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Landmine Impact Survey: Measurement and Display of Suspected Areas

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"Mineseeke is not the panacea for landmines; it's a tool, it's something that can be used. We're not going to replace the manual deminer with a stick in the ground, but what we hope to do is give him a smaller area to search. Landmines are a problem that we can solve. They're not going to go away, but I think that if we work together and we find resources, it is a thing unlike almost anything else, that can be solved within our lifetimes. And if we get together, we can do it."  

**Footprint left by a cluster bomb strike, as viewed from the Mineseeker Airsh ip.**

**The Future of the Mineseeker**

The Mineseeker Foundation's goal is to develop and deploy several systems to countries with severe landmine problems. The organization aims to provide the system at no cost to the host nation. Mr. Kendrick explains, "We don't want to differentiate just for money; in other words, we shall go to the area of the most need." Once Mineseeker has acquired the necessary funding, the organization will use a closed tender bid process to determine which suppliers will develop the prototype into the customized system they plan to deploy, and the Mineseeker advisory board will decide which suppliers to contract for the project. As a leading company in its field, QinetiQ, Britain's largest independent institute of science and technology, is the leading contender for providing these services. From development through to the deployment of the first system will take about one year. According to Mr. Kendrick, the first Mineseeker system will go to "an area of outstanding need yet to be defined." Many countries have a great need for better-wide area mine-detection tools and are interested in receiving the system. The foundation hopes to deploy five ships to mine-affected parts of South America, Africa, Asia, and central Europe.

**Conclusion**

Through trial implementation, the prototype Mineseeker system has proven its viability as an aerial survey tool. It is gaining support from many people, and has already been endorsed by Nelson Mandela, Sir Richard Branson and Queen Noor of Jordan. With hopeful prospects for funding and, given its visibility worldwide, the Mineseeker Foundation will soon be able to go forward with the momentum it gained through its successful trials. With the Mineseeker in the toolbox, the mine action community will be one large step closer to making the world safe from landmines.

**by Hemi Morete, Programme Officer, CMA**

Introduction

The planning of safe, effective and efficient mine action requires accurate, appropriate and timely information. During the early stages of a mine action programme, the availability of such information may be limited. Over time, however, systems are established to collect, collate and evaluate information on the landmine threat and its impact. Such information is needed for planning at the strategic and operational levels and should be made available in a timely manner to planners at the national level (normally the staff of a mine action centre), to implementing partners such as demining non-governmental organizations (NGOs) and to other stakeholders such as the donor community.

Prior to the development of the LIS process, the scope and nature of the landmine problem was generally expressed in terms of the number of mines, the total area of land contaminated, or a combination of the two. The LIS process provides a different approach by measuring the socio-economic impact of mines on affected communities. The Survey Working Group (SWG) defines the purpose of LIS as "to facilitate the prioritisation of humanitarian mine action at the national, regional and global level.

The global application of the LIS has successfully refocused attention away from a purely quantitative measurement of the mine and UXO threat to a qualitative assessment of impact on mine-affected communities.

**Landmine Impact Survey: Measurement and Display of Suspected Hazard Areas**

The purpose of a Landmine Impact Survey (LIS) is to facilitate the prioritisation of human, material and financial resources supporting humanitarian mine action at the national, regional and global level. The LIS process provides a different approach by measuring the socio-economic impact of landmines on affected communities. The global application of the LIS has successfully refocused attention away from a purely quantitative measurement of a mine and UXO threat to a qualitative assessment of impact on mine-affected communities.

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The reliability and accuracy of information leading to an amendment of such data should not be underestimated. This will ensure reliability and accuracy of the information that put in the first place.

**Stakeholder Needs and Expectations**

The key stakeholders in a national mine action programme have different needs and expectations for an LIS. Mine-affected communities who provide information to survey teams, expect that their participation in the LIS will lead to timely and effective demining interventions in line with their own priorities and needs.

Clearance organisations expect the LIS to provide information to assist them with their own management decisions. In particular, they require information in sufficient detail to enable them to conduct technical surveys and other follow-up activities effectively and safely.

The information includes:

- The boundaries of suspected contaminated areas and technical details of the threat.
- The proximity of settlements to SHAs.
- The type of terrain and vegetation cover.
- The nature and extent of damage to structures.
- The proximity of medical facilities and other relevant infrastructure.
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There is an expectation from clearance organisations that the LIS will lead to an enhanced level of transparency and accountability in mine clearance activities—leading to a logical and transparent prioritisation system and annual work plans.

National mine action authorities will also require information that is comprehensive, accurate, and timely. This information will be required to define the area required for clearance and estimate as to the clearance resources required.

**LIS Outputs**

The LIS process has four primary outputs:

1. Information on mine and UXO victims and general behavioural patterns.
2. A general information on the socio-economic impact of mines and UXO on affected communities.
3. Information on the types of terrain and vegetation cover.
4. Information on the type of demining equipment and operational activities.

*The primary outputs enable a wide range of other processes and activities to take place.*

Expectations from these data include:

- Provisioning of technical support for surveys and operational planning.
- Monitoring and evaluation of clearance activities.
- Identification of mined areas for potential use as safer zones.
- Assessment of the potential for mine clearance activities in the context of other activities.
- Identification of areas that are suitable for mine clearance activities.
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resulting from the harm or risk of harm caused by mine and UXO hazards and hazardous areas.

Mine Impact is the product of:

a) The presence of a mine/UXO hazard in the community.

b) Inherently risk associated with the use of infrastructure such as agricultural land, water sources and distribution.

c) The number of victims of mine and UXO incidents within the last two years.

Impact Survey

An assessment of the socio-economic effects of an actual or perceived presence of mines and UXO, in order to assist the planning and prioritisation of mine action programmes and projects.

Technical Survey

The detailed topographical and technical investigation of known or suspected mine areas identified during the planning phase. Such areas may have been identified during the general mine action assessment or have been otherwise reported.

Endnotes

1. DMAS 08.10
2. DMAS 08.20
3. Defined in this paper as affected communities, mine action operators, national authorities, international organisations and donors.

Developing Mine Action Legislation

The GICHD has recently published a handbook titled “Developing Mine Action Legislation.” The booklet is intended to assist governments, mine action professionals and others to develop national legislation to coordinate and regulate mine action in a country affected by landmines. It identifies the principal elements to be included in such a law and the issues that should be considered in its preparation.

Some specific advantages of regulating mine action through national legislation are as follows:

- Wide involvement of the national parliament and government agencies in the development of the law will greatly increase understanding of the purpose of mine action and the responsibilities and needs of the NMAA and MAC.

- Coordination and cooperation between the government's main regulatory bodies and organizations associated with mine action will be facilitated and reinforced.

- The NMAA and MAC will be provided with strong mandates under national law.

- The roles and responsibilities of the NMAA and MAC can be more clearly defined (including implementation, accreditation and monitoring).

- Close collaboration will often result in a large degree of transparency and in the structuring and planning of mine action.

- There can be better accountability to donors, the country's citizens and its communities.

Mine action legislation is an important, but often overlooked, part of a country's response to UXO contamination. Consideration of the elements presented in this article will help to ensure that mine action can proceed effectively and efficiently, and meet the requirements of the broader MAG. This will help facilitate the rapid removal of UXO and help reduce the long-term impact of a past conflict.

The full details of the handbook are available on the GICHD website at www.gichd.ch, or hard copies can be ordered from the Centre (see contact information below). The GICHD is also in a position to provide training or arrange workshops on the development of legislation for mine-affected countries.

Other News

Just prior to the 5th Meeting of States Parties to the AP MB, the GICHD also launched another publication, called “A Guide to Mine Action.” Over the past decade, mine action has rapidly developed as a humanitarian and development discipline. For a newcomer to the subject, however, the disparate nature of the sources sometimes makes it difficult to understand the complexities and inter-relationships of the different mine action components and activities. Moreover, specialists in one area of the discipline may not be aware of developments in other areas.

"A Guide to Mine Action" has been prepared by the GICHD as a basic grounding to the diplomat, donor, lawyer,