session was monitored by the QAM.

From 6-25 April 2003, the national GIS officer attended a three-week training-of-trainers course in IMSMA at the Geneva International Center for Humanitarian Demining.

Finance/administration training

Upon arrival in Baku, the SAC finance and administration officer (F/O) began assessing administrative and financial systems at IEPF. Existing systems were adapted to the computer and to better meet international accounting standards and specific donor requirements. The F/O and IEPF finance and logistics staff together revised or developed procedures and forms for recording financial transactions, documenting competitive procurement practices, managing inventory and monitoring vehicle usage. The F/O initially assisted IEPF to prepare monthly budgets and reports, and to prepare monthly draw-down requests from SAC; IEPF fully assumed these responsibilities after the second month. Until mid-April 2003, the F/O continued to work on a daily basis with IEPF administrative and finance staff to upgrade skills and improve management systems and internal controls. The independent audit of IEPF finances, conducted in June 2003, affirmed the success of these efforts.

The F/O also conducted two days of formal training at ANAMA in mid-November. Although intended for LIS implementing partners, the training was open to other international and national relief and development NGOs. Attendees included national administrative and finance staff from ANAMA, IEPF, Dayag and CARE International. The aim of the training was to introduce financial compliance and regulations for European Community grants and to review basic internal control systems for financial management.

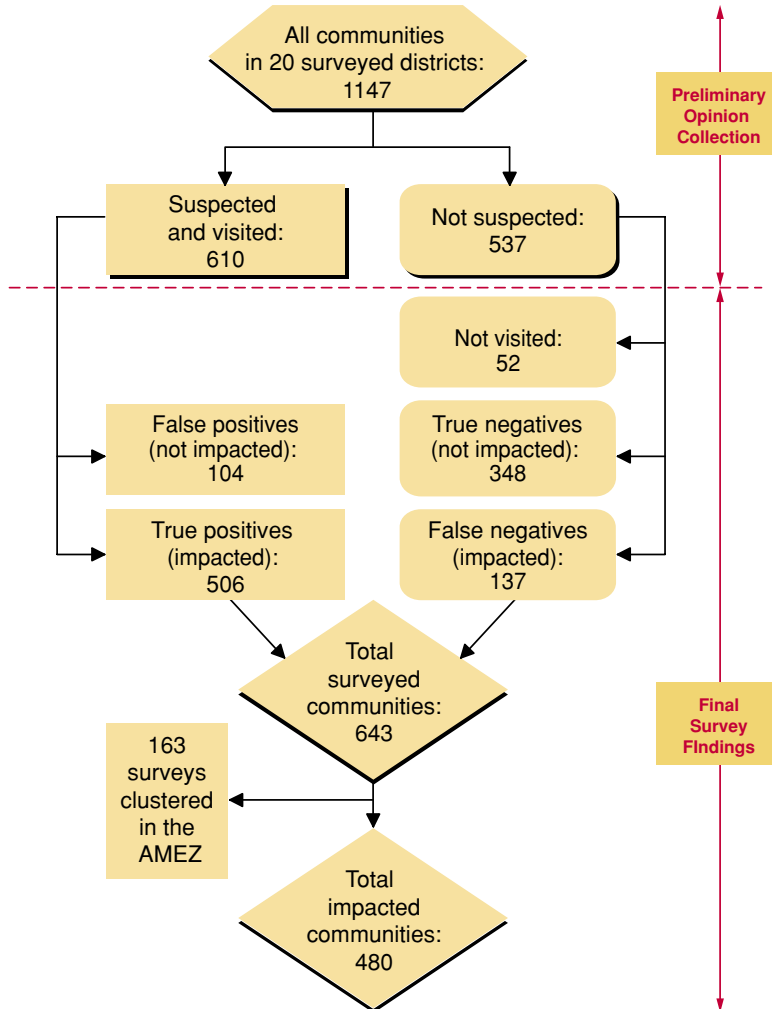
FIELD OPERATIONS

Preliminary opinion collection (POC)

SAC and IEPF conducted national-level POC activity between 21-31 October. SAC and IEPF distributed survey forms, with a cover letter explaining the purpose of the LIS and the POC process, to nine governmental ministries/agencies and international and local NGOs involved in mine action and victim assistance in Azerbaijan. Respondents included the Ministry of Social Welfare, the Ministry of Health, UNICEF, RONCO Consulting Corporation, Relief Azerbaijan, IEPF and

FIGURE 6

RESULTS OF PRELIMINARY OPINION COLLECTION AND FINAL STATUS OF COMMUNITIES
(in surveyed districts)



Note: 163 communities in Aghstafa district are clustered in one of 480 impacted communities.

ANAMA. As a part of the POC, senior IEPF and SAC personnel also briefed the Permanent Representative of the Autonomous Republic of Nakhchivan in Baku, and subsequently met with senior governmental officials in Nakhchivan. The POC identified 33 out of the 68 districts as not impacted by landmines, including several in Nakhchivan, as possibly impacted by mines or UXO.

IEPF senior staff then visited the remaining 35 districts between 28 October and 8 November to determine if they were impacted. They interviewed local governmental and other key informant agencies to identify communities that might be mine contaminated. As a result of these visits, 15 more districts were identified as not impacted.

The suspected communities in the remaining 20 districts were surveyed. These visits identified 610 communities in 18 districts as potentially impacted by mines or UXO. The Figure 6 diagram illustrates the results of the preliminary opinion collection, false negative sampling and community interviews. In total, the Azerbaijan LIS identified 480 landmine/UXO impacted communities. In addition, 163 communities were identified within the AMEZ. These communities were contaminated by a non-military incident when a Soviet depot at Saloglu was blown up in 1991. For purposes of impact analysis, this zone has been treated as one community, located at Saloglu.

The relatively high number of false negatives (137) is explained by the very large number of small and unregistered farming communities in key areas of UXO and mine contamination.

Survey procedures and logistics

Prior to the deployment of IEPF field staff to a district, the supervisor would visit the local administrative authority, called the “Executive Power,” to introduce and request permission to conduct the survey. The process was facilitated using letters of introduction from ANAMA and a 17-page illustrated brochure, in Azeri, prepared by IEPF. Staff presented this same brochure to community leaders during their first-contact visits.

IEPF divided the LIS field personnel into five groups, each consisting of a supervisor and field editor, two pairs of interviewers and a driver. Each day survey groups conducted preliminary and false negative control visits to confirm impacted or non-impacted status, and carried out full surveys of communities found to be impacted. Each interviewer team would normally visit one community a day, spending most of their time in interviews with key informants. Group interviews would include community mapping and questions concerning socioeconomic blockage and recent victims of mine/UXO incidents.

Interviewers would, in addition to conducting the interviews, visually inspect SHAs when it was possible and resolve inconsistencies. Visual inspection of SHAs

A total of 5,845 respondents participated in the 643 survey interviews. Sixty-nine percent were men and eighteen were mine victims.



Interview in the Geranboy district



Completion of a community interview



Severe winter conditions hampered access to many remote communities and challenged visual verification of SHAs.

from a safe viewing point is a means of verifying information gathered in the community interview and obtain geographic coordinates and a photo that may be of some use to subsequent technical surveys. Occasionally, SHAs could not be visited due to distance or poor road conditions. At the end of each day, field editors, supervisors, and interview teams would get together to review the day's work to confirm that all questionnaire modules, maps, and score sheets, were complete and accurate. They would fill in gaps and correct errors. Although some adjustments were made to accommodate national holidays, field staff generally worked three weeks straight, six days per week, followed by a week of downtime. Part of the downtime was often used for administrative and technical meetings.

IEPF maintained communications between field-based teams and IEPF in Baku using cellular phones, the national network for which covers most regions of Azerbaijan. IEPF provided each supervisor with a phone and, each month, with a pre-paid phone card. The Baku-based operations manager made weekly visits to each field base to monitor progress, deliver blank survey forms and other supplies, and to pick up completed community questionnaires.

For transport, IEPF assigned a 4X4 pickup truck to each of the five survey groups, with additional vehicles assigned to the program manager and logistician. The SAC team and the IEPF operations manager usually traveled together and so shared a vehicle. The total distance traveled during the course of the survey exceeded 220,000 kilometers. Much of this travel was on dirt tracks and under extreme winter conditions.

False negative sampling (FNS)

Sampling for false negatives is performed to quantify the level of confidence that the LIS has not missed more than an accepted percentage of impacted communities within areas known or thought to be contaminated. The recommended LIS methodology requires surveying a random sample of presumed non-impacted communities in administrative units, districts or sub-districts, where contamination is known to exist.

This methodology presented two problems for the Azerbaijan LIS. Firstly, there is no comprehensive gazetteer of communities in Azerbaijan from which to draw a complete sampling universe, which is required to assign a level of confidence to statistical analysis of coverage. Secondly, districts are the smallest administrative units and their boundaries do not coincide with areas of mine and UXO contamination.

In consultation with SAC HQ and the QAM, the SAC team made two modifications to standard LIS false negative sampling practices. The first was identifying zones for FNS coverage based on proximity to areas and sources of contamination: former battlefields, current front lines with Armenia, and former Soviet military facilities. Practically, for battlefields and front lines, this entailed FNS visits to all accessible communities lying within ten kilometers of every known impacted community in the area. The ten-kilometer FNS zone was further extended as new impacted communities were found, stopping only at front lines and international borders. SAC used the same methodology for former Soviet military bases but, because of their fixed locations, reduced the FNS zone to a five-kilometer radius around the facility and each impacted community.

Secondly, within these “affect-free” zones, SAC adopted a “census” approach for selecting communities for false negative sampling within prescribed FNS areas. The “census” methodology required visits to as many communities as possible within an area, rather than just a statistical sample of them as the total number of them was unknown. To ensure the maximum possible coverage, LIS staff used all available means and resources to locate communities in each FNS zone, including maps, census data, gazetteers, visual searches, and referrals by local authorities and residents.

The field supervisors usually carried out false negative sampling while their interview teams were conducting interviews in nearby communities. The procedure required only that three people in separate locations within each community be asked if mines or UXO affects their community. Although it was not mandatory, the community leader was usually one of the three persons questioned. Interviewers recorded the responses and names of all three respondents on a one-page form (used also in initial visits to communities identified as positive by the POC or local referrals); a GPS coordinate was noted and locator code assigned regardless of positive or negative status. As with POC procedures, a single positive response automatically triggered a subsequent full interview of the community. Three hundred and forty eight communities were visited and found to be not impacted during this procedure.

Ultimately 1,147 communities were visited, either because they were suspected, or because of this regional inspection process. Four hundred and eighty (42 percent) were found to be impacted.

SAC made a final adjustment to the false negative sampling methodology towards the end of the survey to accommodate the cities and large towns with mine- or UXO-impacted areas. With distinct neighborhoods usually difficult or impossible to distinguish, urban areas were divided into areas of one square kilometer. Each square kilometer was treated as a “community.”

Access to sensitive areas

Given the military sensitivity of the front line with Armenia, SAC and its partners expected some resistance to conducting the survey in some areas. In some instances, IEPF gained access after extended negotiation with local civilian and military authorities, though sometimes with restrictions. In Aghdam, for example, local authorities finally allowed the interviewers access to the district but did not permit taking photographs, community mapping, or visual verification of sensitive mined areas.



IEPF project director Umud Mirzoyev and staff near Armenian border in Nakhchivan

Authorities in Geranboy district initially allowed IEPF staff to conduct the community surveys, but later refused to allow return visits to clarify information. In Nakhchivan, when the republic-level civilian government after many months finally authorized IEPF to conduct the survey, military authorities prevented access to the entire republic. Excluding Nakhchivan, LIS field teams were prevented from surveying 50 suspected communities (Aghdam: 18; Dashkesan: 9; Geranboy: 11; Khanlar: 6; Terter: 5; Yardymly: 1).

Following consultation with SAC, ANAMA removed the GPS coordinates from the IMSMA database for 23 militarily sensitive SHAs, mostly located in Aghdam district. These SHAs are not shown on the maps in this report, but are represented in the data analysis.

INFORMATION MANAGEMENT AND QUALITY CONTROL

Data review and entry

Documentation for each community survey (questionnaire, map, score sheet, and interview attendance sheet) was sent, usually weekly, to the IEPF office in Baku. Here, SAC and IEPF recorded their receipt before delivering them to ANAMA for

technical review, data entry, and storage. Data entry staff at ANAMA prepared a file folder for each community, and certified completeness and the inclusion of mandatory attachments (maps and digital photos) using a checklist developed for this purpose.

Before entering the survey data into IMSMA, data entry staff reviewed each community questionnaire for errors or omissions. They classified these by level of importance and then recorded them in the community's file, and in a digital "mistakes registration database" developed by ANAMA to track errors and their follow-up. Data entry staff would resolve minor concerns through a telephone call to the team that conducted the interview, while for more serious problems they would return the questionnaire to the field for correction or completion. The majority of significant errors reported by ANAMA concerned the sizes and locations of SHAs, many of which had not been visually verified by interviewers because of distance or access problems, exacerbated by bad weather and road conditions. SAC also identified some errors during early testing of database queries. In one case, noticing that reported data on recent victims was not consistent with their own field observations, the SAC team requested IEPF to revisit 32 communities to confirm or correct information on circumstances of accidents and follow-up treatment. An additional 86 repeat visits were made to re-assess the surface areas of large SHAs, many of which had not been visually verified because of winter conditions.

SAC field monitoring and follow-up

SAC conducted three to four field trips per month throughout the course of data collection, with the team leader and GIS/mapping officer usually traveling during alternate weeks. Usually accompanied by the IEPF operations manager, they typically visited one or more field offices, met with survey staff to review progress and address specific questions or concerns, and sat in on community interviews.

Important or repeated concerns about data quality occasionally triggered field trips. In December and January, the SAC GIS/mapping officer visited each field twice to provide refresher training on using maps, GPS units, and digital cameras. In April, to address questions raised by ANAMA, the SAC team leader and IEPF operations manager visited ten communities in Fizuli district to re-check the surface area of several very large SHAs. In mid-May, the SAC team leader and IEPF operations manager visited eight communities in response to concerns raised by the QAM following his field monitoring earlier that month. On that occasion, after finding inflated community impact scores in several communities, SAC asked IEPF to rehire selected field staff and revisit 130 medium- and high-impact communities. As a result of these visits, impact levels dropped for 93 communities.

Community Scoring, Weighting, and Classification

The central element of the LIS is to score and classify mine-impacted communities according to the severity of impacts. The purpose of the impact score is to allow mine action agencies to prioritize communities for a variety of activities ranging from victim assistance to mine risk education to clearance.

Landmine impact scores are calculated only for communities, rather than for suspected hazard areas or recent victims. The number and size of suspected hazard areas or by the size of the community do not affect the score. It is a composite of three aspects of the mine problem: 1) the type of landmine/UXO present, 2) the type of socioeconomic blockage created by the landmine/UXO problem, and 3) the number of recent victims.

The type of landmine/UXO is scored as two points for mines, one point for UXO or three points for both. Two points are given for each victim in the last 24 months, and each survey defines the scoring weights for the various socioeconomic blockages, within a framework set by the Survey Working Group (SWG).

ELEMENTS OF THE SCORING MECHANISM

In the IMSMA default configuration, the following indicators are included:

- The presence of mines
- The presence of unexploded ordnance
- Access to crop land
- Access to pasture land
- Access to water
- Access to non-cultivated land
- Access to housing
- Access to road usage
- Access to other infrastructure (hospital, school, factory, market, etc...)
- Mine/UXO victims in the last 24 months

Irrigated land is generally distinguished from rain-fed land, and blockage of drinking water is usually considered separately from water used for other purposes.

Fifteen different variables enter the default configuration. However, the database also allows surveys to add five user-defined variables to account for country-specific conditions. Scoring for presence of mines and UXO and for recent victims is set across all surveys and cannot be modified. The SWG has mandated standardization of the scoring to allow for broad comparability among surveys.

WEIGHTS

The scoring weights for landmine/UXO type and recent victims are fixed. For the socioeconomic indicators, however, a survey determines, within limits, how much impact each indicator contributes to the score based on the socioeconomic priorities of each country.

The weighting system for the Azerbaijan impact score calculation is shown in Table 25.

Based on the SWG protocols, adjusting the weights to country-specific indicators is permitted. ANAMA decided that rain-fed cropland and pasture were important enough socioeconomic indicators that they were assigned two points each in the scoring while still maintaining the allowable 10 maximum total points for blockages.

As with all Landmine Impact Surveys, scores are allocated regardless of number or size of SHAs and of actual socioeconomic impacts of resource blockages.

MEASUREMENT

The nature of munitions and specific socioeconomic indicators are calculated based on the presence or the absence of the value in question. Only the recent victim element is related to quantity. This largely non-quantified approach was chosen for a number of reasons involving consensus, validity and reliability.

The recent victim part of the score is measured as an accumulative count. Each person who was killed or injured in the previous 24 months adds two points to the score. Data is collected for victims further in the past, but it does not affect the score.

TABLE 25

ALLOTMENT OF WEIGHTING FACTORS FOR THE IMPACT SCORING

Factor	Weight
Landmines	2 points
UXOs	1 point
Recent victims	2 points each per victim
Blocked access to:	
Pasture	2 points
Rain-fed cropland	2 points
Irrigated cropland	1 point
Non-agricultural land	1 point
Water (other than drinking use)	1 point
Roads	1 point
Housing	1 point
Other infrastructure	1 point

Team Leader Report

T*his section presents the personal observations and subjective opinions of the Survey Action Center's team leader on the LIS process and results. It identifies and discusses issues relating to the LIS, some of which are specific to Azerbaijan and some that concern the LIS concept and methodology in general.*

As many of the following points focus on problems encountered and lessons learned, it is important to state at the beginning that the Azerbaijan LIS met and exceeded all reasonable expectations, concluding the survey of over three times the original anticipated number of impacted communities while staying within the original time frame and budget. IEPF gained broad access to communities throughout Azerbaijan through effective initial contacts followed by sustained communication with governmental officials at national and district levels, and through well-mannered and deferential dialogue with community leaders and survey respondents. Throughout the survey, IEPF and ANAMA senior management remained keenly aware of the importance of gathering accurate information and made every possible effort to identify errors and make corrections to ensure the quality of final results.

OPERATIONAL ISSUES

Although not inherently complicated, LIS field implementation demands dogged perseverance and long working hours, along with good coordination and logistical support. IEPF field staff stayed in the field for up to three weeks at a time, worked six days each week, and conducted their activity in unusually cold and snowy winter conditions that were often severe and hampered travel. On a daily basis, field supervisors had to make preliminary visits to new sites, arrange interviewer visits, and simultaneously carry out false negative control visits, all the while sharing a single vehicle with their two interviewer teams. Completed survey forms had to be picked up, and new blank ones delivered, to each group every week. The vehicles required frequent fueling and routine maintenance. Once community visits were scheduled and logistical systems were in place, survey implementation revolved around problem solving and quality control.

Considering active solicitation and inclusion of women's views as critical to a balanced community interview, the SAC team wanted an equitable representation of women among the field staff, especially among the interviewers. After an intensive search, IEPF did identify and hire seven female interviewers, out of a total of twenty.

A number of operation difficulties were outside of the control of SAC and IEPF. As is highlighted elsewhere in the report, severe weather conditions impacted heavily on field operations. The winter was one of the coldest in recent years, with record snowfall followed by heavy rains and flooding. The weather

affected both the morale of the field staff and their ability to access difficult locations.

The LIS started quickly for the SAC Azerbaijan team. Local senior staff training, to be conducted by SAC HQ staff, was initially scheduled to begin within a week of our arrival. Although we were able to postpone the training for two more weeks, we still had barely enough time to establish a temporary base with IEPF, find a suitable training site, have training materials translated and proof-read, and meet briefly with their proposed administrative and senior field staff. The postponement did not allow us an opportunity to establish a proper office, to set up computers and other equipment, or, most importantly, to get to know or properly evaluate senior staff candidates. More lead time would have benefited the survey. Start up time should not be underestimated.

Some aspects of the questionnaire were not suitable to Azerbaijan, both in terms of response options and choice of terminology. Given the importance of IDPs and refugees in national-level social and economic planning, for example, it was a missed opportunity that the LIS did not elicit more data on their specific locations and mine-action needs. Not being aware of the existence of the many small family farms affected by landmines or UXO (none were identified in the POC or an earlier IEPF level-one survey completed in 2001), we did not provide an appropriate “settlement type” classification option in the questionnaire for them. Interviewer teams therefore classified them inconsistently as “dispersed villages,” “seasonal villages,” “nomadic communities,” or “others,” making it impossible to disaggregate and separately analyze the largest group of communities within the Azerbaijan LIS.

There were also problems with semantics, compounded by a lack of critical feedback from survey staff. During and after senior staff training, every item on the questionnaire underwent repeated discussion and review, and after the training and pre-test all trainees stated they understood everything fully. We were therefore surprised to learn, well towards the end of the data collection period, the interview teams had missed important information due to misunderstanding of terminology. After four months into the survey, for example, we learned that most interviewers had not understood the terms “tampering” and “physical rehabilitation,” confusions that resulted in no incidents of tampering with mines or physical rehabilitation for victims being reported, even though, anecdotally, we knew both had occurred. As correct responses are required to identifying gaps in mine risk education and mine victim assistance, we required revisits to all communities with recent victims.

In late April, after the formal completion of fieldwork and the termination of all field staff, the QAM and SAC found widespread errors in survey results relating to socioeconomic blockages. Specifically, we found inconsistencies between reported blockages to resources and current use of these resources. Pastures, croplands, water points, houses, etc. reportedly blocked by mines or UXO were often being fully used for their intended purposes, despite the presence of ordnance. This had the effect of inflating community scores and, sometimes, impact levels. Following consultations with SAC HQ and the QAM, SAC requested that

IEPF selectively rehire field personnel and revisit medium- and high-impact communities to re-ask questions primarily relating to blockages. As a result of the revisits, impact levels dropped for 83 of the 130 communities visited. During their post-visit briefing, staff stated they thought they had been instructed during their training to allot blockages to every SHA according to its past use, regardless of current status of usage.

TECHNICAL ISSUES

The LIS is a fairly simple and straightforward tool. While the data generated by the LIS allows for categorizing communities by the level of socioeconomic impact and the database is a good tool for planning mine action interventions it can appear somewhat limited and arbitrary in its choice of indicators and measures, such as the allocation of impact scores for blocked resources regardless of relative level or importance of the blockage. At the same time the LIS also relies on public opinion, i.e., the perceptions of community members, which are not always correct, and are subject to exaggeration by community informants seeking to gain assistance for their communities. During the implementation of the Azerbaijan LIS, such inherent limitations occasionally caused confusion among some local stakeholders when it was learned that the LIS could not meet their expected informational needs.

One example concerns the return of IDPs to their communities of origin. The return of IDPs is high on the Azeri national agenda and is a stated objective of ANAMA: “Resettlement of IDPs through clearance of houses and settlement areas, and associated areas such as fields and irrigation systems to support population returning to their homes.” The LIS, however, is not designed to identify potential impacts to villages proposed for but not yet occupied by returnees because the format requires interviews with resident community members. With no inhabitants in the former community or access to it, there is no one to interview.

A second example relates to reported SHA surface areas and their use in budgeting demining operations. Halfway through the survey, when the surface areas of all recorded SHAs were summed they exceeded one billion square meters. Standard unit costs for demining were then calculated with the resulting cost estimates being astronomically high and unrealistic for future mine action planning. Reported SHA surfaces ranged from a few square meters to vast areas covering many square kilometers. A single, large SHA for one community might include one or more smaller, better-defined SHAs for a neighboring community. This confusion over size and location of SHAs led IEPF and SAC to re-visit most communities that reported the largest SHAs, and as a result gained more accurate estimates of surface area. These discussions with ANAMA also resulted in a review and closer scrutiny of reported SHA surface areas.

In emphasizing that the LIS does not replace technical surveys, we note that measuring SHAs still needs to be better. Training on GPS usage and measuring SHAs needs to be improved.

In addition for the LIS in Azerbaijan many communities share SHAs and there is thus considerable duplication. IMSMA simply sums up the surface area of all SHAs, without consideration to any overlap. The LIS does not substitute or eliminate the need for technical surveys, done by qualified experts, which more precisely define minefield perimeters and surface area, and are an appropriate basis for planning and budgeting demining operations.

LIS false negative sampling (FNS) procedures assume and require that that all communities are known. Out of this complete list, a randomly selected sample is visited to confirm negative status. While theoretically sound, the procedures proved difficult to implement in practice. Azerbaijan has no comprehensive gazetteer or record of communities at the national or even district level. The most recent maps, from 1984, do not show many IDP and refugee settlements. The more recent 1999 census does not include by name the large number of remote, generally single- and multiple-family settlements such as those in Fizuli and Aghstafa, which were usually identified in the LIS through referral by neighboring settlements. While new, larger communities, such as IDP and refugee settlements are at least known to local authorities, these tiny settlements often are not. As a result, we visited all known communities within the prescribed areas.

As noted in the text of the main project report, a flexible approach was also required to define discrete “communities” to conduct false negative sampling in urban areas. Urban maps were sectioned into areas of one square kilometer, each of which was visited for false negative sampling purposes.

ACKNOWLEDGMENTS

The execution of the Azerbaijan LIS entailed the involvement of many individuals and organizations. Notable among these are Director Nazim Ismayilov and his ANAMA staff, Director Umud Mirzoyev and our many colleagues at IEPF, UNDP Program Officer Shamil Rzayev, and Quality Assurance Monitor Stuart Maslen, of UNMAS. Their contributions are greatly appreciated. I offer my special thanks to fellow SAC team members Judith van Daalen, Begoña Fontan, and Johan Smith for their professionalism, flexibility, and friendship, and to IEPF staff members Ramil Azizov and Zaur Talibov for taking me to some of the most unforgettably beautiful places I have ever been.

ALLEN C. JELICH
SAC Team Leader

Annex A: Survey Sites Selected for Special Follow-up

In this Annex, the term “site” is used to refer to a location where the LIS conducted a survey. A total of 643 surveys were conducted in Azerbaijan. The main text of this report refers to just 480 communities with landmine/UXO impact. The other 163 sites are explained in Case #1 below.

A significant finding of the LIS was the extent of the UXO problem in Azerbaijan. For mine action planning and as part of the overall description of the landmine problem two overlapping groups of low-impact sites are identified for special consideration in follow-up planning and action. Both cases below highlight sites where inexpensive clearance activities are required.

CASE #1: SITES CONTAMINATED BY MILITARY ACTIVITIES NOT RELATED TO WAR

On the recommendation of ANAMA, 163 sites visited during the survey in Aghstafa have been identified as resulting from a single incident in 1991 at a Soviet military base and former military training exercises in the early 1970s. These contaminated sites have been clustered for analysis and reporting purposes. Elsewhere in this report, therefore, all these sites are considered part of the Saloglu village which is the nearest community to the base.

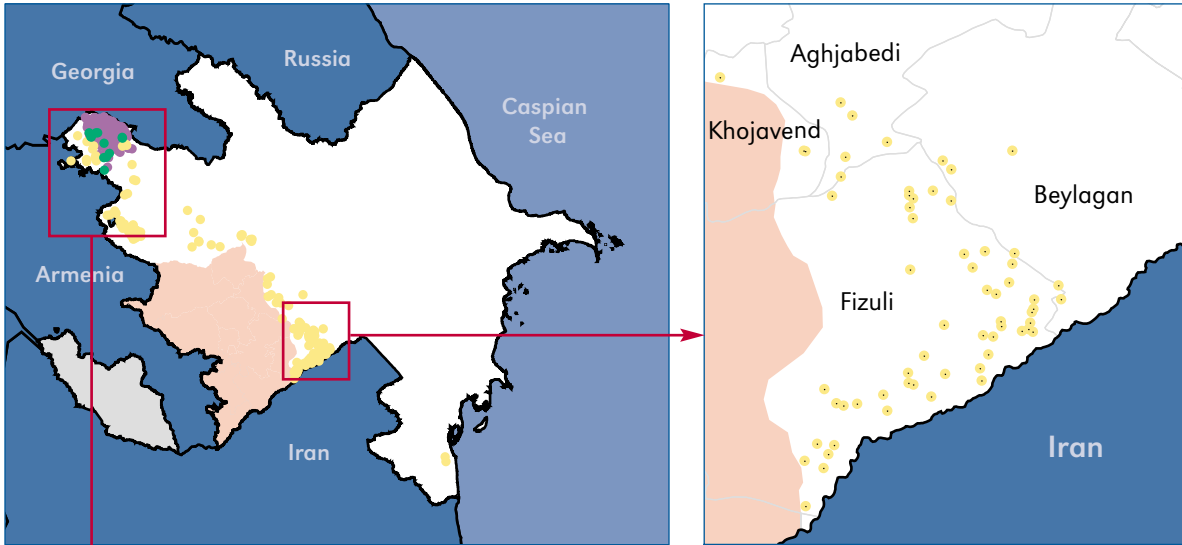
In Map 6 only (see page 76), the locations of these 163 special sites have been identified separately and each would be considered “low” impact sites in the LIS impact scoring system. There are 182 SHAs associated with these sites. Table 26 (beginning on page 77) lists these sites, their geographic coordinates, and the number of their associated SHAs.

The net effect on the Saloglu village is to increase the number of SHAs associated with it from 1 to 183 and, accordingly, its LIS impact score has been adjusted from “medium” to “high.”

CASE #2: LOW-IMPACT SITES WITH COMMON ATTRIBUTES

The survey discovered 283 contaminated survey sites with the common attributes of: (1) no recent victims, (2) the absence of landmines (i.e., UXO only) and (3) only one type of socioeconomic blockage contributing to the LIS impact score. There are 327 SHAs associated with these sites. As is apparent in Map 6 (next page), a majority of these sites are in Fizuli.

Note that 149 sites satisfy the conditions of both Case #1 and Case #2.



MAP 6
SURVEY SITES
SELECTED FOR
SPECIAL FOLLOW-UP

- Sites satisfying the conditions of Case #1, Case #2, or both cases.
- Case 1 Only: (14 sites with 20 SHAs)
 - Case 2 Only: (134 sites with 165 SHAs)
 - Case 1 & 2: (149 sites with 162 SHAs)

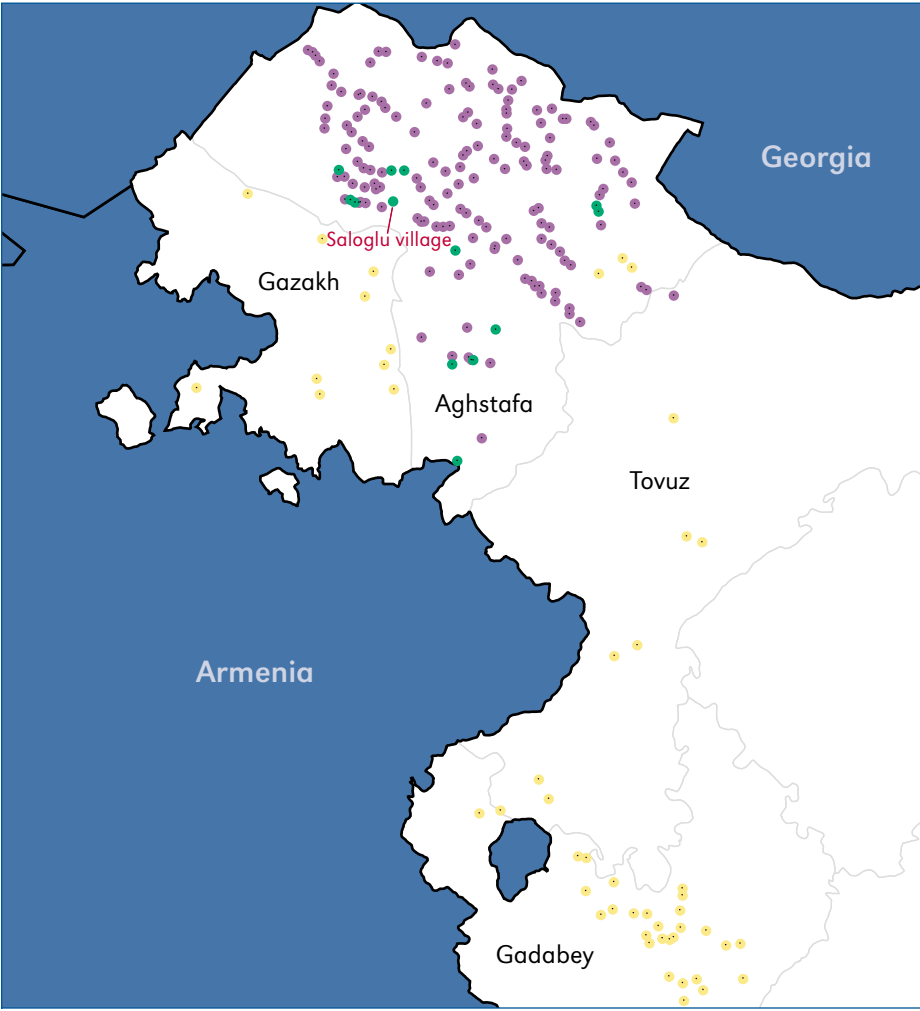


TABLE 26

LIST OF SITES IN AGHSTAF A CONTAMINATED BY MILITARY ACTIVITIES NOT RELATED TO WAR

(163 sites with 182 SHA's)

No.	Site "name"	No.	Site "name"
1	Ashagy Goyjali	43	Jeyranchol farm 18a
2	Ashagy Kasaman	44	Jeyranchol farm 19
3	Askipara kochkunlar dushargasi	45	Jeyranchol farm 19a
4	Gajag Karam	46	Jeyranchol farm 20
5	Garahasanli	47	Jeyranchol farm 20a
6	Girag Kasaman	48	Jeyranchol farm 21
7	Jeyranchol	49	Jeyranchol farm 22
8	Jeyranchol - II G/M - 29	50	Jeyranchol farm 22a
9	Jeyranchol farm 1	51	Jeyranchol farm 23
10	Jeyranchol farm 1a	52	Jeyranchol farm 23a
11	Jeyranchol farm 2	53	Jeyranchol farm 24
12	Jeyranchol farm 2a	54	Jeyranchol farm 24a
13	Jeyranchol farm 3	55	Jeyranchol farm 25
14	Jeyranchol farm 3 A	56	Jeyranchol farm 25a
15	Jeyranchol farm 4	57	Jeyranchol farm 26
16	Jeyranchol farm 4a	58	Jeyranchol farm 26a
17	Jeyranchol farm 5	59	Jeyranchol farm 27
18	Jeyranchol farm 5a	60	Jeyranchol farm 27a
19	Jeyranchol farm 6	61	Jeyranchol farm 28
20	Jeyranchol farm 6a	62	Jeyranchol farm 28a
21	Jeyranchol farm 7	63	Jeyranchol farm 29a
22	Jeyranchol farm 7a	64	Jeyranchol farm 30
23	Jeyranchol farm 8	65	Jeyranchol farm 30a
24	Jeyranchol farm 8a	66	Jeyranchol farm 31
25	Jeyranchol farm 9	67	Jeyranchol farm 32
26	Jeyranchol farm 9a	68	Jeyranchol farm 33
27	Jeyranchol farm 10	69	Jeyranchol farm 34
28	Jeyranchol farm 10a	70	Jeyranchol farm 35
29	Jeyranchol farm 11	71	Jeyranchol farm 36
30	Jeyranchol farm 11a	72	Jeyranchol farm 38
31	Jeyranchol farm 12	73	Jeyranchol farm 38a
32	Jeyranchol farm 12a	74	Jeyranchol farm 39
33	Jeyranchol farm 13	75	Jeyranchol farm 39a
34	Jeyranchol farm 13a	76	Jeyranchol farm 40a
35	Jeyranchol farm 14	77	Jeyranchol farm 41
36	Jeyranchol farm 14a	78	Jeyranchol farm 42
37	Jeyranchol farm 15	79	Jeyranchol farm 43
38	Jeyranchol farm 16	80	Jeyranchol farm 44
39	Jeyranchol farm 16a	81	Jeyranchol farm 45
40	Jeyranchol farm 17	82	Jeyranchol farm 46
41	Jeyranchol farm 17 A	83	Jeyranchol farm 47
42	Jeyranchol farm 18	84	Jeyranchol farm 48

No.	Site "name"
85	Jeyranchol farm 49
86	Jeyranchol farm 50
87	Jeyranchol farm 51
88	Jeyranchol farm 52
89	Jeyranchol farm 53
90	Jeyranchol farm 54
91	Jeyranchol farm 55
92	Jeyranchol farm 59
93	Jeyranchol farm 60
94	Jeyranchol farm 61
95	Jeyranchol farm 62
96	Jeyranchol farm 65
97	Jeyranchol farm 66
98	Jeyranchol farm 67
99	Jeyranchol farm 68
100	Jeyranchol farm 69
101	Jeyranchol farm 70
102	Jeyranchol farm 71
103	Jeyranchol farm 72
104	Jeyranchol farm 73
105	Jeyranchol farm 74
106	Jeyranchol farm 75
107	Jeyranchol farm 76
108	Jeyranchol farm 77
109	Jeyranchol farm 78
110	Jeyranchol farm 82
111	Jeyranchol farm 83
112	Jeyranchol farm 84
113	Jeyranchol farm 85
114	Jeyranchol farm 87
115	Jeyranchol farm 88
116	Jeyranchol farm 90
117	Jeyranchol farm 91
118	Jeyranchol farm 92
119	Jeyranchol farm 93
120	Jeyranchol farm 94
121	Jeyranchol farm 96
122	Jeyranchol farm 97
123	Jeyranchol farm 99
124	Jeyranchol farm 100
125	Jeyranchol farm 101
126	Jeyranchol farm 103
127	Jeyranchol farm 104
128	Jeyranchol farm 105
129	Jeyranchol farm 107

No.	Site "name"
130	Jeyranchol farm 108
131	Jeyranchol farm 109
132	Khatai
133	Kimya bazasi
134	Kuralti farm 1
135	Kuralti farm 2
136	Kuralti farm 3
137	Kuralti farm 31 a
138	Kuralti farm 32a
139	Kuralti farm 33a
140	Kuralti farm 34a
141	Kuralti farm 35a
142	Kuralti farm 36a
143	Kuralti farm 37a
144	Mehrabchol farm 1
145	Mehrabchol farm 2
146	Mehrabchol farm 3
147	Mehrabchol farm 4
148	Mehrabchol farm 5
149	Mehrabchol farm 6
150	Mehrabchol farm 7
151	Mehrabchol farm 8
152	Mehrabchol farm 9
153	Mehrabchol farm 10
154	Mehrabchol farm 11
155	Meliorasiya
156	Pirili
157	Pouly Stantsiyasi
158	Poylu
159	Poylu forestry
160	Poylu station farm 40
161	Yaradullu
162	Yenigun
163	Yukhari Goyjeli

Annex B: Impacted Communities, by District

The LIS reports 480 communities impacted by landmine/UXO in Azerbaijan. The list of impacted communities is presented in Table 27 by district. The survey was not conducted in the areas occupied by Armenia, the Autonomous Republic of Nakhchivan, or other discrete locales where military or local authorities did not allow access.

TABLE 27

LIST OF 480 IMPACTED COMMUNITIES, BY DISTRICT

No.	Impacted community	No.	Impacted community
Aghdam District		29	Amralilar-1
1	Afatli	30	Arazbari
2	Ahmadaghali	31	Avshar
3	Ayag Garvend	32	Garadagli 1
4	Chamanli	33	Garadagli 2
5	Chiragli	34	Garadagli 3
6	Ergi	35	Hajibadalli
7	Evoglu	36	Ismayilin yatagi
8	Gahramanbeyli	37	Kabirli
9	Garadagli	38	Kahrizli
10	Garvend refugee's settlement	39	Khindarkh
11	Hajimammadli	40	Khojavend 1
12	Hajituralli	41	Khojavend 2
13	Hasankhanli	42	Kurdlar
14	Isalar	43	Minakhorlu
15	Kolgishlag	44	Muganli 2
16	Kudurlu	45	Salmanbeyli
17	Mahrizli	46	Shusha yatagi
18	Mammadbaghirli	47	Yukhari Giyamadimli
19	Mirashalli	Aghstafa District	
20	Orta Garvend	48	Dag Kasaman
21	Rzalar	49	Eynalli
22	Shukuraghali	50	Jeyranchol farm 15a
23	Shurabag kandinin atrafi	51	Jeyranchol farm 21a
24	Taza kend	52	Jeyranchol farm 37
25	Zangisali	53	Jeyranchol farm 56
Aghjabedi District		54	Jeyranchol farm 57
26	Amiralilar-2	55	Jeyranchol farm 58
27	Amralilar	56	Jeyranchol farm 63
28	Amralilar kend	57	Jeyranchol farm 64

No.	Impacted community
58	Jeyranchol farm 79
59	Jeyranchol farm 80
60	Jeyranchol farm 81
61	Jeyranchol farm 86
62	Jeyranchol farm 89
63	Jeyranchol farm 106
64	Kochaskar
65	Kohna Gishlag
66	Saloglu
67	Tatli
Beylagan District	
68	Akhullu
69	Allakhyarli
70	Beylagan
71	Nizaminin yatagi
72	RTS Gasabasi
73	Salakatin
Fizuli District	
74	"Azeri" farm
75	"Elgun-84" fermer tasarrufat ijmasi
76	"Elvin-83" farm
77	"Muruvvatın" fermer tasarrufat ijmasi
78	"Nurlan-96" farm
79	"Sham" fermer tasarrufati
80	"Tabiat" fermer ijmasi
81	"Uch chinar" fermer ijmasi
82	"Vusal-88" fermer ijmasi
83	Abdulun yatagi
84	Adalatin yatagi
85	Adisz golun yani
86	Ahmadalilar -1
87	Ahmadalilar -2
88	Ahmedbeyli
89	Ajdarin yatagi
90	Akhullu-Tugh
91	Alinin farmer ijmasi
92	Amil's farm
93	Amirin yatagi
94	Arayalti farm
95	Arayatli
96	Arayatli yatagi
97	Arayatli yatagi-2
98	Araz Dilagharda
99	Araz Dilagharda wine plant
100	Araz Yaghlivand

No.	Impacted community
101	Araz Zargar
102	Arifin yatagi
103	Arshadin yataghi
104	Arshad's farm
105	Ashaghi Abdurrahmanli
106	Ashaghi Abdurrahmanli farm
107	Ashaghi Boyuk Bahmanli
108	Ashaghi Mollamaharramli
109	Ashaghi Oba
110	Ashaghi Seyidahmadli fermasi
111	Ashaghy Kurdmahmudlu
112	Ashagi Alkhanli
113	Aslan's farm
114	Atakishinin fermasi
115	Atalinin kochkun ijmasi
116	Aybasanli
117	Azizin fermasi
118	Babi
119	Babi kandinin mal-gara fermasi
120	Bahmanli sharab zavodu
121	Bala Bahmanli
122	Boyuk Marjanli IDP community
123	Boyukishi yatagi
124	Chanagchi yeri
125	Daghlarin yataghi
126	Dahar
127	Dilagarda
128	Dilagarda yatagi
129	Divanalilar yataghi
130	Dunyamalilar yataghi 2
131	Dunyamali's farm
132	Eldanizin yataghi
133	Elmanin fermasi
134	Fazilin yatagi
135	Fin gurlashdirma evlari
136	Fioletovka
137	Firidunun yatagi
138	Fizuli kochkun maskani
139	Gadirin yataghi
140	Ganjali yatagi
141	Garabagh
142	Garabulag refugee's settlement
143	Garadagli
144	Garband kochkun ijmasi
145	Garibin fermer tasarrufati

No.	Impacted community
146	Gayidish-2
147	Gazaxhlar
148	Gejagozlu yatagi
149	Gorgan
150	Govshad
151	Guney yataghi
152	Guzdak IDP community
153	Hajili station
154	Hajinin yatagi
155	Hakimin yatagi
156	Hogha IDP community
157	Horadiz
158	Horadiz refugee's settlement
159	Huseynin yataghi
160	Ibadin yataghi
161	Ibrahimin yataghi
162	Ildirim's farm
163	Ilhamin yataghi
164	Ismayilin yatagi
165	Jabbarovun yataghi
166	Jabrayil yatagi
167	Jamalin yataghi
168	Jin deresi
169	Juvarli farm
170	Karimbeyli
171	Karimbeyli farm
172	Karimbeyli yatagi
173	Karpich zavodu
174	Khalafli refugee's community
175	Khanaslanin yataghi
176	Khanbalanin yataghi
177	Kurdlar yashayish maskani
178	Lachin yataghi
179	Mahammadin yataghi
180	Maharram's farm
181	Mahmudlu 1
182	Mahmudlu-II
183	Makhmudlu III
184	Mazahirin yataghi
185	Merdinli refugee's community
186	Mikrogarakhanbeyli
187	Mil-Mughan kochkun ijmasi
188	Mirzanaghili
189	Mirzanin yataghi
190	Murtuzalilar

No.	Impacted community
191	Mushvig fermer tasarrufati
192	Mustafanin yatagi
193	Namandin yatagi
194	Namigin yatagi
195	Narimanov kolkhozu gish yataghi
196	Nuraddin yataghi
197	Oktay's farm
198	Orkhan -90 yataghi
199	Orta oba
200	Pahlishin yataghi
201	Pirahmedli refugee's settlement
202	Rahimin yatagi
203	Ramilin yataghi
204	Rustam kishinin yatagi
205	Sadraddinin yatagi
206	Safarin yatagi
207	Salakatin refugee's community
208	Sehlimanin yatagi
209	Sehramanin yatagi
210	Seyranin yatagi
211	Shahin yataghi
212	Shahmuradin yataghi
213	Shahsevan -2
214	Shakirin yataghi
215	Shakirin yatagi
216	Shakirin yatagi
217	Shakir's farm
218	Shikhli yatagi
219	Shparti yatagi
220	Shukurbeyli
221	Shukurbeyli-2
222	Su idarasinin yardimchi farm
223	Tagat kochkun ijmasi
224	Tagh yeri
225	Talibkhanli
226	Teymurun yataghi
227	Teyyubun fermasi
228	Tofigin yatagi
229	Tufan yatagi
230	Tug yatagi
231	Turabin yatagi
232	Uchbulag
233	Valinin yatagi
234	Yaghlivand farm - 2
235	Yaghlivand farm - 3

No.	Impacted community
236	Yagubun yatagi
237	Yarili
238	Yukhari Boyuk Bahmanli
239	Yukhari Kurdmahmudlu
240	Yukhari Mollamaharramli
241	Yukhari Oba
242	Yukhari Veysalli
243	Yukhari Yaghlivand
244	Yukhari Zargar refugee's settlement
245	Zafarin yataghi
246	Ziyafatin ferma ijmasi
247	Zobujug farm
Gadabey District	
248	Aliismayil
249	Alnaghilar
250	Amiraslanli
251	Arabachi
252	Arabachi - 2
253	Arigdam
254	Arigiran
255	Arisu
256	Armudlu
257	Atakhhal
258	Ayridara
259	Ayriyang
260	Baydamirli
261	Bayramdarasi
262	Boyuk Garamurad
263	Chalburun
264	Chaldash
265	Chayrasullu
266	Chobankend
267	Daryurd
268	Dayagarabulag
269	Dayirmandagh
270	Dikdash
271	Dordlar
272	Duzrasullu
273	Duzyurd
274	Emir
275	Farzaly
276	Garabulag
277	Garakishi's farm 3
278	Garamammadli
279	Garavalilar

No.	Impacted community
280	Garavultomba
281	Gar-Gar
282	Garikend
283	Garmashovly
284	Gasimagali
285	Gasimli
286	Giziltorpag
287	Goyalli
288	Goyamli
289	Gurudara-2
290	Gyrydare
291	Hajialekberli
292	Hajjalilar
293	Hajilar
294	Heriknaz
295	Huseyngulular
296	Inakboghan
297	Isali
298	Jafarli
299	Jujanli
300	Kalaman
301	Karimli
302	Kasaman
303	Khudushlu
304	Kichik Garamurad
305	Kohnagishlag
306	Kohnakend
307	Kollu
308	Leshkar
309	Mamadjafarli
310	Mor-Mor
311	Musayali Mysayal
312	Mutudara
313	Nagilar
314	Novoivanovka
315	Novosaratovka
316	Parakend
317	Poladli
318	Rafiq Musa oglu's farm 2
319	Rahimli
320	Rashid kishi's farm 1
321	Sabatkechmaz
322	Sarihasanli
323	Sarikoynak
324	Shakarbey

No.	Impacted community
325	Shinikh
326	Shurakend
327	Sonalar
328	Talakend
329	Toplar
330	Turshsu
331	Yenikend
332	Zamanli
Ganja city	
333	Sevinj II
334	Sevinj-1
Gazakh District	
335	Abbasbeyli
336	Aghkoinak
337	Alpoud
338	Ashagi Salahli
339	Aslanbeyli
340	Bala Jafarli
341	Damirchilar
342	Dash Salahli
343	Farakhli
344	Garapapag
345	Gaymagli
346	Gazakh
347	Gizilhajili
348	Gushchu Ayrim
349	Jafarli
350	Janalli
351	Kamarli
352	Khanliglar
353	Kosalar
354	Mazam
355	Orta Salahli
356	Shikhli 1
357	Shikhli-2
358	Yukhari Salahli
359	Yurkmazli
Geranboy District	
360	Ashagi Aghjakend
361	Boru
362	Buzluk
363	Erkech
364	Gakhtut
365	Garachinar
366	Gargujag

No.	Impacted community
367	Gashalty Garagoyunlu
368	Gurzallar
369	Hajalli
370	Manashli
371	Meshali
372	Rus Borisi
373	Shafag
374	Shafibeyli
375	Tap-Qaragoyunlu
376	Todan
377	Yenikend
378	Zeyva
Hajigabul District	
379	Aerodrom
Imishly District	
380	Chalaalti mahlası
Jalilabad District	
381	Boyuk Bajiravan
382	Goytapa
383	Privolnoye
Khanlar District	
384	Ashigli
385	Chaykend
386	Chayli
387	Dozular
388	Garabulag
389	Goychakend
390	Gushchu
391	Gushgara
392	Hajimalik
393	Khagani
394	Khanlar
395	Kurdalilar
396	Mikhailovka
397	Nadel
398	Panakhlilar
399	Pirverdiler
400	Sarisu
401	Togana
402	Topalhasanli
403	Yeni Zod
Khojavend District	
404	Aghburun
405	Alamshadin yatagi
406	Chartaz yeri

No.	Impacted community
407	Dashli tapa
408	Garasu chayinin yukhari hissasi
409	Gargulu dara
410	Geshi yeri
411	Khonashen chaynin yux. Hissasi
412	Nargiz tapa
413	Novruzdara
414	Tosunun yataghi
Lenkeran District	
415	Gurumba
416	Haftoni
417	Nazbaghi
418	Sovu
419	Su-8
420	Vaghzal-danizkanari
Naftalan city	
421	2-chi yashayish massivi
422	Goran sanatiyiyasi fin ev
423	Neft madan sahasi
Terter District	
424	Askipara
425	Bala-Kangarli
426	Bildirchinli
427	Borsunlu
428	Chayli
429	Damirchilar
430	Gapanli-1
431	Gapanli-2
432	Garadagli
433	Garagaji
434	Gaynag
435	Gazyan
436	Hajigarvand
437	Hasangaya
438	Husanli
439	Jamilli
440	Kokaltma birliyi
441	Rajabli
442	Sarov

No.	Impacted community
443	Seydimli
444	Shikharkh
445	Tazakend
446	Terter
Tovuz District	
447	Aghbulag
448	Aghdam
449	Alibeyli
450	Aran Yaniglisi
451	Asrik Jirdakhan
452	Azafli
453	Bayramli
454	Boyukgishlag
455	Dondar Gushchu
456	Donuk Girigli
457	Garalar
458	Gishlag
459	Gosha
460	Govlar
461	Goyabakhan
462	Hajalli
463	Hajihasanli
464	Hasanli
465	Huseyngulular
466	Jeyranchol farm 1
467	Jeyranchol farm 11
468	Jeyranchol farm 12
469	Jeyranchol farm 14
470	Kokha Nabi
471	Meshadigulular
472	Mollaayrim
473	Mulkulu
474	Munjuglu
475	Nasibli
476	Shikheybat
477	Tepebashi
478	Vahidli
479	Yanikhli
480	Yukhari Oysuzlu

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