

# Raising Business Interest In Humanitarian Demining

## WORKSHOP REPORT



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## **Business Has a Role to Play in Mine Action**

On September 23<sup>rd</sup>, 2002, over 40 representatives from the business community, experts in humanitarian demining and senior governmental and humanitarian officials gathered to discuss how to raise business interest in humanitarian demining efforts. The workshop, sponsored jointly by the Geneva International Center for Humanitarian Demining (GICHD) and the Business Humanitarian Forum (BHF), marked the start of what will become a 12-24 month program to encourage private sector initiatives to find improved ways to detect and remove the millions of landmines still buried around the globe.

**Mr. Cornelio Sommaruga**, President of the GICHD, former President of the International Committee of the Red Cross and a long-time campaigner against the use of landmines, addressed workshop attendees in the evening. He called attention to ways in which the private sector can make a difference in mine infested communities and save lives. Business can help reintegrate victims in their communities through employment and support mine action through developing new methods for mine detection and removal. Landmine clearance should not be left only to the military and non-governmental organizations; the private sector should also come to the table “to seriously contribute to a mine free world”. (The full text of Mr. Sommaruga’s remarks is attached at annex.)

*“I believe that there is a lot to be brought to mine action. Research and development – why not for mine action?”*  
*Cornelio Sommaruga*

## **Welcome Remarks**

**Ambassador Martin Dahinden**, Director of the GICHD, welcomed the participants to the workshop and provided information on the current status landmine problem. Although recent international efforts have helped in reducing the number of victims and the number of stockpiles in many countries throughout the world, the problem is far from over. Landmine casualties still reach between 15,000 and 20,000 people a year and this situation is unacceptable.

Mine action can learn from business in a number of ways. First, business has a culture to find optimal solutions in most efficient ways and second, the private sector has developed a lot of technology that could have useful applications in the area of demining. The challenge now lies in our ability to cross paths and create opportunities for the business and demining communities to learn and work with each other.

## **Opening Remarks**

**Ambassador John Maresca**, President of the BHF, officially started the meeting by thanking Shell International Limited and the Karl Popper Foundation for making the workshop possible through their generous support.

*Businesses have a unique capacity to find solutions to the most pressing problems facing humanitarian demining.*

The BHF wants to use its unique expertise in bridging humanitarian and business communities to bring business interest to the humanitarian demining field. The challenges are surmountable, but they require new ways of thinking. Developing greater private sector support for research and development of practical solutions to the demining problem is essential. Businesses also have a lot to gain by becoming involved in demining efforts – which can be measured in financial and non- financial benefits.

Amb. Maresca called upon the participants to follow through with the workshop’s important dialog and continue working with the BHF in an effort to engage the business sector’s resources, energy and creativity in working to solve the worldwide problem of humanitarian demining.

### **STATE OF PLAY IN CURRENT DEMINING EFFORTS**

Introducing the first session of the workshop, **Mr. Ian Mansfield**, GICHD’s Operations Director, spoke about the difficulties of mine detection. The process of locating mines still relies in large part on the use of metal detectors and physical contact by deminers, which exposes them to dangerous situations. In order to remove the human component from mine detection, machines and dogs are sometimes used. However, these methods still do not overcome certain geographic obstacles which require deminers to prod the ground inch by inch to locate the mine.

**Mr. Geir Bjoersvik**, from the Norwegian People’s Aid gave further insight into the tools that deminers use for mine detection. Because there does not exist one single technique or “tool” that is able to ensure 100% detection and safety during mine removal, practitioners have adopted a mine action “tool box” which contains several techniques. The methods of detection and removal that Mr. Bjoersvik’s organization uses include mine awareness programs, mapping, manual demining, mechanical demining, and dogs. Dogs have been used very effectively for detection since 1994. He also highlighted the other available detection techniques including vapor, thermal, infra-red and traditional metal detection.

*Input from personnel  
in the field is  
absolutely necessary  
for any successful  
research and  
development program.*

There are some ways in which information technology is used in the field to make demining safer and more efficient. GICHD’s Information Technology (IT) specialist and IMSMA database project manager, **Alan Arnold** affirmed that off-the-shelf information technology tools are vital to demining efforts in the field, especially for mapping and management. However, there still remain serious challenges for further integration of IT in mine-action fieldwork, mainly due to the challenges of using such sophisticated, sensitive materials in what are typically harsh environmental conditions.

## Caterpillar Case Study

**Mr. Leonardo Pestalozzi**, Director of Corporate Accounts at Caterpillar, noted that mechanical demining uses machines, usually with different types of earthmoving equipment attached, to drive over minefields at which time mines that are buried in the ground are revealed and explode. Caterpillar is one of the largest heavy equipment and engine manufacturers in the world. Although the company has traditionally built machines for construction purposes, they felt that they had the capacity and even specific products to contribute to mechanical demining efforts.

*Expanding a product's market is one reason for getting into the field of Humanitarian Demining.*

Mr. Pestalozzi then presented a description of how Caterpillar adapted their D7G model tractor for demining purposes. The tractor comes with a mine clearing and armor protection kit that can be easily attached and integrated with systems using the Geographic Positioning System (GPS) and the Geographical Information System (GIS). The armor, which is attached for demining purposes, can then be removed for traditional post conflict tasks such as road construction.

Questions were raised regarding the effectiveness of the armor. Mr. Pestalozzi responded that it is sufficient to protect the operator from artillery and landmine fragmentation and small arms fire. The rake, which enables the tractor to dig up and sift the earth for mines, also generated questions. Mr. Pestalozzi indicated that although the rake can sift out standard sized mines, it could potentially miss smaller mines.

## ESRI Case Study

*Introductory comment:* Documenting a series of informational factors in the field such as locations of minefields, boundaries, accident locations, injuries, cleared areas, and work areas is an essential aspect of mine-action field work. Keeping track of this information in a simple data base is one solution; however, there are dozens of other variables that need to be considered that will make field work more efficient and safe. For example, transportation infrastructure, political boundaries, hospitals, population centers, topography and soil considerations all have to be taken into account.

**Dr. Thao Ton-That** from ESRI Géoinformatique S.A, a world leader in Geographical Information System (GIS) software, showed how off-the-shelf standard integrated software solutions are currently being used by demining operations to take into account the multiple layers of information needed for successful field work. Specifically, working in cooperation with the GICHD and the IMSMA development team at the Swiss Federal Institute of Technology in Zurich, the ESRI software was adapted to support demining operations in the field. Through a direct link with the IMSA data base users are able to quickly and easily pinpoint dangerous areas, minefield locations and perform other

geospatial analysis tasks. These tools provide managers with unique perspectives on the data and contribute to safer and more efficient demining operations.

Although the cost of the most sophisticated data management tools is still a prohibitive factor for demining organizations, even the basic software package contributes to safer and more thorough demining operations.

### **Battelle Case Study**

*Introductory note:* The Secretary General of the United Nations recently pleaded for private companies, academia and organizations to increase research and development efforts for demining technologies in order to “achieve the necessary breakthroughs”. Battelle, a technology development company, is in the midst of doing just that. Researchers in the United States have developed several technologies which are currently being tested for their demining applications.

Vice President of the Battelle Geneva Research Center, **Dr. Augusto Porta**, presented two avant-garde mine detection systems. The first system is based on genetically modified microbes and bioluminescence. The microbes react to the chemicals contained in explosives by producing light. The light can be detected at night with the use of UV lights. The microbe system is accurate within a meter and is actually more effective with abundant vegetation – a major obstacle for deminers in tropical regions. In addition, native soil bacteria are used, which prevents any adverse environmental consequences. The second system, Timed Neutron Detection (TND) like the microbe based system reacts to chemical traces left by explosives. The next step for these technologies is to test them in the field.

### **Mine Risk Education and Victim Assistance Case Studies**

*Over 70% of  
landmine victims  
are civilians*

Mine risk education has two objectives: first, to make the civilian population aware of the threat they are facing and second, to change their behavior. **Mr. Eric Filippino**, the head of the Socio Economic Section at GICHD, indicated that the primary challenges communities are facing in mine risk education programs are illiteracy and lack of access to media.

Part of the complexity of mine risk education comes from its urgency. “People do not have a choice” Mr. Filippino explained, “basic needs, such as gathering food and water, must be met on a daily basis no matter the risk”. Consequently, to be efficient such campaigns must take into account the needs and constraints of the local population. “Mine awareness personnel are the eyes and ears of any effective mine action program and the information they gather must be fully incorporated into any clearance effort”.

Victim assistance covers both medical rehabilitation needs and social reinsertion programs. **Ms. Judith Dunne** from the United Nations Mine Action Service indicated that there are many challenges which face victim assistance efforts, such as inadequate or collapsed transportation, health and social service infrastructures in post conflict regions.

With respect to rehabilitation, most victims indicate a strong desire to quickly return to the workforce so that they can provide for their families and feel like an integral part of their communities. Once again, however, many face stigma on top of the general lack of opportunities that unfortunately is common in post conflict regions.

Ms. Dunne highlighted some ways for businesses to take an active role in improving conditions for victims. She suggested that companies active in mine affected countries could lobby the government to comply with the Ottawa anti-personnel mine ban treaty, to encourage them to recognize the rights of disabled members of the population face, and to treat them fairly for employment opportunities. Secondly, companies could ensure their operations to include mine awareness programs for employees and surrounding communities and actively support medical, rehabilitation and employment projects in mine-affected countries where they work.

*Marketing and advertising strategies can help Mine Risk education become more effective.*

#### **AN OPEN DIALOGUE: Considering the Challenges and Looking for Solutions**

The second half of the workshop provided an opportunity for the participants to introduce themselves and express their interest and concerns regarding the landmine problem. Discussions focused on defining the problem areas and identifying potential solutions.

#### **CHALLENGES: Understanding the Demining Market**

Creating a traditional market for demining equipment that could generate sufficient revenue is a particular challenge. The demining market is not easily oriented for humanitarian operations, it is a high-risk commercial operation in human and financial terms, and it is a limited growth industry since humanitarian operations are perceived as finite. As **Dr. Robert Suart** from the Canadian Center for Mine Action Technologies stated, “the demining market is small and erratic”.

The principal customers of the demining industry are military organizations; they are indeed the only ones with sufficient funds at their disposal. Their approach to demining, however, isn't always compatible with humanitarian demining needs. For humanitarian demining, it is absolutely necessary that entire regions, which are often composed of differing terrain types and infrastructure, are cleared with 100% accuracy, not just a single road or a landing area. Humanitarian demining has to be quick and effective and requires efficient, versatile and cost effective equipment.

Presently, military demining machines and technologies cannot entirely solve the humanitarian demining problem and NGOs, which carry out humanitarian demining operations, do not have well adapted equipment at their disposal. Developing such equipment is expensive and time consuming; companies cannot provide solutions unless sufficient funding is allocated to solve the problem. Consequently, in order to develop

such technologies, private companies need a sufficiently large market to be able to provide the goods at a price that NGOs can afford.

## **IDENTIFIED SOLUTIONS**

Enabling companies to make a profit in the regular demining market is possible, but it requires a strategic approach. The following dimensions were identified in an open group discussion.

### **Product Development Strategies**

Since the main problem appears to be an insufficient market size to guarantee a reasonable return on investment, **Mr. G. P. Daugaard** from A/S Hydrema suggested using regular commercially available products for humanitarian demining needs. This was the case with Caterpillar, which adapted regular construction equipment to demining by adding a simple rake, armor and adequate software; once the demining is over, the equipment can be used again for construction.

*Are there options for expanding demining markets? Market research, creative funding solutions and partnerships could be some answers.*

The same logic applies to explosive detection. R&D in this area is important, especially with the current terrorist threat. This technology can also be adapted to mine detection (e.g., Timed Neutron Detection, Microbe Mine Detection System). The reverse is also true; products designed for mine detection and elimination can also be used for other applications, thus broadening their market beyond demining. Market expansion for regular or mine-related products is possible and appears to be a viable option that may lead to an increase of R&D in the field of demining.

**Mr. Richard Froh**, representative from NATO, pointed out that the military's core missions are indeed changing or expanding. Peacekeeping and peacemaking have become one of their main activities. Consequently, they are involved in humanitarian demining and their requirements are becoming similar to those of NGOs and other organizations concerned with humanitarian demining. Due to greater funding availability, military organizations can make this market large enough to make it interesting for private businesses to invest in R&D, bringing well-adapted products to the market, which in turn would benefit smaller civilian or intergovernmental organizations and NGOs.

### **Funding Availability**

The second dimension concerns funding. Funding availability can be improved in different ways. It was suggested that by creating large and well-managed funds similar to the International Trust Fund (ITF), ability to purchase large amounts of equipment could increase. Such funds could also be used to purchase all the required equipment in order to lease it to smaller organizations.

Market research is also a key to market success. For example, **Mr. David Wallbaum**, Funding Agency Manager for Caterpillar explained that he actively seeks well-funded projects that may need a specific product that Caterpillar could develop. “You have to know where the money is and then work backwards”, Mr. Wallbaum explained.

### **Creating Partnerships**

Finally, partnerships could be formed between the multiple actors active in demining. This could be the case with public research institutes that have developed technologies not yet brought to the market. In the case of Battelle, these technologies are almost ready to be used in the field, but they still need to be tested and require a commercial partner. Institutes also need a partner, such as an NGO active in demining to provide them with actual testing fields. To explore other possible partnerships between demining organizations and private businesses, **Ambassador Dahinden** from GICHD proposed the establishment of small and focused workgroups that would bring together organizations active in demining and relevant private companies.

**Dr. John King**, BHF Director, noted that a number of small companies are developing mine-action technologies and are seeking funding to complete development. These companies are finding it hard to obtain the necessary funding and thus are unable to see the development of their technical ideas through to fruition. Since much of this technology may well have dual (non-mine action-related) applications, it may be possible to create partnerships between these companies and larger companies that can fully fund the R&D to complete the technology. The partnership agreements would allow for the dual use of the technology under appropriate licensing agreements.

### **Non-traditional Return on Investment**

Return on investment can also be quantified in non financial terms. Gains made through public relations and image, and tax deductions, are two benefits that companies could enjoy by becoming involved in humanitarian demining. Companies which support humanitarian demining efforts can improve their public image, which can in turn help when developing their position in new markets. Direct support for humanitarian demining programs can also translate into tax deductions.

Support for demining programs can consist of offering equipment or know-how previously developed for other applications. For instance, Eric Filippino from GICHD suggested that a marketing firm such as McCann Erickson could help develop more effective mine awareness campaigns. Also, Dr. Porta from Battelle suggested approaching companies that are currently developing explosive detection techniques to counter the terrorist threat.

Furthermore, applications that were not brought to the market due to insufficient funding, such as the Multi-Sensor Plane Based Minefield Detection System developed by

*Seriously contributing to humanitarian demining initiatives will improve a company's image locally and internationally.*

Lockheed Martin Company, could be leased to a government, NGO or intergovernmental organization.

Some companies such as Shell International Limited, represented at the workshop by **Mr. Lloyd Roberts**, have to undertake demining activities during their regular business operations. These companies could expand their demining operations beyond their direct area of business interest, thus helping entire communities with their demining operations. These operations could also be accompanied by mine awareness and education campaigns, physical and social rehabilitation programs in local communities.

### **Conclusion to the Discussion: Offering Incentives**

How can the demining field be made more attractive to companies? Most of the suggestions that were offered during the discussion lead to one general conclusion; companies are looking for a return on their investments – therefore clarifying and communicating what would be the incentives and benefits for investing in demining equipment, demining operations, and mine risk programs is an absolute first step into gaining more private sector support. As **Mr. John Myers** from McCann-Erickson indicated, it is a matter of changing and expanding the meaning of the concept “return on investment”.

The following summarizes some of the incentives that were identified during the discussion. Demining helps stabilize war torn societies, thus making it safer for future business investments, land will again be able to be developed for agriculture and industrial purposes, supporting demining programs is an excellent opportunity for businesses to improve their public relations, and by adapting existing technologies to the field of demining, companies may be able to expand a particular product’s market.

### **Closing Remarks**

Amb. Dahinden and Amb. Maresca ended the workshop by thanking the presenters and participants for their important contribution to the discussions. The suggestions and initiatives discussed in the workshop will be used for the BHF’s effort, represented by its follow-on action plan, to build a much higher level of business interest in helping with the very difficult task of finding and removing landmines.

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**Mr. Cornelio Sommaruga**  
**President of the Geneva International Center for Humanitarian Demining**  
**Dinner speech**

Bon Soir, Guten Abend, Good Evening, Buona Sera e Buon Appetito.

I welcome you all as partners in the commitment to Human Security. Why do I do that? Simply because Human Security is the security of individual persons – their physical safety, their economic and social wellbeing, respect for their dignity and worth as human beings and the respect of human rights and fundamental freedoms. There is indeed a shift from the traditional military, territorial security through arms to security as an all encompassing concept, covering security from hunger, diseases and environmental degradation. Landmines are very much part of the Human Security objectives.

You are indeed guests tonight of two – quite different – institutions that lay weight on the term HUMANITARIAN in their denomination. They are both part of the Human Security community.

For somebody – as me – who has been in the center of the struggling against Landmines since ten years, it is difficult in the present discussion on terrorism, not to recall that the antipersonnel mines plight is a form of terrorism on the civilian population, constituted by constant indiscriminate threat to mainly non military people.

This was recognized in early days, it was July 1994 in the Naples Summit, by G7/G8 States with the statement “We assign priority to the problem of antipersonnel Landmines, including efforts to curb their indiscriminate use, halt their export, and assist in their clearance worldwide.” The Ottawa process was also encouraged by this statement, even if by the end, two of the Naples protagonists didn’t sign the Convention. At the Millennium UN Summit in New York, on 8 September 2000, the Heads of State and Government of the whole world –at that time still without Switzerland! - called on all States to consider acceding to the Mine Ban Treaty , the so called Ottawa Convention of 1997, as well as the amended mines protocol to the Convention on conventional weapons.

Given this solid intergovernmental commitment – with however somewhat limited results in practice – the question can be asked, what is missing? Essential for me is to look at mine victims: many, to many still in all corners of the world. This is why the globalization of responsibilities is so important: governments, civil society and religions are on board. The question is to know if business in general is aware of their responsibility.

The BUSINESS Humanitarian Forum, which advocates close cooperation between the business and humanitarian communities, particularly in post-conflict situations in the peace building dynamic, where economic development and reconstruction play a fundamental role, has the merit of having taken this initiative. I am proud to be among the founders of this Forum, so ably lead by my friend Jack Maresca. You are involving

yourselves in the Human Security dynamic, becoming aware of the plight of Landmines. You have discussed the possibility for firms in the industrial, financial and other sectors, to seriously contribute to a mine free world.

I believe that there is a lot to be brought to mine action. Research and development and – why not – mine action. I am not of the opinion that mine clearance should be left only to military or non governmental organizations.

What do I mean? The mechanical equipment for mine detection and mine clearance is essential, but there has not really been a true break-through yet. This is an example of how new technologies – particularly also IT tools - could be helpful to save lives. It seems to me essential that the spirit of the Global Compact – January 1999 in Davos – with the dynamic given by the UN Secretary General and the EWF should be kept in mind. The principle of business support for public policies had been retained. This includes mine action. Business should be always aware of the serious problems of the mine affected communities. Victims – if they survive – have to be rehabilitated and socially reintegrated.

This is why I would like to invite you to go beyond humanitarian demining and look at the overall problems of mine action. They also include refraining from manufacturing and transferring landmines, stockpiles destruction – with the right delicate know how needed-, mine risk education tools victims assistance and more.

I would wish that the present initiative of the Humanitarian Business Forum would be the beginning of a sustained dialogue between Business and Humanitarian Institutions on Humanitarian Demining.

Let us all – this time also with business - be committed to the slogan I launched from the ICRC ten years ago: LANDMINES MUST BE STOPPED!

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## **Business for Humanitarian Demining**

*A Plan to Increase the Participation of the Private Sector in Research and Development of Demining Technologies and Methodologies*

Estimated Costs: USD\$ 184, 000

Duration: 2 years

### **OBJECTIVE**

To engage the business sector's resources, energy and creativity in working to solve the worldwide problem of humanitarian demining by developing greater private sector support for technological research and development as well as practical solutions to the demining problem.

### **BACKGROUND**

Each year landmines kill and maim an estimated 15,000 to 20,000 people. Recent reports indicate that 80 percent of landmine victims are innocent civilians, mostly women, children and farmers; many of whom are returning to their homes after having been displaced because of an armed conflict in their communities. In most cases these people learn that their villages are mined only when one of them becomes a victim.

Landmines significantly limit economic development in post conflict countries and regions. Warring parties recognize this fact and deliberately mine areas that are critically important to the economic well-being and viability of a community. Landmines therefore can be found in food producing land, roads – including trade corridors and hospitals, homes, canals, schools and even in water supplies. Hopes for rebuilding the infrastructure of post conflict communities depend upon the removal of landmines.

Military forces traditionally only clear mines from areas needed to permit safe transit by military units. Their demining efforts are quick and make almost exclusive use of armored vehicles equipped with flailing chains that detonate landmines, but oftentimes only those on the surface. However because of the placement of many of the mines in and around a community's infrastructure, mechanical demining, as executed by military forces, cannot be relied upon. The objective of a humanitarian demining mission differs significantly from that of a military mission in that humanitarian demining requires that every landmine in an area needs to be removed before the area can be deemed safe for civilians. With military demining, only areas important to the

objectives of a military force are cleared. A much wider and more delicate approach is therefore needed to execute humanitarian demining.

Many countries and international organizations have established programs for humanitarian demining such as The Croatian Mine Action Center and the UN Mine Action Service. A number of NGOs have also been established with the purpose of helping to eliminate this widespread humanitarian problem. These include Halo Trust (Hazardous Areas Life-support Organization), The Norwegian Peoples Aid (NPA) and Danish Demining Group (DDG). Current humanitarian demining efforts work to locate mines through mapping techniques, record information on minefields and remove mines. Demining groups also seek to make local populations aware of the dangers posed by landmines through awareness programs and to alleviate the suffering of landmine victims through the establishment of victim assistance programs.

## **ISSUES**

Although progress in humanitarian demining has been made throughout many parts of the globe, there still remain serious challenges to current demining efforts. These issues include the continued danger to demining personnel, the lack of viable technological options for finding and removing landmines, and the overall lack of resources available to humanitarian demining initiatives.

Humanitarian demining continues to depend on the extremely dangerous and time consuming artisan practices developed in the 1940s -- careful reconnaissance of a potential minefield using metal detectors and sniffing animals, followed by needle-poking experts on their hands and knees. Humanitarian demining work remains as difficult and dangerous as ever (on average a deminer will only remove X mines a day). Every year several hundred trained deminers are maimed or killed during the course of their work. Approximately half of these accidents occur during manual prodding activities. Because mines are placed perniciously in locations such as important infrastructure facilities and geographical terrain where machinery, which is used for military demining, cannot reach, deminers are constantly at risk

Affordable devices that could change these demining methods do not exist, and technologies that currently exist which could radically reduce the demining challenge have yet to be fully developed and applied to the demining process. There may also be existing but unassociated technologies that could be applied to the problem as well.

Because of the difference between military and humanitarian demining, defense establishments have traditionally been uninterested in the problem of humanitarian demining. For this reason, the defense industrial establishment has also given the matter a low priority. Business interest in this area has therefore been low, since there appeared to be little or no commercial incentive.

These challenges are surmountable; they require, however, a new way of thinking about the solutions to the humanitarian demining problem. The energy and creativity of the business world must be activated and focused on the problem. The business community, with its varied and significant research and development capacities, clearly has the potential to resolve this problem. Where necessary, public and private funds must be made available and used to support the development of the most promising technologies, in order to give businesses the incentives they need to pursue these objectives.

## PROJECT VISION

The Business Humanitarian Forum (BHF) seeks to build on its unique expertise in bringing business interest to humanitarian problems by implementing a program to search out and encourage businesses to look for new solutions to humanitarian demining problems. The Geneva International Center for Humanitarian Demining (GICHD) will provide technical advice and support throughout the program.

### Focus Areas

The project will concentrate on five central areas in humanitarian demining that are in need of creative solutions. We have identified these areas as detection, removal and information technologies, victim assistance, and mine risk education.

**Detection Technologies** facilitate the process of locating metal and plastic mines. There is a need for more accurate detection capabilities from emerging technologies such as ground penetrating radar as well as the development of more sophisticated detection techniques that can be used reliably in remote locations, on hilly terrain, heavy brush and near civilian populations.

**Removal Technologies** assist the procedures of detonating, destroying *in situ* or removing mines for subsequent detonation. Manual removal is still greatly relied upon. Consequently, there is a need for improved mechanical removal techniques that will limit risk to deminers, but will also possess the flexibility necessary to operate in a variety of terrain and soil conditions.

**Information Technologies** have been employed to manage mine action center coordination efforts. Current programs combine relational databases with a geographic information system; however, there exist problems of mapping, definition, tracking and analysis of mined areas and the ability to access these technologies in the field.

**Victim Assistance** focuses on aiding the physical and emotional needs of individuals injured by mines. There is a great need for cost effective prosthetics and related technologies, especially for children. Social reinsertion techniques also need to be developed so that mine victims can return to productive lives more quickly – thus reducing the emotional cost to the victims and the economic burden on their communities.

**Mine Risk Education** aims to educate general populations - especially children - on mine dangers. Not all demining programs currently have a mine risk education component. There is a great need for the exploration of diverse educational methods and for the development of accompanying materials.

### Strategy and Activities

We foresee the following phases of work in implementing a program to raise new business interest in humanitarian demining. The estimated time needed to carry out this phased program is approximately 2 years.

Phase 1 (already underway):

- Conduct an assessment of current practices and needs in the five focus areas which will be compiled in written documents (GICHD has done).

- Organize and facilitate a one-day workshop with business sector representatives and participants familiar with demining problems. The workshop will initially review the current state of affairs in humanitarian demining and brainstorm ideas for attracting new business interest in resolving demining problems in each area (held on Sept. 23-24, 2002).
- The results of workshop will be compiled into a document that will list the workshop's ideas and recommendations (workshop report published in November 2002). Elements of the document will also be incorporated as appropriate into the follow-on action program.

Phase 2 (October 2002 – February 2003):

- Develop a “Business for Humanitarian Demining” website and electronic newsletter with the purpose of engaging the business community in demining problems. The website and electronic newsletter will initially post the outcome of the interactive workshop. The long-term goals are to keep the business community updated on changes in the demining environment and promote private sector involvement in the demining process. The website will be linked to the websites of the GICHD and the BHF.
- Create a select database of targeted businesses that have related technologies that could be applied to demining efforts and companies who are interested in assisting humanitarian efforts.
- Prepare a professional presentation covering needs in each of the five demining focus areas to make directly to businesses.
- Prepare a timetable and schedule for contacting businesses to give the presentation.
- Develop funding sources in order to fully carry out the follow-on action plan.

Phase 3 (March – December 2003):

- Contact, make initial presentations, and establish relationships with the targeted companies on the database that would be most interested in developing business opportunities in the five focus areas based upon the workshop recommendations.
- Contact mine action centers in various countries and discuss potential collaboration in developing new technologies as well as potential partners in practical solutions to current demining challenges.
- Continue research to develop ideas for new companies to approach.
- In December 2003, hold an evaluation meeting to determine progress and changes to the follow-up action plan are needed.

Phase 4 (2004):

- Where immediate action has not been taken by the targeted companies following the initial presentations, carry out follow-up visits and presentations to encourage business activity in demining research and development.
- Facilitate at least three actual working partnerships between businesses and the humanitarian demining community including UN agencies, country specific demining agencies, and international demining organizations. The partnerships could include working together to test new technologies for detection and removal of mines, mapping techniques, handling demining information in the field.
- Facilitate at least three working research partnerships between demining technology development companies and larger businesses with compatible research facilities and objectives. The partnerships would make completion of demining technology development and could be used under licensing agreements for other purposes by the larger entity.
- Locate additional funding sources for business for humanitarian demining projects.
- Hold a second evaluation meeting to discuss results and outcomes; determine whether further action is needed.

## **Benefits**

Businesses, demining organizations and mine-contaminated communities will benefit from efforts to bring new ideas and solutions to the global problem. Some of the anticipated benefits include:

- Lives will be saved as new ideas and solutions are developed and demining challenges are handled more efficiently and effectively. Refugees, especially children will be able to return with increased safety to their homes in post conflict situations. Also, economic development in post-conflict areas will in turn attract the return of refugee populations and diasporas, thus further building markets and investment opportunities.
- UN organizations and military units which participate in peacekeeping and other post-conflict security operations will also benefit in this respect, since their mine-related casualties will be reduced.
- The economic recovery of post-conflict regions will be accelerated because mine-free areas will be available for economic use.
- Land and infrastructure will again be able to be developed for agricultural and industrial purposes. This in turn allows for the development of a local economy and transportation corridors which businesses will be able to help rebuild through new investment opportunities, thus allowing access to new markets which are less risky and have a higher return.
- Local communities will be able to stabilize as they develop their surrounding natural resources and become involved in the global market. This will actually help prevent future conflicts.
- Support for humanitarian mine action is an excellent opportunity for companies to contribute to the welfare of local communities and gain both local and international standing for their efforts.
- Businesses that are able to contribute to humanitarian demining through the application of already existing technologies and/or the development of new technologies would be able to expand into related markets where there is real need for practical and technological solutions and where there might be commercial opportunities.

## **COSTS**

Estimated *annual* costs for implementing this program are as follows:

Preparation and Delivery of Business/Demining Presentations	USD\$ 30,000
Research for and Creation of Demining Partnership Agreements	USD\$ 22,000
Travel for Presentations and Partnership Agreements	USD\$ 25,000
Public information; Website Setup/Maintenance; Publications	<u>USD\$ 15,000</u>
<i>Annual Cost:</i>	USD\$ 92,000

**Total Program Costs for Two Year Project: USD\$ 184, 000**

## **ABOUT THE BUSINESS HUMANITARIAN FORUM**

The Business Humanitarian Forum (BHF) was created to encourage dialogue and mutual support between the business and humanitarian communities. The BHF's efforts are rooted in the knowledge that Businesses and humanitarian organizations hold common interests in the stability and prosperity of developing societies and countries in transition. Businesses need the humanitarian organizations to stabilize these societies so that they can invest and pursue their normal business activities. And the humanitarian organizations need business investment so that ultimately, these societies can stand on their own feet, and the humanitarians can turn to more urgent needs elsewhere.

The BHF, a non-profit association based in Geneva, was founded in January 1999 with encouragement and support from UN Secretary General Kofi Annan. The organization seeks to promote private sector involvement in post-conflict areas, working with humanitarian aid agencies already providing direct assistance in these areas, to enhance prospects for economic development as stability returns.

The BHF has sponsored hands-on workshops and conferences leading to concrete business-humanitarian partnership projects in post-conflict areas, and to raise awareness of the important role business can play in alleviating humanitarian problems. Partners have included: International Chamber of Commerce, Forum Europe, World Bank, Konrad Adenauer Stiftung, The Geneva International Centre for Humanitarian Demining, *Humanitarian Affairs Review*, UNOPS, UNHCR, UNDP and CSIS.

Please visit the Business Humanitarian Forum website for more information at [www.bhforum.ch](http://www.bhforum.ch)