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**Minefield as a School Ground: The Tzur Baher Minefield Clearance Project**

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Over the past 15 years, mine action has evolved into an established component of the relief and development agenda. During this period, programmes and projects for demining, mine-risk education, victim assistance, advocacy and mine-affected destruction have been discussed, refined and improved by operators, programmes, diplomats and actors. As part of its ongoing role to reinforce the effectiveness and efficiency of mine action, the GICHD commissioned contributions from development and mine-action experts on the many lessons that have been learned over the past 15 years and the challenges that remain to be met. These have been brought together in a book titled Mine Action: Lessons and Challenges.

Following an executive summary of its main conclusions and findings, the work is laid out in two parts. Part I looks at the core activities—the “pillars”—of mine action: advocacy, victim assistance, mine-risk education, demining and stockpile destruction. Part II looks at key management issues, specifically programme coordination and management, information management and capacity development. This work concludes with a thought-provoking assessment of what mine action has actually achieved. The book was published in November 2005 and can be ordered via the GICHD Web site.

IMAS Mine-risk Education: ‘Best Practice’ Handbooks

The seven mine-risk education components of the International Mine Action Standards outline minimum standards for the planning, implementing, monitoring and evaluation of MRE programmes and projects. The IMAS are long-standing, representing the international authorities, operators and donators on what is necessary for the development and implementation of effective MRE programmes. However, they do not guide stakeholders on how they might adapt their programmes to be more compliant with the standards.

To facilitate the implementation of the MRE standards in the field, UNICEF recently commissioned the GICHD to develop a series of “best practice” guidebooks to provide more practical advice on how to implement the MRE standards. A total of 12 guidebooks have been developed using a variety of people, countries and contexts. The guidebooks address a wide range of areas covered by the MRE IMAS, including:

- How to support the coordination and the dissemination of public information
- How to implement risk education and training projects
- How to undertake community mine-action fusion
- What elements should be considered to implement effective MRE projects in emergencies

Copies of the guidebooks are available by contacting GICHD or UNICEF, or online at www.mineactionstandards.org.

Ongoing Work at the GICHD

The GICHD is undertaking a major study, Land Releases & Risk Management Approaches, which aims to examine the various processes used to release land (other than by full clearance) and to advise on ways in which a risk-management approach can be applied to speed up this process. The study will be completed by the end of 2006.

The development of the International Mine Action Standards has been undertaken by the GICHD on behalf of United Nations Mine Action Service. There are currently 38 existing IMAS and 13 are in the final approval stage of the process. The latest IMAS are always posted on the Standards’ Web site (www.mineactionstandards.org) and the GICHD produces an updated CD each year. A revised, simple Guide to IMAS was published in early 2006.

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by Ian Mansfield | Geneva International Centre for Humanitarian Demining |
The residents encroached on the minefield boundaries to a point that some of the homes were built bordering the field. The presence of these homes made removing mines much more difficult and called for a gentler and more accurate clearance process.

Clearing the Field

Demining companies in Israel must be approved by the Ministry of Defense and the IDF to assure compliance with quality-controlled standard operating procedures. Maavarim Civil Engineering has years of experience in contracting with the MoD for mine clearance and explosive ordnance disposal projects, and was chosen to conduct the mine clearance and to prepare the field for construction of the school. Because this project was undertaken on behalf of the villagers, a special Maavarim liaison officer was appointed to keep the villagers informed during all stages of the project and to address any complaints that arose.

Maavarim’s standard operating procedures, based on the International Mine Action Standards, led the planning and execution of the work on the Tzur Bateh project from start to finish. The work on this site was a combination of a few methods. Although the survey and analysis of the field showed no evidence of anti-tank mines, to identify and dispose of the presence of this type of mine, Maavarim personnel marked the boundaries of the field and conducted manual demining using metal detectors.

Next, mechanical demining removed the land to a depth of 0.5 meter (1.6 feet) to the bedrock. In the last stage, Maavarim used specially trained mine-detection dogs to verify that all mines had been removed. The Israeli Army provided supervision and final approval for the clearance of the field, accepting Maavarim’s recommendation to approach this project according to IMAS, even though the IDF does not normally work according to IMAS.

Conclusion

The work on the site started in early September 2005 and was completed by the end of October. Construction will be completed by May 2007. The Tzur Bateh project is to demonstrate that the government is responsible for clearing a minefield that was not left by its army. Additionally, the Ministry of Justice set a new precedent involving the areas of responsibility of each body involved in civil and humanitarian mine clearance. The decision to force the Jerusalem municipal- ity to fund mine clearance and to force the army to then be professionally responsible for landmines did not replace a model for mine-clearance activity in Israel—a model that hopefully will lead the way to clearing minefields.

This article was written with assistance from the project manager, Mr. Ishay Te'avivi of Maavarim Civil Engineering Ltd. See Endnotes, page 112

The report gives an overview about the preparation and describes in detail the methodology and procedures used to achieve comparable results. The technical details of the detonators described in the report are divided into two categories: technical information that is relevant to users and that which is relevant to technical personnel. A full chapter explains the main factors influencing metal-detector performance—the ground. A simple method to measure and gain knowledge about the magnetic soil properties is explained.

In this trial, we were able to take advantage of seven prepared lanes used for training purposes by the Accelerated Demining Program. Lane 1 constructed builders’ sand from a sandpit. Lanes 2–6 contained five different soil types from the zone around Moamba. Lane 7 contained soil from Namaacha, adjacent to the Swaziland border. With those seven lanes and increasing detection difficulties from one lane to the other, the results reflected the influence of soil on the detection abilities of the current metal-detector Beet.

The detectors being tested included the 12 latest models from the following manufacturers:
• CEA S.p.A.
• Elbit Electronics
• Haier Ltd.
• Institute Dr. Foerster GmbH and Co. KG
• Mindalt Pty Ltd.
• Schick Elektronische Geräte GmbH
• Shanghai Research Institute of Microwave Technology
• Villon GmbH

The results of the trial are laid out in two chapters of the report. One describes the direct comparison of all detectors versus the 13 targets and the seven soil types, and the other is an individual assessment of each detector. For sensitivity comparison in air, the detectors were...