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
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.