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landmine casualty data:

best practices guidebook

Office of Weapons Removal & Abatement

Mine Action Information Center
at James Madison University

The Mine Action Information Center (MAIC) is a public policy center which manages information and conducts training relevant to humanitarian mine clearance, victim assistance, mine risk reduction and other landmine-related issues.

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Carpet weaving project for Mine/ERW victims in Ganja, Azerbaijan
Landmine survivor and LMVA assistant at BHMAC, Bosnia and Herzegovina

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The *Landmine Casualty Data: Best Practices Guidebook* is the product of integrating and synthesizing a large volume of information emanating from a number of different sources. It is also the culmination of a multi-year study of the challenges and operation of landmine casualty data systems. The lead researcher and author of the *Guidebook*, Dr. Suzanne Fiederlein, has benefited from an extensive network of contacts among personnel working in the field of mine action, especially in the areas of information management and mine victim assistance. As a result, many people have contributed insights and details that have become part of a broad understanding of the topic acquired gradually over the past seven years. Dr. Fiederlein is grateful for the willingness of so many people to discuss the operational details and challenges involved in creating and maintaining landmine casualty and victim information systems. Some of these individuals are identified in the case studies on Azerbaijan and Bosnia and Herzegovina, presented in Annex A; many others cannot be listed individually, as they are far too numerous. However, a few individuals deserve specific mention for their particular contribution to this project.

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INTRODUCTION

Best Practices Guidebook: Purpose, Methodology and Terms

The Challenges of Landmine Casualty Data

While there is no doubt the number of people injured and killed by landmines and unexploded ordnance (UXO) has decreased over the past decade of ever more effective and extensive landmine/UXO[1] clearance and risk education operations, the total number of deaths and injuries (or "casualties") worldwide still cannot be stated with much precision due to limitations in data collection systems in most countries suffering from residual contamination by these weapons of war.

The inadequacy of data collection on landmine victims was recognized from the earliest years of the AP Mine Ban Convention[2] implementation process. Significant sums of money were invested by the international mine action donor community in the development of an Information Management System for Mine Action (IMSMA) and in the execution of Landmine Impact Surveys (LIS), with the goal of obtaining and processing needed information on landmine accidents and victims as well as other information about the presence of landmines. These tools have assisted countries to collect and manage information about landmine and other Explosive Remnants of War (ERW) contamination but have not solved the problem of insufficient data because that problem is multi-faceted and intertwined with other national economic and political development challenges.

Certain progress in landmine casualty data collection has occurred, especially in countries which have focused energy and resources on this challenge, such as Afghanistan, Azerbaijan, Bosnia and Herzegovina, and Cambodia, to name a few. However, the number of countries with comprehensive and reliable landmine casualty data collection systems remains small.

Landmine Monitor Report 2007 includes a section entitled, "Special Issue of Concern: Inadequate Data Collection and Management." It notes that while 48 of 68 countries or areas reporting new casualties in 2006 used IMSMA or another data collection system, most of the country reports were still incomplete. Only eight percent of the recorded casualties in 2006 came from countries with what could be considered "complete data collection systems," and even in these countries, "it is possible that casualties in remote areas are not reported."[3] Thus the challenge of establishing a comprehensive and reliable landmine casualty data system remains high on the list of goals for the mine-action community.

Beginning with the Review Conference of the AP Mine Ban Convention held in Nairobi in 2004, marking the five-year point for implementation of the convention, an initiative was launched to help States Parties meet their obligations, under Article 6.3, "to provide assistance for the care and rehabilitation, and social and economic reintegration, of mine victims and for mine awareness programs." The group of 24 countries[4] self-identified as having a substantial number of victims requiring care, was encouraged to develop specific objectives for providing assistance to the victims living on their territory. Identifying the "scope of the problem" was one of the areas which they were to address in formulating plans. Some countries were better able to provide specific objectives for this topic than others, but many of the counties, recognizing their shortcomings and their long range goals, included an objective to establish a mine victim information system and eventually a national injury surveillance system.[5]

The Standing Committee on Victim Assistance and Socio-Economic Reintegration (SC-VA) established to assist States Parties to the AP Mine Ban Convention to fulfill their obligations under the international treaty has continued to provide active support to these 24 countries and to all States Parties. Assisted by the Convention's Implementation Support Unit (ISU) and other actors in the mine action community, some of these 24 countries have made real progress in the past few years in setting up landmine/ERW victim information systems and in developing national victim assistance strategies. Unfortunately, the pace of progress has been quite slow and uneven, a result acknowledged with some frustration at the Eighth Meeting of States Parties.[6]

However, a few countries, including Afghanistan, Sudan and Uganda, have produced national victim assistance strategies and action plans that include meaningful, specific and measurable objectives and were developed and vetted through a series of national victim assistance workshops.[7] In these cases specific victim assistance projects have been launched by government agencies,

[1]This *Guidebook* will use the term "landmine" or "mine" when referring to casualties, clearance or risk education activities; however, it is to be understood that in most cases UXO are encountered in countries affected by landmines and so casualties and "mine-action" operations encompass UXO as well as landmines. And since the entry into force of Protocol V of the Convention on Certain Conventional Weapons (CCW) in November 2006, the term has been broadened to "Explosive Remnants of War" to include abandoned ordnance – or all ordnance left over after a conflict that can cause injury and death and problems for post-conflict reconstruction and development of a country. See section on "Terminology".

[2]*The Convention on the Prohibition of the Use, Stockpiling, Production, and Transfer of Anti-Personnel Mines and on their Destruction*, entered into force on March 1, 1999. As of August 2007, there were a total of 155 countries that had become parties to the convention ("States Parties").

[3]International Campaign to Ban Landmines (2007c).

[4]The group of 24 was expanded to 25 with the addition of Jordan in 2008. The list of countries now includes: Afghanistan, Albania, Angola, Bosnia and Herzegovina, Burundi, Cambodia, Chad, Colombia, Democratic Republic of Congo, Croatia, El Salvador, Eritrea, Ethiopia, Guinea-Bissau, Jordan, Mozambique, Nicaragua, Peru, Senegal, Serbia, Sudan, Tajikistan, Thailand, Uganda, and Yemen.

[5]Standing Tall Australia (2007, 2006, 2005).

[6]"*Achieving the Aims of the Nairobi Action Plan: The Dead Sea Progress Report 2006-2007*." (2007), para. 44.

[7]See: Government of the Islamic Republic of Afghanistan (2008), Republic of Sudan (2007), and Government of Uganda (2008).

international organizations, and international and local NGOs – with donor funding coming from a variety of sources, and more progress is being made in addressing some of the needs of landmine/ERW victims.

In addition, a few more countries have begun to establish functioning landmine/ERW victim information systems, which is a crucial early step in creating national policies and programs to meet the needs of landmine/ERW victims: **One must be able to identify the scope of the problem and the needs of this population before effective polices and programs can be articulated**. Greater emphasis is being placed on this by the SC-VA and the States Parties to the AP Mine Ban Convention generally. Without good data, neither victim assistance programs nor mine clearance and mine risk education programs can be planned and implemented successfully and efficiently.

Despite the slow pace of development, real progress is being made in some countries and a number of international organizations and non-governmental organizations (NGOs) have been working on the challenge of data collection and management as it applies to situations of landmine and ERW contamination. They are out there sharing their knowledge and working bi-laterally with a number of national mine action programs and other government ministries to develop capacity in the mine-affected countries.

MRE materials, IEPF offices, Terter, Azerbaijan.

With the increasing number of national mine action programs using IMSMA and working with technical assistance from United Nations agencies such as the UN Action Service (UNMAS), UN Development Programme (UNDP) and UN Children's Fund (UNICEF) and NGOs like Handicap International, landmine/ERW casualty data collection is beginning to occur in locations as challenging as Sudan, and is being improved in countries like Laos PDR. Newer mine action programs, like Burundi, Senegal and Uganda, are in a position to benefit from lessons learned during the past decade and the availability of more experienced technical advice and sophisticated information management systems.

This *Landmine Casualty Data: Best Practices Guidebook* reports on advances being made in casualty data collection and management and offers lessons learned that countries can reflect upon as they undertake the challenging task of building mine/ERW victim information systems that meet their needs for data to use in planning and implementing their comprehensive mine action programs, including mine clearance, mine risk education and victim assistance. While the *Guidebook* is premised on the advances being made in some countries, much more progress is needed before effective landmine/ERW victim information systems will be operating in all mine-affected countries. It is important to share the successes and benefit from the lessons learned.

Objectives and Organization of the *Guidebook*

The *Guidebook* is designed as a reference book to assist people trying either to create a mine/ERW victim information system or enhance an existing system. It provides a few suggestions of things to do – not quite a "how to" section but more a "things to think about" section. These suggestions are culled from a detailed study of existing landmine/ERW casualty data and victim information systems and efforts by subject matter experts to assist in the creation of these systems. The results of that study in the form of two detailed case studies, brief descriptions of additional best practices, and summaries of lessons learned identified during the study are captured in three annexes.

The final section of the *Guidebook* contains numerous references to reports, articles, studies and other materials containing pertinent information about establishing and operating casualty data, mine victim information and injury surveillance systems. This "references" section is divided into a list of works actually cited in the *Guidebook* and a list of "Works Consulted" that includes additional sources of information on these topics that may be of use to someone grappling with this challenge and seeking more information about a certain aspect. The intent is to provide ready resources to the user and so Internet addresses are included for as many of these materials as possible. Also included in this references section is a list of organizations that can provide useful information and advice on establishing mine/ERW victim information systems and developing victim assistance plans and programs.

The Mine Action Information Center (MAIC) was founded

as an "information clearinghouse" in support of "mine action" – to help provide information needed by the mine action community so that it can do its jobs of mine clearance, mine risk education, victim and survivor assistance, and other related activities that enable it to fulfill its important goal of eradicating the negative impact of landmine contamination. The Guidebook builds upon past research conducted by the MAIC and, recognizing the considerable challenges mine-affected countries face in establishing effective landmine/ERW casualty and victim data collection and management systems, offers a compendium of information that can inform the community about what specific countries are doing to improve their data collection and management practices, what resources are available from subject matter experts such as epidemiologists from the Centers for Disease Control (CDC) or the International Committee of the Red Cross (ICRC), or field staff from the United Nations and Handicap International, and what reports and studies organizations and scholars have published on the topic. The *Guidebook* will not walk a country through the process of creating a mine victim information system, but it does provide some reference materials and information on organizations that could help.

Methodology and Scope

The *Guidebook* is the culmination of research that the lead author of this study, Dr. Suzanne Fiederlein, has conducted on and off since first asked to delve into the subject in 2001. Many other tasks and responsibilities had drawn her away from the subject in recent years until she was given the encouragement to tackle this project, with US Department of State funding. The motivation was that because mine-affected countries were still struggling with developing adequate landmine/ERW casualty data systems, guidance in the form of capturing what countries were currently doing well and what resources they could tap for assistance, might prove useful and applicable. The goal was to have a resource that was straight forward and accessible, with information of various sorts that users could refer to as needed.

Building upon the previous two studies published by the MAIC[8], the research team collected as many articles, research studies, and project reports as possible on casualty data collection, victim information systems, injury surveillance systems, the application of casualty data to the analysis of mine action and for project planning, efforts to improve survivor or victim assistance planning, and other situations in which information about landmine casualties and the characteristics and needs of landmine/ERW victims is required in order to plan and execute mine action programs. Not every resource found was included, but an effort was made to include a broad representative sample of the materials available. The researchers then pored over the materials, attempting to identify recurring practices that appeared to be successful and examples of practices that worked well for certain countries. Lessons learned were drafted based on the patterns identified through this analysis.

Based on the initial review of these materials, two countries were chosen to be the subject of detailed case studies. They were chosen because they are cases where interesting new developments are taking place or successful victim information projects are in place.

Azerbaijan is a country that is not a State Party to the AP Mine Ban Convention, although it is very engaged in the activities of the international mine action community. Not being a party to the Convention, it is not in a position to directly benefit from the assistance provided by the SC-VA or the ISU; however, it uses IMSMA, although an older version, as its information management system. As the case study shows, Azerbaijan has succeeded in conducting a successful mine/ERW victim needs assessment and is using the information gained through its data collection and analysis efforts to guide the planning and implementation, in collaboration with a number of partner organizations, of specific victim assistance programs.

Bosnia and Herzegovina, as a State Party to the AP Mine Ban Convention and one of the 24 countries with significant numbers of victims, has participated in the activities of the SC-VA and the ISU to assist these States Parties. It has strived to improve its existing landmine victim data collection system, focusing on integrating different data sets into a national landmine victim information system. It is doing this through an information management system of its own design, eschewing IMSMA in favor of a system developed prior to the creation of IMSMA and operated by its own highly skilled information technology staff.

Both Azerbaijan and Bosnia and Herzegovina offer some "best practices" and "lessons learned" that are valuable to share and analyze. In addition, best practices can be found in a number of other countries, a few of which are presented in summary form in Annex B. Cambodia's Mine Victim Information System is an example of a mature information system that continues to evolve based on lessons learned and the changing needs of the country's mine action program. Afghanistan and Sudan are examples of an older and a newer mine action program respectively accessing resources and technical advice available in the international community to launch new data collection initiatives to bolster their program planning in support of landmine/ERW survivors and other persons with disabilities.

Unfortunately, the constraints of time and space prevent the *Guidebook* from reporting on all the progress being made in landmine-affected countries concerning casualty data collection and the development of victim information systems that encompass data needed for planning and monitoring victim assistance programs. Despite the rather dire reports about the state of landmine casualty data systems published in the *Landmine Monitor*,

[8]Fiederlein (2004) and Mine Action Information Center (2001).

the MAIC researchers, based on the results of this study, believe that noteworthy progress has actually been achieved, even if the pace of change seems frustratingly slow at times. When progress is judged against the complexity of the challenges and the fact that building a functioning landmine/ERW victim information system is part of a larger incremental development process that includes capacity building not only in information technology but also in data collection techniques, data analysis methods, program planning and implementation both in mine action and the field of public health, then the progress made can be better appreciated. However, the many steps that remain before these countries will have mature injury surveillance systems also must be acknowledged.

Terminology

As with many public policy issues, clear understanding of the terminology being used is a pre-requisite for conducting meaningful discourse on the topic at hand. The Mine Action community's acknowledgement of this fact is reflected in the International Mine Action Standard 04.10, *Glossary of Mine Action Terms, Definitions and Abbreviations*.[9] The *Guidebook* uses the definitions of terms as they appear in IMAS 04.10. For further elaboration of the meaning of terms when needed, we have gone to the International Campaign to Ban Landmine's Working Group on Victim Assistance (ICBL WGVA), in acknowledgement of its leadership in shaping the thinking of the mine action community on the matter of landmine victim assistance. For terminology directly associated with "casualty data" and "victim information" we have developed a nomenclature derived from the results of the research and making use of important World Health Organization publications, drawing distinctions that hopefully add clarity to the discussion. In one case we went to the dictionary for a common definition when these other sources were not sufficient.

Terms that Cause Confusion

Among the key terms to define for the purposes of this *Guidebook* are the following: **mine accident, mine incident, demining accident, demining incident**

These terms continue to be used in different ways within the mine action community and need to be clarified. Mine action operators have given good reason for using them in different ways, but consistent usage is required in order to avoid continuing confusion. Considering the International Mine Action Standards are there to help "standardize" communication in the field of mine action, in this *Guidebook*, the definitions as provided in IMAS 04.10 are used. Those definitions are presented below.

In order to simplify these meanings, it is easiest to remember that an **accident** is when someone gets hurt (is "harmed") due to an "event" (e.g., a mine/ERW blows up) and an **incident** is when someone could get hurt due to an "event". A **demining accident** is when the event that caused the "harm" (injury or death) took place at a demining workplace. A **mine accident** is when the "event" takes place somewhere other than a demining workplace (e.g., a person activates a mine in the course of routine daily activities or from "tampering" with the mine in order to obtain scrap metal).

• **accident**
an undesired event which results in harm.
[with "harm" defined as physical injury or damage to the health of people, or damage to property or the environment and a hazard being a potential source of harm]

• **incident**
an event that gives rise to an accident or has the potential to lead to an accident.

• **demining accident**[10]
an accident at a demining workplace involving a mine or ERW hazard (c.f. mine accident).

• **demining incident**
an incident at a demining workplace involving a mine or ERW hazard (c.f. mine incident).

• **mine accident**
an accident away from the demining workplace involving a mine or ERW hazard (c.f. demining accident).

• **mine incident**
an incident away from the demining workplace involving a mine or ERW hazard (c.f. demining incident).

• **demining worksite**
any workplace where demining activities are being undertaken.

Note: Demining worksites include workplaces where survey, clearance and EOD activities are undertaken including centralised disposal sites used for the destruction of mines and ERW identified and removed during clearance operations.

Note: Survey, in relation to a demining worksite includes general survey undertaken to identify mine and ERW hazards and hazardous areas.

Related Terms Defined by IMAS 04.10

Other terms for which IMAS 04.10 provides useful definitions and explanations:

• **Abandoned Explosive Ordnance (AXO)**
explosive ordnance that has not been used during an armed conflict, that has been left behind or dumped by a party to an armed conflict, and which is no longer under control of the party that left it behind or dumped it. Abandoned explosive ordnance may or may not have been primed, fuzed, armed or otherwise prepared for use.

[9]IMAS 04.10 and all of the International Mine Action Standards are available online at: http://www.mineactionstandards.org/imas.htm.
[10]Smith(2008) has assembled a database on demining accidents, including limited casualty data. Its purpose is different than a landmine/ERW casualty data or victim information system and so is not included in this study.

• **Explosive Ordnance (EO)**
all munitions containing explosives, nuclear fission or fusion materials and biological and chemical agents. This includes bombs and warheads; guided and ballistic missiles; artillery, mortar, rocket and small arms ammunition; all mines, torpedoes and depth charges; pyrotechnics; clusters and dispensers; cartridge and propellant actuated devices; electroexplosive devices; clandestine and improvised explosive devices; and all similar or related items or components explosive in nature.

• **Explosive Remnants of War (ERW)**
Unexploded Ordnance (UXO) and Abandoned Explosive Ordnance (AXO).

• **mine [or "landmine"—the terms are used interchangeably in this *Guidebook*]**
munition designed to be placed under, on or near the ground or other surface area and to be exploded by the presence, proximity or contact of a person or a vehicle.

• **munition**
a complete device charged with explosives, propellants, pyrotechnics, initiating composition, or nuclear, biological or chemical material for use in military operations, including demolitions.

• **IMSMA (Information Management System for Mine Action)**
Note: This is the United Nation's preferred information system for the management of critical data in UN-supported field programmes. IMSMA provides users with support for data collection, data storage, reporting, information analysis and project management activities. Its primary use is by the staffs of MACs at national and regional level, however the system is also deployed in support of the implementers of mine action projects and demining organizations at all levels.

• **Landmine Impact Survey (LIS)**
impact survey
an assessment of the socio-economic impact caused by the actual or perceived presence of mines and ERW, in order to assist the planning and prioritisation of mine action programmes and projects.

• **mine action**
activities which aim to reduce the social, economic and environmental impact of mines and ERW.

Note: Mine action is not just about demining; it is also about people and societies, and how they are affected by landmine and ERW contamination. The objective of mine action is to reduce the risk from landmines and ERW to a level where people can live safely; in which economic, social and health development can occur free from the constraints imposed by landmine and ERW contamination, and in which the victims' needs can be addressed. Mine action comprises five complementary groups of activities:
a) MRE;
b) humanitarian demining, i.e. mine and ERW survey, mapping, marking and clearance;
c) victim assistance, including rehabilitation and reintegration;
d) stockpile destruction; and
e) advocacy against the use of APM.

Note: A number of other enabling activities are required to support these five components of mine action, including: assessment and planning, the mobilisation and prioritisation of resources, information management, human skills development and management training, QM and the application of effective, appropriate and safe equipment.

Assorted UXO, IEPF offices, Terter, Azerbaijan.

• **Unexploded Ordnance (UXO)**
EO [explosive ordnance] that has been primed, fuzed, armed or otherwise prepared for use or used. It may have been fired, dropped, launched or projected yet remains unexploded either through malfunction or design or for any other reason.

Victim (Assistance) vs. Survivor (Assistance)

Unfortunately, IMAS 04.10 is much less useful for clarifying the meaning of the terms **victim, survivor, victim assistance, survivor assistance.** For these, the Working Group on Victim Assistance of the International Campaign to Ban Landmines is a much better source.

> *Mine victim*: "'Those who, either individually or collectively, have suffered physical, emotional and psychological injury, economic loss or substantial impairment of their fundamental rights through acts or omissions related to mine utilization.' Thus, mine victims include directly impacted individuals, their families, and communities affected by mines."[11] It is important to note that a "victim" includes someone who was killed by mines.
>
> *Mine survivor*: This term is not clearly defined by the ICBL

[11]International Campaign to Ban Landmines, Working Group on Victim Assistance (2007).

and IMAS does not distinguish survivor from victim. Survivor is commonly used to refer to an individual who was directly involved in a mine accident but survived and requires physical or psychological rehabilitation (or both). A "survivor" is also thus a "victim" but with particular needs that other victims less directly impacted may require (e.g., emergency and continuing medical care for injuries received in the accident).

Victim assistance: A comprehensive approach to meeting the needs of victims for medical care and rehabilitation (physical, psychological, social and economic) after a mine or demining accident has occurred.

Survivor assistance: A comprehensive approach to meeting the needs of survivors for medical care and rehabilitation (physical, psychological, social and economic) after a mine or demining accident has occurred.

Most of the time "victim assistance" focuses on the needs of "survivors" for medical care and rehabilitation (and thus is "survivor assistance"), but family members of the "survivors" also may be provided with psychological counseling and economic reintegration program services. Sometimes entire communities impacted by the presence of mines may receive services to ease this impact, such as the building of a "safe" playground.

The ICBL has provided guidance over the years in establishing the specific elements that make up victim and survivor assistance. In 1999, the *Guidelines for the Care and Rehabilitation of Survivors* identified nine elements, which by 2007 had been condensed into six.[12] Both documents are useful for specifying the areas of services, and guidance in providing the services, that may be required of survivors and victims more broadly identified. The 2007 document, *Guiding Principles for Victim Assistance*, summarizes the six elements in this way:

"Victim assistance includes the following components: data collection, emergency first aid and ongoing medical care, physical rehabilitation, psychological support and social reintegration, economic reintegration, and disability laws and policies."

It then goes on to discuss in detail the following ten "Guiding Principles" for Victim Assistance listed below:

1. Human rights perspective
2. Inclusion
3. Non-discrimination
4. Gender and age considerations
5. Two-track approach
6. Accessibility
7. Variety, comprehensiveness and integrated nature of services
8. Capacity building, sustainability and ownership
9. Coordination of actors and stakeholders
10. Individual and tailored approach

Landmine survivor with her nephew at CENAPRORTO rehabilitation center, Managua, Nicaragua.

Casualty Data, Victim Information and Injury Surveillance: What's the Difference?

Last but not least, we address the terminology used in this *Guidebook* for different types of data systems. Once again, several different terms are used to refer to systems of collecting and analyzing data about mine victims. In this *Guidebook*, the following distinctions are made among different types of data and information systems. The list begins with the system that is the most limited in scope and progresses to more complex ones.

Casualty Data System:

This system focuses on collecting, storing, analyzing and reporting data on casualties. A "casualty " is a person injured or killed, either in an armed conflict or as a result of an accident. In the context of Mine Action, definition number three below is most pertinent, and the interest is in casualties caused by accidents involving landmines or other explosive remnants of war.

Casualty

1 : a serious or fatal accident
2 : a military person lost through death, wounds, injury, sickness, internment, or capture or through being missing in action
3 a : injury or death from accident b : one injured or killed (as by accident)
(Merriam-Webster Online. http://medical.merriam-webster.com/medical/casualty.)

[12]International Campaign to Ban Landmines, Working Group on Victim Assistance (2007, 1999).

INTRODUCTION

For the purposes of this *Guidebook*, casualty data is the basic data collected about a mine/ERW accident that includes information on who was killed or injured and what is the nature of the injuries. It also includes details about the accident that are needed to conduct mine clearance operations, such as: where did the accident occur, what device caused it and how did it happen – was the casualty (or "victim") riding in a vehicle, walking down a road, tilling his field, or handling the device because he did not know that it was a dangerous item? The focus is on the nature of the casualty and the accident that caused it, not on what happens to the injured person during the medical recuperation or rehabilitation phases.

However, in response to requests from those working in the fields of mine risk education and victim assistance who insisted they needed additional information about the victim and the circumstances of the accident, the mine action community, with input from the World Health Organization (WHO), UNICEF and NGOs, agreed on a minimum set of data fields that should be collected about the victims of a mine accident.[13] This set of data fields was incorporated into IMSMA version 2 as "Victim" data and became the standard data collected and reported on by mine action programs as they operated in the years 2001-2007.

The "Victim" data collection form generated by IMSMA v. 2 is included in Annex A (p.21). It incorporated the body diagram advocated by the WHO for describing injuries and data fields about the type of medical care received immediately after the accident.[14] For mine risk education planners, it asks a series of questions to ascertain the knowledge the victim had about the dangers of landmines and motivation for going into a dangerous area.

But this expanded "casualty" data, while including more information about the person injured or killed and the circumstances of the accident and the immediate post-accident care received, still did not provide the range of information that many in the field of mine victim assistance desired in order to plan services to meet the needs of victims, especially survivors. They wanted to know more details about injuries, medical care already received, medical care and rehabilitation services required, and how well the services provided are helping the injured person to recover and function again as a part of his or her community (a program monitoring capability). So this means the creation of an integrated mine/ERW "victim information system" – the next level of information system.

Victim Information System:

The term "victim information system" as used in the *Guidebook* refers to a data collection, storage, analysis and reporting system that includes the expanded casualty data discussed above as well as information about the medical and rehabilitation needs of mine/ERW victims and their socio-economic situation (employment, sources of income, dependent family members, etc.).

The Cambodia Mine Victim Information System (CMVIS), described in more detail in Annex B, is the best example of such a system in operation today. The mine action program in Bosnia and Herzegovina has a project underway to expand its landmine casualty data system into a victim information system that integrates several disparate casualty data sources into a centralized system augmented with additional information about the needs and life circumstances of survivors.

As both these systems use the term "victim information system", it is used in the *Guidebook* when referring to the information systems that integrate mine/ERW casualty data with additional information requested by mine/ERW victim assistance program planners and implementers. The system may be based at the offices of the national mine action program, as in the case of Bosnia and Herzegovina, or it could be located at another central office, as with the CMVIS (managed by the Cambodian Red Cross). Regardless of its location, there are some basic features a mine/ERW victim information system should contain, including the following:

1. "Casualty data" – data on the persons killed or injured, their injuries and the circumstances and location of the accident
2. Information on the medical, rehabilitation and socio-economic needs of the survivors (obtained through a survivors needs survey and/or a surveillance system that collects this information as accidents occur)
3. The means to enter new casualty and accident data into the system so that additional information about survivors can be collected and entered into the system. In other words, make the information system truly a "surveillance system" whereby data is collected and entered on an "ongoing and systematic" basis.

Ideally, the information system also would allow for the monitoring of the services provided so it can be determined whether the needs of the survivors are met.

It is the development of victim information systems that will be the focus of the *Guidebook*, but with the establishment of an effective casualty data system being the starting point.

Injury Surveillance System:

If a casualty data system is the starting point and the establishment of a victim information system is the near-term objective, then the development of an injury surveillance system is the future goal. Because it is a long-term goal, the creation of an injury surveillance system does not receive much attention in the *Guidebook*. However, it warrants mention because an injury

[13]Mine Action Information Center (2001), p. 13.
[14]Sethi and Krug (2000). See especially the "Minimal Recommended Dataset for Surveillance on Landmine/UXO Injuries" on pp. 12-13.

surveillance system is an important tool for any public health system, crucial for obtaining the data needed to plan public health interventions to address the causes of many ailments requiring medical resources.

In acknowledgement of this importance, a number of the group of 24 states with a substantial number of mine victims have included the eventual development of a nation-wide injury surveillance system as an explicit goal of their victim assistance strategies – and a goal that is set not too far into the future. These countries' strategies view the creation or enhancement of an injury surveillance system as an outgrowth of the development of a robust mine/ERW victim information system.[15] The connection between a mine/ERW victim information system (or "mine/ERW injury surveillance system") and a nation-wide injury surveillance system is one more indication of the important linkages between the field of mine action and national "development."

The World Health Organization has published a series of manuals to assist in the development of injury surveillance systems, with one being devoted to the creation of a surveillance system focused on injuries due to landmines and ERW and another focused on using community surveys as part of a surveillance system.[16] The manuals are an excellent resource for explaining the elements of a surveillance system and what is required to establish and operate one, and they define a number of terms important to any discussion about public health surveillance systems, surveys, and casualty data. In particular, chapter 3 of the *Injury Surveillance Guidelines* is invaluable for clarifying terms relevant to the *Guidebook*. The opening paragraph of the chapter lays out the key terms, drawing essential distinctions in meaning, and is reprinted below. The rest of the chapter follows up with more detailed explanations of the terms.

3.1 What is surveillance?

The term "surveillance," as used in the public health field, refers to the ongoing and systematic collection, analysis, interpretation and dissemination of health information. Generally speaking, it involves the keeping of records on individual cases, assembling information from those records, analyzing and interpreting this information, and reporting it to others. "Others" may include health care practitioners, government officials, international agencies, the general public and anyone else with an interest in public health. Surveillance may be "active" or "passive", depending on your needs and resources (see Box 3.1). The term "surveillance" should not be confused with "survey"; whereas surveillance is an ongoing process, the term "survey" usually refers to a one-time event. These differences are explained further in Box 3.2.[17]

The terms "active" and "passive" surveillance require additional definition, copied from Box 3.1:

Active surveillance: "injury cases are sought out and investigated; injured persons are interviewed and followed up."
Passive surveillance: "relevant information is collected in the course of doing other routine tasks."

While the development of a well-functioning nation-wide injury surveillance system is a worthy goal, it is a complex undertaking. The World Health Organization, the Pan-American Health Organization and other public health organizations such as the Centers for Disease Control and Prevention and schools of public health affiliated with major universities like Johns Hopkins or Harvard often can be enlisted as advisors on projects to develop surveillance systems and conduct public health surveys.

Striving for an intermediate goal such as the establishment of a functioning mine/ERW injury surveillance system or a disability surveillance system can be a useful step along the path. In Annex B, Afghanistan's success in conducting its National Disability Survey is a good example of how important pieces of the much larger challenge can be completed.

This discussion of the differences between casualty data, victim information and injury surveillance systems brings us at last to the ultimate purpose of the *Guidebook*: How does one go about setting up a mine/ERW victim information system?

[15]Standing Tall Australia (2007, 2006, 2005).
[16]Sethi and Krug (2000); Sethi, et al (2004).
[17]Holder, Peden, and Krug, et al (2001), p. 11. This quotation as reprinted here does not include a footnote that gives an even more detailed "standard" definition of surveillance as used by the WHO.

Casualty Data and Victim Information Systems: Recommendations Based on Best Practices

Successful landmine casualty data and victim information systems are ones that provide you with the information you need to plan and implement your mine action and victim assistance programs. The biggest challenges for creating a successful system are not in selecting information management software and making it operational, as the Information Management System for Mine Action is readily available to virtually all mine action programs and is well supported with technical assistance and training. The real challenge is in planning how to use the system so that it provides decision makers and planners with the information they need to do their jobs well, whether they are prioritizing mine clearance, planning Mine Risk Education campaigns, or providing rehabilitation services to landmine survivors.

This section sets forth some recommendations of steps that can be taken to increase the chances for success in getting the information you want and need. The recommendations are based on identified best practices of countries currently operating mine/ERW victim information systems.

What Information Do You need and Why Do You Need It?

These questions should be answered before any attempt is made to start collecting data. Or, as is the case for most mine action programs in operations today, if your program already has collected some casualty or victim data but is looking to enhance its landmine casualty data system and/or expand it into a victim information system, then the questions should be answered before any further actions are taken. Your answers to these questions will help you determine what information your current system is able to provide and what additional information you still need. By carefully considering these basic questions, you can have greater success in obtaining essential data and avoid wasting time, effort and funds obtaining data that is not needed.

One way to help determine your information needs is to identify some questions you would like to have answered that relate to mine/ERW accidents and casualties, and who would like to know the answers. Or, put another way, **who will use what data and for what purpose?**

Depending on what your job is, you will have different questions you want answered. One of the biggest challenges for setting up and operating a casualty data and especially a victim information system is to reach agreement on the data fields to include in your system. Reaching agreement on this has slowed down the development of any number of casualty and victim data collection efforts. But agreement certainly can be attained and there are some strategies that can help this process along.

What questions do you want to answer?

How many mine/ERW accidents are occurring and where?
What types of explosive ordnance are involved?
Who is involved in the accidents and what are they doing at the time of the accident?
Do they know mines/ERW are present?
What kinds of injuries do they receive?
What kind of medical care are they getting and how quickly?
Are they getting the continuing medical care and rehabilitation services they need?
Are they able to provide for their own economic needs and help support their families?

Others?

Who will use the data?

Mine clearance program managers
Mine Risk Education program managers
Victim and survivor assistance program managers
Government ministries
International donors

Others?

Consult with End Users when Deciding on the Data to Collect

It is a good idea to identify and then consult with the different potential users of the data to determine what their information needs are so that the system can be designed to accommodate different needs in an expeditious way rather than resorting to adding data fields later and making the system larger and potentially more cumbersome. There is a certain amount of overlap in information needs by different end users that can be planned for in the system.

However, reaching agreement on a dataset that will answer the questions asked of all potential users can be a daunting task. Here is a strategy that could help you curtail the long, drawn-out discussions and move more expeditiously towards an agreed dataset:

Start with an existing mine/ERW casualty report form and modify it for your country's purposes. Examine each question on the form and the data that it will yield and determine whether the data is needed by the end users of the information system.

Several good examples of casualty report forms now exist and are reprinted in this *Guidebook*, including the one in use by the Cambodia Mine Victim Information System ("Mine/UXO Casualty Report") and the "Landmine/ERW Casualty Form", developed through a consultative process led by the CDC and UNICEF (see sample forms in Annex B).

When you are ready to expand into a victim information system, the CMVIS also has a victim (or "survivor") assistance form to use as a reference ("ERW Survivor Assistance Information Form" – see Annex B). Other examples of detailed victim information forms are included in Annex A: the "Mine Victim Needs Assessment Survey Questionnaire" used in Azerbaijan and the "File of Mine Victim" recently adopted in Bosnia and Herzegovina.

IMSMA versions 2 and 3 contained standard "mine accident" and "victim" data collection forms that some countries used with good success. The forms were based on the "minimal dataset" for landmine injury surveillance presented by the WHO in 2000 and agreed to by a group of NGOs and public health institutions[1]. While the dataset was limited and did not include fields that many in the victim assistance community desired (such as more detail on medical, rehabilitation and socio-economic needs of victims), it did promote a certain commonality to the information reported by mine action programs.

With the redesign of IMSMA that was slowly rolled out beginning with version 4 in 2006[2], mine action programs were given more flexibility and more responsibility in deciding which data fields to include on their "mine accident" and "victim" forms. Programs can use the basic report template that is included in the program, but program managers also can design a form that includes the questions they are most interested in answering. They also can adopt an existing form, like the CDC-UNICEF "Landmine/ERW Casualty Form" and incorporate it into the IMSMA system.

Decisions about what data to collect are best made by program managers through consultation with end users. In addition to agreeing on a common data collection form, the consultations can produce agreements on data collection methods and data sharing protocols. These protocols should be formalized by means of Memoranda of Understanding signed between the central authority responsible for data management—the designated focal point for casualty data—and the various organizations (e.g., NGOs and ministries) which will help provide data and who want access to data once it is collected and entered into the information management system.[3] The designated focal point could be the national mine action center, a governmental ministry (e.g., Ministry of Health) or another recognized entity – in Cambodia, it is the national Red Cross office.

Identify Sources of Data and the Means to Collect Data

Reaching agreement on what data to collect, while crucial to building a casualty data system and potentially even more problematic when expanding beyond landmine casualty data into a victim information system, is just the first step in the process. No matter how much consensus there is on what to collect, and how sophisticated your information management system software, if you cannot obtain reliable data to enter into the system, then the system is useless.

So, how do you get the information to answer your important questions? What are the sources of landmine/ERW casualty and victim assistance data?

Many potential sources of data exist that can be obtained through various means. The more data you can identify and secure access to through existing sources, the less you have to conduct expensive and time-consuming surveys, although surveys of some sort are still generally needed in order to fill in gaps and/or reconcile conflicting information.

The International Committee of the Red Cross in 2007 published the *Weapons Contamination Manual* as an "institutional reference" for ICRC field activities. "Book III: Reference Material" can serve as a useful resource for any landmine/ERW casualty data collection initiative by providing recommendations on the types of data that should be collected and some approaches to gathering the data. Because the manual is written from the perspective of the ICRC, it does not include all the possible sources of data that a national mine action authority or mine action program may have access to.

The box on the next page presents a list of potential sources of casualty and victim data. Depending on the circumstances in a particular country, such as how well developed the national health system is, the comprehensiveness of the mine action program's data collection network or the accessibility of all regions of the country, some data sources are more available than others. For example, due to the active internal conflict in Colombia, the Antipersonnel Landmines Observatory there had to rely on secondary sources of casualty data like newspaper accounts for a number of years before it could begin to establish a systematic data collection program. The key is to investigate potential sources of data before laying plans for surveys and other data collection methods.

Two of these sources of casualty and victim data require additional discussion – Landmine Impact Surveys and Mine/ERW Victim (or "Survivor") Needs Assessment Surveys.

Landmine Impact Surveys

Landmine Impact Surveys can be one good source of data for inclusion in a victim information system, although it must

[1]Sethi and Krug (2000).

[2]See the Geneva International Centre for Mine Action website for information about the newest version of IMSMA, available at: http://www.gichd.org/operational-assistance-research/information-management/imsma-overview/. Also see Fiederlein (2004) for a discussion of the early versions of IMSMA and their applicability to casualty data collection and management. The newest version of IMSMA has yet to be really tested in the field as far as usefulness for managing mine /ERW victim information.

[3]The case study on Bosnia and Herzegovina in Annex A illustrates the role of MoUs in this situation. Also see International Committee of the Red Cross (2007) for more discussion of MoUs. The CMVIS also operates based on good channels of communication with the end users of the system data.

Sources of Casualty and Victim Data

- Mine Action Program Operations Data
- Landmine Impact Surveys
- Government ministries (Ministry of Health, Ministry of Social Affairs, etc.)
- NGOs and International Organizations, especially those that provide services to vulnerable populations like the disabled and refugees or internally displaced persons
- Mass media (newspaper stories and TV news reports)
- Mine/ERW Victim (or "Survivor") Needs Assessment Surveys
- Hospital Surveillance (especially if designed to capture "mine/ERW accident" as a specific cause of injury)
- Community Surveys (conducted to obtain data on certain target populations like mine/ERW victims, persons with disabilities, internally displaced people, war veterans, etc.)

be understood that they are surveys and so constitute data from one point in time. The surveys can yield some baseline data about mine/ERW victims, including the location of communities where victims reside, but not necessarily where the actual accidents occurred, and they include details about some of those victims that are not regularly collected by mine action operations and recorded in IMSMA databases[4]. Unfortunately, LIS victim data has generally been stored separately from mine action program victim data in IMSMA databases. The challenge remains to integrate the LIS victim data into a victim information system so that it can be used as a foundation to build upon as new data is obtained about the victims identified in the LIS and as information about new victims is added to the system.[5]

Mine/ERW Victim (or "Survivor") Needs Assessment Surveys

A number of countries have used Victim or Survivor Needs Assessment Surveys effectively to obtain information about the current status of victims, including their needs for medical care, physical rehabilitation, and psychological and social support services. The surveys also have identified other needs of survivors and their family situations, all of which can help social service planners to develop programs of assistance. Azerbaijan is a good example of a country where a successful survey was conducted (see Annex A).

In Annex C, the potential value of conducting a needs assessment is presented as a lessons learned that includes some recommendations to consider when planning a needs assessment survey. Once again, it is important to remember that these are surveys and so capture information at a single point in time. To become an effective part of a victim information system, the data must be integrated into a system where it can be updated and added onto as new victims are identified.

Identify Methods for Putting the Pieces Together

Once you know what kinds of data you need and what data sources are available, then the next step is to plan methods to fill in the gaps, verify and reconcile existing data, and create a system by which data can be gathered on an ongoing basis. These can be technically challenging tasks, but specialized technical advice is generally available to assist with these details. The IMSMA support offices, UN agencies and NGOs like Handicap International have provided advice on such matters. Contact information for these and other potentially helpful organizations are included at the end of the Guidebook (see "Contacts and Resources").

The case study on Bosnia and Herzegovina in Annex A illustrates a situation where a mine action program has devised a plan to collaborate with NGOs and governmental ministries to develop a common expanded data collection form, integrate disparate existing victim databases, reconcile and verify data, and conduct additional surveying to fill in missing data. The goal is to create a centralized victim information system that will provide both basic casualty and accident data that mine clearance planners can use and expanded victim information to assist NGOs and governmental ministries in developing services for mine/ERW survivors and their families. The intention also is to create the means to monitor services and service providers via a victim assistance project registration component.

The BiH Landmine Victim Information System does not use IMSMA but is built as an addition to the existing Bosnia and Herzegovina Information Management System, developed by the BHMAC prior to the release of IMSMA. This case, as well as the CMVIS, shows that IMSMA is not required to build a victim information system, although the newest version of IMSMA can be used as the platform for creating such a system. However, the IMSMA-based victim information system would require the same type of planning – identification of data needed and data sources, collaboration among end users and other stakeholders, and agreements on data sharing protocols.

Establish and Maintain Good Channels of Communication

We cannot conclude this section on recommendations based on best practices without emphasizing the importance of establishing and maintaining good channels of communication among the stakeholders and end users of the mine/ERW casualty and victim information. The countries with the most successful information systems are those that have succeeded in building

[4]See the Survey Action Center Website, http://www.sac-na.org
[5]See Fiederlein (2004), pp. 26-8.

trusted channels of communication and developed regularized consultation processes on matters related to the operation of the system. Annex C includes a lessons learned that examines some important points about establishing effective communication and cooperation among stakeholders.

This is not to suggest that this is an easy thing to do, and indeed many programs have struggled to lay the necessary groundwork. It is encouraging, however, to see some of the newer programs like Sudan and Uganda making a concerted effort to establish consultative processes involving a range of stakeholders. A number of countries, with support from the AP Mine Ban Convention's Implementation Support Unit and the Standing Committee for Victim Assistance and Socio-Economic Reintegration, have organized national workshops to discuss and forge agreement on elements of national victim assistance plans, which encompass information collection and management issues. All of these are promising developments that need to be encouraged and supported by national governments and international donors as they hold the key to effective planning and implementation of all elements of a successful mine/ERW victim assistance program.

ANNEX A: Azerbaijan

Azerbaijan

Summary of Best Practices and Lessons Learned

- The Azerbaijan National Agency for Mine Action, in collaboration with local NGOs, conducted a country-wide mine/UXO victim needs assessment and has used the data to plan and implement victim assistance projects in conjunction with local NGOs, utilizing national and international donor funding.
- The development of an effective Mine/UXO Victim Information System incorporating new casualty data and supporting monitoring of provided services requires converting a static victim needs assessment database into an active surveillance system, one that includes "buy in" by all stakeholders with access to and a need for data to identify and provide a full range of victim services.

Background

The government of Azerbaijan launched its mine action program in 1998 with the establishment of the Azerbaijan National Agency for Mine Action (ANAMA). Over the past ten years it has built a strong organizational structure and produced detailed plans for systematically addressing the mine and UXO contamination problem in the country. Although a mine victim assistance program was envisaged as part of the joint Government of Azerbaijan-UNDP "Azerbaijan Mine Action Programme" signed in 1999, ANAMA, like most mine action centers, focused initially on establishing clearance capabilities and only later turned its attention to creating a landmine/UXO victim assistance program.

Initial Efforts

After establishing some of the organizational structures necessary to support victim assistance programming in 2000-2001 and with the strong support of the UNDP's resident Chief Technical Advisor, ANAMA commenced its victim assistance activities in 2002, drawing on assessments performed by the United Nations (led by UNMAS) in 1998 and by UNICEF in 2001.[1] These assessments indicated, among other things, that more information was needed about the number of survivors in the country and their need for services. The UNICEF assessment found there was adequate medical sector capacity to provide for survivors but that capacity to provide other services, in particular psychosocial care, was insufficient. The UN Inter-Agency Assessment Mission Report raised a number of issues about the capacity of the country's health sector to respond to the landmine/UXO casualty situation, concluding that the country was not suffering from a landmine "emergency" but making recommendations for improvements. ANAMA cited these assessment reports as a reason for launching its victim needs assessment survey in 2004.

The UN Inter-Agency Assessment Mission Report's recommendations encouraged the Ministry of Health to implement a data collection system, with the eventual establishment of a national injury surveillance system. Other recommendations included assessing and strengthening the capacity of the public health sector and improving coordination and communication among the various stakeholders. It also recommended that the mandate of the national demining authority should include the promotion of victim assistance, but with the Ministry of Health having the responsibility for data collection and information dissemination. As things worked out, however, ANAMA, as the national demining authority, took the leadership role for victim data collection and coordination of victim assistance services, with other government agencies and non-governmental organizations becoming important partners.

Prior to the UNICEF assessment, Physicians for Human Rights (PHR), a U.S.-based NGO, conducted a pilot study to test survey tools it developed in consultation with the World Health Organization and others.

Seven survey tools were developed and fall into three categories:
1) Country Capacity Overview and Key Informant Survey: to provide an overview of the landmine casualty situation and help researchers plan targeted surveys;
2) Hospital Surveillance/Landmine Injuries Survey and Community Survey: to record more detailed data on prevalence and types of injuries; and
3) Hospital Capability Survey, Orthopedic/ Rehabilitation Center Capability Survey, and a Social Reintegration and Rehabilitation Survey: to assess the capacity of the health sector to treat mine victims.

PHR published the survey tools and a manual on how to conduct surveys as a resource that mine-affected countries could use to assist in conducting capacity and needs assessments in order to perform more effective planning for victim assistance.[2] Even though there is no indication that these tools were used by mine-affected countries as originally envisaged, the work leading to their production helped with the collaborative process to agree on a landmine injury data collection form distributed by the WHO and used as the basis of the IMSMA v.2 victim form beginning in 2001.[3]

In the final Azerbaijan report, PHR made recommendations for action to address the identified needs. It also identified limitations of its pilot test, namely that it could not gain access to the hospitals where most of the victims were treated as these were military facilities. It did however obtain some potentially useful data from its community surveys conducted in the Fizuli region. MAIC researchers could find no indication that the PHR study's results and recommendations were used by the country's mine

[1]See Aliyev, et al (2006), ANAMA and IEPF (2005), Mamedov and Aliyev (2003), and United Nations Mine Action Service (1998).
[2]Physicians for Human Rights (2000).
[3]Mine Action Information Center (2001).

action authorities. It could be that at that time ANAMA was just not yet in the position to begin to address the victim assistance needs of the country. However, by 2003, ANAMA turned to this element of its program in earnest.

Collaboration with Stakeholders

A major challenge for ANAMA, as is the case generally for national mine action programs, was developing effective working relationships with the full range of key stakeholders in the country dealing with victim and survivor assistance issues, including governmental ministries, non-governmental organizations and the affected communities and mine survivors.

ANAMA operates under the State Commission on Rehabilitation and Reconstruction, and a Joint Working Group facilitates the inter-ministerial coordination required to implement the national mine action program. Through this mechanism ANAMA has maintained good channels of communication and consultation with relevant government entities such as the Ministries of Foreign Affairs, Health, Education, Labor and Social Protection, Economic Development, Defense, and Finance.

Azerbaijan had several NGOs with experience working with displaced people and war wounded from the Nagorno-Karabakh conflict. One of ANAMA's first actions in establishing its victim assistance program was to conduct a survey to identify possible partners. Using this information, it then began to build relationships with a number of NGOs as it established the institutional structure and processes needed to develop and implement a victim assistance program as part of a new national mine action strategy launched in November 2003.[4]

With this increased attention to victim assistance activities, the Mine Victim Assistance Working Group (MVA Working Group), first created in 2001, began to meet with a new purpose in March 2003. The Working Group, composed largely of NGOs and headed by ANAMA, would provide a basis upon which to coordinate activities and exchange information.[5]

In 2003, ANAMA also designated Dr. Rauf Mamedov as the Victim Support Supervisor. Under the guidance of Dr. Mamedov, along with the support of ANAMA's Information Manager, Aziz Aliyev, plans were made to conduct the Country-wide Mine/UXO Victim Needs Assessment ultimately undertaken in 2004. To assist with this project, ANAMA enlisted the participation of four local NGOs.

Country-wide Mine/UXO Victim Needs Assessment

The International Eurasia Press Fund (IEPF) was selected as the lead administrator of the needs assessment survey. Initially established in 1992 by journalists concerned about the conflict Azerbaijan had with Armenia over the Nagorno-Karabakh territory, IEPF began doing relief and peace-building work in the conflict areas in 1993 and eventually added mine action work to its portfolio. The NGO gained experience in conducting surveys as part of the General (or Level 1) Survey in 2001 and the Landmine Impact Survey implemented in Azerbaijan in 2002-2003.[6]

The other three implementing partners for the needs assessment, Dirchelish ("Revival"), Shefali Eller ("Healing Hands") and Babadagh were active participants in the MVA Working Group and, like the IEPF, continued as service providers for projects implemented as a result of the knowledge gained through the assessment.

The Country-wide Mine/UXO Victim Needs Assessment was planned in 2003 in conjunction with these NGOs.[7] Government ministries cooperated by providing the data they had on landmine/UXO casualties. ANAMA already had some casualty data it had collected and entered into its information management software, IMSMA version 2.2. The Landmine Impact Survey also provided some data on recent and past casualties. By pooling the available data, the assessment team was able to identify over 2,000 individuals to approach for the survey.

Dr. Mamedov and Mr. Aliyev developed the methodology and the data collection forms to use in the assessment. These highly detailed forms were designed to capture information on the specific medical needs of survivors as well as information on their socio-economic situation (see end of case study for copies of the forms). Funding ($50,000) to conduct the assessment was obtained from the European Commission (EC). A pilot test was implemented in the Fizuli region in late 2003, with the full assessment completed over a five month period in 2004.

The creation of a relational database and analysis of the data in late 2004 yielded detailed information on 1,883 individuals and constitutes what ANAMA refers to as the "Mine Survivors Needs Assessment Database" (see end of case study for a summary of results). One issue that arose, however, is that while this database is housed in the ANAMA offices as part of its Information Management system, data on new casualties are not entered into it. The number of cases in the Mine Survivors Needs Assessment Database has remained at 1,883, although some, if not many, new casualties continue to occur yearly. Information on new victims, while captured as IMSMA "incident" and "victim" data[8], is not actively linked or automatically entered into the Mine Survivors Needs Assessment Database. When possible, mine action staff attempt to collect information on the needs of these new survivors but this is not yet done on a systematic basis.

[4]See the ANAMA Website for details of its national mine action strategy, available online at: http://www.anama.baku.az/.
[5]See e-mail message from Aziz Aliyev, ANAMA Information Manager, to Suzanne Fiederlein, 21 June 2008.
[6] Survey Action Center and International Eurasia Press Fund (2004).
[7]Mamedov and Aliyev (2003).
[8]See copy of the IMSMA "Incident Casualty" or "Victim" form used by ANAMA as part of IMSMA v. 2.2. Form is reprinted at the end of this case study.

ANNEX A: Azerbaijan

The Challenges of Creating a Victim Information System

In addition to its traditional data collection processes of completing the IMSMA "victim" form on newly reported landmine/ERW casualties, ANAMA also collects data on new mine victims on a monthly basis through field staff involved in Mine Risk Education activities. The collection form is a variation of the IMSMA form, with basic information about the victim and type of injury included on the data collection form (copy provided at end of case study). Obtaining information on their needs requires follow up investigation and is done as resources permit.

In December 2007, ANAMA announced it had signed an agreement with the Azerbaijan Red Crescent Society (AzRCS) to collaborate on the collection of mine victim data including information on the needs of survivors. It is hoped that with the AzRCS's extensive network of local branches throughout the country more extensive and detailed data collection can take place. The AzRCS also can play an important role in providing mine risk education in the country.[9] This planned collaboration could play an important role in establishing a systematic method of collecting information on mine victims and their needs for assistance.

ANAMA staff report that they monitor the status of many of the 1,883 individuals in the Mine Survivors Needs Assessment Database as part of the implementation of assistance projects, but they are not to the point of entering all that information into the database nor do they have the resources to establish a sustainable monitoring system.[10] What additional funds would be needed to support the expansion of the database into a Mine/UXO victim information system has not been determined. The ANAMA Information Department is reportedly investigating ways to enhance the database and the means to collect data from throughout the country.[11]

The Country-wide Mine/UXO Victim Needs Assessment Survey project not only provided ANAMA and its partners with information they need to develop projects to address the needs of landmine/UXO survivors, but it also served as a capacity building exercise. Personnel from the participating organizations received training and practical experience in survey procedures, data entry and data analysis.

Two ANAMA staff members also received training (in 2003 and 2005) in epidemiological methods and data analysis through the Field Epidemiology for Mine Action Course (FEMAC) conducted jointly by the US Centers for Disease Control and Prevention and UNICEF. In this course, they learned the fundamentals of epidemiology as applied to mine action and received instruction in the use of EpiInfo, the principal software system used to analyze public health data. However, while the training was of some value to the participants, it was not sufficient to enable them to use the system in their work at ANAMA, at least not immediately upon their return from the course.[12] Hopefully, as the necessary pieces of the victim information system are assembled then the analytical skills learned can be applied.

The Successful Application of Data

Overall, ANAMA has recruited, trained and retained a capable staff and benefitted from timely and productive technical and financial support from international organizations and donors, including the UNDP, the US government, the European Union, NATO and a number of other governments and international NGOs.[13] It also has benefitted from sustained support from the government of Azerbaijan and collaboration with a network of local NGOs.

Working with these NGOs and some government ministries, it has used the information from the needs assessment to provide services to many of these 1,883 individuals. The database continues to provide needed information to design and implement new projects, which ANAMA regularly publicizes through its public information channels. ANAMA awards grants to national NGOs in support of many of these projects through a bidding process and in consultation with international donors.

Among the survivor assistance projects underway in 2006-2007 were:[14]

- Establishment of a mine victims association in Terter district, which has some 230 registered survivors (an IEPF project with funding from the US Department of State , Office of Weapons Removal and Abatement [project budget of $69,540]);
- Implementation of a carpet weaving and tailoring project in Ganja benefitting 20-25 mine victims -- survivors or family members (an "Ojag" Humanitarian Association project, supported by funding from the EC and UNDP [project budget of $28,023]);
- Revision of disability degrees to insure that landmine survivors are classified properly and receive applicable government assistance (a project implemented by "Dirchelish" and "Education on Human Rights" with funding from the EC and UNDP; some 400 of the 1883 mine survivors in the database expressed concerns or problems with their disability status);
- Distribution of wheelchairs (provided by the Wheelchair Foundation [USA] and facilitated by the "Chirag"

[9]"ANAMA Signed an Agreement with AzRCS" (2007).
[10]See email message from Aziz Aliyev, ANAMA Information Manager, and Rauf Mamedov, ANAMA MVA Officer, to Suzanne Fiederlein, 27 April 2007.
[11]See e-mail message from Aziz Aliyev, ANAMA Information Manager, to Suzanne Fiederlein, 21 June 2008.
[12]See email message from Musa Jalalov, MRE officer at ANAMA, to Suzanne Fiederlein, 26 April 2007.
[13]See the ANAMA website for a list of Donors and Implementing Partners. Available at: http://www.anama.baku.az.
[14]Mamedov (2007) , "Wheelchairs for Mine Disabled People in Azerbaijan" (2007) and International Campaign to Ban Landmines (2007a).

Humanitarian Development Association, with the US European Command (USEUCOM) providing $21,000 for 280 wheelchairs);
- Provision of diagnostic services and medical treatments in sanitariums and health resorts to 120 mine survivors (implemented by Shafali Eller with funding from the EC).

These are but a few of the growing number of specific projects being implemented now in Azerbaijan and benefitting from information obtained through the Country-wide Mine/UXO Victims Needs Assessment Survey. The data obtained through the survey is explicitly used in the planning and justification for these projects, with effective project planning paving the way for securing funding needed to implement them. In 2008, several of these projects were to be expanded and new projects launched, including one providing community small business training and micro-credits to mine survivors with funding coming through the International Trust Fund for Demining and Mine Victim Assistance (ITF).[15]

Azerbaijan Campaign to Ban Landmine

While ANAMA has established effective working relationships with a number of NGOs, its relationship with the Azerbaijan Campaign to Ban Landmines (AzCBL) has not always been smooth. Azerbaijan is not a signatory of the AP Mine Ban Convention, premised on the yet unresolved conflict with Armenia over Nagorno-Karabakh, although it has stated its support for the elimination of this weapon.[16] While the AzCBL has participated as a member of the MVA Working Group and the two organizations have maintained formal communications, they have sometimes pursued similar projects without effective coordination.

For example, in 2004, each organization conducted its own victim needs assessments, with little apparent coordination between them. The AzCBL needs assessment project, sponsored by the International Trust Fund for Demining and Mine Victims Assistance with funding from the US Department of State yielded information on 483 landmine survivors and 127 families of persons killed by landmine explosions. However, the AzCBL complained of the failure of ANAMA to provide it with information from its database and a lack of cooperation by some NGOs working with survivors.[17]

The AzCBL, like ANAMA and its partner NGO service providers, used the information from the needs assessment to establish assistance projects in support of survivors and victims. A major project implemented by AzCBL, launched in April 2006, provided micro-credits and business training in support of income-generating activities such as cattle breeding and bee-keeping.[18]

The AzCBL continues to collect casualty data independently from ANAMA, usually reporting totals of injured and killed that are higher than those published by ANAMA, due to differences in methodology and geographic coverage.[19] So far the two data sources have not been reconciled and verified, although ANAMA reports that the two organizations have agreed upon a method for regularly exchanging information.[20]

Recent Casualties in Azerbaijan

	Reported by ANAMA			Reported by AzCBL		
	Total	Killed	Injured	Total	Killed	Injured
2004	32	13	19	43	15	28
2005	59	10	49	64	11	54
2006	17	2	15	35	4	31
2007	20	6	14	32	10	22

Sources: ANAMA Website (http://www.anama.baku.az/); AzCBL Website (http://azcbl.org/MineVictimTotal.html); and International Campaign to Ban Landmines (2006a). The numbers include casualties involving both civilians and military personnel and caused by anti-personnel mines, anti-tank mines, and UXOs.

Despite some of the tensions over the years, the two organizations have maintained communication. AzCBL has been a participant in the MVA Working Group since 2003, although the Working Group has not always met regularly,[21] and ANAMA and the AzCBL have conferred on projects being implemented by AzCBL. In July 2007, ANAMA hosted representatives of the Swiss Foundation for Landmine Victims' Aid, which is providing funds to AzCBL projects.[22] An enhanced relationship between ANAMA and AzCBL would improve the prospects for the development of an effective nation-wide victim assistance program and an active database that will allow entry of new data about casualties and for active monitoring of provided services.

Future Considerations

ANAMA will need to strengthen its coordination mechanisms with all the key stakeholders involved in providing information on survivors and landmine/UXO casualties and services to survivors. Convening regular meetings of the MVA Working Group would be a good start. It also might be helpful to negotiate Memoranda of Understanding with all the relevant

[15]"ITF-ANAMA Evaluation Mission: The Project Successfully Progresses" (2008).
[16] Azerbaijan Mine Action Programme (2007), p. 3.
[17]Safikhanov and Bailey (2004), p. 6.
[18]International Campaign to Ban Landmines (2007a).
[19]See: "Mine Victim Totals" on the Azerbaijan Campaign to Ban Landmines Website, available at: http://azcbl.org/MineVictimTotal.html and International Campaign to Ban Landmines (2007a).
[20]See e-mail message from Aziz Aliyev, ANAMA Information Manager, to Suzanne Fiederlein, 21 June 2008.
[21]International Campaign to Ban Landmines (2007a).
[22]"ANAMA Hosted Guests from Abroad" (2007).

entities concerning the exchange of information. ANAMA has regularly disseminated reports on survivor assistance programs and released data on victims to those requesting it, but a formal process for exchange of information could clarify what data will be released, when, and to whom. Establishing a clear protocol on such matters improves transparency and can help avoid controversies.

While Azerbaijan is not yet to the point of creating an integrated mine/UXO victim information system, it has conducted a very effective needs assessment that provides information on a large percentage of the survivors in the country. ANAMA and its partners have used the information in this database to begin to provide specific services targeted to individual survivors based on their particular needs. This arrangement may meet the needs of the country to provide care to landmine survivors for many years to come.

However, in order to expand that care to include all new survivors and to monitor the care provided over the life of the survivors, transforming that database into one that links to ANAMA's IMSMA system and allows for current information about survivors to be updated is essential. ANAMA has not yet transitioned to the newest version of IMSMA, which holds the promise of providing more flexibility to meet the particular needs of the mine action program. ANAMA has a well-trained information management staff under capable leadership. It shall be interesting to see what enhancements are made to the survivor needs database in the coming years.

Furthermore, by expanding the Mine Survivors Needs Assessment Database into a more "active" mine/UXO victim information system that incorporates data on new casualties as well as the progress of treatment of existing survivors, Azerbaijan can lay the groundwork for developing a national injury surveillance system, as envisioned by the UN Inter-Agency Assessment Mission back in 1998. ANAMA has made an excellent start in collecting data about its mine survivors and is using the information productively to provide services to those in need. The country is in a good position to build on this experience, first by creating an active mine/UXO victim information system, and then by enlisting the Ministry of Health to expand that system to capture data on injuries from all causes.

Summary and Conclusions

In order to have the information needed to plan effectively, ANAMA collaborated with four local NGOs to conduct a country-wide survey of mine/UXO victims in 2004. The results of this survey have been used with good success to guide victim assistance project planning in subsequent years. However, ANAMA has not yet been able to transform the Mine Survivors Needs Assessment Database into an "active" information system that is updated as new casualties arise and can track or "monitor" services provided to individuals. That is the next step in developing a mine/UXO victim information system that will meet the needs for program planning and monitoring in the future. Its development also could support the establishment of a national injury surveillance system that captures essential data to strengthen the country's public health system and a national disability information system to assist it in providing enhanced support to all persons with disabilities in the country.

To further develop a mine/UXO victim information system, the various stakeholders need to improve their collaboration and coordination. ANAMA continues to increase its interactions with local NGOs and international donors in support of specific survivor assistance projects; however its relations with NGOs and governmental ministries is only now becoming more regularized and still is not formalized in a way that allows the exchanges of information required to sustain a nation-wide mine/UXO victim information system.

Summary of Mine Victims Needs Assessment Results

The *Journal of Mine Action* article by Aliyev, et al (2006) presents details about the needs assessment survey results, as does the longer project report (ANAMA and IEPF, 2005). Below is a brief summary of the kind of information contained in the database and examples of some of the results. Copies of the questionnaires used in the survey are included at the end of this case study.

The survey collected detailed information about the medical needs of survivors as well as their socio-economic needs. Data was collected in the following categories:

- Medical care
- Physical rehabilitation: prosthetic limbs and assistive devices
- Social adaptation
- Economic assistance
- Professional rehabilitation
- Education and sports
- Degree of disability (official recognition of extent of disability)
- Unemployment
- Monthly income – personal and family
- Demographic information including age and civilian/military status

Some sample results are listed below. The figures are out of 1,883 total individuals in database, although not all of them answered every question. Note that the data captures the individuals' situation at the time the survey was conducted.

- 620 had loss of a leg or foot, with 220 still requiring a prosthetic device
- 1,397 had no job
- 82 who had jobs before their accident still had jobs
- 693 expressed the desire to participate in victim support groups
- 1,528 needed money for medical treatment

- 739 wanted additional education or training, with 433 expressing interest in computer courses
- 1,428 were interested in starting their own business and desired loans to make that possible

Field Visit to Azerbaijan, 6-12 July 2007

Site visit to ANAMA headquarters in Baku, with briefings on various aspects of the national mine action program and detailed discussions with the Information Manager (Aziz Aliyev) and the Victim Support Supervisor (Rauf Mamedov). Also present at the briefing at the ANAMA offices were Hafiz Safikhanov of AzCBL who accompanied representatives of the Swiss foundation for Landmine Victims' Aid, and two GIS specialists from USEU-COM.[23]

ANAMA also facilitated a visit by MAIC researcher, Suzanne Fiederlein, to centers of mine action operations in Fizuli, Agdam, Terter and Khanlar districts and Ganja city. MRE Officer, Vagif Sadigov, served as host throughout 3-day visit, and Ahmad Ahmadov was the driver. Field visit included interviews and discussions with the following people and organizations:

- ANAMA regional office in Fizuli (Javid Mehraliyev, Operations Manager)
- ANAMA mine clearance site at Zobjug (Fizuli Namazov, Site Supervisor)
- International Eurasia Press Fund office in Terter (Umud R. Mirzoyev, Chairman; Rahman Mammadov, Head of Program Department; Ramil Azizov, Operations Manager)
- Azerbaijan Mines Victims Association (Ablas Agayeva, Small Business Trainer; Khalisa Shahverdiyeva, lawyer-trainer; and members of the local branch)
- Community MRE Group in village near ceasefire line, Terter District
- ANAMA Regional Training Center in Khanlar (Namig Mamedov, Center Manager; Elnur Gasimov, Training and QA Team Leader)
- "Ojag" Humanitarian Union, Ganja (Shahin Ramazanov, Director; workers involved in the carpet weaving and tailoring projects; and members of the local mine victims board)
- "Ciraq" Humanitarian Development Association (Nadir Jafarov, Director)
- Representatives of local government and organizations who participated in a wheelchair distribution event at the ANAMA Regional Training Center in Khanlar (Head of Khanlar Executive Committee; Director of Ganja Orthopedic Center; Head of Ganja Society of Disabled People; members of the local media; and approximately 12 mine survivors, in addition to Ramazanov of Ojag; Jafarov of Ciraq; ANAMA regional base staff; and Aziz Aliyev, ANAMA Information Manager who came in from Baku for the event).[24]

[23]See "ANAMA Hosted Guests from Abroad" (2007).
[24]See "Wheelchairs for Mine Disabled People in Azerbaijan" (2007).

ANNEX A: Azerbaijan

Data Collection Forms

1. IMSMA, "Victim" form (2003) [2 pages]

2. ANAMA, "Mine Victim Needs Assessment Survey Questionaire" (2004) [2 pages]

3. ANAMA, "Monthly Accident/Incident Reporting Form" (2007) [1 page]

IMSMA **Victim** Locator code: …/…/…/…

[2] Victim data

[2.1] Victim ID:	[2.2] Owner MAC:	
[2.3] Family name:	[2.5] Sex: ☐ Male ☐ Female	[2.7] Address:
[2.4] First name:	[2.6] Date of Birth:	

[1] General mine accident information:

[1.1] Mine accident ID:		[1.6] Data entry date:	
[1.2] Date and time of mine acc:		[1.7] Data entry by:	
[1.3] Data gathered by:		[1.8] Date of report:	
[1.4] Reported by:		[1.9] Date of report received:	
[1.5] Organisation:	(Address & Tel)		

Nearest town from mine accident

[1.10] Province:	[1.12] Subdistrict:
[1.11] District:	[1.13] Nearest town:
	[1.14] Municipality:

Distance and direction from nearest town (Not necessary, if coordinates are known):

[1.20] Distance from nearest town: ☐ Less than 500m ☐ 500 m – 5 km ☐ More than 5 km

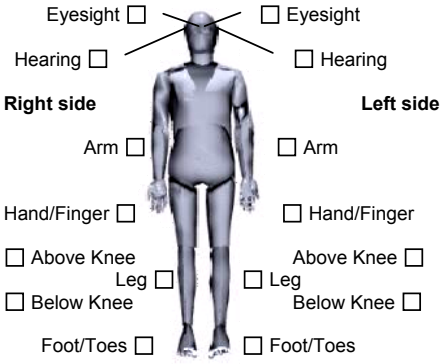
[1.21] Direction from nearest town: ☐ North ☐ South ☐ North – East ☐ South – East ☐ East ☐ West ☐ North – West ☐ South - West ☐ Unknown

[3] Injuries:

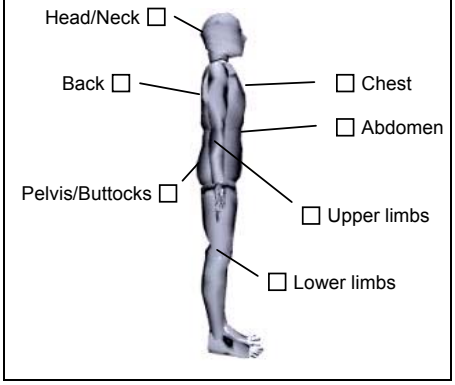
[3.1] Was the person injured or killed: ☐ Killed ☐ Injured

[3.2] If killed, location of death:
☐ In situ ☐ At health care facility
☐ During transport to health care facility
☐ Other: _____

Loss of:



Other Injuries:



[4] Other Information:

[4.1] First medical facility reached: ☐ Dispensary ☐ First aid ☐ Hospital

[4.2] Time until first facility reached: h

[4.3] Name of first hospital reached:

[4.4] Time until first hospital reached: h

4.13 Occupation:

- ☐ Mine action personnel ► ☐ Contractor / ☐ Government / ☐ MAC / ☐ NGO / ☐ UN
- ☐ Military ► ☐ Int. peacekeeper / ☐ National
- ☐ Civilian ► ☐ IDP / ☐ Local resident / ☐ Passing through / ☐ Pastoralist/nomad / ☐ Refugee
- ☐ Aid worker
- ☐ Government official
- ☐ International observer
- ☐ Other
- ☐ Unknown

4.14 Occupation *prior* to mine accident

- ☐ Mine action personnel ► ☐ Contractor / ☐ Government / ☐ MAC / ☐ NGO / ☐ UN
- ☐ Military ► ☐ Int. peacekeeper / ☐ National
- ☐ Civilian ► ☐ IDP / ☐ Local resident / ☐ Passing through / ☐ Pastoralist/nomad / ☐ Refugee
- ☐ Aid worker
- ☐ Government official
- ☐ International observer
- ☐ Other
- ☐ Unknown

4.5 Activity at time of mine accident:

☐ Tending animals/livestock ☐ Passing/standing nearby ☐ Collecting wood/food / water ☐ Hunting/fishing
☐ Demining ☐ Military ☐ Police ☐ Playing/recreation
☐ Tampering ☐ Farming ☐ Travelling ☐ Household work
☐ Unknown ☐ Other: _____

4.6 How often did the person go there? ☐ More than once a day ☐ Once a day ☐ Several times a week or less ☐ Never before

4.7 Did the person know that area was dangerous? ☐ Yes ☐ No ☐ Unknown

4.8 If they knew area was dangerous, why did they go there? ☐ No other access ☐ Economic necessity ☐ Peer pressure ☐ Other _____

4.9 Did the person see the object before accident? ☐ No ☐ Yes, did not touch ☐ Yes, touched it ☐ Unknown

4.10 Did the person receive Mine Risk Education? ☐ Yes ☐ No ☐ Unknown

4.11 Medical report reference (if available):

4.12 Was area marked? ☐ Yes ☐ No

6 Other persons involved ☐ How many others were killed ?

How many others were injured?

List of other Victims

6.2 First name	6.1 Name	6.3 Status
		☐ Killed ☐ Injured
		☐ Killed ☐ Injured
		☐ Killed ☐ Injured

6 Device that caused the mine accident

☐ 2.1 Unknown ☐ 2.2 Anti-personnel mine ☐ 2.3 Anti-tank mine ☐ 2.4 Cluster munitions ☐ 2.5 Other UXO
☐ 2.6 Booby trap ☐ 2.7 Fuse ☐ 2.8 Specify device, if it is known:

Mine Victim Needs Assessment Survey Questionnaire

7 Medical care:

What are the troublres in general:

7.1 Surgery:

7.1a ☐ Amputation 7.1b ☐ Resurgery: (_____) 7.1c ☐ Reneurosurgery 7.1d ☐ Bones
7.1e ☐ General 7.1f ☐ Plastic: (_____) 7.1g ☐ Fragment extraction 7.1h ☐ Adhesion separation
7.1i ☐ Wound care 9.7j ☐ Bandaging the residual

7.2 Treatment/Consultation of:

7.2a ☐ prosthetist 7.2b ☐ traumathologist 7.2c ☐ general surgeon 7.2d ☐ ophthalmologist 7.2e ☐ neuropatologist
7.2f ☐ cardiologist 7.2g ☐ gastroentherologist 7.2h ☐ endocrinologist 7.2g ☐ urologist 7.2j ☐ stomatologist
7.2k ☐ Other: _____

8 Physical rehabilitation:

8.1 Prosthetics:

8.1a ☐ below-knee 8.1b ☐ above-knee 8.1c ☐ of foot 8.1d ☐ below-elbow 8.1e ☐ above-elbow 8.1f ☐ of hand
8.2 ☐ Replacement prosthetics 8.3 ☐ Repeat prosthetics 8.4 ☐ Prosthesis fitting 8.5 ☐ Prosthesis's repair

8.6 Provision of prosthetic-orthopedic products:

8.6a ☐ Armchairs 8.6b ☐ Wheelchairs 8.6c ☐ Crutches 8.6d ☐ Walking-stick

8.7 Physical Therapy:

8.7a ☐ Treatment in sanatorium 8.7b ☐ Remedial gymnastics 8.7c ☐ Gait training

8.8 Occupational Therapy:

Trainings in: 8.8a ☐ Daily Living activities 8.8b ☐ Use of upper extremity prostheses
8.7c ☐ Others _____

9 Social adaptation:

9.1 Hearing: 9.1a ☐ Aero-phonic techniques 9.1b ☐ Signs and lips language 9.1c ☐ Technical means of communication

9.2 Sight: 9.2a ☐ Braille 9.2b ☐ Printings in special type 9.2c ☐ Soniferous books 9.2d ☐ Subject guides
9.2e ☐ Special tape recorders 9.2f ☐ Loupes 9.2g ☐ Eye-glasses 9.2h ☐ Eye-sticks

10 Psychosocial care:

10.1 ☐ Peer support 10.2 ☐ Education of survivor's families in care
10.3 ☐ Participation in Support Groups 10.4 ☐ Social Support Group's visits
10.5 ☐ Mine Awareness' activity 10.6 ☐ Mine Victim Assistance' activity
10.7 ☐ Participation in Associations of Mine Survivors 10.8 ☐ Create family

11 Economic assistance:

11.1 ☐ Treatment 11.2 ☐ Medicaments 11.3 ☐ Public assistance 11.4 ☐ Payment for habitation & public
11.8 ☐ Repair of a house 11.6 ☐ Provision of housing 11.7 ☐ Provision of car
11.8 **Medical & domestic services** at: 11.8a ☐ home 11.8b ☐ stationary
11.9 **Procurement of ware and food products:** 11.9a ☐ social amenities 11.9b ☐ industrial 11.9c ☐ food products
11.9d ☐ economic 11.9e Others: _____
11.10 **Assignment of lands** for: 11.10a ☐ agricultural works 11.10b ☐ construction of house

11.11 Small business start up: 11.11a ☐ Obtaining of raw produce & production' distribution 11.11b ☐ Facility allotment

11.12 Loans (specify use): _____

11.13 Grants (specify use): _____

12 Professional Rehabilitation

12.1 Profession: 12.1a Previous _____ 12.1b Current _____

12.1c ☐ Other skills: _____

12.2 Occupation: 12.2a ☐ Unemployed 12.1b Previous _____ 12.1c Current _____

Professions and occupations that desirable to deal with:

12.3 Agriculture:

12.3a ☐ Husbandry 12.3b ☐ Stock raising 12.3c ☐ Aviculture 12.3d ☐ Beekeeping 12.3e ☐ Fruit-growing

12.3f ☐ Floriculture 12.3g ☐ Olericulture 12.3h ☐ Viniculture 12.3i ☐ Mechanization

12.5 Industry/Technique:

12.5a ☐ Carpentry 12.5b ☐ Metalwork 12.5c ☐ House painting 12.5d ☐ Plumbing 12.5e ☐ Electric works

12.5f ☐ Welder's work 12.5g ☐ Radiotechnics 12.5h ☐ Construction 12.5i ☐ Car repair 12.5j ☐ Driving

12.7 Crafts:

12.7a ☐ Pottery 12.7b ☐ Hammered 12.7c ☐ Shoemaking 12.7d ☐ Tailoring

12.7e ☐ Woodcarving 12.7f ☐ Prostheses 12.7g Other: _____

12.6 ☐ **Economy/Business** 12.7 ☐ **Science** 12.8 ☐ **Art**

12.9 Preferable field of activity: _____

13 Education:

13.1 Current: _____

13.2 **Requested:** 13.3 ☐ Secondary

13.4 ☐ Paraprofessional (profession): _____ 13.5 ☐ High (profession): _____

13.6 ☐ At home 13.7 ☐ Special (in malformation cases)

13.8 ☐ Assistance to parents in visiting education of disabled children

13.9 Training courses: 13.9a ☐ Computer 13.9b ☐ Lingual 13.9c ☐ Accounting 13.9d ☐ Other: _____

14 Sports applicable:

14.1 ☐ Chess 14.2 ☐ Other table games 14.3 ☐ Powerlifting 14.4 ☐ Shooting 14.5 ☐ Exercisers

14.6 ☐ Swimming 14.7 ☐ Ping-pong 14.8 ☐ Gymnastics 14.9 ☐ Athletics

14.10 Other: _____

15 Addl information: 15.1 **Degree of disablement:** ___ 15.5 **Disablement:** 15.5a ☐ total 15.5b ☐ partial 15.5c ☐ temporary

15.2 ☐ **Pension** 15.3 **Income** (monthly, in AZM)**:** _____ 15.4 **Monthly Family income** (in AZM): _____

15.6 ☐ In care of parents 15.7 Dwelling space (sqm):_____ 15.8 Small holdings or other household area (ha):_____

15.9 Family members (and ages): _____

16 Remarks of mine/UXO survivor or his/her witness: _____

_____

_____

_____ **Signature:** _____ (_____)

17 This section for interviewers:

17.1 ☐ Talented in (area): _____ 17.2 ☐ Recommendable for honorary duties with invalids

17.3 ☐ Needy 17.4 ☐ Degree of disablement to be changed 17.5 **Awareness on laws of disabled people** (put value)**:** __

17.6 **Notes:** _____

_____

_____ 17.7 **Contact:** _____

ANAMA

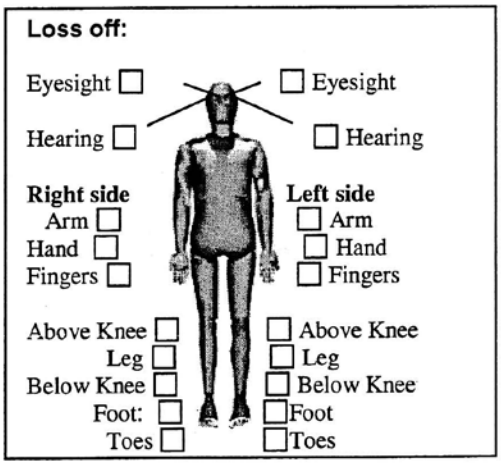
MONTHLY ACCIDENT/INCIDENT REPORTING FORM

1. Individual information about mine victims

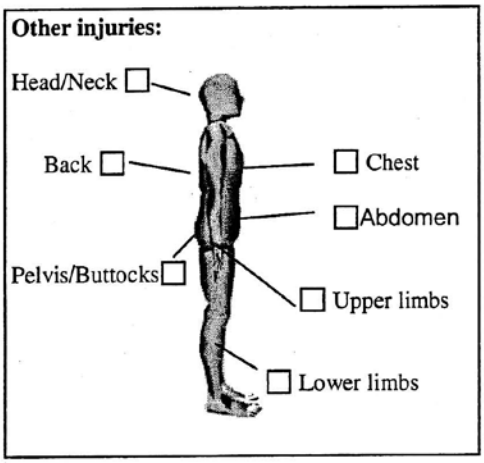
1.1 Family name:	1.6 Date of birth:
1.2 Name:	1.7 Civilian/military
1.3 Place of incident:	1.8 Type of device that caused the incident
1.4 Date of incident	1.9 Type of device to be found
1.5 Sex: ☐ male ☐ female	1.10 Address

2. Injuries:

Loss off:



Other injuries:



3. Casualty information:

Number of people involved:	Military or civilian:	Age	Status (check ♥ one)
Indicate male or female (M/F)			☐ Killed ☐ Injured
			☐ Killed ☐ Injured
			☐ Killed ☐ Injured
			☐ Killed ☐ Injured
			☐ Killed ☐ Injured
Attach a separate sheet or use the back of the form if there are more casualties			

General information and comments:

Bosnia and Herzegovina

Summary of Best Practices and Lessons Learned

- The Bosnia and Herzegovina Mine Action Center, after ten years of decentralized landmine casualty data collection taking place in the country, launched a project to consolidate all landmine casualty and survivor assistance information into one centralized Landmine Victim Information System. The project includes establishing a data collection system that would ensure the entry of new casualties as well as the verification of data collected on past casualties.
- The BHMAC, government ministries and non-governmental organizations improved their collaboration and communication while implementing the LMVIS project by negotiating and signing Memoranda of Understanding covering the terms of data sharing and cooperation required to implement the project and operate the system in the future.

Background

The Dayton Peace Agreement, signed in December 1995, brought the internal conflict in Bosnia and Herzegovina to a close and created the framework for a power-sharing governmental system in the post-war period. Humanitarian demining to clear the widespread presence of landmines began in 1996, first under the auspices of the United Nations. The UN Mine Action Center worked to build local mine action capacity and smooth the transition to an operational post-conflict government.

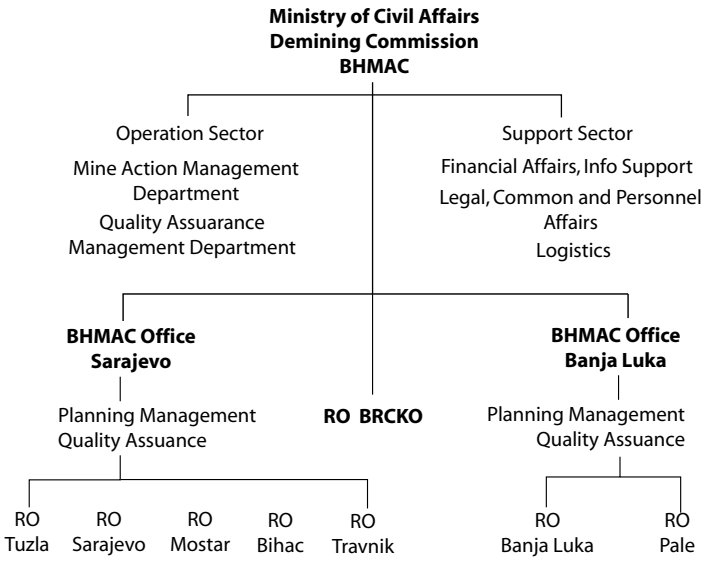
In July 1998, control of mine action operations transitioned to the control of the government of Bosnia and Herzegovina (BiH). The government was among the initial group of countries to ratify the AP Mine Ban Convention and thus has been bound by its provisions since it went into force on 01 March 1999. It has relied on international donor funding over the years, while the BiH government has steadily, if slowly, increased its financial commitment to mine action.

The UN Development Programme launched the first phase of its support to mine action capacity development in the country in 1998. The UN agency continued to nurture national capacity and enhanced mine action coordination through later phases of its program, while also contributing directly to some elements of mine clearance field operations. The current Integrated Mine Action Programme (IMAP), running from 2004-2008, continues to support the capacity building needed for full transition to national responsibility. Ten years after it began, the UNDP's mine action program in Bosnia and Herzegovina is slated to be phased out in 2008.[1]

Based on the terms of the peace accords and the establishment of the two entity governments that share power with the state-level government, a decentralized mine action program was initially created. However, with the passage of the Demining Law of 2002, a centralized structure emerged, although it continues to function within the context of a complex power-sharing arrangement that is the reality of BiH today.

National mine action policy is set by the National Demining Commission, which consists of representatives of the ministries of foreign trade, foreign affairs, and refugees and human rights, under the leadership of the Ministry of Civil Affairs and with each of the main ethnic groups holding a seat. Operational responsibility for mine action lies with the Bosnia and Herzegovina Mine Action Center (BHMAC).

The BHMAC coordinates mine action operations, including surveying, prioritization of tasks, quality assurance, information management, and Mine Risk Education. It works through one central and two main entity offices – BHMAC Sarajevo with responsibility for Federation of Bosnia and Herzegovina (FBiH) territory and BHMAC Banja Luka with responsibility for Republika Srpska (RS) territory. Each of the main sub-offices is further divided into regional mine action offices – six in FBiH and two in RS. In addition, the special administrative district of Brcko has its own regional mine action office under the direct authority of the central BHMAC office (see organizational chart for mine action in BiH).[2]



[1]Interview with Amela Gacanovic-Tutnjevic and David Rowe, UNDP office, Sarajevo, 18 July 2007. The UNDP representatives report that UNDP now contributes about $1 million of the $6 million currently spent on the coordination of mine action in Bosnia, with about one-third of the total amount for field activity provided by the various levels of government in the country.

[2]Explanations of the establishment and evolution of the national mine action program in BiH is available on the BHMAC Web site (http://www.bhmac.org) and in a presentation made by Deputy Director of BHMAC, Ahdin Orahovac (2007).

This complicated organizational structure must be taken into account in order to understand the work flow for mine action in the country as well as the range of stakeholders involved in making and implementing mine action policy. This is particularly true when collecting and sharing information on landmine/ERW survivors and providing needed services to them, as the complex government structure also affects the Ministries of Health and Social Protection, Education, and Labour. In total, the country has fourteen governments with influence over policy at different levels: the state-level central government, the two entity governments (FBiH and RS), ten cantonal governments within the FBiH, and the Brcko district government. It is beyond the scope of this case study to review this complicated governmental structure in detail,[3] but it is essential to acknowledge the challenges presented by this structure for forging coherent and consistent nation-wide policies and program implementation.

Early Casualty Data Collection

Initial data collection on landmine incidents and resultant casualties was conducted by the International Committee of the Red Cross, in cooperation with the Red Cross Society of Bosnia and Herzegovina (RCSBiH), as part of its Mine Awareness Programme in the immediate post-war period (beginning in March 1996). Data on casualties that occurred during the war (1992-1995) was collected retroactively and most likely is incomplete.[4] The UNMAC also collected data on mine incidents and casualties beginning in 1996, a function the BHMAC continued after 1998, using data collection sheets similar but not identical to the ICRC ones.

The purposes for data collection at this early stage were to identify the location of mine threats to facilitate mine clearance planning and to assess risk-taking behavior in order to develop mine awareness education. ICRC mine awareness officers combined with local Red Cross volunteers to form a network of data gatherers and mine awareness instructors across the country. The information collected about mine victims included personal data, location of the incident, type of explosive device, type of injury, and reason for entering the mine-contaminated area. The data was entered into a central database in Sarajevo and regular reports made available to those organizations providing assistance to mine victims. The ICRC/Red Cross database offered the most extensive source of information about landmine casualties in BiH but still fell short of being comprehensive, and it existed apart from the national mine action center (first UNMAC and then BHMAC), although the two organizations maintained a good working relationship.[5]

By 01 July 2005, the ICRC-RCSBiH "Mine Victims Statistics" report showed a total of 4878 victims, with 1532 of those victims arising from accidents[6] since the end of the war. The standard report issued by the ICRC-RCSBiH included data broken down by year and month since 1996, age group, fatal/non-fatal, location (by entity and canton/region), and origin of person (internally displaced/returnee/local resident). This data has allowed for some useful analyses of the mine accident situation in the country, such as seasonal variations, age group differences, and differences based on status as IDP, returnee or local resident.[7]

The July 2005 report remains available on the BHMAC website and appears to be the last report publicly issued by the ICRC-RCSBiH, as 2005 was the year the mine victim data system transitioned to BHMAC control. Since then the BHMAC has posted reports of annual numbers of incidents ("mine accidents"), with casualty figures, and number of demining accidents. In 2006, the BHMAC reported 19 mine accidents with 35 victims (18 killed and 17 injured) and in 2007, 15 mine accidents with 18 civilians injured and five killed. As of July 2007, the total number of mine accident casualties totaled 2119 since 1996.[8]

While the overall trend in the number of yearly casualties has been downward, accidents continue to occur and casualties arise. The ratio of killed to injured has actually increased in recent years to become more balanced, due to the increased number of accidents involving the deadly PROM-1 mine. In 2005, 2006 and 2007 almost all mine accidents involved PROM-1 mines.[9] As a result, the system for prioritizing clearance projects was revised in 2007 so that the known presence of PROM-1 mines became an important factor in setting priority levels. Thus having good information about where PROMs are located based on victim data (where incidents occurred and type of mine involved) now is an important element of the prioritization process.

In conclusion, casualty data collection and database development took place in BiH from the early days of the mine action program, although the creation of a truly centralized information source did not emerge from the process. As the entity governments revived governmental services and international and local NGOs began to provide services and benefits to survivors and

[3]See Handicap International and UNICEF (2003) for a good explanation of the differences in the recognition of and provision of benefits to war victims and persons with disabilities in the two entities.
[4]Bailey (2003), p. 25.
[5]Bailey (2003), pp. 25-6; Handicap International and UNICEF (2003), pp. 40-2; Bosnia and Herzegovina Mine Action Center and Hope 87 (2007), p. 5.
[6]There has long been confusion within the mine action community about the use of the terms mine "accident" and "incident". See the discussion on "Terminology" on p.4. The BHMAC, when reporting landmine casualties, often has used the term "incident" to refer to "mine accident" – events where people not involved in a demining activity are injured or killed in a mine explosion. This was actually a very common use of the term "incident" for many years and still is used by many in the mine action community today. The BHMAC still is not consistent in its terminology, sometimes using "incident" and sometimes "mine accident." See the Mine Victim Statistics reports published on the BHMAC website, available at: (http://www.bhmac.org/ba/stream.daenet?kat=66) .
[7]Lisica (2006), pp. 81-5.
[8]Information provided by Zoran Grujic, Information Technology Chief, BHMAC, in interview with Suzanne Fiederlein at BHMAC offices, 13 July 2007.
[9]Lisica (2006), p. 85; Bosnia and Herzegovina Mine Action Center (2007), pp. 11-17.

their family members, additional sources of data emerged as information about program beneficiaries was collected. Among the other sources of data on victims and survivors were the FBiH Ministry of Labour and Social Policy, the RS Ministry of Health and Social Welfare, FBiH Ministry of Veterans Issues, RS Ministry of Labour, Veterans and War Victims, and NGOs such as Landmine Survivors Network, Jesuit Refugee Services, and Hope 87.[10] Furthermore, with the completion of the Landmine Impact Survey in 2003, BHMAC had an additional source of casualty data to augment its incident victim database. By 2003-2004, the perceived need for and benefits of a centralized victim information system became apparent to most of the stakeholders involved in mine action and in mine victims assistance in particular.

National Mine Action Strategic Planning

As the disparate victim data collection efforts were underway by the various NGOs and governmental agencies, the national mine action authorities, using the LIS information on the extent of mine contamination and the location of mine-impacted communities, began to develop the country's first formal mine action strategic plan to guide mine action from 2005-2009 (with 2009 being the year by which the country was to be free of landmines under the AP Mine Ban Convention). Landmine Victim Assistance was identified as an integral part of the country's mine action program and a specific Victim Assistance sub-strategy was issued to cover the period 2005-2008.

In preparation for the elaboration of a victim assistance strategy, Handicap International and UNICEF teamed up in 2003 to investigate the current status of landmine victim assistance in the country. Their investigation found that considerable data on landmine casualties and survivors was available in the country, but the information was "partial and fragmented" and did not provide the different types of information needed to design and support effective survivor assistance programming. The researchers also found that there was "no coordination between existing databases." Their conclusion was that there was a "need to develop a Landmine Victim Assistance Information and Research System."[11]

The BiH Landmine Victims Assistance Strategy[12] includes seven specific activities in its plan for 2005-2008 that relate to the creation of an enhanced, centralized landmine victim assistance information system. Closely associated with its development is the establishment of a Mine Victim Assistance Board to serve as the operational body for a Mine Victim Assistance Coordination Group. The goal of the Coordination Group and Board is to improve the coordination and communication among the organizations and institutions involved in mine victim assistance. Regular quarterly meetings of this board would replace the coordination meetings of victim assistance partners that had begun in September 2003 but fallen off in regularity in recent years. The Board began regular meetings in 2006.

In addition to formal meetings of the Coordination Group and the Mine Victim Assistance Board, the country's obligations under the AP Mine Ban Convention provided new opportunities for communication and collaboration on victim assistance issues. Recent increased attention by the Standing Committee on Victim Assistance and Socio-Economic Reintegration and the Implementation Support Unit of the Convention have led to more formal discussion of victim assistance planning and implementation in many States Parties. A National Mine Victim Assistance Workshop was held in Sarajevo in February 2007 as part of this initiative to promote substantial progress by States Parties in meeting their obligations under the convention. The emphasis of these initiatives is to bolster planning activities and further the development of specific, measureable, achievable, relevant and time-based ("SMART") objectives for meeting treaty requirements.[13]

However, the elaboration and acceptance of a victim assistance strategy still confronted the difficult challenge of implementing the strategy's objectives, including the forging of a centralized information system. Success in implementing the strategy required both attention to the specific details of creating the mine victim information system and continued effective communication and cooperation among the many stakeholders involved.

Building a Landmine Victim Information System

The basic elements of the new Landmine Victim Information System (LMVIS) were identified and listed in the victim assistance strategy written and approved in a collaborative manner in 2004. A certain amount of consensus was thus established at the beginning of the process. However, actually putting those ideas into operation required continued negotiation among the stakeholders.

The Activity Plan (see Table 1 at end of case study) included in the victim assistance strategy lays out the specific tasks involved in implementing the seven operational objectives for Strategic Goal 5 of the BiH Mine Action Strategy, which addresses victim assistance:

> **Strategic Goal 5:** Enable the full integration of mine victims into society through the development of a comprehensive

[10] See Handicap International and UNICEF (2003) and International Campaign to Ban Landmines (2006b, 2007b).
[11] Handicap International and UNICEF (2003), pp. 43-4
[12] Bosnia and Herzegovina Mine Action Center (2004).
[13] "First national mine victim assistance workshop: Defining priorities for mine victims assistance," from the UNDP BiH Website, as reported 28 February 2007 and available at: http://www.mine.ba/index.aspx?PID=7&RID=23. For more on the Standing Committee on Victim Assistance and Socio-Economic Reintegration's efforts to promote the development of national victim assistance plans and "SMART" objectives, see Standing Committee on Victim Assistance(2007).

assistance program, including the provision of integrated social, medical and other professional services.

The Landmine Victim Information System most directly relates to Operational Objective 5.3, but it could not be established and operate effectively without fulfillment of Operational Objective 5.2, and its successful completion was essential in order for the other objectives to be fulfilled.

Operational Objective 5.2: Through the establishment of working bodies, coordinate more efficiently the activities of all organizations included in the victim assistance system. The coordination system should be established by the beginning of 2005.

Operational Objective 5.3: By mid 2005, establish a standardized information system for landmine victims, which would be available to all partners active in the field of mine victim assistance.

Despite the elaboration of a mine victim assistance strategy with a prescribed plan of action, the implementation of the plan did not go as quickly or smoothly as envisioned. The BHMAC was delayed in appointing an LMVIS manager, but eventually Zoran Grujic, the BHMAC Information Technology Chief, was given this position. This delay did not affect the construction of the technical components of the information management system that was part of the BH Mine Action Information System (BHMAIS), just its later operation. Unlike some other mine action programs established in the 1990s, the program in BiH retained its own information management system, the BHMAIS, and did not convert over to IMSMA when it became available for use beginning in 2000-2001.[14]

An important first step in building the new centralized system was to get all the stakeholders to agree on a common data collection form. Agreement on what data to include was essential to building a system that would be uniform throughout the country and could produce data that was consistent and useful to the different stakeholders. Forging agreement and cooperation among the various stakeholders has proved a challenge for the implementation of the project, but not an insurmountable one. The BHMAC had to work with two sets of key stakeholders in creating a common set of data to include on the form and to serve as the core of the new LMVIS. The first is the network of non-governmental organizations – both international and national/local – that provide services to landmine survivors.

Bosnia and Herzegovina has a relatively well-developed medical and social service system, with an environment conducive to the operation of organizations that provide rehabilitative services and socio-economic support activities. Some of the principal NGOs involved in survivor assistance work in BiH include Landmine Survivors Network, Handicap International, Hope 87, Jesuit Refugee Service, Stop Mines, Response International, the Center for International Rehabilitation, and the International Trust Fund for Demining and Mine Victims Assistance, among others.[15]

In addition to a wide array of NGOs to communicate and coordinate with, the BHMAC also had to build support among the various governmental ministries involved in the different aspects of providing services – medical, financial support, educational – to landmine survivors, who quite properly are regarded as a sub-group of the larger segment of the population who have disabilities due to a variety of causes. Among the most important of these ministries for survivors assistance programming are the FBiH Ministry of Health and the RS Ministry of Health and Social Welfare, the FBiH Ministry of War Veterans and Ministry of Labour and Social Policy, and RS Ministry of Labour, Veterans and War Victims.

After six months of discussions among the stakeholders, a detailed four-page data collection form was finalized, and then by March 2006 the information system was built and fully functional as a component part of the BHMAIS.[16] In addition to a common data collection form, the LMVIS uses four additional forms to gather information about organizations providing services and the specific projects they are implementing (see end of the case study for copies of these forms). The LMVIS is therefore not just a casualty data system but an information system to support the landmine victim assistance strategy and its goal of enabling "the full integration of mine victims into society through the development of a comprehensive assistance program, including the provision of integrated social, medical and other professional services." The system therefore should include, when fully implemented, information about landmine victims, their needs for services, the services they receive, the services available in the country, and the organizations/agencies providing needed services.

In a brief Powerpoint presentation describing the Land Mine Victim Information System, the following tasks are identified (and paraphrased below):[17]

a. To include all data gathered by all organizations over time (a broadly inclusive system);
b. To safeguard private information and protect the privacy of mine victims;
c. To provide enough information in the system to make it an effective target group assessment tool;

[14]For example, the Afghanistan Mine Victim Information System (AMVIS) was developed and had been running well in Afghanistan in the late 1990s but the UN Mine Action Center there decided to convert to IMSMA (Fiederlein, 2004, p. 16).
[15]The BHMAC Website lists the Landmine Victim Assistance Organizations that are registered and officially recognized by the government. Among these are twelve NGOs, in addition to UNICEF and three government ministries. See: http://www.bhmac.org/ba/stream.daenet?kat=66.
[16]Information on the details of the LMVIS development process was provided by Zoran Grujic, BHMAC Information Technology Chief , through discussions with Suzanne Fiederlein 13-19 July 2007. Also see Grujic (2008).
[17]Presentation provided by Zoran Grujic, IT Chief, BHMAC, July 2007.

d. To provide reliable mine incident locations information to improve mine action planning ;[18]
e. To provide a LMVA projects planning tool and full transparency and traceability for LMVA projects

The next step in establishing the LMVIS was to expand on the cooperation begun in 2005 during the process of reaching agreement on a common data collection form. In order to make use of that form, BHMAC, as the central data manager, had to get the NGOs and governmental agencies to begin to use the new form for their future data collection, to provide the new data to BHMAC for data entry, and to turn over their existing data so that it could all be entered into the new database.

Making the LMVIS Operational

The BHMAC first focused on the NGOs as it attempted to build the support and cooperation it needed to move forward with the LMVA strategy. The BHMAC LMVIS staff continued to hold discussions with the stakeholders about signing a memorandum of understanding covering the terms of data sharing – submitting existing data to BHMAC, beginning to use the new data collection form, forwarding the new data to BHMAC, and receiving data reports back from BHMAC so that all organizations and agencies needing the data for program planning purposes could get it. Most of the NGOs had signed MoUs in 2005-2006, and the LMVIS staff then had to concentrate on getting the various governmental ministries on board with the project. By 2007, the BHMAC had received the existing data from the five organizations other than BHMAC with substantial survivor assistance databases (Hope '87, Jesuit Refugee Service, Landmine Survivors Network, ICRC/RCSBiH, and Stop Mines). Along with the LIS data, BHMAC had seven sources of landmine victim data and now faced the challenge of integrating the more than 12,000 victims records contained in them.[19]

In 2006-2007, BHMAC staff worked with the NGOs Hope '87 and the Red Cross Society of Bosnia and Herzegovina to solicit the funding needed to set up a data processing office where the existing databases could be transferred to the new system and all data cleaned up and reconciled, as different organizations tended to collect different types of information due to their programmatic needs. There also would be duplicate records that would have to be identified and reconciled. The plan was to house the data processing office at Hope '87 because of its considerable experience in collecting data and working with survivors. The RCSBiH, with its country-wide network of data gatherers, would provide the means to implement the new data collection system and conduct the planned visits to all survivors to verify and fill in missing information. The project proposal included a training component, whereby the RCSBiH data collectors would be trained by Hope '87 staff experienced in working with victims of war and their psychological sensitivities. Hope '87 also would involve mine survivors in the data processing work and establish a cooperative relationship with mine victims assistance organizations in the course of implementing the project. BHMAC would provide technical assistance and maintain the database and the operation of the LMVIS.[20]

In July 2007, the Government of Switzerland agreed to provide funding in the amount of $241,404 USD to support the establishment and operation of the data entry office. In November the office began work to clean the data consolidated from the seven databases and to conduct training of data gatherers in preparation for their visits to interview survivors. Hope '87 staff had already field tested the new data collection form and now would prepare the data gatherers to do their work. The form was estimated to take an hour to complete.[21]

The form has a total of 133 data fields, an overly large number that certainly will prove unwieldy, with many fields potentially being unusable in the long run. Preliminary evidence already indicates that: Of the more than 12,000 total victim entries in the consolidated mine victims database, 28 of those fields are complete with information for about 75 percent of the entries. Twenty three of the 28 completed fields are usable data about the victims and five are related to database management. The remaining 105 fields are of varying importance for the different stakeholders, although they all concurred that it was useful to retain them on the form. A cumbersome and complicated form may be the price of reaching an agreement among the many stakeholders involved, but if the large number of fields is retained, then a distinction between "core data" and "optional data" should be made.[22]Implementation of the current data entry and verification project will test the usability and value of the lengthy form.

[18]The location of all incidents of victims recorded in the BHMAC and other victim databases was not known. This basic information about where incidents occurred and thus the location of mine hazards was needed by the mine clearance planners in order to prioritize tasks and plan operations. See the discussion above about the role of PROM mines in the determination of mine clearance priorities. Having good information about where PROMs are located based on victim data (where incidents occurred and type of mine involved), as well as other data such as minefield maps, is an important element to this prioritization process.

[19]International Campaign to Ban Landmines (2007b).

[20]Bosnia and Herzegovina Mine Action Center and Hope '87 (2007), p. 9.

[21]Information about the data entry project, data collection form and data fields comes from an interview with Zoran Grujic, BHMAC offices, 13 July 2007 by Suzanne Fiederlein and in email messages from him in the following months.

[22]It is common practice in injury surveillance systems to make a distinction between "core" and "optional" data, or by making even further distinctions among a "core minimum data set" , a "core optional data set", a "supplementary minimum data set", and a "supplementary optional data set" (Holder, Peden, and Krug, et al, 2001). For a landmine casualty data system, a distinction between "core" and "optional" data is all that is essential for promoting the collection of a common core of data needed by all stakeholders (or "end users") while still making available other data wanted by certain stakeholders for their specific programmatic purposes. The CDC and UNICEF settled on a distinction between "core" and "optional" data in their "Landmine/ERW Injury Surveillance System," discussed in Annex B.

Although the data entry project has begun, BHMAC still has not obtained signed MoUs from all the pertinent ministries and continues to work on securing them in early 2008. One issue for the ministry officials is their desire for additional information not included in the data collection form, information important to them in their provision of health services. The BHMAC LMVIS staff have maintained the position that the database should only include data essential to mine action. Furthermore, collecting and maintaining data about health procedures and outcomes of individual patients presents a privacy issue – if the data is not needed specifically for mine action-related activities or mine victim assistance program support, as opposed to individual health care, then it should not be maintained in the landmine victims database.[23]However, it is not always easy to separate data into these categories, and BHMAC as of early 2008 was still discussing the matter with the Ministries of Health. The ultimate goal would be to integrate this landmine victims database into the national health information system and enhance its functioning and comprehensiveness. This reportedly is a long-term goal of the data consolidation project, but one premised on needed improvements in the health information system, such as collecting information on services provided to persons with disabilities.[24]

The Future of the LMVIS Project

This leads to discussion of the prospects for the future implementation of the LMVIS project beyond the initial one-year period for which funding has been secured. Assuming the project successfully completes the data verification and cleaning and the interviews with survivors as planned, funding is still required to maintain the database in the future so that it can be available as a data source when needed by the service providers and mine action planners. Data on new cases also will have to be entered and processed. Additional funding would be needed to integrate it into the national health information system, but this aspect of the project could be associated with other health sector capacity building initiatives and thus tap sources of funding different from the traditional mine action ones. Successful completion of the LMVIS project could help pave the way for future success in enhancing the health information system, including collecting data on other persons with disabilities and other injury data (development of a robust injury surveillance system).

Discussions with Dr. Natalija Milovanovic of the RS Ministry of Health[25] revealed several challenges that would have to be overcome in order to build an integrated health information system that captured the desired information on landmine survivors and other persons with disabilities, not to mention data on injuries more generally. While she agreed that it would be very beneficial to have such a system, and there exists a network of Primary Health Centers with affiliated Community Based Rehabilitation Centers that provide services to persons with disabilities, these centers operate on very limited budgets. It would be difficult to get the personnel working in them to collect the additional information needed and then to send in the reports to a central office. They would need adequate computers and software to support the data collection and report generation. They also need the time to do the record keeping and report preparation or additional staff would have to be hired to handle the increased data entry and paperwork.

These concerns fall under the category of national health system capacity building, and plans for addressing them should properly be formulated from that perspective. Specific sources of funding and technical advice are available to tackle these challenges, such as the World Bank and the World Health Organization. In addition, traditional sources of funding for mine action, including the UNDP, European Union, and the US government (USAID in particular), could still be petitioned for assistance, but by using an approach that focuses on development of the national health sector rather than the implementation of mine action programs. But still, obtaining sufficient funding to support such projects always remains a challenge. Now that the country has a good start on consolidating its information on landmine victims assistance, it would be unfortunate for the information system not to be sustained and expanded in the future. Ensuring that the LMVIS is fully implemented and continues to operate in the future are the next major challenges for the landmine victim assistance community in the country.

Summary and Conclusions

After more than a decade of collecting data on landmine victims in an uncoordinated manner, the Bosnia and Herzegovina mine action, victim assistance and health sector organizations launched a project in 2005 to unify the disparate databases and establish procedures for verifying and updating the information. In the course of implementing the different phases of the project, which were slow to unfold as agreements among the different stakeholders were negotiated and funding to support the work was obtained, consensus emerged on the value of a unified mine victim information system and the need to keep the project moving forward. However, the biggest challenge for the project has been the difficult work involved in getting the many different governmental and non-governmental organizations to communicate effectively and agree on the details of how the new system will operate. Although all the main NGOs involved in survivor assistance programming in BiH have signed an MoU with the BHMAC, they do not always feel that they are kept well informed about the LMVIS implementation process.[26] A new Mine Victim Assistance Board was established to bolster communica-

[23]Information provided by Zoran Grujic, BHMAC IT Chief, in interview with Suzanne Fiederlein, 13 July 2007.
[24]International Campaign to Ban Landmines (2007b).
[25]Interview with Dr. Natalija Milovanovic by Suzanne Fierderlein on 18 July 2007 in Sarajevo.
[26]Viewpoint expressed in interview with Dragana Bulic and Amir Mujanovic of Landmine Survivors Network (interviewed by Suzanne Fiederlein in LSN offices, Tuzla, 17 July 2007).

tion among the stakeholders, but how effectively it will work is yet to be demonstrated.

Once the consolidated mine victims database is "cleaned up" (duplicate entries deleted, missing data obtained, existing data updated), the various ministries, NGOs and other organizations providing services to landmine survivors and other persons with disabilities ideally will use the new data collection form agreed to by the key organizations. The organizations that have signed MoUs with the BHMAC, which will maintain the information system as part of its mine action information system, are committed to using the new form and sending the data they collect to the LMVIS office. In return, they will have access to detailed data from the mine victims database when requested, in addition to the data provided in public reports issued by the LMVIS. However, as of early 2008, not all of the key ministries have signed the MoU with BHMAC as discussions continue about the particular details of the terms of cooperation on the LMVIS project.

The success of the LMVIS would not only facilitate the planning and implementation of assistance projects for landmine survivors but could pave the way for the creation of a national health information system that would track the needs of all persons with disabilities and the incidence of injuries due to causes other than landmine accidents. However, the cost of transforming the victim information system into a more comprehensive injury surveillance or health information system has not been calculated and is certain to be substantial relative to current start-up funding for the LMVIS. While obtaining adequate "capacity building" funding is often a challenge, the expansion of the information system beyond mine action also opens up alternative potential sources of national economic or health sector "development" funding rather than just "mine action" funding. However, implementation of the LMVIS is still in its infancy and faces some real challenges before it will function as intended and provide the information desired by the various stakeholders. Any long-term goals to expand the system beyond a landmine victim information system are dependent on the outcome of the LMVIS.

Field Visit to Bosnia and Herzegovina, 13-18 July 2007

Site visit to BHMAC headquarters in Sarajevo on July 13 and July 18, with visit to regional BHMAC office in Tuzla on July 17. At BHMAC offices, was briefed on the LMVIS project by Zoran Grujic, IT Chief of BHMAC and Dejan Babalj, LMVA Assistant. Members of the IT staff (Dusanka Dokic, Data Base Administrator, and Sanela Isic, GIS Specialist) also demonstrated the operation of the LMVIS and how it relates to other components of the BHMAIS.

In addition to the LMVIS staff, met with the following BHMAC personnel:

- Dusan Gavran, BHMAC Director
- Sanja Mitrovic, Senior Finance Officer
- Irfan Pehlic, Head of BHMAC Regional Office, Tuzla
- Biljana Zdralic, Senior MRE Officer

The BHMAC office in Sarajevo and the US Embassy both facilitated meetings with other key mine action actors in Bosnia and Herzegovina. Interviews were conducted with the following people, listed with their organizational affiliation:

- Damir Atikovic, Director, Global Training Center, Norwegian People's Aid
- Amela Balic, Operations Manager, Norwegian People's Aid
- Darvin Lisica, Director, Bosnia Office, Norwegian People's Aid
- Dragana Bulic, Regional Coordinator for South-East Europe, Landmine Survivors Network
- Amir Mujanovic, Operations Manager, Landmine Survivors Network , Bosnia and Herzegovina
- Amela Gacanovic-Tutnjevic, Project Manager, Integrated Mine Action Programme, UNDP
- David Rowe, Chief Technical Advisor, UNDP
- Marija Alilovic, Public and Donor Relations Officer, Mine Detection Dog Center for Southeast Europe
- Dr. Natalja Milovanovic, Ministry of Health, Republika Srpska

Table 1
6.2 Activity plan: mine victim assistance in the period 2005 – 2008
(from *Bosnia and Herzegovina Landmine Victims Assistance Strategy)*

	2005				2006				2007				2008			
Information system	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
Create and establish a standardized information system for landmine victim assistance at the BiH level , available to all partners active in the field of landmine victim assistance.	■															
Development of uniform questionnaires for mine victims	■															
Establish a data gathering system, fill in the database, develop the reporting system and analyze the results.		■														
Analyze the current social, psychological, health and economic status of mine victims according to their categories				■												
Design and publish a web site on landmine victim assistance issues				■												
Combine databases on mine victims in BiH and standardize methods of data gathering and exchange.		■														
Beginning of the data gathering process and preparation for filling the data into the database					■											
Coordination of activities																
Establish the Mine Victim Assistance Board that will ensure recognition of the victims' needs and coordinate the activities of the organizations dealing with these issues.	■															
Organize the Mine Victim Assistance Board's meetings organizations dealing with these issues.	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Analyze the annual expenditures for the maintenance of coordination activities, the information system and the Board's work monitoring and publish the results				■				■				■				■
Encourage the donor community to provide support to organizations dealing with landmine victim assistance			■				■				■				■	
Establish mechanisms for the coordination of the activities of all organizations and institutions that provide landmine victim assistance								■								
Develop the promotion plan for all enterprises providing employment opportunities to mine victims				■				■				■				■
Rehabilitation																
Define the main directions of the rehabilitation system development				■												

ANNEX A: Bosnia and Herzegovina

Carry out an analysis of the target groups' needs								■								
Filling the database in with the data on target groups and their needs									■	■	■	■				
Permanent work on professional development, prequalification and professional training for the landmine victims								■				■			■	■
Carry out an assessment of new employment opportunities	■	■														
Development and analysis of potential vacant positions for the mine victims					■	■										■
Develop a support plan for the organizations that provide employment to the landmine victims								■	■							
Support and promotion of the mine survivor rehabilitation projects	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Permanent work on changing attitudes about the mine victims' needs	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Quality assurance and legislation																
Together with the Ministry of Health, Ministry of Human Rights and Refugees and BHMAC, create working groups and organize a round table discussion on quality standards in ortho-prosthetic and medical rehabilitation.			■													
Develop the draft standards, through the working groups.							■	■								
Adoption and implementation of the defined standards.									■							
Organization of the quality assurance system									■	■						
Establish the system of monitoring and implementation of the existent and new legal provisions regarding the landmine victims			■	■												

Source: Bosnia and Herzegovina Mine Action Center (2004).

ANNEX A: Bosnia and Herzegovina

Data Collection Forms

1. BHMAC, "File of Mine Victim" (2007) – new victim data collection form agreed on by victim assistance stakeholders [4 pages]

2. BHMAC, "LMVA 0 - Agency Application Form" – form to collect information about organizations engaged in victim assistance programs; organization registration form for accreditation purposes (2007) [1 page]

3. BHMAC, "LMVA 1 - Project Announcement Form" – form to collect information about victim assistance projects planned by accredited organizations (2007) [1 page]

4. BHMAC, "LMVA 2 - Project Activity Report Form" – quarterly reporting form to be completed by accredited organizations and submitted to BHMAC (2007) [1 page]

5. BHMAC, "LMVA 2e - Education Project Activity Report Form" – quarterly reporting form for projects specifically related to education; to be completed by accredited organizations and submitted to BHMAC (2007) [1 page]

FILE OF MINE VICTIM

1. RECORD ID _____

2. Personal number _____

3. Date of _____

4. Organization that completes the form _____

5. Name and surname of person that completes the form _____

Want to participate in projects ☐ **Allows use of data** ☐

6. First name _____ 7. Father's name _____ 8. Family name _____ 9. Maiden name _____ 10. Gender M F

11. Date of birth _____ 12. Place of birth _____ 13. Date of death _____ 14. Place of death _____

15. Entity _____ 16. Canton _____ 17. Municipality _____ 18. City/Place _____ 19. Street _____ 20. Number _____

23. Description of address: _____

21. Tel: _____

22. Cell phone _____

I PATIENT DATA

1. Organization that first took evidence of injured person _____
2. Hospital where First Aid was given _____
3. Institution of final hospitalization _____
4. Shoes size ☐☐
5. Shirt size ☐☐
6. Trousers size ☐☐
7. Jacket size ☐☐

8. Note: _____

II STATUS

1. Residential status		2. Year when status was acquired
Local resident	☐	_____
Refugee	☐	_____
Displaced person	☐	_____
Returnee	☐	_____

III INJURY

1. Entity _____ 2. Canton _____ 3. Municipality _____ 4. Location _____ 5. Date _____

6. Did person knows that area is contamineted YES NO

7. Invalidity category _____

8. Percentage of invalidity _____ %

9. Date of invalidity evaluation _____

10. Institution that evalueted invalidity _____

11. How did injury happen		12. Status in the moment of injury		13. How often person enters the zone		14. Role in incident		15. Type of injury	
UXO	☐	Civilian	☐	First time	☐	Direct cause	☐	Amputation	☐
Mine	☐	Military	☐	Rarely	☐	Participant in activity	☐	Other injuries	☐
Other_____	☐	Person on official duty	☐	Often	☐	Passing/standing nearby	☐	Death	☐
				Daily	☐				

IV ACTIVITY AT TIME OF INCIDENT

1. Playing	☐	5. Collecting firewood	☐	9. Household work	☐	13. Unauthorized handling of explosive or explosive devices	☐
2. Hunting/fishing	☐	6. Demining	☐	10. Passing/standing nearby	☐		
3. Cattle breeding	☐	7. Official duty activities	☐	11. Traveling	☐		
4. Farming	☐	8. Building	☐	12. Other	☐	14. Sport	☐

V DIAGNOSIS (latin)

1.

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VI INJURY

Amputation		1. Body injury			2. Side				3. Limb		4. Part of limb/extremity						
YES	NO	U	L	H	L	R	F	B	A	L	FT	HF	BAK	AAK	EX	E	EA
YES	NO	U	L	H	L	R	F	B	A	L	FT	HF	BAK	AAK	EX	E	EA
YES	NO	U	L	H	L	R	F	B	A	L	FT	HF	BAK	AAK	EX	E	EA
YES	NO	U	L	H	L	R	F	B	A	L	FT	HF	BAK	AAK	EX	E	EA
YES	NO	U	L	H	L	R	F	B	A	L	FT	HF	BAK	AAK	EX	E	EA
YES	NO	U	L	H	L	R	F	B	A	L	FT	HF	BAK	AAK	EX	E	EA
		U-Upper part of body L-Lower part of body H-Head			L-Left R-Right B-Both		F-Front side B-Back side		A-Arm L-Leg		AA - Above arm/knee EX-Exarticulation E-Eye EA-Ear				FT-Fingers/Toes HF-Hand/Foot BAK-Below arm/knee		

VII NEED *APPENDIX 1

1. Class	2. Level	3. Category	4. Type	5. Meeting of needs			6. Orthopedic aid (prostheses)		
				Adequate	Inadequate	Ad. but new is neseccary	Type	Manufacturer	Size

VIII SOCIAL STATUS

1.Working status before injury
2. Current working status

	1	2
Preschool child	☐	☐
Employed	☐	☐
Unemployed	☐	☐
Retired	☐	☐
Ongoing education	☐	☐

3.Qulifications

- Illiterate ☐
- Unqualified ☐
- Qualified ☐
- Secondary ☐
- Highly qualified ☐
- High school ☐
- University ☐
- bachelor/master ☐
- PhD ☐

4. Martial status

- Married ☐
- Single ☐
- Divorced ☐
- Widow/er ☐

Household structure

5. Total number of household member ____
6. Retired ____
7. Chronically ill ____
8. Mentally ill ____
9. Employed ____
10. Unemployed ____
11. Invalids ____
12. Number of children ____
13. Ongoing education ____

14. Property on apartment /house

- Owner ☐
- Temporary ☐
- Tenancy right ☐
- Does not have solved status ☐

15. Community YES ☐ NO ☐

16. Number of tenants in community ____

17. House YES ☐ NO ☐

Public utilities

- 18.Heating ☐
- 19.Gas ☐
- 20.Electricity ☐
- 21.Water ☐
- 22.State of house /Apartment
- Reconstructed ☐
- Dilapidated ☐
- Good ☐

IX EMPLOYMENT

1.Need help for employment YES ☐ NO ☐

2. Occupation ____
3. Current occupation ____
4. Hobby ____

5. Occupation

- Same as previous ☐
- Do not want to work ☐
- No preferences ☐

6. Preferred occupation ____

7. Working environment

- Does not want to change ☐
- Wants to change ☐

8. Wants to work in

- No preferences ☐
- Home ☐
- Private sector ☐
- Social sector ☐

9. Employed

- Private sector ☐
- Social sector ☐
- Unemployed ☐
- Ongoing education ☐

10. Name of company ____
11. Professional experience (years) ____
12. Pension fond contribution(years) ____

13. Private capital

- Wants to invest in current bussiness ☐
- Don't want to invest ☐
- Don't have any ☐

14. Where he/she wants to invest private capital ____

Foreign languages

15. Languages
1 ____
2 ____

16. Level of knowledge

	1	2
Active	☐	☐
Passive	☐	☐

Informatics literacy

17. Level of knowledge
- Advanced ☐
- Standard ☐
- Below standards ☐

Real estates

18. House	YES ☐ NO ☐
19. Driving licence	YES ☐ NO ☐
20. Automobile	YES ☐ NO ☐
21. Automobile adapted for invalidity	YES ☐ NO ☐
22. Land property	____
23. Equipment for self-employment	____

X EDUCATION

No.	Name of course	Status			Date of status	Achievement
		Finished	Did not finish	Wants to		
					. .	
					. .	
					. .	
					. .	
					. .	
					. .	
					. .	
					. .	
					. .	
					. .	
					. .	
					. .	
					. .	
					. .	
					. .	
					. .	
					. .	
					. .	

XI OTHER MEMBERS OF HOUSEHOLD RELATED TO MINE/UXO VICTIM

No.	Gender	Name	Year of birth	Relationship	Note:
	F M				
	F M				
	F M				
	F M				
	F M				
	F M				
	F M				
	F M				
	F M				
	F M				
	F M				
	F M				
	F M				

***APPENDIX 1**

RECEIVED AID

DATE	Class	Level	Category	Type	IMPLEMENTING ORGANIZATION	PROJECT CODE/ID	WAS AID ADEQUATELY USED?

DOCUMENTATION

SUBMITTED

DATE	TYPE OF DOCUMENTATION

EXCLUDED

DATE	TYPE OF DOCUMENTATION

Date of interview _____

Signature of interviewed person _____

LMVA 0

Agency Application Form/ Prijava agencije

General Data/ Opšti podaci

Agency name / Ime agencije _____
Origin country / Zemlja porijekla _____
Type/ Vrsta _____

Point of Contact data/ Kontakt osoba

Title: _____
Name/ Ime _____
Surname/ Prezime _____

Phone/ Telefon _____
Fax/ Telefaks _____
Mobile/ Mobilni telefon _____
E-mail: _____
WWW.: _____

Resources/ Izvori

Management/ Rukovodstvo _____
HQ/ Centrala _____
Field/ Područne kancelarije _____

Description of Activity/ Opis aktivnosti

Klase pomoći

Ekonomska	☐	Medicinska	☐
Socijalna	☐	Ostalo	☐

Anticipated funding sources/ Očekivani finansijski izvori

---

1. Ovo je prvi izvještaj koji se upućuje BHMAC-u Sarajevo kao ulaz u bazu podataka i kao prijava aktivnosti brige o žrtvama mina. Dostavlja se samo jednom i dio je procesa akreditacije organizacije.
This is the first report which should be delivered to BHMAC Sarajevo office as an entry in database and as LMVA activity. The agency application form is delivered only once and it is a part of LMVA organisation accreditation.

LMVA 1

Project Announcement Form / Obrazac za najavu projekta

General Data/ Opsti podaci

Project name/ Naziv projekta _____

Implementing Agency/
Implementacijska agencija _____

Status: _____

Point of Contact data/ Kontakt osoba

Title: _____

Name/ Ime _____

Surname/ Prezime _____

Phone/ Telefon _____

Fax/ Telefaks _____

Mobile/ Mobilni telefon _____

E-mail: _____

WWW.: _____

Project Data/ Podaci o projektu

Start Date/ Datum pocetka _____

End Date/ Datum zavrsetka _____

Target Population/ Ciljna populacija _____

Target Location/ Ciljna lokacija _____

Anticipated number of beneficiaries/ Ocekivani broj korisnika **Direct/ Direktno** _____ **Indirect/ Indirektno** _____

Description/ Opis

Project partners
Partneri u projektu

Budget/ Budžet :

Donor Donator	Status	Amount Iznos
	Total/ Ukupno	

1. Obrazac za prijavu projekta za brigu o žrtvama od mina koji se dostavlja za svaki projekat i dio je procesa licenciranja LMVA projekta.
The project announcement form for LMVA is delivered for each project and it is a part of LMVA project licencing.

LMVA 2

Project Activity Report Form/ Izvještaj o aktivnostima
For the period of of/ Za period _____ year/ godinu _____

Organization/ Organizacija

Projekt/Project

				Pomoć/ Help provided				
	Date/ Datum	**JMBG**	**Name and Surname Ime i Prezime**	**Class Klasa**	**Level Nivo**	**Category Kategorija**	**Kind Vrsta**	**Adq/ adkv**

Date/Datum : __.__.____

Reporting Officer/Izvjestaj uradio

1. Obrazac se popunjava mjesečno i potrebno ga je dostaviti direktno u BHMAC Sarajevo kvartalno.
The Activity report form is filled Quarterly and it is needed to deliver it directly to BHMAC Sarajevo office.

LMVA 2-e

Education Project Activity Report Form/ Izvještaj o aktivnostima edukacionih projekata
For the period of of/ Za period _____ year/ godinu _____

Organization/ Organizacija _____

Projekt/Project _____

				Obuka/ Education provided		
	Date/ datum	**Jmbg**	**Ime i prezime Name and surname**	**Kurs Subject**	**Nivo Level**	**Uspjeh Grade**

Date/Datum : __.__.____

Reporting Officer/Izvjestaj uradio

_____

1. Obrazac se popunjava mjesečno i potrebno ga je dostaviti direktno u BHMAC Sarajevo kvartalno.
The Activity report form is filled Quarterly and it is needed to deliver it directly to BHMAC Sarajevo office.

ANNEX B

Selected Best Practices

The countries that are the subject of the case studies in Annex A represent just two of the many mine-affected countries where progress is being made in establishing and operating landmine/ERW casualty data and/or victim information systems. Based on the experiences of several of the countries that established mine action programs in the 1990s, much has been learned about how to create and operate such systems.

The countries with programs in place for ten years or more now have learned much from their own experiences and are beginning to make innovations in their existing information systems or are slowly adjusting their systems based on the insight and experience they have gained. They also have benefitted from the exchange of information with other established mine action programs and the international organizations (IOs) and non-governmental organizations experienced in injury surveillance and providing victim assistance and disability services.

Several mine-affected countries only recently have established mine action programs, or have expanded an emergency mine clearance program to include more extensive and systematic landmine/ERW accident data collection that includes information on the needs of survivors and the provision of medical care and rehabilitation services. These programs benefit from the lessons learned by the more established programs and more technical support services being provided by IOs and NGOs today. Not only have national mine action programs gained knowledge and experience during these past ten to fifteen years of activity, but organizations like the ICRC, WHO, UNMAS and UNICEF as well as NGOs like Handicap International and Landmine Survivors Network, to name just a few, have succeeded in developing tools and approaches to landmine/ERW casualty data collection and management.

This Annex provides a brief summary description of some of the identified Best Practices of these different national mine action programs and organizations that are potentially transferable to other mine-affected countries. While these descriptions are brief, they are offered as examples of practices that have contributed positively to the operation of landmine/ERW information systems that support the functioning of mine action, and in particular, victim assistance programs. Readers are encouraged to explore these different programs in more detail to ascertain their applicability and transferability to a particular national context.

Cambodia Mine Victim Information System (CMVIS)

The CMVIS can be considered the premier mine victim information system in operation today. It was established by the Mines Advisory Group (MAG) in 1994 and then transferred to the Cambodian Red Cross (CRC) and Handicap International-Belgium (HI-B) beginning in 1995. These two organizations continue to be the operating partners for the system. The CMVIS was developed prior to the release of IMSMA and represents a real alternative to an IMSMA-based victim information system. It has continued to evolve over time in response to the changing landmine and ERW situation in the country. The CMVIS monthly and annual reports demonstrate the value of having an effective data collection and analysis capability.

The trends in casualties due to landmines as compared to UXO show how these different types of munitions affect the population in distinct ways. Based on this information, Mine Risk Education, mine clearance, and victim assistance programs can all be planned more effectively because of the details the information provides on the different impact of these two types of munitions. For example, the CMVIS data shows that while overall accident and victim numbers are down from a high point in 1996, the proportion of victims related to UXO accidents increased from 36.6% in 1999 to up over 57% every year since 2004.[1] The data shows that the characteristics of the victims are different, with children having the highest proportion of injuries from UXO, but men being the most frequent victims of accidents of both mines and UXO. Tampering with the device is the single most common cause of accidents involving UXO, whereas travelling and cutting/collecting wood are the most common causes of accidents involving mines. This information is very useful for planning strategies to address the problems posed by the presence of mines and UXO, such as creating incentives to prevent people from tampering with UXO and developing ways to help people avoid coming into contact with mines as they go about their daily living and economic activities. As the trends in the relative proportion of accidents caused by mines and UXO were identified in the early 2000s, the CMVIS officials revised the data collection form to obtain more information about the different types of UXO involved.[2]

The CRC and HI-B also revised the role and objectives of the CMVIS in 2006 in response to changing demands by its end users and to reflect changes in the mine action situation in the country.[3] The revised objectives include an expansion of CMVIS activities beyond just data collection and management issues to include a more active role in providing Mine Risk Education and victim assistance services directly to landmine/UXO victims and to broaden data collection to include more information needed to plan rehabilitation and other programs for victims, such as the needs of survivors and what services they are accessing. As a result, in 2007, a new "ERW Survivor Assistance Information Form" was introduced[4] (copies of this CMVIS form and the CM-

[1]Cambodian Red Cross and Handicap International (2006), pp. 11-28.
[2]Cambodian Red Cross and Handicap International (2006), p. 7.
[3]Cambodian Red Cross and Handicap International (2006), pp. 5-6.
[4]Additional information about the introduction of the new "ERW Survivor Assistance Information Form" was provided by Mr. Chhiv Lim, Project Manager. Mine Victim Information System, in email communication with Suzanne Fiederlein, 4 December 2006 and 20 May 2007.

VIS "Mine/UXO Casualty Report" form are included at the end of this annex). This illustrates how the CMVIS has adapted to the requests for information from the stakeholders who use the data as well as what the information emanating from the system says about the changing mine/ERW situation in the country and the need for additional information. The CMVIS has been very good at being responsive to the identified need for additional information and to evaluations of how well the system is working.[5]

Use of this new "ERW Survivor Assistance Information Form" should provide details about the needs of survivors for medical care, physical rehabilitation, psychological and social support in addition to capturing important socio-economic information about the survivors and their families. It also captures information about the services the survivors have already received and so can form the basis for establishing a monitoring and assessment system for victim assistance programs. The form was just introduced in early 2007 and so the effectiveness of its use cannot yet be assessed.

National Disability Survey in Afghanistan 2005

Afghanistan, like Cambodia, has an experienced mine action program, one that has operated for nearly twenty years. Its program continues to function under UN authority as it gradually transitions to national ownership. As in the case of Bosnia and Herzegovina, the ICRC has had an important presence in the country, running hospitals for war-wounded and orthopedic clinics and playing a central role in collecting casualty data as part of its program implementation. As in the case of Cambodia, Handicap International-Belgium helped establish a mine victim information system in the country. The Afghanistan Mine Victim Information System (AMVIS) was created prior to the development of IMSMA and effectively served the needs of the Afghanistan program for casualty data until the program transitioned to use of IMSMA in 2002-2003. The Landmine Impact Survey (LIS) conducted in Afghanistan in 2003-2004 also generated useful casualty data, which the Survey Action Center used to perform some novel data analysis involving the identification of high risk minefields with interesting applications to the prioritization of mine clearance operations.[6] This considerable experience with the challenges of collecting information about landmine casualties positioned the country to implement with considerable success a daunting task—to conduct a national disability survey.

The goal of the National Disability Survey in Afghanistan (NDSA) was "to bridge the knowledge gap regarding the number, health, educational and employment situation, livelihoods and social integration of Afghans with disability."[7] The planning and implementation of the NDSA demonstrate the feasibility of carrying out a rigorous and expansive survey even in a country suffering from continued internal conflict and with limited infrastructure development. They also indicate the importance of establishing effective collaboration among the governmental ministries, NGOs, and international organizations that together can make such an endeavor succeed. The survey process tapped into the expertise and resources of a long list of governmental and non-governmental organizations (both Afghanistan based and international), academic experts in survey techniques and sampling procedures, and international organizations with technical knowledge and/or financial resources. The Acknowledgements section of the Executive Summary Report includes a long list of names of people and organizations involved in the survey project.

The success of the survey is testimony to the availability of the needed expertise and financial support to carry out this kind of data gathering project, although lining up the support and making all the pieces come together for successful implementation was a huge challenge. The mine action, victim assistance and disability services stakeholders in Afghanistan have worked diligently in recent years to build the relationships needed to support the development of projects and policies to address the problems associated with the presence and after-effects of landmines. The success of the national disability survey is an important benefit of that attention to building effective inter-organizational relationships.[8] Other countries interested in implementing large-scale social surveys can look to this project for lessons and practices that can be analyzed for potential transfer to their situation.

This discussion of best practices will not review in detail the results of the disability survey, but a careful examination of the Executive Summary Report indicates the great potential value of the survey's findings for planning programs and establishing public policy pertaining to people with disabilities in Afghanistan. How effectively the information will be used remains to be seen.

Field Epidemiology for Mine Action Course and EpiInfo for Mine Action – The CDC and UNICEF

The Centers for Disease Control and Prevention and the United Nations Children's Fund collaborated beginning in 2003 to offer the Field Epidemiology for Mine Action Course (FEMAC). The first course was taught at the CDC's Atlanta location and subsequent courses were held in Sarajevo in 2005 and Phnom Penh in 2006. The course is designed "to provide mine risk education and other national mine action program

[5]The CMVIS has undergone two external evaluations of its operations in recent years, one in 2002 that focused on its database, data-entry and reporting systems, and in 2006 a more comprehensive one of its overall operation and effectiveness in providing information to the various stakeholders that use landmine/ERW casualty data in Cambodia. The evaluations are available on the CMVIS Website at: http://www.redcross.org.kh/services/cmvis.htm.

[6]Survey Action Center (2005).

[7]Handicap International (2006), p. xiii.

[8]See Susan Helseth (2007) for more information on the continuing process in Afghanistan to establish effective collaboration on victim assistance and disability program planning.

specialists with basic epidemiological skills to allow them to better undertake surveys and data analysis from a public health perspective for mine action planning, monitoring and evaluation purposes."[9] The intensive two-week long course covers the following topics:

- Basic epidemiological theory
- Epidemiological methods
- Surveillance systems
- EpiInfo software program use
- Data presentation
- Data for decision making
- Mapping, GIS/GPS basics
- Scientific writing
- Program evaluation
- Behavior modification and measurement

There are some indications that the course includes so much information that there is insufficient time to process it all so it can be readily applied back in the participants' home countries. However, the potential value of the training is enormous, particularly if the sponsors can incorporate a follow-up or "reach-back" element to the course so that the participants can continue to receive support and advice from the instructors after the course ends. The participants' home countries also need to make the commitment to continue to support their newly trained personnel in ways that will ensure that what is learned can be put into practice effectively.

The EpiInfo component of the course was refined in 2007 to create a version that is geared specifically to landmine/ERW casualty data -- the "Landmine/ERW Injury Surveillance System." A new data collection form is part of that new system. The "Landmine/ERW Casualty Form" was developed through a collaborative process involving discussions with representatives of the leading victim assistance organizations, national mine action programs, and epidemiologists. The resulting form was a compromise, but one derived from careful examination of the "themes and fields most people wanted or already collected", with the basic format coming from Cambodia (the CMVIS) "because it is appreciated by many."[10] The form is printed at the end of this annex.

The new form contains both "core data" and "optional data", following the basic recommended surveillance approach of the World Health Organization and other leading public health organizations.[11] The goal is to encourage all landmine/ERW casualty information systems to collect the core data so that information can be compared across programs; the optional data can be collected as desired and needed by the different programs.

The "Landmine/ERW Injury Surveillance System" is built upon the EpiInfo software which is a Microsoft Windows program designed for public health professionals so that they "can rapidly develop a questionnaire or form, customize the data entry process, and enter and analyze data."[12] The new EpiInfo landmine/ERW version, along with the new casualty form are intended to assist organizations to collect, store and analyze data and transfer it to the Information Management System for Mine Action as required.[13] This compatibility with IMSMA is essential considering it is the predominant information software system in use in landmine-affected countries.

The International Committee of the Red Cross (ICRC)

The ICRC recently published a manual addressing weapons contamination of various sorts, including landmines and ERW: *Weapon Contamination Manual: Reducing the impact of explosive remnants of war and landmines through field activities*. It is directed to personnel working in ICRC programs around the world but is an excellent resource for anyone working in the field of mine action. The manual is in three parts, with the third part containing a section on "Data gathering and analysis."[14]

The ICRC has lengthy experience in casualty data collection, based on the need for data to support its medical work such as hospitals for war-wounded and rehabilitation and prosthetics clinics. This manual represents a culmination of these years of experience and contains information that would be helpful to national mine action programs and NGOs in the process of establishing or enhancing their casualty information systems. Among the topics included in the section on "Data gathering and analysis" are:

- Why collect data?
- What data to collect (with identification of minimum or "core" data versus additional or "optional" data, in addition to distinctions among physical impact, socio-economic impact and ordnance data)
- Data gathering approaches
- Sharing data – when and how?
- Considerations when gathering data
- Storing and analyzing data
- Incident data trends
- Quality assurance of data
- Memorandums of understanding (MOUs) for sharing data

The manual includes a copy of the "Landmine/ERW Casualty Form" developed by UNICEF and the CDC and identifies

[9]From course description provided by Fiona Galloway, of the CDC, in email message to Suzanne Fiederlein, 11 April 2007.
[10]From an email message from Reuben McCarthy of UNICEF to Suzanne Fiederlein, 11 April 2007.
[11]See various publications by the WHO on injury surveillance, including: Holder, Peden, and Krug, et al (2001); Sethi, et al (2004); and Sethi and Krug (2000).
[12]United Nations Children's Fund and the Centers for Disease Control and Prevention (2007).
[13]From an email message from Reuben McCarthy of UNICEF to Suzanne Fiederlein, 11 April 2007.
[14]International Committee of the Red Cross (2007).

EpiInfo as the "primary database to be used by the ICRC in situations where incident data has to be recorded."[15] It also notes that IMSMA has become the standard information management system in use by most UN and national mine action programs and that it "is available as a standard software within the ICRC."[16] However, it indicates that it is not necessary to use IMSMA for most ICRC data purposes, as "EpiInfo, simple Excel spreadsheets and water and habitat GIS are quite sufficient."

Noteworthy Recent National Mine Victim Information System Developments

In addition to the well-established mine victim information system in Cambodia discussed above and the systems examined in the two case studies on Azerbaijan and Bosnia and Herzegovina, other mine action programs are making significant progress in developing mine victim information systems that are beginning to provide the national programs with data needed for planning purposes. Focusing on a couple of the nascent programs demonstrates how lessons have been learned based on experiences in the more established programs and how technical experts from international organizations are becoming more effective in transferring knowledge gained. Besides the countries already discussed, a number of other mature mine action programs have developed victim information systems that function quite well, such as Croatia, Lebanon, Nicaragua and Yemen, just to name a few, and are potential sources of additional lessons learned.

Laos PDR

The problem of ERW contamination in Laos is one primarily of UXO and particularly cluster munitions. A program to locate and clear these ERW has been in place for a number of years as the problem has been a serious impediment to development and human security in the country since the late 1960s. The national UXO clearance office, UXO Lao, was established in 1996, followed in 2004 by the establishment of a national policy making and coordination office, the National Regulatory Authority (NRA). In 2004, Laos PDR also issued its first comprehensive strategic plan for the UXO/mine action sector.

Comprehensive data on the extent and characteristics of the impact of UXO was obtained by a survey conducted by Handicap International-Belgium in 1996 at the request of UXO Lao. The country therefore had a good base of data about the extent and nature of the impact of UXO contamination as of 1996.[17] However, as was the case for many national landmine/UXO clearance programs, the first casualty data collection system operated by the UXO Lao did not provide comprehensive information about the extent of UXO /landmine injuries and deaths across the country nor important details about the accidents like type of device involved or activity at time of accident. Casualty data after 1996 therefore is much less complete than the data that emerged from the HI survey.[18]

In acknowledgement of insufficient casualty data, the Lao NRA launched an initiative in 2007 to develop a comprehensive UXO/landmine casualty data system that includes a plan to identify all people injured by UXO and landmines and collect information about their needs for medical and rehabilitation services. In addition to this retrospective data collection component, the system also will include an enhanced ongoing UXO/landmine injury surveillance component that will record information on new accident victims.

This enhancement of the Laos PDR UXO/landmine victim information system is predicated on several years of research into data collection methodologies and their potential application in the country, beginning with a feasibility study conducted by Handicap International-Belgium and funded by the UNDP.[19] By 2007, the NRA, working through a newly appointed Victim Assistance Officer and Technical Advisor on Victim Assistance and with technical assistance from the UNDP, had elaborated a plan to implement the data collection project and begin the creation of the Lao PDR UXO Victim Information System.[20] The plan includes data gathering throughout the country using an existing network affiliated with the National Dermatology Centre, which is responsible for identifying and promptly treating all new cases of leprosy. The new system draws substantially from lessons learned from the operation of the CMVIS and is modeled after that successful system in Cambodia.

Unfortunately but not surprisingly, the implementation plan is running behind schedule and the program is reporting some technical difficulties in completing the project and getting the system, which is based on the newest version of IMSMA, operating. However, it is an ambitious project, which if fully implemented, would provide the country with both the details of survivors' medical and rehabilitation needs in order to plan services and the means to collect comprehensive information on new accidents and victims. As is so often the case, the challenge is in fully implementing the planned project and sustaining its operations in the future, as well as developing the means to use the data effectively to support victim assistance programs and UXO clearance operations.

Sudan

After forty long years of intermittent conflict, the opposing

[15]International Committee of the Red Cross (2007), p. 14.
[16]International Committee of the Red Cross (2007), p. 15
[17]Handicap International (1997). While the contamination problem in Laos PDR is largely one of UXO, landmines were present in 214 of the 7,675 villages surveyed (p.7).
[18]See Handicap International (2007), p. 20.
[19]Handicap International and UNDP (2004).
[20]See email communication with Suzanne Fiederlein from Mike Boddington, Technical Advisor for Victim Assistance at the NRA, 23 November 2006 and Tim Horner from UNDP in Lao PDR on 30 August 2007.

forces of the North and the South finally agreed to a ceasefire in December 2004, followed by the signing of the Comprehensive Peace Agreement (CPA) in January 2005, which established the framework for a Government of National Unity (GONU) and a Government of Southern Sudan (GOSS). This new governmental structure paved the way for quick action in creating two mine action centers – the National Mine Action Center (NMAC) based in Khartoum and the Southern Sudan Demining Commission (SSDC) based in Juba – to tackle the enormous problem of clearing landmines and UXO strewn about the country as a result of the decades of conflict.[21] The Sudan mine action program emerged at an opportune time to benefit from an experienced international mine action community poised to lend assistance and advice to a national program committed to addressing its landmine and UXO problem.

While UNMAS had provided assistance to the fledgling mine clearance efforts in the country since 2002, the signing of the CPA opened the doors to greatly expanded mine action operations covering more of this very large country. Many more mine action donors and operators also joined the effort. The UN Mine Action Office (UNMAO) in Sudan coordinates the activities of a number of UN agencies active in the country, including UNMAS, UNDP, UNICEF, UNOPS, UNHCR, and the WFP. Effective coordination is crucial in this setting not only among the various UN agencies working in the country but also the many NGOs, donor governments and Sudanese governmental authorities representing both the GONU and the GOSS.

In 2007, the country was moving ahead on several fronts to tackle its mine contamination problem, including in the areas of mine risk education and victim assistance. Spurred on by Sudan serving as the Co-Chair of the Standing Committee on Victim Assistance and Socio-Economic Reintegration, a concerted effort was made to develop a program of action to address the needs of the country's landmine victims. Two National Workshops on Victim Assistance were convened, one in March and the other in August. A National Victim Assistance Strategic Framework, developed by the NAMC and the SSDC in consultation with UNMAS and UNOPS, was presented for discussion at the first workshop, and in its final form became the guiding document in planning specific elements of the VA program.[22] A Victim Assistance National 2-Year Work Plan was presented for discussion at the second workshop and later finalized.[23]

The Work Plan includes several programmatic elements in fulfillment of the first goal set forth in the Strategic Framework: To improve the Information Management System.[24] The Work Plan elaborates four specific objectives in furtherance of this goal. These include the following:

a. To establish a nationwide mine/ERW **casualty data collection system** based on IMSMA standards;
b. To provide **technical support** to heathcare, physical rehabilitation centers and DDR sub-offices in using the IMSMA format for the identification and registration of the mine/ERW victims;
c. To **synchronize all existing databases** into a standardized national mine/ERW victims database; and
d. To **conduct VA surveys** in mine/ERW affected areas. (This objective is linked to 3a, To undertake needs assessments in at least 5 mine/ERW affected areas).

Detailed plans were being implemented in 2007 to train data collectors, monitor the data collection process, and verify the data. All data was to be entered into the IMSMA system operating in Sudan.[25] A needs assessment project was also underway in the areas of Juba and Wau (Southern Sudan). The final outcome of these data collection and needs assessment projects is not yet known, but more detailed and authoritative information about landmine/ERW casualties has been released by national and UN authorities during the year. In addition to progress on data collection, a process for issuing a Request for Proposals for victim assistance projects and selecting NGOs to implement those projects was developed and implemented, resulting in the launching of eleven specific projects in different regions of the country focused largely on socio-economic integration and physical and psychosocial rehabilitation.[26]

The Sudan Mine Action Program, despite the divisions within the country and the years of conflict, is building a comprehensive approach to addressing the many different tasks associated with eradicating the threat of landmines and ERW, including providing assistance to victims. Rather than waiting to build its mine clearance capacity first before later turning to address the needs of those injured by mines/ERW, the Sudan program has included mine victim assistance as a key component of its activities from the early stages.

Recognizing the need for good information on casualties in order to understand the scope of the problem and the needs of those affected, expanded data collection and needs assessment projects are underway and are beginning to pay dividends, although the final outcomes of the projects are not yet known. The Sudan national mine action program has established venues, such as the national workshops and Victim Assistance Working Groups, through which stakeholders can communicate and provide input into policy decisions. They have also taken advantage of technical advice and program support from experienced staff

[21]With the power sharing arrangement in Sudan based on the CPA, the structure of the mine action program becomes rather complex, with the creation in 2006 of a National Mine Action Authority and a South Sudan Demining Authority as well as the two centers (in the North and South) and several regional offices. See El-Bashir and Barac (2007) and United Nations Mine Action Service (2008).
[22]Mine Action Support Group (2007) and National Mine Action Center and South Sudan De-mining Commission (2007).
[23]United Nations Mine Action Office Sudan (2007).
[24]Republic of Sudan (2007).
[25]Mine Action Support Group (2007). Also see the Sudan Mine Action Program website for more information about these projects (http://sudan-map.org/va.html).
[26]United Nations Mine Action Office Sudan (2007).

of international agencies and NGOs. All of these factors are positive developments in building the foundations of a potentially effective mine/ERW victim information system.

ANNEX B

Data Collection Forms

1. CMVIS, "Mine/UXO Casualty Report" – form to collect information about mine accident victims. Updated February 2006. [3 pages]

2. CMVIS, "ERW Survivor Assistance Information Form" – form to collect information needed to plan rehabilitation and other programs for victims. Version 1.0, 2007. [5 pages]

3. UNICEF-CDC, "Landmine/ERW Casualty Form" form developed as part of the specialized version of EpiInfo geared to landmine/ERW casualty data ("Landmine/ER ERW Injury Surveillance System"). Full data set Version 4, October 26, 2006. [3 pages]

GPS ☐

MINE / UXO CASUALTY REPORT

Serial No. _____ Incident No. _____ – _____ (Fill in one report for each Mine/UXO victim)

1

.1 **Interviewer:** _____ .4 **Agency:** _____ .5 **Province/Office** _____

.2 **Date of Interview?** _____

.3 **Place of Interview:** _____

☐ Prov Hospital ☐ Private Clinic ☐ Other (specify) _____
☐ District Hospital ☐ Village/Town
☐ Commune Health-centre ☐ Army Camp/ Hospital

.6 **Informant type:** ☐ Government ☐ Community Member
☐ Victim ☐ Military ☐ Hospital Staff
☐ Family/ Relative ☐ Witness ☐ Volunteer

.7 **Name:** _____

.8 **Address:** _____

2

1 **WHERE did the accident take place?**

Village:
Commune:
District:
Province:

V-Code _____

2 **Current Address**

Village:
Commune:
District:
Province:

V-Code _____

3 **Where will victim go to ?**

Village:
Commune:
District:
Province:

V- Code _____

1-a **Local name:** _____ 2-a **How many months or years ?** Month: ___ Year: ___

3

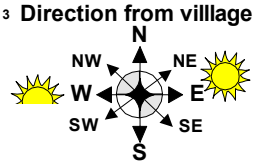
1 **What type of DEVICE caused the accident?**

a ☐ **Mine** b ☐ **UXO** c ☐ **Sub Munition** d ☐ **Unknown** e ☐ **Other (specify)** _____

Discribe: _____

Was Mine/UXO moved to this place from other area ? a ☐ Yes b ☐ No c ☐ Unknown

3 **Direction from villlage**



4

1 **Distance of Accident Site from**

a ☐ Village b ☐ GPS Point

2 **GPS Info**

48P	0	
UTM	1	

Meters: _____ Compass: _____

Describe: _____

5 **Victim Information at time of accident**

6 WHEN was the Date of Accident? _____ *Day/Month/Year*

1 **Full Name:** _____

2 **Other Name:** _____

3 **Age:** _____ 4 **Sex:** ☐ Male ☐ Female

5 **Family Status:** ☐ Civilian ☐ Military ☐ Single ☐ Widowed/Divorced ☐ Married

If Children, how many? _____

7 **Nationality:** ☐ Cambodia ☐ Thai ☐ Lao ☐ Viet Nam ☐ Other _____

8 **Occupation:**

☐ Soldier ☐ Police ☐ Farmer ☐ Fisherman ☐ Wood Cutter
☐ Driver — ○ *Moto / Bicycle* ○ *Car / Truck* ○ *Tractor*
☐ Tradesman ☐ Student ☐ Civil Servant ☐ Monk ☐ Infant ☐ Homekeeper
☐ Gatherer ☐ Development Agency ☐ Labourer ☐ Unemployed ☐ Other Specify _____
☐ *Official Deminer* — ○ *CMAC* ○ *MAG* ○ *HaloTrust* ○ *Army*
☐ *Unofficial Deminer*

6 **Information on Accident Area**

1- a ☐ on Road b ☐ Rice Field c ☐ in Forest d ☐ on Mountain/Hill e ☐ Road side f ☐ Other _____
g ☐ on Path h ☐ Grazing Field i ☐ in Village g ☐ near River k ☐ near Military Position (Camp, Base, Checkpoint, etc.)
l ☐ Mine field m ☐ Land cleared

2-Was the accident site marked as dangerous at the time of the incident? a ☐ Yes b ☐ No c ☐ Unknown
○ Unofficial ○ Official ← What kind of marking? → Was marked before? ☐

3-Has there ever been any Mine/UXO clearance at the accident site? a ☐ Yes b ☐ No c ☐ Current Demining b ☐ Unknown
○ CMAC ○ NGO ○ Army ○ Villagers ← Who cleared the area?

4-How often did the victim go to the area? a ☐ First time b ☐ a Few times c ☐ Often d ☐ Unknown

5-Did the victim know there was a MINE/UXO at the site of the accident? a ☐ Yes b ☐ No c ☐ Unknown

6-If they knew there was a mine/UXO, WHY did they go to the area? a ☐ Economic necessity c ☐ Other (specify) _____ b ☐ No other access

7-Did victim attend Mine Awareness prior to the accident? a ☐ Yes → Month/Year? _____ b ☐ No c ☐ Unknown
○ Meeting ○ House call ○ Field visit ○ School ← Direct — Indirect → ○ Poster/leaflet ○ Radio ○ TV

8-Was the child victim attending school? (For current Children only) a ☐ Yes b ☐ No c ☐ Unknown

❼ Injury Details

1 From the mine/UXO explosion, was the victim a ☐ Killed b ☐ Injured

2 If the victim died, how long after the accident did they die?

a ☐ Immediately

hours	days	weeks	months

3 WHERE did the casualty die?

a ☐ At site of accident
b ☐ On the way to health facility/hospital
c ☐ In health facility/hospital
d ☐ After leaving heath facility/hospital
e ☐ Unknown
f ☐ Other (specify) _____

	Arm	Fore Arm	Hand	Finger	Above Knee	Below Knee	Foot	Toe	Genitals
Amputation?									
Right	☐	☐	☐	☐	☐	☐	☐	☐	☐
Left	☐	☐	☐	☐	☐	☐	☐	☐	

	Face	UpperLimb	UpperBody	LowerLimb	LowerBody	EntireBody
Wounds?	☐	☐	☐	☐	☐	☐
Burns?	☐	☐	☐	☐	☐	☐
Paralysis?	☐	☐	☐	☐	☐	☐

Deaf? ☐ Very Slight ☐ Slight ☐ Serious ☐ Very Serious

Blind? ☐ 1 eye ☐ 2 eyes

❽ Medical Care

1 What MEDICAL care did the victim receive FIRST?

☐ None ☐ District Hospital ☐ Army camp/ hospital ☐ Red Cross Volunteer ☐ NGOs ☐ Other (specify) _____
☐ Treated Self ☐ Provincial Hospital ☐ Commune health centre ☐ Private Clinic ☐ Mine Action Agencies ☐ Unknown

2 How long before the victim received this first medical care?

☐ <30min ☐ <60min ☐ Unknown
☐ < 2 hrs ☐ > 2 hrs ☐ No care

3 How long before the victim reached hospital?

☐ <30min ☐ <60min
☐ < 2 hrs ☐ > 2 hrs
☐ Did not to hospital ☐ Unknown

Hospital name: _____

❾ Disability Services

1 Has the victim received any disability services ? ☐ YES ☐ NO (Mark all services received)

☐ Crutches ☐ Prosthesis ☐ Wheelchair ☐ Rehab/ physical therapy ☐ C D Worker ☐ CRC Assistance

From Org_____ _____ _____ _____ _____ _____

❿ What was the victim doing during the accident?

a ☐ **Collecting/ Cutting Wood**
b ☐ **Collecting Food**
c ☐ **Fishing**
d ☐ **Herding**
e ☐ **Farming**
f ☐ **Labour**
g ☐ **Travelling**
- *By motor vehicle*
- *On foot/bicycle*
- *By animal/Ox cart*
- *Other*

h ☐ **Military Activity**
i ☐ **Construction** (House/ Road)
j ☐ **Handling the Mine/UXO**
- **Moving it**: *To sell it*, *Demining*, *To store*, *Play/Curiosity*, *To make area safe*, *Re-use*, *Other*
- **Dismantling it**: *For fishing*, *Hunting*, *For selling*, *To make safe*, *For hitting*, *Play/Curiosity*, *Other*

k ☐ **Playing**
l ☐ **Defecating**
m ☐ **Bystander/ Spectator**
n ☐ **Doing Nothing-exploded beside victim**
o ☐ **Clearing new land for farming/settlement**
p ☐ **Demining**
q ☐ **Burning** (Not with mine/UXO)
r ☐ **Other (specify)** _____

2 Who activated the mine/UXO? a ☐ Casualty b ☐ Someone else c ☐ Cart d ☐ Car/Truck e ☐ Other _____

⓫ Were others injured/killed?

☐ YES → **How many?** Killed? _____ Injured? _____
☐ NO

What are the names of the other casualties?

1	**2**	**3**	**4**
5	**6**	**7**	**8**
9	**10**	**11**	**12**

⓬ Were any ANIMALS injured/ killed?

☐ YES → **How many?**
☐ NO

Cow :	Horse:	Pig:	Buffalo :	Other:

Return this form to: CAMBODIAN RED CROSS, 17 RED CROSS STREET, PHNOM PENH

OFFICE USE ONLY	Receipt date:	Form checked by:	Computer entry by:	Entry checked by:

Updated:February, 2006 for year 2006 version 5.0

ERW SURVIVOR ASSISTANCE INFORMATION FORM

Serial No. ☐☐☐☐☐ Incident No. ☐☐☐☐☐☐-☐☐

All questions followed by * may receive several answers

Complete one form for each victim

1-Data gatherer

Name:_____

Position:_____

2-Date of Interview: ☐☐☐☐☐☐

3-Place of Interview:

☐ Victim house ☐ Relative house

☐ Rehabilitation Center ☐ Health Facility

☐ Other_____

4-Informant type: name:_____ sex: ☐ Female ☐ Male

Address: Village_____Commune_____District_____Province_____

☐ Survivor ☐ Hospital Staff ☐ Volunteer CBMRR

☐ Authority ☐ Family/Relative ☐ Community Member

☐ Military ☐ Volunteer CRC ☐ Other (specify)_____

If not victim, why?

- ◯ *Refused to reply*
- ◯ *Unable to reply because of communication difficulties*
- ◯ *Changed address*
- ◯ *Deceased*
  - ◇ *As a result of mine/ UXO accident* → ⬡ *immediate death*, ⬡ *died later*
  - ◇ *Natural/old age*
  - ◇ *Disease/illness*
- ◯ *Others*_____

All information are related to the survivor

SECTION 1 Household information

5-Survivor Name : _____ **6-Other name :** _____ **7-age :**____ **Sex:** ☐ Female ☐ Male

8-Family status of the survivor: ☐ Single ☐ Married ☐ Widow/Widower

Number of children under 16 :_____ ☐ Divorced/Seperated → ◯Before accident ◯After accident

9-Current address Village_____Commune_____District_____Province_____

Phum Code ☐☐☐☐☐☐☐☐ How long have you lived at this address? Month(s) ☐☐ Year(s) ☐☐

10-Occupation before the accident (A for survivor B for head of family).

Main occupation

A	B		A	B	
☐	☐	Soldier	☐	☐	Unofficial Deminer
☐	☐	Policeman	☐	☐	Development Official
☐	☐	Farmer	☐	☐	Unemployed
☐	☐	Student	☐	☐	Monk
☐	☐	Wood Cutter	☐	☐	Official De-miner_____
☐	☐	Fisherman	☐	☐	Labourer
☐	☐	Tradesman	☐	☐	Scrap metal buyer
☐	☐	Civil Servant	☐	☐	Driver_____
☐	☐	Home keeper	☐	☐	Other_____

Secondary occupation

A	B		A	B	
☐	☐	Civil Servant	☐	☐	Unemployed
☐	☐	Policeman	☐	☐	Development Official
☐	☐	Farmer	☐	☐	Official De-miner_____
☐	☐	Student	☐	☐	Unofficial Deminer
☐	☐	Fisherman	☐	☐	Labourer
☐	☐	Tradesman	☐	☐	Scrap metal buyer/trader
☐	☐	Home keeper	☐	☐	Driver_____
☐	☐	Monk	☐	☐	Other_____

11-Occupation after the accident (A for survivor B for head of family).

Main occupation

A	B		A	B	
☐	☐	Soldier	☐	☐	Unofficial Deminer
☐	☐	Policeman	☐	☐	Development Official
☐	☐	Farmer	☐	☐	Unemployed
☐	☐	Student	☐	☐	Monk
☐	☐	Wood Cutter	☐	☐	Official De-miner_____
☐	☐	Fisherman	☐	☐	Labourer
☐	☐	Tradesman	☐	☐	Scrap metal buyer
☐	☐	Civil Servant	☐	☐	Driver_____
☐	☐	Home keeper	☐	☐	Other_____

Secondary occupation

A	B		A	B	
☐	☐	Civil Servant	☐	☐	Unemployed
☐	☐	Policeman	☐	☐	Development Official
☐	☐	Farmer	☐	☐	Official De-miner_____
☐	☐	Student	☐	☐	Unofficial Deminer
☐	☐	Fisherman	☐	☐	Labourer
☐	☐	Tradesman	☐	☐	Scrap metal buyer/trader
☐	☐	Home keeper	☐	☐	Driver_____
☐	☐	Monk	☐	☐	Other_____

12-Why did you have to change your occupation?

_____

13-If head of family changed after the accident (e.g widow becomes head of family or has remarried) please explain the situation _____

14-How many people live in the household? Exact number:_____

SECTION 2 Household Survey

15-What is your relation to the head of family? ☐ Head ☐ Spouse ☐ Son/daughter ☐ Stepchild ☐ Adopted child/foster-child ☐ Parent ☐ Grandchild ☐ Sibling ☐ Servant ☐ Niece/nephew ☐ Other relative ☐ Brother/sister-in-law ☐ Son/daughter-in-law ☐ Parent-in-law ☐ Other_____

16-Are there any disable person in the household ? (Apart from victim/survivor) ☐ Yes ☐ No
Type: ◯ Mine/UXO related (Numbers:____) ◯ Other accident (Numbers:____) ◯ Congenital disability ◯ Other_____

17-Are there other people in the household having terminal health problem?* ☐ Yes ◯ Malaria ◯ HIV/AIDS ◯ Tuberculosis ◯ Other____ ☐ No ☐ Do not know

18-Does the household have its own house? ☐ Yes ◯ Cement ◯ Wood ◯ Thatch ◯ Other_____ ☐ No ◯ Living with parent/relative ◯ VA center ◯ Pagoda ◯ Renting ◯ Homeless ◯ Other___

19-Does the household have its own land? ☐ Yes ◯ Resettlement (area:_____m^2) ◯ Farming/agriculture (area:_____Hec or _____Rai)
If farming, what does the victim grow ? ◇ *Paddy Rice* ◇ *Chamkar* ◇ *Vegetable garden* ◇ *Other* _____
☐ No ◯ Living with parent/relative ◯ Renting ◯ Other _____

20-Does the household have any properties?* ☐ Yes ☐ No ☐ Unknown
◯ Radio ◯ TV ◯ Motorbike ◯ Bicycle ◯ Tractor ◯ Engine ox-cart ◯ Ox/horse cart ◯ Water pump ◯ Water transport ◯ Other_____

21-Does the household have any animal?* ☐ Yes ☐ No ☐ Unknown
◯ Cow:__ ◯ Buffalo:___ ◯ Pig:___ ◯ Duck___ ◯ Chicken___ ◯ Other___

22-How much does the household earn in a year? Aver. income:_____Riel or_____dollar ☐ Do not know

23-Did the household obtain a loan ? ☐ Yes ☐ No
◯ Loan from relative ◯ NGO Micro credit (NGO's Name:_____) ◯ Landlord ◯ Employer ◯ Private money lender ◯ Other_____

24-Does anybody receive a pension in the household? ☐ Yes How much?_____ ☐ No

Section 3 to 5 is related to the victim. If the informant is the victim say YOU. If not say He or her

SECTION 3 Emergency care received after accident

25-If the victim died, was it? ☐ On the spot ☐ While being transported (By whom:_____) ☐ At medical facility (Which one:_____) ☐ Other_____

26-Did you received first aid on the spot?* ☐ Yes, by whom? ☐ No, why?
◯ Other villagers ◯ Health post ◯ International NGO
◯ Volunteer CRC ◯ Hospital ◯ De-mining agency
◯ Volunteer CBMRR ◯ Health center ◯ Traditional doctor
◯ Self care ◯ Private clinic ◯ Other_____
◯ Injuries were fatal
◯ The area was unsafe for other people to reach the victim
◯ Nobody was there at the time
◯ Couldn't afford ◯ Other_____

27-If you were transported:* **By whom?** **To where?**
◯ Other villagers ◯ Ambulance (Public Hospital, Health center, Health post)
◯ Volunteer CRC ◯ Ambulance private clinic ◯ De-mining agency
◯ Volunteer CBMRR ◯ International NGO ◯ Traditional doctor ◯ Other_____
◯ Home ◯ Private clinic
◯ Hospital ◯ International NGO
◯ Health center ◯ Other_____
◯ Health post

28-Who paid for the transportation?*
☐ Free ☐ Family/Relative ☐ Villager/ community ☐ International NGO ☐ Friend/neighbor ☐ De-mining agency ☐ Other_____

29-Did you receive medical care in link with the accident?
☐ Yes ☐ No
◯ Hospital ◯ Health post ◯ International NGO ◯ Traditional doctor
◯ Health center ◯ Private clinic ◯ De-mining agency ◯ Other_____

SECTION 3 Emergency care received after accident (Continue)

30-How long did you stay in health facility for treatment?

☐ Less than one day ☐ More than one day How many Days? Month(s) ☐☐ Year(s) ☐☐

31-How much did the treatment cost?

☐ Medical fees:_____Riel or_____Dollar

☐ Transportation fee:_____ Riel or _____Dollar

☐ Food accommodations :_____ Riel or _____Dollar ☐ Do not know

32-Who paid?*

◯ Friend/neighbor ◯ Hospital ◯ Health center ◯ Cambodian NGO ◯ International NGO

◯ Family/Relative ◯ De-mining agency ◯ Traditional doctor ◯ Other_____

Where did you get the money from? ◇ Loan ◇ House sale ◇ Animal sale:_____ ◇ Land sale ◇ Other:_____

33- Are you satisfied with the emergency care received? ☐ Yes ☐ No Why

◯ Low quality ◯ Too expensive ◯ Too far ◯ Too late ◯ Do not want to receive ◯ Other____

SECTION 4 Follow up medical care received after accident

34-Once you returned home, did you receive medical follow-up?

☐ Yes ***Where was the follow up taking place?*** ◯ Home ◯ Hospital ◯ Health center ◯ Health post

◯ Private clinic ◯ International NGO ◯ De-mining agency ◯ Traditional doctor ◯ Other_____

☐ No

Why? ◯ Health condition didn't require ◯ Couldn't afford cost of treatment ◯ Couldn't afford transportation

◯ Do not know where to go ◯ Other_____

35-(If not at home) who paid for the transportation?* ◯ Family/Relative ◯ Friend/neighbor ◯ Hospital

◯ Health center ◯ International NGO ◯ De-mining agency ◯ Traditional doctor ◯ Other_____

36-Are you satisfied with the medical follow up you received? ☐ Yes ☐ No Why

◯ Low quality ◯ Isolation ◯ Too expensive ◯ Too far ◯ Too late ◯ Do not want to receive ◯ Other____

SECTION 5 Physical rehabilitation, Prosthesis and mobility device

Complete this section for victim who were permanently disabled

37-What kind of physical disability do you suffer from?* ☐ Amputation ☐ Paralysis ☐ Deafness ☐ Blindness ☐ Other_____

SUB SECTION 5.1 Prosthesis

Complete this section for all victims who use or could use a prosthesis

38-Did you receive a prosthesis? ☐ Yes ☐ No

Where did you get it from? ◯ Self made ◯ PRC ◯ Other_____

39-Do you use it?

☐ Yes ☐ No, why? ◯ Painful ◯ Not useful ◯ Broken ◯ Not adapted ◯ Not attractive ◯ Other___

40-How long did it take before receiving prosthesis after surgery?

☐ Less than 1 year ☐ Less than 2 years ☐ Between 2-5 years ☐ More than 5 years: How long?:_____years

41-What is your PRC registration number? Number:_____

42-Time to reach the PRC in charge of your area?

☐ Less than 1 hour ☐ < 3 hours ☐ < 6 hours ☐ < 24 hours ☐ Do not know

With what kind of transportation? ☐ Car ☐ motorcycle ☐ Bicycle ☐ Pick up taxi ☐ bus ☐ Boat ☐ Other___

43-Name and address of the PRC:_____

44-Do you have the prosthesis checked regularly?

☐ Yes **By whom** ◯ PRC ◯ Other_____ **Date of the last check?** ☐☐☐☐☐☐☐☐

Where? ◯ At home (Mobile team) ◯ PRC ◯ Hospital ◯ Health center ◯ International NGO ◯ Other___

☐ No **Why?** ◯ Yourself repair ◯ Too great distance to the PRC ◯ No accommodation ◯ No transport

◯ No money ◯ Not necessary ◯ Other_____

45-Who paid for the transportation to the PRC?* ☐ Yourself/family ☐ Community ☐ PRC ☐ Other_____

46-Have you, or a member of your family, received any training or advice in methods of self-care and maintenance ?

☐ Yes Who provided it? ◯ Hospital ◯ Health center ◯ International NGO ◯ Other_____ ☐ No

47-Do you have a mobility device? ☐ Yes ☐ No

SUB SECTION 5.2 Mobility Device

◯ Crutches ◯ Wheelchair/tricycle — Where did you get it from? ⬡ Self made ⬡ PRC ⬡ Bought ⬡ Other_____

48-Do you use it?

☐ Yes ☐ No, why? → ◯ Painful ◯ Not useful ◯ Broken ◯ Causing injury ◯ Not adapted ◯ Not attractive

49-How long did it take before receiving a mobility device after accident?

☐ < 6 months ☐ Between 6-12 months ☐ < 2 years ☐ Between 2-5 years ☐ >5 years How long?:_____years

50-How long does it takes to reach the PRC in charge of your area?

☐ Less than 1 hour ☐ < 3 hours ☐ < 6 hours ☐ < 24 hours ☐ Do not know

With what kind of transportation? ☐ Car ☐ motorcycle ☐ Bicycle ☐ Pick up taxi ☐ bus ☐ Boat ☐ Other___

51-Do you have the mobility device checked regularly?

☐ Yes → **By whom?** ◯ Hospital ◯ Health center ◯ International NGO ◯ Other_____

Date of last check? |__|__|__|__|__|__|

☐ No → **Where?** ◯ At home ◯ Hospital ◯ Health center ◯ International NGO ◯ Other_____

Why ◯ Self repair ◯ Too great distance to the PRC ◯ No accomodation ◯ Not necessary ◯ No transport ◯ No money ◯ Other___

52-Who paid for the transportation to the PRC?* ☐ Self/family ☐ Community ☐ PRC ☐ Other_____

53-Did you receive physiotherapy?

SUB SECTION 5.3 Physical rehabilitation

☐ Yes → Where? ◯ PRC ◯ Government ◯ NGO ◯ Health facility ◯ CBO ◯ Traditional doctor ◯ Other_____

(If applicable) ◯ Before fitting of the prosthesis ◯ After fitting of the prosthesis

☐ No → Why? ◯ No need ◯ Too far ◯ No money ◯ No transport ◯ No acommondation ◯ Do not know where to go ◯ Other_____

54-Time to reach the physiotherapy service in charge of your area?

☐ Less than 1 hour ☐ < 3 hours ☐ < 6 hours ☐ < 24 hours ☐ Do not know

With what kind of transportation? ☐ Car ☐ motorcycle ☐ Bicycle ☐ Pick up taxi ☐ bus ☐ Boat ☐ Other___

55-Who paid for the physiotherapy sessions received?*

☐ Free(PRC) ☐ Family/Relative ☐ Friend/neighbor ☐ Other_____

56-Are you satisfied with the physical rehabilitation you received?

☐ Yes ☐ No Why → ◯ Low quality ◯ Low frequency ◯ Isolation ◯ Too expensive ◯ Too far ◯ No time to receive ◯ Do not want to receive ◯ Other_____

SECTION 6 Psychological and social support

SUB SECTION 6 Problem Identifications

57-Has the accident resulted in any mental difficulty?* ☐ Yes → ☐ No

◯ Sadness/Depression ◯ Feeling of panic/trauma ◯ Stress/Anxiety ◯ Communication problem
◯ Feeling of hopelessness ◯ Loss of self esteem/Loss of self confidence ◯ Other condition_____

58-For you personally, among the things that have changed since the accident, what is the most difficult?*

☐ For single: unlikely to be able to get married
☐ For married people: change in marital status (divorce, widow(er)
☐ Change in mobility (altered use of body limbs)
☐ Change in self care (toileting, eating, drinking, etc...)
☐ Change in the relationships (not invited to ceremony, wedding, etc...)
☐ Change in Domestic life (shopping, preparing meals, etc...)
☐ Difficulty to work, to provide for the needs of the family
☐ Difficulties to provide education for children
☐ Change in the community, social and civic life (political life, recreation and leisure, religion, etc...)
☐ Change in mental state ☐ No change

59-In your family, among the things that have changed since the accident, what is the most difficult?*

☐ Change in the relationships within the family (not invited to ceremonies, wedding, etc...)
☐ Change in relationships between family and community
☐ Change in Domestic life (shopping, preparing meals, etc...)
☐ Difficulty to work, to provide for the needs of the family
☐ Difficulties to provide education for children
☐ Change in the community, social and civic life (political life, recreation and leisure, religion, etc...)
☐ Change in view of the community toward family
☐ Change in mental state ☐ No change

60-Did any of your children had to stop going to school and look for a job after the accident?

☐ Yes **How many children had to?** _____ ☐ None

61-Do you know other people in the village in the same situation then you? (victim of accident disable/widow/orphan) ☐ Yes ☐ No

SUB SECTION 6.2 Support

62-Are there self help groups in the community? ☐ Yes ☐ No ☐ Unknow

63-Do you receive moral support to help you with these problems?* ☐ Yes ☐ No

From whom? ◯ Family ◯ Self-help group ◯ Community ◯ Pagoda ◯ NGO_____ ◯ Other____

64-What kind of development projects are there in your village? Type:_____ ☐ None ☐ Do not know

65-If there are, are you involved in them? ☐ Yes ☐ No, why? _____

66-What kind of assistance have you received in link with the accident?*

☐ Medical ☐ In kind/financial support ☐ Loan ☐ Permanent housing ☐ House repair ☐ Nothing

☐ Job_____ ☐ Vocational training ☐ Support to children education ☐ Other_____

67-Do you still receive this assistance today? ☐ Yes ☐ No

68-(If applicable) who provided assistance to you?* ☐ Government ☐ Red Cross ☐ Hospital ☐ Health center

☐ Cambodian NGO ☐ International NGO ☐ De-mining agency ☐ Generous/ benefactor ☐ Religious body ☐ Other_____

69-What meeting do you have in your village?_____

SUB SECTION 6.3 Social integration

70-Do you participate in them? ☐ Yes ☐ No, why?

◯ Not aware of meeting schedules ◯ Shame ◯ Not invited ◯ Rejected

71-Did you attend these meetings before the accident? ☐ Yes ☐ No

72-Do you feel your specific needs are taken into consideration by village leadership?

☐ Yes ☐ No ☐ Do not know

◯ sometimes ◯ Always

◯ Not aware of meeting ◯ Shame ◯ Not invited ◯ Rejected ◯ No specific needs

73-Are you involved in a leadership position in your village?

☐ Yes Name of the position:_____ ☐ No

74-Were you involved in a leadership position before the accident? ☐ Yes ☐ No

75-(If applicable) Are you aware of your right as a disable/widower/orphan?*

☐ Yes ☐ No

Who provided you with the information? ◯ NGO (name:_____) ◯ Other_____

76-Are you able to act upon your rights? ☐ Yes ☐ No ☐ Do not know

77-Do you feel that injuries/disabilities keep you from participating to community development or being selected for training/education opportunities?

☐ Yes ☐ No ☐ Some time ☐ Do not know

Other information (from representative of local authorities)

Name and Position of the respondent;_____

78-Have there previously been community development projects in the victim's community?

☐ Yes ☐ No ☐ Unknown

By whom? ◯ NGO_____ ◯ Government_____ ◯ Other_____

79-Additional information about the circumstances of the accident or situation of the victim:

_____

_____

_____

_____

_____

OFFICE USE	Receipt date:	Report checked by:	Computer entry by:	Entry checked by:

[Full data set Version 4, October 26, 2006]

LANDMINE / ERW CASUALTY FORM

Case ID Number ____ – ____ – ____

Complete one form for each casualty

1 ***Person collecting the information***

Interviewer Name: _____

Agency/Address: _____

3 **Place of Interview:** ☐ Casualty home ☐ Health Facility ☐ Other

4 **Date of Interview** ____ (day) ____ (month) ____ (year)

2 ***Person giving the information***

Name: _____

Address: _____

☐ Casualty ☐ Government ☐ Witness ☐ Other

☐ Family/relative ☐ Friend ☐ Medical staff

Casualty information

5 **Family name** _____

6 **Given name** _____

7 **Other name** _____

8 **Sex** ☐ Female ☐ Male

9 **Date of birth** ____ (day) ____ (month) ____ (year)

10 **Current address (if applicable)**

Village/town
Sub-district
District
Province

11 **Address at time of accident (if different)**

Village/town
Sub-district
District
Province

12 **Home Status at time of accident** → ☐ Refugee ☐ Settled ☐ Unknown ☐ Returnee ☐ IDP

13 **Current Family status** → ☐ Never married ☐ Widow/Widower ☐ Married ☐ Unknown ☐ Divorced/Seperated

Number of children under 16 _____ ☐ Unknown

14 **Occupation at time of accident (A) and current (C)**

A	C		A	C		A	C	
☐	☐	Deminer	☐	☐	Farmer	☐	☐	Police
☐	☐	NGO	☐	☐	Sheperd	☐	☐	Military
☐	☐	Government	☐	☐	Fisher	☐	☐	Religious leader
☐	☐	Company	☐	☐	Driver	☐	☐	Unknown
☐	☐	Homemaker	☐	☐	Not working	☐	☐	Other _____
☐	☐	Labourer	☐	☐	Student		☐	Not applicable

15 **Date of accident** ____ (day) ____ (month) ____ (year)

16 **Time of accident** ☐ Morning ☐ Afternoon ☐ Evening ☐ Night

17 **Name of town/village or closest village to accident site**

Village/town
Sub-district
District
Province
Locator Code:

18 **Did the accident occur inside or outside the town/village** ☐ Inside ☐ Outside ☐ Unknown

19 **Direction of accident from town/village centre**

☐ N ☐ S ☐ W ☐ E ☐ NW ☐ SE ☐ SW ☐ NE

GPS Information

Longitude: _____

Latitude: _____

20 **Distance of accident site from centre of the town/village** ☐ <500m ☐ 500m-2km ☐ 2-5km ☐ >5km

21 **Area where the accident occurred** →

☐ Building ☐ Road/path/street ☐ Agricultural land ☐ Non-agricultural land ☐ Bank of waterway ☐ Military position ☐ Unknown ☐ Other_____

22 **Area type of accident**

☐ Rural area ☐ Urban area ☐ Unknown

23 **Did the casualty know there were mines/ERW in the area** ☐ Yes ☐ No ☐ Unknown

24 **If they knew the area was dangerous why did they go there** →

☐ Economic necessity ☐ Curiosity ☐ Unknown ☐ No other access ☐ Other

25 **How often did the casualty go to the area** ☐ First time ☐ Less than once a month ☐ More than once a month ☐ Unknown

26 **Was there any mine/ERW clearance in the area** ☐ Yes ☐ No ☐ Unknown

By whom ◯ MAC ◯ NGO ◯ Army ◯ Local people ◯ NSA ◯ Company ◯ Unknown

27 **Was the accident site marked as dangerous** ☐ Yes ☐ No ☐ Unknown

What kind of marking ◯ Unofficial ◯ Official ◯ Unknown

28 **Did casualty receive formal mine risk education before the accident** ☐ Yes ☐ No ☐ Unknown

29 **What type of device caused the accident**

☐ Anti-tank mine ☐ Cluster Munition ☐ Abandoned Ordnance ☐ Booby trap ☐ Unknown
☐ Anti-personnel mine ☐ Other UXO ☐ Improvised Explosive Device ☐ Fuse/detonator ☐ Other _____

30 **What was the casualty doing when the accident occurred**

☐ Playing/recreation ☐ Farming ☐ Grazing animals ☐ Local Demining ☐ Unknown
☐ Hunting ☐ Military Activity ☐ Gathering food/wood ☐ Travelling on foot/bicycle ☐ Other _____
☐ Fishing ☐ Construction ☐ Scrap metal collection ☐ Travelling by vehicle
☐ Housework ☐ Collecting water ☐ Official demining

31 **Who activated the mine/ERW** ☐ The Casualty ☐ Someone else ☐ Vehicle ☐ Animal ☐ Other _____

32 **What caused the device to explode**

Intentionally touched mine/ERW
☐ *To move it* ☐ *To use metal/explosives*
☐ *To make it explode* ☐ *To dismantle/destroy*
☐ *Play/curiosity*

Accidentally touched mine/ERW
☐ *Stood/drove over it* ☐ **Unknown**
☐ *Moved it* ☐ **Other** _____

33 **Were others injured/killed in the accident** ☐ Yes → **How many** Killed ___ ☐ No ☐ Unknown Injured ___

34 **From the mine/ERW accident, was the casualty** ☐ Killed ☐ Injured

35 **If the casualty died, how long after the accident did they die** ☐ Immediately | *hours* | *days* | *weeks*

36 **If the casualty died, where did they die** →
☐ At place of accident ☐ On the way to health facility/hospital ☐ Unknown
☐ In health facility/hospital ☐ After leaving health facility/hospital ☐ Other _____

37 **What injuries did the casualty suffer** →

Complete this section for all casualties who were killed or injured

	Arm	Fore Arm	Hand	Finger	Above Knee	Below Knee	Foot	Toe
Amputation *Right*	☐	☐	☐	☐	☐	☐	☐	☐
Left	☐	☐	☐	☐	☐	☐	☐	☐

Wounds ☐ Face ☐ Upper Limb ☐ Upper Body ☐ Lower Limb ☐ Lower Body ☐ Entire Body

Burns ☐ Face ☐ Upper Limb ☐ Upper Body ☐ Lower Limb ☐ Lower Body ☐ Entire Body

Permanent blind ☐ One eye ☐ Both eyes **Permanent deaf** ☐ One ear ☐ Both ears

Paralysis ☐ Face ☐ Upper Limb ☐ Upper Body ☐ Lower Limb ☐ Lower Body ☐ Entire Body

38 **What was the highest level of medical care the casualty received** →
☐ None ☐ Treated Self ☐ Hospital ☐ Clinic ☐ Community member
☐ Traditional docter ☐ Unknown ☐ Ambulance/medic ☐ Other _____

39 **How long before the casualty received FIRST medical care** →
☐ <30min ☐ <60min ☐ Unknown
☐ < 2 hrs ☐ > 2 hrs ☐ Not needed

40 **Hospital/clinic name** _____ **Address** _____

Complete this section for casualties who were permanently disabled in the accident

41 **Does the casualty receive financial/in-kind support** ☐ Yes ☐ No ☐ Not needed ☐ Unknown
→ *From whom* ◯ NGO ◯ Govt ◯ Private/family

42 **Does the casualty have a prosthesis** ☐ Yes ☐ No ☐ Not needed ☐ Unknown

43 **Does the casualty have a wheelchair** ☐ Yes ☐ No ☐ Not needed ☐ Unknown

44 **Does the casualty have other walking aids** ☐ Yes ☐ No ☐ Not needed ☐ Unknown

45 **If the casualty is between 5-15 years is s/he attending school** ☐ Yes ☐ No ☐ Not applicable ☐ Unknown

OFFICE USE	Receipt date:	Report checked by:	Computer entry by:	Entry checked by:

Case ID Number |_|_|_|_|_| – |_|_|_|_|_| – |_|_|_|_|_|

Additional Information about the circumstances of the accident or situation of the casualty:

_____

_____

_____

_____

_____

_____

_____

_____

_____

List here the names and contact details of other casualties if known

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

ANNEX C

Lessons Learned

The following "Lessons Learned" about the creation and operation of landmine casualty data or victim information systems were written based on the research conducted for this research project. They were posted for comment on the Mine Action Lessons Learned Database, accessed via the JMU MAIC website at: http://maic.jmu.edu/lldb/.

Subject
Establishing an effective casualty information system

Category
Victim Assistance

Situation
The collection, management and analysis of landmine/ERW casualty data has proven to be a significant challenge for most mine-affected countries. With the development of IMSMA and the LIS process, many countries have created casualty databases but are often challenged to use that data productively in planning for mine action activities. Landmine/ERW casualty data can be used for a number of different purposes within a national mine action program, depending on who will be using it and which questions they want to have answered. Lots of different types of casualty data can be collected, but only data that is of specific use to some component of the mine action program (mine clearance, mine risk education, mine victim assistance, and advocacy) should be collected and stored. As early as possible in the development of a landmine/ERW casualty information system, the following steps should be taken to promote the development of an effective system.

Recommendation/Comment
1. Before launching a casualty data collection effort, it is best to identify the stakeholders involved – the various departments within a mine action center, the relevant government ministries, the survivor assistance rehabilitation services providers, organizations of landmine survivors and other persons with disabilities, mine/ERW-affected communities, and financial donors – and their potential needs for casualty data (what questions do they want to have answered?).

2. It is also essential to designate a casualty data focal point – a mine action organization, governmental ministry or non-governmental agency that will have the authority to coordinate the casualty data collection effort, manage the data, oversee its dissemination to other entities, and monitor the functioning of the data system. Effective coordination and management of casualty data will help prevent duplication of efforts, ensure that the data collected is reliable and usable by those who need the data, and that the data is protected and yet accessible to the relevant stakeholders.

3. The focal point and the stakeholders should meet to develop a standard or protocol for the collection, management and dissemination of landmine/ERW casualty data. A mechanism should be developed to allow for continued communication among stakeholders on casualty data matters.

Posted by
Suzanne Fiederlein (MAIC) on 5/21/2007

Subject
Potential Value of Mine Victims Needs Assessment

Category
Victim Assistance

Situation
Conducting a mine victims needs assessment can provide valuable information for defining the extent of the need for services and the particular types of medical and rehabilitation services required. These detailed surveys generally focus on landmine/UXO survivors but can also gather information on other victims, such as family members of those injured or killed in accidents. The data collected can augment the accident data collected by a mine action center and thus also be of use to those working in mine clearance and MRE activities. However, certain precautions need to be taken in order to ensure the effectiveness of the survey process and its results. Several countries have now conducted or are conducting such needs assessments (among them, Azerbaijan, Guinea-Bissau, Lebanon, Tajikistan). Based on their experiences, several recommendations can be made for planning and conducting a mine victims needs assessment.

Recommendation/Comment
1. Careful advanced planning is required. Effective planning means the survey will obtain the information required and reduce the possibility that additional surveying of survivors will be needed in the future. All stakeholders should be identified and engaged in the planning process. Clear objectives for the needs assessment should be written and agreement reached about how the results will be used and disseminated, including ways to protect against the unnecessary release of personal information. Logistical issues such as how many surveyers are needed, what type of training is required, and how the data will be managed and stored should be considered.

2. Make use of existing data before collecting additional data. What sources of data on landmine victims, survivors and persons with disabilities are available? What information do they provide? How can different sources of data be integrated? Once such questions are answered then the need for additional information can be determined.

3. Limit repeated surveying of survivors and other victims. Be aware that the act of surveying people can raise their expectations that services will be forthcoming. Make plans to provide some services to meet the needs of survivors. Be clear in com-

munications with those being surveyed, and be careful what is promised to them so that expectations are not unduly raised.

Posted by

Suzanne Fiederlein (MAIC) on 6/27/2007

Subject

Stakeholders & establishing a casualty information system

Category

Victim Assistance

Situation

While assembling the elements of an effective landmine/ERW casualty information system can be a challenge – determining the data fields, designing the data collection form and data collection methods, building the database, setting up data entry and verification processes, etc. – building the necessary cooperation and communication among stakeholders can be an even greater challenge. However, the long-term success of the information system depends on getting all the key stakeholders to buy into the system.

Recommendation/Comment

A recently established mine action program can greatly benefit from taking the time early in its existence to meet with individual stakeholders or small groups of stakeholders to listen to their casualty data requirements and discuss with them the benefits of sharing data and establishing a nation-wide casualty data system. Uganda provides an example of a country where mine action staff are making the effort to meet with representatives of relevant government ministries, NGOs and survivors groups to build the connections and support needed to create a viable information system. The casualty information system, based on the new version 4 of IMSMA, is still in its infancy but crucial support for its effective operation is slowly being established.

Even a more mature mine action program can benefit from taking the time later on to bolster communication and cooperation among its stakeholders. In Bosnia & Herzegovina, the BHMAC now is in the process of creating a better integrated nation-wide casualty information system. In order to do this, it has been meeting with representatives of NGOs and government ministries to reach agreement on a common data collection form and the protocol for data sharing. As in the case of Uganda, this has taken considerable time and effort but promises to yield positive results in establishing a viable and sustainable landmine/ERW casualty information system.

Posted by

Suzanne Fiederlein (MAIC) on 8/21/2007

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2. Centers for Disease Control and Prevention
   International Emergency and Refugee Health Branch
   4770 Buford Highway (F-29)
   Atlanta, GA 30341, USA
   Tel: 770 488.7667
   Fax: 770 488.7075
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7. International Committee of the Red Cross
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Fax: 41 22 733.20.57
Email Address: helpicrc.gva@icrc.org
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8. International Trust Fund for Demining and Mine Victims Assistance
Ig 212
1292 Ig, Slovenia
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9. Mine Action Information Center
MSC 4902
James Madison University
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Homepage URL: http://maic.jmu.edu
Global Mine Action Registry (information on organizations involved in mine action): http://maic.jmu.edu/gmar/default.asp

10. Polus Center for Social & Economic Development
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11. Survey Action Center
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13. Survivors Corps (formerly Landmine Survivors Network)
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14. United Nations Development Programme
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