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Mechanical Demining: From 1942 to the Present

Pehr Lodhammar

*Geneva International Centre for Humanitarian Demining (GICHD)*

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have completed clearance obligations—12 may meet the obliga-
tion, and at least it will request an extension to meet it. Mozambique is included in this list of those needing an extension.7

Mozambique has made earnest efforts to support mine-
action activities—demining has been integrated into govern-
ment plans to reduce poverty as a cross-cutting priority. This measures clearly shows its commitment to demining and to the Ottawa Convention.

The challenge remains: With a myriad of priority areas to be funded, resources are limited. Clearance itself relies heavily on industrialized world technology and funding. Para-doxically, it costs as little as US$3 to produce a landmine yet as much as $1,000 to remove it once it has been emplaced.8 Mozambique has benefited from financial and technical support from the donor community; however, due to the country’s low level of econ-
omic development, Mozambique’s needs always exceed the resources available.

It is vital to mention that the Convention has played a very important role in limiting the proliferation of anti-personnel mines, however, actual mine clearance is an essential compo-
nent of the solution to the global problem.9

Contrary, the flow of funds from donors for clearance activities has declined year after year. In the case of Mozambique, different international nongovern-
mental organizations have left the country or are in the process of phasing out their activities. This situation is of great concern because landmine-affected States Parties are faced with insuffi-
cient funding to continue demining activities and, thereby, ful-
fill their Ottawa Convention deadlines.

What is the Next Step?
Article 5 of the Ottawa Convention states that each State Party has the right to seek and receive assistance for the fulfill-
ment of its Convention obligations and to request assistance in the implementation of its national mine-action plan.10 States also have the responsibility to make an effort to meet the Conven-
tion deadlines. Although the government of Mozambique has been increasing its funding to mine action, mine clearance has proven costly, and external funding is crucial for Mozambique to reach its final goal.

It is clear that the failure to meet the deadline means that Mozambique, and many other countries, will need more re-
sources. Mine action must compete for the same resources as other problems, namely poverty, endemic diseases, and the ef-
fects of high oil and food prices. This battle of priorities puts im-
mense pressure on donors and States Parties, and mine action is likely to lose the tug of war for funding.

As Olivier Vodon, then-President of the International Com-
mittee of the Red Cross, mentioned on his statement to the 8th
Meeting of the States Parties in Jordan in 2007, “Every day during which the Convention’s deadline is not met is a day in which hundreds of civilians are killed or injured.” The Mine Ban Convention will be judged on the basis of States Parties’ capacity to manage clear-
ance deadlines in a way which maintains the viability of the Conven-
tion and creates maximum pressure for completion be-
fore the deadline or within a realistic well-planned and ade-
quately funded extension period.11

At this juncture, it is necessary to look at different countries, their level of contamination, and the resources available to assist them in safely and clearly leaving their lands free of these deadly weapons. Mozambique benefited from the recent baseline assess-
ment conducted by The HALO Trust. The results of the sur-
vey informed the five-year strategic plan (2008–2012) written to guide the implementation of mine-action activities during the extension period. According to Mozambique’s projections, on average, an estimated US$9.9 million is needed every year for more than six years in order to meet the Convention deadlines. Efforts undertaken to release cleared land to communities have had positive socioeconomic consequences. Communities and their inhabitants are the ultimate beneficiaries of land re-
lease. In areas still considered affected, the presence of land-
mines and UXO has a major negative impact on communities. Completing mine clearance will clearly benefit the commu-
nities by allowing the citizens to work on their land, and would therefore contribute toward the reduction of poverty.

It is time to look into the problems that most States Parties have encountered along the 10 years of the treaty’s existence. Collective analysis of each state’s challenges and shortcomings will help provide appropriate data to support reaching the goals the Convention was ultimately set to achieve. For countries like Mozambique, the extension must be granted and coordinated, and donor support should follow to enable the implementation of the national strategic program.

States bear the primary responsibility in designing and im-
plementing strategies, plans and programs for mine action with-
in their borders. However, many States Parties like Mozambique are still in need of assistance. The United Nations Development Programme, other international organizations, nongovern-
mental organizations and governments able to do so should play a vital role by mainstreaming mine action into their activities in mine-affected countries. In addition, local capacity building should be at the center of every effort to ensure sustainability of mine action in these countries.

The challenge is great, but there is an equally great oppor-
tunity to attain the goals of the Convention through high cohesion, coordinated and collective action. "See Endnotes, page 112"

Mechanical Demining: From 1942 to the Present

Although demining machines have been in existence since 1942, they were not used in the field of mine action until about the early 1990s. Demining machines were initially only used by the military. With the growing number of casualties stemming from landmines, especially among civilians, it became necessary to employ machines for humanitarian purposes. From the first demining machine constructed in early 1942 to the present, tremendous improvements have been made.

by Pehr Lodhammar
(Geneva International Centre for Humanitarian Demining)
by manual deminers or mine-detection dogs; however, as the quality of available machines improves, this is changing. In June 2008, two Comité Européen de Normalisation Workshop Agreements for mechanical demining were published: one for quality management and assurance/security/quality for mechanical de-mining, the other for follow-on processes, after the use of demining machines. The latter states the following: “Follow-on operations after technical survey may not be required if the machine does not encounter a hazard, and has been proven capable of detecting and destroying similar expected hazards in similar conditions. If a machine does encounter a hazard, then follow-on will be required in all but exceptional cases. The specific follow-on activity can only be determined at the site—and would normally be either by manual demining or mine-detection dogs. The specific area for follow-on operations will be determined on the site on a case-by-case basis.”

available on the GICHID Web site. The reference library will include most documents related to mechanical demining that have been published over the years and will be available to all interested in mechanical demining.

As seen above, demining machines have evolved enormously since 1942. The GICHID will continue to follow and assist in the further development and improvement over the coming years.

See Endnotes, page 112

T his installment of Geneva Diary follows the GICHID and its activities over the past year. Besides organizing both a conference and a workshop for the international mine-action community, the organization has also released two new publications. These publications, which are both filled with a sizeable amount of GICHID-researched data, will hopefully assist deminers in the field and make their areas safer for themselves as well as civilians.

Technology Workshop
The GICHID and the United Nations Mine Action Service co-hosted a technology workshop in Geneva from 8-10 September 2008 (see full article on page 78). This meeting was a follow-up to the one held in February 2008, which recommended that a similar meeting be held every two years. The conference attended the September meeting, representing national mine-action programs, field operators, commercial companies, equipment manufacturers and technology organizations. The major topics discussed were metal detectors, dual sensors and the interference of soil on their performance. The workshop also addressed the operational challenges related to road clearing and land release in a technology context. It provided a forum in which equipment requirements could be expressed and recorded. Challenges and experiences in humanitarian demining techniques from some mine-affected countries were presented, as well as exchanges and shared ideas to improve efficiency. Presentations and film clips used during the proceedings of the meeting can be found at http://snipurl.com/45sdr. There is an informal plan to continue holding these workshops every two years, with the next expected in 2010.

Odor-detection Conference
The GICHID organized an international conference, “Odour Detection by Animal Research and Practice,” held in Os, Norway, in mid-June 2008. Around 120 participants attended including practitioners and experts involved with animal-detection systems particularly those with animal systems for humanitarian demining detection. The purpose of this unique meeting was to encourage those with expertise in this area to share it and to highlight the research findings that are applicable across a range of animal species searching for various target odors. End-users—such as humanitarian-demining administrators, police, customs officials, defense specialists, and search-and-rescue organizations—were also represented. They discussed their practical experiences and contributed views on how animal detector systems can best meet the needs and requirements. The outcomes of this meeting can be found at http://snipurl.com/45sdr.

New Publications
The GICHID has recently released a number of new publications. These have included A Guide to Road Clearence, which aims to contribute to the development of safer, more efficient and cost-effective road clearance systems by providing recent examples, data and methodologies from the field. Along with the information gathered in this guide, the GICHID has gathered supplementary technical data through visits to road-clearance projects in four countries. The Guide to Marking and Fencing in Mine Action Programmes has also been developed. Based on research conducted by the GICHID in 10 mine-affected areas and territories, this guide describes the extent to which marking and fencing are carried out in existing mine-action programs. It assesses the impact of different methods of marking and fencing of hazardous areas. It also discusses the contribution of medium- and long-term marking towards casualty reduction in situations where clearance cannot be conducted immediately. See Endnotes, page 112

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