

# Landmine Surveys

## Key to Assessing and Understanding the Problem

### Contributor:

#### Richard Kidd

*Richard Kidd graduated from the United States Military Academy in 1986 and served as an Infantry Officer until 1991. After graduate school, he joined the United Nations in 1993, serving in a variety of conflict and post-conflict areas. He then led the Survey Action Center in an effort to conduct comprehensive socio-economic surveys of the impact of war, mines and abandoned ordnance on societies recovering from conflict. He currently serves as a Foreign Service Officer in the Bureau of Political Military Affairs at the U.S. Department of State.*

**Introduction ||** Humans fear the unknown. By their very nature, landmines represent an unknown threat, a true “hidden killer.”

Discovering this unknown and shaping the problem is perhaps the most challenging aspect of mine action. The various types of landmine surveys are the processes that the mine action community uses to assess the situation, mobilize and prioritize resources, acquire data, manage information, develop training programs, produce management structures, procure and employ appropriate and safe equipment, develop strategic and operational action plans, and measure and evaluate performance.

**The Evolution of Survey ||** Initially, the mine action community referred to three “levels” of survey: Level 1

“general” survey, Level 2 “technical” survey and Level 3 “post-clearance” survey. This approach implied a sequence that was, for a variety of reasons, often not followed. A proliferation of different methods of each of these types of survey developed between, sometimes within countries. As a consequence, the quality of information collected varied widely and was often incompatible with broader relief and reconstruction objectives. Perhaps, the biggest failing of this tiered approach was that it focused almost exclusively on discovering information only about mines without giving a great deal of attention to the effects that the mines were having on the safety and livelihoods of people.

To correct this deficiency, a new survey process, the “Level 1, Impact Survey” was developed in 1999. The “impact survey” differs from a “general survey” in that while still collecting mine-specific information, it also collects information relating to the social and economic impacts experienced by surrounding communities. The Impact Survey process was designed in tandem with the Information Management System for Mine Action (IMSMA). IMSMA is a sophisticated database and mapping software program that allows standardized data regarding

almost all aspects of mine action to be used to support a variety of management functions like establishing program priorities, allocating demining teams, analyzing accident trends and evaluating performance.

**Continuous Assessment and the Mine Action Standards ||** In the continuing evolution of the survey processes, the newest version of the International Mine Action Standards (IMAS) outlines how surveys, as function areas, work to support a more comprehensive approach to “general mine action assessment.” IMAS 08.10 defines the purpose of such an assessment as:

“to continually gather, evaluate, analyze and make available sufficient information to assist and update strategic planning, to continually update data on the nature and extent of the hazards and hazardous areas, the impacts of such hazards and other important planning information.”

Within this broader approach, based on national assessments, the three specific types of survey, remain, designated by their functional titles:

**Impact Survey ♦ Methodology:** Culturally sensitive survey teams visit all mine-affected communities in a country to assess the extent and type of impacts, record general minefield area locations with sketch

A community interview in the Al-Nadera district of Yemen helps deminers locate possible minefields.





A deminer marks the borders of a minefield in Cambodia.

maps and photos, and collect basic demographic and economic data. Rigorous safety and quality control measures are in effect and results are certified by the UN.

*Purpose:* The Impact Survey is used to develop strategic national plans and priorities based on economic and social requirements, set program size, and establish a baseline for performance and review progress.

**Technical Survey ♦ Methodology:** Skilled deminers using metal detectors, and often mine dogs and/or mechanical devices, to delineate and mark the exact perimeters of a minefield, firmly establish the types of mines present, and estimate the degree of clearance difficulty.

*Purpose:* The Technical Survey is used to reduce immediate hazards by marking the boundaries of known mined areas and to provide information needed to select the most appropriate priority and method for clearance.

**Post-Clearance Survey ♦ Methodology:** Demining teams upon completing clearance will conduct a post-clearance inspection of the site, take corrective action if required and emplace permanent survey markers for future reference.

*Purpose:* The Post-Clearance Survey is used to firmly establish that

the land has been properly cleared and is safe to turn over to local populations. This step is critical to ensure full utilization of cleared land.

Taken together, the various survey processes generate the information required to effectively manage a mine action program. Impact Survey data ensures that resources are allocated where they will do the most good. Technical Surveys ensure that clearance assets are allocated where they will be the most efficient, and post-clearance information on cleared lands is made available for follow-on use.

Determining the impact of mines and UXO on a community requires a clear understanding of community needs and individual requirements for basic survival. The socio-economic impact imposed by mines and UXO can affect all aspects of life.

Furthermore, analyses of threat or risk require a clear understanding of several technical factors: type of mine/UXO, terrain conditions, expected land use and proximity to infrastructure or civil population, all of which can lead to a broad choice of strategies.

## Global Impact *by Huntington Associates*

In parts of the world where most of the population depends on agriculture, which describes much of Asia and Africa, the presence of landmines has made farming a dangerous occupation. Everyday activities such as going to school or tending a garden can be hazardous. Starting with the devastation of individual lives and spreading through communities, countries, and entire continents, the presence of landmines in civilian societies is a blight on the 21st century.

**The Poorest of the Poor Live with Landmines II** In Sri Lanka, Mohan Tharmalingam, a 30-year-old broom maker, was crossing a rice field early one Saturday morning, collecting sticks for his trade, when he lost his leg to a mine. "I used the same route through the rice fields as always," he said. "I thought it was a safe path."

Today, two-thirds of the world's poorest families—broom makers like Mohan, farmers, villagers and refugees—live with the daily terror of mines. They go about their tasks knowing that there are mines lurking in their fields, tea plantations, orchards and grazing lands. They understand that, sooner or later, one of them will die or be maimed by a mine or piece of unexploded ordnance (UXO), yet they have no other choice but to go about their daily business.

Mohan was one of the lucky ones. Even though his fellow villagers refused to come to his rescue, fearing that they too would set off a mine, he was able to crawl out of the field, was taken to a hospital in Jaffna, and survived. According to the International Committee of the Red Cross, half of all victims of mine accidents die before reaching medical facilities.

Many of those who survive face painful futures. Without physical rehabilitation, psychological support, and help in social reintegration—services that are often lacking in developing countries—they become burdens to the families who must care for them at the same time as they are rebuilding their farms and their communities. In some societies, landmine survivors face the added misery of being treated like outcasts. Many Cambodians believe that if you are missing a limb, you are not a whole person. Wives who survive confront the possibility of being instantly divorced by their husbands; without new skills gauged to their physical limitations, they are hard put to support themselves.

There are countless other mine victims who have not had accidents but are victims all the same: children who starve because they dare not pick fruit in mined orchards, fishermen who cannot fish because the banks of the river are filled with the debris of war, elderly people with no medicine because the roads are unsafe and shopkeepers without produce because farmers are afraid to plow their fields. Even though these people may not have lost a limb to a mine, the debris of war is ruining their lives.

**Some Civilians Use Mines for Self-Protection II** To combat the devastating effects of nuisance mines, local farmers and civilian leaders sometimes use mines themselves to protect their families and their land. The civilian use of mines for self-protection is evidence of the complexity of the landmine issue.

A once-prosperous farmer, whose tea plantation stretches along the shores of the Black Sea, explained that during Abkhazia's war for independence in 1992, he used landmines to protect his farm from hostile Georgians. "If my neighbors and I had not done so, we would have lost our homes and our tea harvest," he said. "Sometimes we put the mines out at night and removed them at daybreak. They were our guards, and we were grateful for them."

In the village of Tmar Pouk, a former trading center in the north of Cambodia, various warring factions such as the Cambodian Army, the Khmer Rouge, Royalists and numerous insurgent groups laid mines over a period of 25 years. According to the Tmar Pouk village chief, the people of his village also laid mines to protect themselves from marauders. "Landmines saved us," he said. "Without them our wives would have been taken and our children slaughtered. We would not be alive. In a wartime situation if you have the ability to lay 100 mines and protect your family, you will use whatever is available, and it doesn't matter if someone says you shouldn't."

In Pakistan, villagers have been picking up mines and re-laying them elsewhere to protect their families from burglars. These and other examples illustrate the paradox that mines present to many of the poorest families in the world today.

**The Global Challenge II** Landmines, UXO and other debris of war take their toll on lives, livelihoods, humanitarian assistance and local environments. Their continued presence deters peace building, reconstruction, development and the spread of democracy. There is approximately the same number of mines in the ground today as there was in Europe after World War II. The fact that those mines were cleared in five years suggests that it is feasible to rid the earth of these mines; the international community is committed to doing so as quickly as possible.

The international community has stepped up to the challenge; it understands that supporting humanitarian mine clearance is the only way to prevent further accidents, return land to communities and help war-torn nations to get back on their feet again.