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The Journal of ERW and Mine Action Issue 11.1

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Call For Papers

Journal of Mine Action

Deadline: 1 January 2008
Publish Date: July 2008

RESEARCH, TECHNOLOGY AND DEVELOPMENT IN MINE ACTION

The *Journal of Mine Action* is soliciting articles for its peer-reviewed Research, Technology and Development section, which appears in every issue of the JMA. All articles on current trends and developments in R&D will be considered for this section. Topics will include but not be limited to:

- Detection and Neutralization
- Mechanical Equipment
- Manual Equipment
- Data Fusion
- Bionessors (including dogs, rats and bees)
- GIS, Mapping and Terrain Analysis
- Personal Protective Equipment
- Demining Tools
- Metal Detectors
- Needs of Users
- Lessons Learned in the Field
- Test and Evaluation
- Information Technology
- Mine-destruction Test Facilities
- Landmines, ERW and Ordnance

SUBMISSION GUIDELINES:

**Article length:** 1,000–2,000 words, submitted in digital format (i.e., Microsoft Word). R&D articles can be up to 2,500 words.

**Images/photos:** Must be scanned at 300 dpi or better. Line art, graphics and charts should be scanned at 600 dpi or better. Submit all images/graphics by CD, Zip disk or e-mail (.zip files cannot be received via e-mail at JMU).

Important: Please do not include images in your documents. The quality is too poor for printing. Originals are encouraged and will be returned upon request.

**Contact information/bio:** Articles must contain a title, author and full contact information at the end of the article (i.e., phone, e-mail and mailing address). Please include a head-and-shoulders photo and biography (no more than 60 words) of the author for inclusion at the end of the article. Consider including credentials, books authored and other biographical information.

**Need help?** If you have a story to tell but not the time to put pen to paper, or if English is not your native language, contact us and one of our journalists can help.

For complete submission guidelines, please visit: http://maic.jmu.edu/journal/index/guidelines.htm

Submit all materials to:

Editor-in-Chief, *Journal of Mine Action*

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FEATURE

Local NGOs

The JMA is soliciting articles for issue 12.1 about local, as opposed to international or transnational, nongovernmental organizations and their work in the field of mine action. Profiles of local NGOs, articles about how they function, specialties and differences among the various NGOs will be considered.

FOCUS

Victim/Survivor Assistance

Issue 12.1 of the *Journal of Mine Action* will focus on landmine victim and survivor assistance. Articles related to how the Ottawa process and national plans incorporate or enhance victim assistance programs are requested. Articles about help available to landmine survivors and their families, ways to improve survivors’ lives and help them become self-sufficient (especially through entrepreneurship), organizations that work with survivors and victims, and victims’ stories will be considered.

Call For Papers

12.1

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As an independent journal, we provide topics that stimulate conversations. We give the mine-action community a place to sound off. Every issue brings us rants and raves—usually, many more raves than rants. We’re sharing some of them here.

I am writing to you in my capacity as Austrian Mine Action Officer. I have just read with interest your article in the Winter 2006 edition of the JMA. “TheMine Action Express ... or the ‘Wreck of the ‘99.” These indeed are the issues Laling with other mine-action practitioners, are having to tackle and it was very helpful to have you spell it all out so clearly.

- James Turner Mine Action Officer AusAID

Thanks for your recent piece on cluster munitions in Lebanon. We’re finally beginning to make progress!

- Virgil O’Wright Director of Clinical Education Associate Professor of Law, University of St. Thomas

I would like to express my deepest thanks to all of you ... for publishing my “Unsung Hero” profile in the Journal of Mine Action. The article was written in a very interesting and touching manner. I received e-mails from many people who read the article, and this made me more motivated to do an excellent job. The MAIC’s publications show the real risk, sweat, hope and goals of the mine-action community. You are so close to us, as if touching our shoulder in the field.

Attending the Senior Managers Training Course in Harrisonburg, Virginia, gave me very important knowledge and skills that I still use and share with my colleagues.

Once again, on behalf of Azerbaijan National Agency for Mine Action, I highly appreciate all of your efforts in mine action.

- Elhein Gasmim, TQA Team Leader, ANAMA

In the Journal of Mine Action, Issue 10.2/Winter 2006 on pages 40 to 43 you published the text on “Explosive Remnants of War in the Republic of Croatia” by Mr. Drailen Simunović, but instead of his pleasure on the end of the text you put the picture of Mr. Nikola Gambiroza.

- Sandra Kozmic, Organizational Affairs Adviser CBM/MAC-Croatian Mine Action Centre

Editor’s Note: We apologize for putting in the wrong photo for this article. We corrected it in the online edition as soon as we were alerted to the problem. The correct photo appears to the right.

The JMA staff also would like to draw our readers’ attention to the profile of Cambodia, which appeared in Issue 10.2 online version of the journal only. Julien Chevillard, former Mine Action Project Manager for UNDP Cambodia, let us know there were several incorrect facts in the original version, and we have not only corrected the problems, but also greatly expanded the article. We wish to thank Mr. Chevillard and Mr. Steve Munroe for helping us correct this article. We encourage you to read the revised profile of Cambodia at http://unplan.org/1g3ii.

If something we print begs for your comment, submit your own Letter to the Editor. Please keep your response short and to the point—200 words or so. Since we have limited space, we reserve the right to edit the comments to fit the space and have done so here. Send your letters to editormaic@gmail.com. Visit our online journal at http://maic.jmu.edu/journal/index.

Letters to the Editor

Capacity Building in Mine Action: Are We There Yet?

This article flags some of the major debates within the broader development literature and introduces concepts that might help to better define and identify what is meant by “capacity development.”

by Olaf Juergensen [National Committee for Demining and Rehabilitation, Lebanon]

T he mine-action industry has made major strides in supporting national efforts to gain ownership and capacity to manage local problems with mines and explosive remnants of war. For more than a decade, the international community has poured significant human and financial capital into developing local capacity to deal with the different problems the presence of landmines poses. So what have we learned as a global community of mine-action practitioners and advisers?

For quite some time now, we have had the practice of mine action and capacity development into two operational realms. The first realm is the post-conflict setting where humanitarian relief and infrastructure renewal require an emergency rapid response. Financial and political resources are quick scrambled, often under the guise of a U.N. peacekeeping mission and all it entails. Capacity building in a war-torn society is seen as a third or fourth rank-order concern—the immediate concern is to provide the “space” for the procedures of reconstruction and reconciliation to take root. The great obstacle during this fragile phase is the lack of personnel, institutions and time needed to re-construct local capacity.

The second operational realm is capacity development in what we have termed “stable” development contexts. This type of capacity development faces hurdles similar to those of conflict situations, but they are slightly different. In the normal transition of things, the war-torn society is seen as a first or second-order concern—the immediate concern is to provide the “space” for the procedures of reconstruction and reconciliation to take root. The great obstacle during this fragile phase is the lack of personnel, institutions and time needed to re-construct local capacity.

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Colombian Armed Forces and Police receive training from a member of the OAS-IADB. PHOTO COURTESY OF JUAN CARLOS RUAN.

Conceptual Markers

The current literature argues that capacity development is, first and foremost, a process that builds on the local context. Thus, many practitioners and analysts have abandoned the term capacity building as they saw it denoting the construction of islands of excellence removed from broader reality. It is argued that capacity development should be measured in terms of outcomes and not merely in quantifiable outputs (e.g., number of managers trained, Geographic Information Systems courses attended, QA inspectors instructed, and so on). As we have indeed learned from national mine-risk education campaigns, accounting for the number of T-shirts does not accurately reflect the degree to which human behavior has changed.

Recently, it has been argued that the lens for analysis should include observations on the intersection of the institutional, individual and organisational environments in which the projects are set. Better understanding of relationships between these different fields of practice will provide the managers and Technical Advisors of capacity-development programmes a better perspective on what works, why it works and why it doesn’t. This insight, which if measured and evaluated properly throughout the duration of a project’s lifecycle, will allow for innovation and broader understanding of the impact of mine action on national reconstruction (peace building) and development (governance) objectives.

Analogous to why operations departments undertake reconnaissance, there is more to capacity development than simply providing the tools to start activities. Indicators and benchmarks need to be established that reflect the human context (political-economic) in which things are to be enhanced. Meeting the responsibility of fielding a quality-assurance team, one that can ensure national standards are being applied, is not the same as recruiting and training the QA team and drafting national standards. In other words, a project output (QA team) does not operate in a vacuum and the institutional home (mine-action centre) and organizational setting (society) play the most significant roles in determining the real outcome and impact of the QA team. Measuring its performance, then, is tricky. Capacity might have been built and even unleashed but its potential not fully realised due to local circumstances (political, economic, staff turnover, etc). So how do we define change, progress and even success?

Drawing on the emergent capacity-development literature, we find that concentrating solely on mine-action case studies provides further food for thought. For example, robust institutions can be handicapped by a lack of authority (political leadership or vague legal status) or highly trained individuals remain leaderless and thus their hard earned technical skills remain idle. This raises the issue of scale, impact, sustainability and a raft of other terms that are bandied about in the development literature without much precision. Despite demonstrable progress being made on a case-by-case basis, there have been ebbs and flows to capacity development in mine action when viewed from a macro perspective.

Are individual actors to blame? Economics? Politics? Donor interest? What are the cross-cutting dynamics at play?

A recent study released by the European Centre for Development Policy Management identified several useful elements to the concept of capacity, which provide a good framework for dealing with the messy reality in which capacity development takes place. The study notes the importance of properly aligning the development of an institution or system within the national or regional context in which it is to function. But it also makes the important point that institutions grow and adapt to engage emerging, more complex realities than originally envisioned and therefore the job of learning (developing) is continual. In other words, capacity is elusive and ephemeral—it is not only the ability to perform a function; it is seen as a latent potential that is hard to stimulate and tap, given the number of outside forces that can affect its outcome. In a sense, it can be measured by looking at a combination of attributes (values, relationships, networks, systems, skills) that form a potential response to a development problem. The response to any problem will also be shaped by the degree to which an institution and its staff are empowered to act and apply their collective skills to solve new, and often more complex, problems.

Conclusion

Broadening the discourse on how we conceptualize, practice, and, ultimately, report on capacity-development activities is critical from an applied perspective. Moreover, it is a discussion that we as a community have not had in any meaningful or sustained way. Capacity building is forever being shaped by the urgency of time (Ottawa Convention) and depletion of resources. Undoubtedly, the “five pillars” of mine action have served as a useful superstructure—and communication tool—for thinking about what we want to help build. But the dearth of discussion on how we conceptualize and actually develop national capacity limits the potential to learn, innovate and contribute to building meaningful and robust national capabilities that benefit a country beyond the niche confines of mine action. ECWPM’s steady concept is useful as it provides us with a more comprehensive view for designing, implementing or concluding a capacity-support project—irrespective of whether it is being undertaken in a fragile state or a stable middle-income country. Thinking more broadly—but systematically—about capacity development will allow us to be more flexible and innovative in our approaches. It will allow us as practitioners to speak a common language and use a common set of principles that ensure the results of our work add value to the society for which they are targeted. Mine action’s strength has been its dogged technical focus on getting the mines out of the ground; it is this exactly what determination that is now needed in our approach to capacity development. The focus, initially however, should be on surveying the field of capacity development as a methodology so we can better map and respond to the question, “Are we there yet?”

See Endnotes, Page

Olf Juergensen is the UNDP Chief Technical Advisor at the National Committee for Demining and Reclamation in Jordan. He was also the CTA to the National Demining Institute in Mozambique. Prior to joining UNDP he worked for the International Development Research Centre in Johannesburg and Ottawa where he focused on the issue of capacity development. He has a Ph.D. in geography from Queen’s University, Canada.

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Journal of Conventional Weapons Destruction, Vol. 11, Iss. 1 [2007], Art. 1
Capacity development is a central part of sustainable mine action. As a concept, capacity development has evolved over time but even now there is not an agreed-upon definition. While the mine action sector has made progress in encouraging the development of national capacity in many countries, there is still much that can be done to promote strong, capable institutions—both within the mine-action field and beyond.

What is Capacity Development?

It is difficult enough to define specific things (e.g., metal detectors) and processes (mine-risk education) within the multi-functional environment that makes up the realm of mine action and ERW, but dealing with a topic as politically and socially complex as capacity development is positively daunting. We have noticed that in mine action/ERW development and funding circles, the term capacity development (and its precursors, capacity building) is as popular to use as sustainability, good governance, and transparency. Unfortunatel, capacity development is a widely used but not widely understood or agreed-upon term. It is treated as both a process and outcome, and it deals with both material applications (e.g., specific skills, knowledge, tasks) and human resources (e.g., ability, process, addressing the system within its environmental context).

The Organization for Economic Co-operation and Development defines capacity development as “the process whereby people, organizations and societies as a whole, understand, strengthen, create, adapt and maintain capacity over time.” While descriptive, this concept is operationally too vague to guide programs, standards and contracts.

We believe that the United Nations Development Programme is helpful in this regard when it observes that capacity is “the ability of individuals, organizations and societies to perform functions, solve problems, and set and achieve goals,” and that “capacity development entails the sustained creation, utilization and retention of that capacity, in order to reduce poverty, enhance self-reliance, and improve people’s lives.”

Barakat and Chard, in Third World Quarterly, conclude that a review of the use of the term capacity gives the impression of “constantly shifting, unclear and contested definitions” and “has added to the confusion by masking contradictory aims under the banner of a common rhetoric.”

Capacity Development in the Mine-action Arena

Let us appraise crudely and unappraisably of efforts to come to grips with the term by the mine-action community in particular. We have observed that mine-action and remediation efforts have actively employed engagement processes that are markedly well and creatively shaped and approaches that the rest of the development community would do well to emulate.

In its beginnings, building a building was seen as a technical process involving the transfer of knowledge about preferred concepts, such as certain organizational models or public-sector institution-building skills, from the global North to South. Typically, the broader political and social context was not considered. Since the 1990s, understanding of capacity building has emphasized the importance of country ownership, leadership and the role of political and governance systems. Each country is expected to determine and determine appropriate strategy and outcomes in partnerships with donors. The most recent change in terminology from capacity building to capacity development has reflected this shift to national ownership, rather than understanding capacity as “constructed” via externally derived models, it has been recognized that “capacity building would not fail if it were sustained for a specific mine-action or ERW program but also applied to other challenges in the local or national context if their applications may be helpful. This situation is not one that will happen without deliberate analysis, nor will it happen only with one stakeholder “buy in.” Its occurrence will depend on a concerted effort of all major organizations involved in mine-action and ERW programs.

I once knew someone who held a very passionate position on a certain issue,” says Dennis Barlow, Mine Action Information Center Director. “After he moved laterally within his organization, his opinions changed radically. I asked a mutual friend what had happened to occasion such a change. He looked at me with one of those ‘Are you for real?’ looks, and said, ‘What happened to occasion such a change. He looked at me with one of those ‘Are you for real?’ looks, and said, ‘What
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by Dennis Barlow and Daniele Ressler [Mine Action Information Center]
In this article, the Public Relations Officer of ANAMA discusses how successful communication with the public has been critical to the success of the mine-action program in Azerbaijan. As part of its public-relations efforts in 2006, ANAMA organized a mine-action workshop for local journalists.

by Sabina Jalilova | Azerbaijani National Agency for Mine Action |

ANAMAs PR policy and procedures have been in place since 2003. They have significantly improved the agency's internal and external communication, raised public awareness and also improved the overall image of ANAMA. “Speak with one voice” is one of the key strategies of the ANAMA public-relations efforts. Everyone involved in ANAMA activities is provided with relevant guidelines to ensure that the strategy is followed. The ANAMA staff is given guidance on how to perform and provide information about their individual work and ANAMA’s general activities, making it easier for them to speak with one voice.

The PR Support Group of ANAMA is comprised of one representative from each department designated to assist in organizing and highlighting major events. Introducing the group to the media during a special event for journalists proved to be a time- and cost-effective way to present newsworthily ideas for distribution to the media.

A Web site Management Committee has also been established. A roadmap was developed and introduced to regularly maintain and update ANAMA’s Web site. As a result, this has improved the coordination and interaction between departments.

ANAMAs public-relations successes are well documented, including:

- 88 press releases distributed
- 60 articles and interviews issued in local media
- More than 30 media site-visits organized
- A number of interviews with the Director of ANAMA and TV show appearances organized
- More than 50 events received wide mass-media coverage

ANAMA PR Project: Workshop for Journalists

It should be mentioned that close cooperation with journalists is one of the main tenets of PR. In fact, PR professionals are significantly less successful if they don’t develop good relationships with journalists. The days of mailing or e-mailing a news release are long past. Few in public relations are successful with that technique anymore. Therefore, ANAMA, in close cooperation with the International Committee of the Red Cross and the Azerbaijan Campaign to Ban Landmines, held a workshop for local journalists to raise awareness about the important role of the media can play in raising awareness to reduce the problems caused by mines and explosive remnants of war.

During the workshop, presentations were made on preventive mine action and mine-victim assistance, as well as on the International Standards related to mines and ERW. Journalists also had an opportunity to witness mine clearance conducted by ANAMA, as well as to visit a mine-victim reintegration project in Azerbaijan and learn about vocational rehabilitation and an association of mine survivors.

Following the media workshop, Tofig Yusif, Chief Editor of Xiyət Tətərz newspaper, said, “During this workshop I became aware that (the) mine problem is a serious problem for (the) civilian population and attention should be paid to this issue constantly. Apart from providing information to the public, which we did so far, we should educate people about safe behavior and how to be protected. We as journalists have a moral responsibility to support mine victims and therefore we have to present their problems to the society. As of today, I have decided that this issue should be regularly on the agenda of our newspaper bearing in mind the high level of risk existing in the Tətərz region.”

Communication is Key

Creativity, initiative and the ability to communicate effectively are essential goals of ANAMA’s public relations. One of the main challenges of the ANAMA PR professionals is not only to pass information to the mass media but also to raise awareness, disseminate safe behavior rules and protect people from the threat of mines and UXOs. These endeavors are being undertaken in accordance with objectives of the government of Azerbaijan.

Timely information sharing and openness of the Agency to cooperation with media and other social institutions not only allows ANAMA to publicize its activities but also serves as a sign of transparency. Transparency, in turn, is crucial to developing and maintaining an ethical image of an organization.

In public-relations terms, ANAMA has ideally positioned itself to be viewed as an ethical organization striving for a better world. Other mine-action organizations can do the same by following these best practices.
A n association between landmine/unexploded ord- 
ance contamination and poverty is generally as-
sumed and is often conspicuous and straightfor-
ward in anecdotal evidence such as victim case studies or community livelihood vignettes. Its strength and causal direction are more difficult to establish. With data from previous Landmine Impact Surveys,
which has been demonstrated that poverty, in terms of lack of livelihood alter-
native to using polluted land, renders community adap-
tion more difficult; in contrast, externally created new alternatives may reduce contact with the explosive de-
vices and the number of new incidents and victims. For example, affected communities in Thailand with more diversified financial services stood better chances of remaining entirely incident free than communities with no such scant services. While greater income growth and diversity plausibly help to reduce incidents, there is little knowledge of how local economic development ultimately contributes to the definitive resolution of the problem by accelerating the removal of explosive remnants of war.
Moreover, there may also be an indirect link between pre-war poverty levels and contamination. Terrain and accessibility may be the intervening variables. For exam-
ple, communities in high-altitude, difficult-to-reach areas may have been structurally poor for some time prior to the events causing the contamin-
ation. Later, during the conflict, their strategic location may have predisposed some of these communities to being contaminated with landmines or unexploded ordnance. After the conflict, the contami-
nation impacts on them may have been greater than on those that were more accessible. Moreover, the NHDS was designed in the tradition of World Bank/UNDP-sponsored Living Standards Measurement Survey with a focus on sample surveys of household behavior rather than community surveys. It was therefore rather fortunate that the two survey data sets could be linked.

Poverty Differences

The overlap between LIS and NHDS community samples permits comparisons between mine-affected communities and non-affected ones on a small number of pov-

resources and contaminating munitions, the survey classified four communities as high-impact, 51 as medium-impact and 25 as low-impact.

Affected Communities and the Human Development Survey

Officially, the last known emplacement of landmines on Armenian soil took place in 1994. UXO from the conflict with the Soviet Union still dot the landscape. In a small number of communities surveyed, key-informants related instances of local people planning mines as recently as 2003. The im-
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aptation is found in the reduced number of mine and UXO victims.

In LIS countries with several hundred affected communities, it is feasible to re-
late the degree of community adaptation, indexed by the ability to avoid incidents, to various social and contamination factors. In Armenia, with only 60 surveyed communi-
ties found to be affected, such effects cannot be reliably estimated. However, almost half of the 60 affected communities were sampled during the sur-
veys to the extent that some of the samples themselves somewhat predated the LIS conducted in 2002 and 2003, under the designation of the National Human Development Survey. The NHDS compared interrelated community, family and family-
member surveys, with the ultimate goal of estimating national and regional poverty

levels. Included in the questionnaires were a considerable number of items concerning facilities and service provision, important rankings for development issues, as well as demographic changes.

Ironically, although both the Armenia National Human Development Survey and the LIS were executed by the UNDP, the two survey staffs, based in different towns, were not aware of each other’s exis-
tence and purposes. By serendipity, Vietnam Veterans of America Foundation became aware of the NHDS rather late in the LIS data collection phase and asked the LIS staff to obtain copies of the NHDS data. Neither survey had been designed in conjunction with the other. In particular, the NHDS community and household samples were not stratified on landmine/UXO presence. The community gazetteers used by the two surveys were not identical and the overlap between the two sets of surveyed communities could only be established approximately. Moreover, the NHDS was designed in the tradition of World Bank/UNDP-sponsored Living Standards Measurement Surveys with a focus on sample surveys of household behavior rather than community surveys. It was therefore rather fortunate that the two survey data sets could be linked.

In Armenia, the UNDP implemented a Landmine Impact Survey as well as a Human Development Survey, although separately from each other. The authors, by linking the two data bodies, demonstrate new findings about mine-affected communities in a poverty alleviation perspective.

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by Aldo Benini and Charis Conley [Veterans for America]

An association between landmine/unexploded ordnance contamination and poverty is generally assumed and is often conspicuous and straightforward in anecdotal evidence such as victim case studies or community livelihood vignettes. Its strength and causal direction are more difficult to establish. With data from previous Landmine Impact Surveys, it has been demonstrated that poverty, in terms of lack of livelihood alternatives to using polluted land, renders community adaptation more difficult; in contrast, externally created new alternatives may reduce contact with the explosive devices and the number of new incidents and victims. For example, affected communities in Thailand with more diversified financial services stood better chances of remaining entirely incident free than communities with no such scant services. While greater income growth and diversity plausibly help to reduce incidents, there is little knowledge of how local economic development ultimately contributes to the definitive resolution of the problem by accelerating the removal of explosive remnants of war.

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In LIS countries with several hundred affected communities, it is feasible to relate the degree of community adaptation, indexed by the ability to avoid incidents, to various social and contamination factors. In Armenia, with only 60 surveyed communities found to be affected, such effects cannot be reliably estimated. However, almost half of the 60 affected communities were sampled during the surveys to the extent that some of the samples themselves somewhat predated the LIS conducted in 2002 and 2003, under the designation of the National Human Development Survey. The NHDS compared interrelated community, family and family-member surveys, with the ultimate goal of estimating national and regional poverty

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Industrial employees per 1,000 residents 10.52 14.69 Affected communities have fewer employees, p = 0.07

Industrial enterprises per 1,000 residents 0.42 1.10 Affected communities have fewer enterprises, p = 0.07

Communities compared 26 17
Population (mean) 1,008 1,157 n.a.
Distance from border (mean) 3.0 km 3.3 km [n.a.; cut-off distance]

Table 1: Shows indicators and affected and non-affected communities and impacts of those indicators and whether it is statistically significant.

For better comparability, Table 1 contrasts affected and non-affected communities from similar environments—from the five provinces with landmine/UXO contamination and within these, only communities close to international borders. “Close to borders” is defined as being no farther away from the nearest border than 6,470 meters (about two miles); the maximum distance for the affected communities also found in the NHDS samples.

At first glance, non-affected communities fare better on poverty and institutional indicators; however, tests suited for small samples reveal they are significantly different from their affected neighbors only in the levels of extreme poverty and industrial employment. The service and facilities scores are based on the presence or absence of 10 different institutional features that set communities apart from one another. These features include industries, paved access roads, post offices, kindergartens, secondary schools, outpatient health care facilities, pharmacies, cultural centers, telephone services and a centralized drinking water supply.

As the following graph makes clear, the claim of affected communities suffering more severe poverty is due essentially to the high density of communities relatively close to the border (three kilometers about two miles) or less) that reported 20 percent or more of their families as “very poor.”

Whether these communities faced poverty prior to the war (because they were at higher altitudes, close to the mountain ridges that demarcate Armenia from surrounding countries) or whether their exposure to hostilities in addition to the landmine and UXO contamination exacerbated poverty in the area is impossible to establish with the extant survey data. But the association between contamination and poverty is strong enough to suggest that appropriate mine-action strategies should be closely integrated with wider poverty-alleviation plans.

The findings of the Armenia LIS, as far as they resulted from the analysis conjointly with human development survey data, warrant a substantive as well as a methodological conclusion. Substantively, poverty-alleviation policies and humanitarian mine-action strategies should be seen as mutually dependent. The tendency, however, is nuanced and cannot be thought of as a simple linear association between contamination and poverty or poverty alleviation and ERW mitigation. While both aim to inform national strategies, the suitability of particular project types for local community development has to be assessed by looking at several development indicators and poverty or poverty alleviation and ERW contamination has to be assessed by looking at several development issues rated in the NHDS. These include health care facilities, pharmacies, cultural centers, telephone services and a centralized drinking water supply.

The greater emphasis on isolation and the somewhat surprising de-emphasis of agricultural land may suggest that, given limited development budgets, for many of the landmine-affected communities, clearance may not be as productive as other rehabilitation and development investments. Their relative lag in industrial employment appears to reinforce this conclusion.

Conclusion

Some of these wider concerns stem from the importance that landmine-affected and non-affected communities attach to a variety of development issues rated in the NHDS. In Figure 3 the percentage of communities that considered an issue important is shown for landmine-affected and non-affected communities close to the border in the contaminated provinces. Issues are arranged by the importance they registered within the entire 185-community samples accessible to this analysis.

Overall, the importance profile among landmine-affected communities and non-affected communities was similar. Some exceptions, however, are significant:

- Mine-affected communities are more isolated. They emphasize social exclusion, poor roads and marketing problems as important issues more often than other communities. It is noteworthy that the greater importance given to social exclusion and road access parallels even when surveys control for population size (larger communities are less isolated), distance from the border (no effect) and extreme poverty (no effect).
- Mine-affected communities complain significantly less about lack of agricultural land than their mine-free neighbors do in affected provinces and areas close to the border. This may seem paradoxical. In many cases, however, agricultural land to which landmines and UXO are hampering access forms part of restricted military zones. The local community may not think of these areas as accessible and therefore may not formulate the problem as a lack of a particular type of land.

Fewer mine-affected communities than was expected identified natural disasters as an important issue. Drinking water is far less important an issue than among the 17 non-affected communities in the same zone but has the same importance as in the large sample. These differences cannot be explained with the available data, as shown in Table 2.

Table 2: Percentages of importance / concern affected and non-affected individuals placed upon certain issues. The greater importance of communities relatively close to the border (three kilometers, about two miles) or less) that reported 20 percent or more of their families as “very poor.”

Figure 3: Graph of poverty rates and how connected to land-mine affected regions.
activities within the total reconstruction and development effort; living standards and human development surveys are not capable of rating the severity of the local landmine and UXO impacts. It is their combination with participatory methods that leads to better insights and policies.

This last remark hints at methodological practices desirable on both sides of the LIS and poverty-research agendas. The LIS has benefited from the discipline of using standardized community gazetteers and managing its data in a global information system framework that links up with other spatially de-nominated data bodies—a practice yet to be widely adopted in the sample-survey-based tradition of poverty research. Conversely, in order to release the constraints of “selecting on the dependent variable” (i.e., collecting data on affected communities only). LIS implementers need to reach out to institutions holding data on both affected and non-affected communities more aggressively and earlier, starting in the survey setup phase. And both survey traditions can benefit enormously from participatory assessments that elicit the voice of local communities.

The Armenia LIS and human-development surveys, while planned and conducted separately, offer a glimpse of the potentials for mainstreamed mine action when affected communities are looked at through both prisms simultaneously. See Endnotes. Page

Clearing the Way in Azerbaijan

The expansion of clearance activities in Azerbaijan has been largely due to the creation of an Emergency Response Team and the implementation of new tools. Thanks to these additions, ANAMA has been able to respond quickly to requests for clearance in residential areas and in the field.

NAMA continuously receives requests from affected communities as well as humanitarian aid organizations for clearance of houses from mines and unexploded ordnance. Due to the absence of a specialized team able to react quickly and eliminate such problems, a limited amount of explosive ordnance disposal tasks were dealt with until late 2005, when a 12-man ANAMA Emergency Response Team was established. The U.S. European Command and ArmorGroup EOD Specialists trained the team. During this training, basic principles of booby-trap and house-clearance operations were covered. Since completion of its training, the ERT has been actively deployed to fire-war-affected districts of Azerbaijan to perform house-clearance operations.

Residential Area Clearance

Initially, 95 houses in Yukhari and Ashagi Kurdmahmudli villages of Fizuli region that were requested by Norwegian Refugee Council for further reconstruction activities were cleared of explosive remnants of war. This operation allowed reconstruction of houses for more than 100 local families, who then could live free from the threat of explosive devices. Besides this operation, ANAMA continues to react to a number of requests for the removal of UXO fired during the war and lodged in the basements of houses, in the walls or in the adjacent yards. Normally, clearance of one house takes about three working days. House-clearance operations are very labor-intensive. The majority of UXO is found subsurface, which requires excavation efforts sometimes to the depth of five meters (16.4 feet).

Clearance of residential areas is also complicated by the large amounts of metal contamination that slow progress due to the high
High-priority Clearance

Besides house-clearance operations, ANAMA is currently implementing a de-mining project in support of governmental initiatives to repatriate internally displaced persons. Last year ANAMA signed a contract with the Social Development Fund for IDPs concerning clearance of 19 million square meters (4,695 acres) of suspected mined area in Zoghov village, Fizuli region. This project is a high priority for the government, as cleared land will be used to construct a huge settlement that will allow more than 2,000 displaced families to leave temporary residences in tent camps and move to Zoghov. The duration of clearance for the project is projected to be 19 months.

Since the beginning of the project, 53 deminers, 17 mine-detection dogs and five mechanical demining machines have been involved in operations. This mined area has been identified by General Survey and Landmine Impact Survey. Several mine incidents have occurred in the northern part of the area; however, most of the land is classified as a low-threat, suspected anti-tank mine area. In order to ensure operations are conducted in the most efficient manner, ANAMA has conducted a field test of various clearance methods and developed a new system where all three tools are integrated in a most time and cost-effective manner. The system stipulates 100-percent clearance where demining machines cut lanes (every 10–15 meters [32–50 feet]) with a subsequent quality-assurance check by dogs or magnetic locators in between the lanes (see photo X). The Fortune magnetic locator with four probe attachments, known as the FEREX 4.032 DLG, is continuously used for clearance of Zoghov area. This tool continues to show excellent results—daily productivity of the locator can reach 15,000 square meters (3.7 acres). As a result of the employment of a new area-reduction methodology, overall productivity at the Zoghov site has reached approximately one million square meters (247 acres) per month.

Based on past experience with demining machines in Azerbaijan, ANAMA’s mechanical demining specialists compiled a comparative analysis of the machines’ performance. Table 1 reflects summary results of the analysis undertaken.

**Table 1: Comparative analysis of mechanical-demining machines.**

<table>
<thead>
<tr>
<th>Models of machines</th>
<th>Date of deployment</th>
<th>Total period of exploitation (working days)</th>
<th>Area cleared (sq.m)</th>
<th>Total fuel consumption (metric tons)</th>
<th>Missed working days</th>
<th>Exploitation expenses for the machine (AZN)</th>
<th>Fuel cost per sq.m. cleared (AZN)</th>
<th>Total cost per sq.m. cleared (AZN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bozena-4 (1)</td>
<td>09/2004</td>
<td>2,100</td>
<td>28 / 448</td>
<td>1,746,384</td>
<td>17</td>
<td>28</td>
<td>77,353</td>
<td>0.0025</td>
</tr>
<tr>
<td>Bozena-4 (2)</td>
<td>05/2006</td>
<td>556</td>
<td>8 / 128</td>
<td>488,800</td>
<td>4.5</td>
<td>5</td>
<td>22,542</td>
<td>0.0033</td>
</tr>
<tr>
<td>Bozena-5</td>
<td>06/2005</td>
<td>1,035</td>
<td>19 / 304</td>
<td>1,035,845</td>
<td>18</td>
<td>100</td>
<td>86,321</td>
<td>0.0055</td>
</tr>
<tr>
<td>Val</td>
<td>09/2006</td>
<td>384</td>
<td>4 / 64</td>
<td>61,500</td>
<td>1.8</td>
<td>31</td>
<td>5,850</td>
<td>0.010</td>
</tr>
<tr>
<td>Rhino</td>
<td>09/2005</td>
<td>300</td>
<td>16 / 256</td>
<td>237,800</td>
<td>23.8</td>
<td>200</td>
<td>58,427</td>
<td>0.03</td>
</tr>
</tbody>
</table>

Conclusion

Following the war, hundreds of Azeri families were unable to return home due to mine and UXO contaminations in residential areas. New clearance projects from ANAMA, however, have helped make Azerbaijan safer by eliminating the threat of UXO and landmines from affected houses, yards and villages. A combination of technology and human commitment has been necessary for the successful clearance of residential areas and the safe return of displaced families.

Benefits of Integrating MRE into School Curricula

Benefit of Integrating MRE into School Curricula

When MRE is integrated into the curriculum of schools, not only does financial support from the government increase for MRE activities, but also the importance of mine-clearance issues among the population rises. Therefore, ANAMA recommends this initiative be considered a priority task for MRE program implementers in any country.

Currently, 1,320 teachers at 790 schools teach the MRE course in Azerbaijan, reaching 32,500 students. The Ministry of Education pays the expenses for the training, and the heads of district education departments are responsible for supervising the classes. The responsibility of teachers and heads of schools increases and thus the attitude towards MRE changes. For the teachers and community leaders it becomes a humanitarian task, or, rather, a noble duty which they perform in order to help and protect their communities and fellow citizens.

Since integrating MRE into schools, students have become more sensitive to the problem. After being taught MRE, they begin to inform the authorities and their teachers when they find mines, unexploded ordnance and unknown objects and they share where these items were found.

New Approaches and Strategies for MRE in Azerbaijan

By changing its approach, the Azerbaijan National Agency for Mine Action has been able to achieve much success in its mine-risk education program. As Head of the MRE Department for ANAMA, Musa Jalalov describes the new steps being taken in Azerbaijan to educate the public and involve the community in mine action.

by Musa Jalalov [Azerbaijan National Agency for Mine Action]
The role of ANAMA implementing partners—Relief Azerbaijan, the International Eurasia Press Fund or the teams working with MRE materials when there is a need. ANAMA uses various tools, which we think can be of great help in countries that also have mine/UXO-con- tamination problems. We have established a "hotline" by simply adding the office and mobile phone numbers of the national and regional ANAMA offices to the bottom of posters and billboards erected in, around or close to contaminated areas. The post- ers have helped people become more in- formed. People now understand the real danger posed by mines and UXO and actively inform ANAMA club members about what they encounter.

The structure of ANAMA’s MRE Department, which includes volunteers, is the most crucial part. The MRE Department, a main implementing partner capacity that helps various types of educational/promotional tasks become real- ised. MRE is delivered when the clearance operations first begin or when clearance is complete and the ceremony to hand over the cleared land to its owners is held.

ANAMA Director Nazim Ismailov has signed a special order regarding the dem- iners’ own role in MRE. The order requires the field staff members to include MRE in their monthly activities along with their normal duties, particularly when outside conditions (i.e., rain, snow, wet soil) prevent demining operations. The deminers visit farm workers, schoolchildren or civilians in public places and hold MRE discussions and provide them with MRE materials.

The ANAMA MRE team has good relations with national and international organisations such as People to People International, UNICEF, the International Committee of the Red Cross and the Azerbaijan Red Crescent Society. Close cooperation with PTPI provided funds for our programme which were used to produce promotional materials (pens and stickers) that had safe behaviour messages written on them. The materials are an effective means of communicating the MRE messages dur- ing trainings for different categories of popu- lations, especially for children.

As an experienced MRE team, ANAMA organises and implements various types of projects among schoolchildren in contami- nated communities. For example, a painting contest project, funded by UNICEF, was very successful in raising students’ in- terest in mine action. They learned about safe behaviour rules and formed a hatred of mines/UXO and of the war itself. The result of the contest showed that, as in all suffering children, the Azeri kids also want to strive for and live in peace. They do not want to be killed, disgraced or maimed by the men- ace of war; they want to create and develop friendly relations with the other children of the world.

Application of these new promotional strategies has been successful for the MRE program. The number of mine/UXO inci- dents/accidents has decreased and the citizens of Azerbaijan have become more sensitive to landmines and the danger they present.

See Endnotes, Page 12

Survey Helps ANAMA Realize New MVA Projects

Following a Mine Survivors Needs Assessment Survey in 2004, the Azerbaijan National Agency for Mine Action and several nongovernmental organizations are working closely to bring victim assistance to mine and unexploded ordnance survivors throughout Azerbaijan. Since 2005, victim assistance in Azerbaijan has included five needs-based projects, as well as individual assistance provided to survivors, such as treatment sponsorship and wheelchair provision.

by Dr. Rauf Mamedov
Azerbaijan National Agency for Mine Action

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he new ANAMA database was created as a result of the Mine Survivors Needs Assessment Survey in 2004 and serves as a reli- able and useful source of information on mine/UXO survivors’ needs. It has proven itself with a number of successful pilot projects, which are now being realized and put into practice under the leader- ship of ANAMA.

Under the project, researchers have interviewed 1,883 mine survivors living in 65 areas of Azerbaijan about their needs. A special questionnaire form, created by ANAMA specialists, re- flects various needs of victims in the following areas: medical care, economic and educational assistance, physical and profes- sional rehabilitation, psychosocial support, suitable sports and oth- ers. Using the newly created database helped ANAMA recognize the particular needs of survivors; therefore, it has become easier to plan and realize new projects.

Recent VA Projects in Azerbaijan

Organization of summer camps. One of the first projects in the field of mine-victim assistance was the project “Organization of Summer Camps” for injured children and children from mine- victims’ families. This project started in 2005 in cooperation with UNICEF, the Ministry of Youth and Sports and the United States organization Right to Play. One hundred twenty children from war- affected and borderline districts spent their rest and leisure time over a two-month summer break at a boarding school in the G葶naboy district. The children enjoyed relaxation and fun activities while stay- ing at the school.

At the beginning of 2006, four more projects began. National NGOs, which are active participants of the ANAMA MVA Working Group and given grants by ANAMA through the bidding process, were responsible for implementing all projects.

Organization of sanatorium treatments. The project with the NGO Sheikh Ellet (“Healing Hands” in English) on “Organization of Sanatorium Treatments” for 120 mine survivors, was successfully completed recently in the Maskalan settlement (one of the suburbs of Baku), in a boarding house sublet to the Ministry of Labor and Social Protection.

This MVA project, sponsored by the European Commission, is actually the first project ANAMA has implemented in cooperation with local NGOs. Mine survivors are delivered from their residences to a boarding house where they rest and receive medical care, mostly physical-therapy treatment, and then are brought back to their resi- dences. The majority of survivors express their gratitude for the or- ganization of such services; they also emphasize the usefulness of the treatments and their hope that they will continue to receive this and other services. In light of this positive response, ANAMA intends to continue implementation of such projects in the future.

Establishment of Mine Victims Association. The NGO International Eurasia Press Fund initiated the project to establish the Mine Victims Association in the Terter district, which is still ongo- ing. The U.S. Department of State’s Office of Weapons Removal and Abatement is sponsoring this project for a period of three months. The project’s goal is to mobilize internal resources of the commu- nity through the establishment of the Mine Victims Association to meet survivors’ needs in medical care, physical and psychological rehabilitation, education, social and vocational adaptation, economi- cal assistance and financial support. The sustainability of this project will strengthen the community’s capability to solve problems they face and improve civil society. The skeleton of the organization con- sists of 10 mine survivors (in total, there are around 2,500 mine survivors in the Terter district). The main goal of the project is to expand the activities of the association to a national level.
Revision of disability degrees. In August 2006, two projects started at once, the Revision of Disability Degrees and Integration of Mine Survivors into Society through Vocational Rehabilitation in Ganja Regional Resource Centre. The European Commission sponsored both projects with additional support from the United Nations Development Programme. The project Revision of Disability Degrees is being conducted by two NGOs, Drehelnish ("Revival" in English) and Protection of Human Rights. UN 1,883 mine survivors interviewed during the Needs Assessment Survey in 2004, 400 persons expressed the need for a review of their disability status. It is crucial for many of them because:
1. In many cases, disability pension is a substantial part of family income.
2. Official recognition of disability opens doors to other opportunities in social care.
3. Submission of documents to respective commissions is a time-consuming and complicated issue for disabled and needy people.

As a country in transition, the population of Azerbaijan is experiencing some adjustments in social life that are not always positive. The Needs Assessment Survey reflected that some people with disability status have some unresolved social issues largely due to the current level of family income and lack of social services, including peer support systems. Some of the issues expressed included lack of documentation at the time of injury and bias against disabled people on the part of government employees providing care. Consequently, ANAMA decided to provide a solution to these problems, to find and eliminate reasons for social tension and discontent among mine survivors. As a result of the Revision of Disability Degrees, the following will be achieved:
1. Strengthening mine survivors’ social protection
2. Growth of real income of families over their lifetimes
3. Acquisition of knowledge on mine survivors’ rights and opportunities through the network
4. Increased care by society toward the problems of disabled people and opportunities for the disabled to be integrated into society
5. Participation of mine survivors in mine-risk education delivery and training
6. Acquisition of real knowledge about implications of current legislation and recommendations developed.

Vocational rehabilitation in Ganja. The project called “Integration of Mine Survivors into Society through Vocational Rehabilitation in Ganja Regional Resource Centre” is implemented by the NGO Org (“Fire” in English) from Ganja city. In this project, mine survivors will learn new professions. The ultimate goal of the project is to integrate mine survivors into society through vocational rehabilitation and facilitate income-generation for their families. With this goal in mind, 20–25 mine victims—either disabled people or their family members—are trained in carpet weaving and tailoring over a period of four months.

Successful trainees are provided equipment and materials for self-employment and self-sufficiency. The materials are purchased with funds received for carpets and clothes the trainees have made and sold during special events arranged for donors and other interested parties.

Individual Assistance

In addition to carrying out projects, ANAMA also provides individual help to especially disadvantaged mine survivors. At the given stage of national agency activity, this help may include sponsoring surgical treatment of survivors and provision of wheelchairs to them.

There is work on new MVA projects in such fields as providing ophthalmologic care to all identified mine survivors in the country who need it (about 433 people), providing microcredit loans, creating collective farms and other agricultural opportunities, etc. Besides these, ANAMA, in collaboration with foreign partners, made it possible to share experiences obtained in this field. These experiences include visits of professionals working in the sphere of MVA as well as mine survivors themselves visiting other countries and receiving some treatment there. The main purpose is to increase knowledge of MVA specialists and to increase access for intercommunication of mine survivors.

An example of individual MVA can be seen in the case of assistance to mine survivor Mr. Elman Alyiev. With the assistance of the government of Slovenia and support from the Consulate of the Republic of Slovenia in Azerbaijan, Mr. Alyiev, a landmine survivor from Azerbaijan, will undergo rehabilitation treatment at the Institute for Rehabilitation, Republic of Slovenia.

Thanks to the financial support of ANAMA, Mr. Rashid Veliyev, who suffered an injury from an anti-tank mine, had two operations—above-the-elbow reshugery and extraction of a fragment from his right eye.) Mr. Alyiev will receive a prosthesis and complete rehabilitation treatment through support of International Trust Fund for Demining and Mine Victims Assistance and IR-RR. Sponsors for the initiative are a number of local and international organizations in Azerbaijan.

Conclusion

Researching and recording the needs of mine and UXO survivors has helped ANAMA to plan, implement and coordinate several new projects in the field of mine victim assistance. By giving the Azeri survivors a voice, ANAMA has been able to provide more focused victim assistance in areas such as medical treatment, economic support and socioeconomic rehabilitation, achieving very positive results for almost five years. As always, ANAMA staff is ready to share their experience with any colleagues interested.

See Endnotes, Page

Rauf Memmedov is a general practitio- ner and a 1998 graduate of Azerbaijani State Medical University. He worked in diagnostics as a cardiologist. From 1996 to 2000 he was involved in activities with Relief International in Azerbaijan as a Mobile Health Unit physician. He has worked for ANAMA since July 2001 and made significant contributions to the survey procedures described in this article.

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Regional Mine Action as a Confidence-building Measure

The mine-action cooperation through regional workshops described in this article tested the effectiveness of this cooperation as a confidence-building measure among neighbouring states and former combatants.

Mines represent one of the most significant security, humanitarian, environmental, economic and development problems of the international community. Areas covered with mines directly and indirectly impact a community. Mined areas potentially manifest themselves in a large number of civilian casualties and influence the population’s health in terms of losses in livestock, arable land, supplies, production and trade. Civilians have a constant fear and a feeling of anonymity, distrust and intolerance as a result of mines.

Developing a Regional Approach

A regional approach to mine action has been slowly growing in southeastern Europe and the southern Caucasus. Slovenia, through the International Trust Fund for Demining and Mine Victims Assistance, has been actively involved in mine-action activities in southeastern Europe since 1998, using a regional approach. Then, in November 2005, three national mine-action centres (Albania, Croatia, and Bosnia and Herzegovina) and the ITF established the South-Eastern Europe Mine Action Coordination Council, a technical body whose goal is to work toward a mine-free southeastern Europe.

By 2004 other countries, including Bosnia, Croatia, Montenegro, Sofia, Albania and Macedonia, from the region joined the initiative and started to cooperate on joint regional projects as well as on the exchange of knowledge, technologies and equipment. Being a technical body, SEEMACC is providing an arena for countries in the region to discuss solutions to the landmine problem, one of the major factors preventing normal socioeconomic development in affected countries.

With good regional cooperation and proposed joint projects, affected countries managed to attract additional donor support, which is necessary in order to achieve the common goal—a mine-free region by the end of the decade. Similar initiatives should be started in other mine-affected regions to enhance confidence building and strengthen cooperation and trust among neighbouring countries.

To speed the pace of reducing the landmine threat that endangers populations in Armenia, Azerbaijan and Georgia, and to strengthen confidence and security in the southern Caucasus, in 2004–2005 the U.S. Department of State implemented the “Rcecor Initiative,” an innovative multilateral program. Under this initiative, U.S. military personnel conducted joint humanitarian demining training of select groups of Georgian, Armenian and Azerbaijani soldiers and civilians. The government of Georgia hosted this training program at the Gori military base near Tbilisi, Georgia. Georgia, Armenia and Azerbaijan each contributed 20 soldiers and civilians (for a total of 60 students) to be educated about modern humanitarian demining techniques by U.S. Army demining experts.

Regional Workshops Begin

The second initiative was the successful implementation of the Organization for Security and Cooperation in Europe Cooperation and Capacity Building Seminar, held 1–2 October 2002, in Yerevan, Armenia, and co-chaired by the representatives from countries of the South Caucasus area, central Asia, Canada, Europe and the United States. Representatives from the European Commission attended, along with the OSCE, the International Committee of the Red Cross, the International Campaign to Ban Landmines, the Geneva International Centre for Humanitarian Demining, Geneva Call, Landmine Survivors Network, the Slovenian Institute for Rehabilitation and various local embassies and nongovernmental organizations.

The workshop was also an occasion for the OSCE to examine how mine-action activities could improve the overall socioeconomic situation in the regions, complement OSCE core activities and, therefore, strengthen the OSCE’s advocacy role in the respective regions.

A secondary goal of the workshop involved starting discussions among responsible authorities in the respective regions that would ultimately lead to the eradication of mines and an improved socioeconomic situation in each region, contributing to better dialogue and cooperation among nations.

This workshop gathered over 80 military and diplomatic representatives from countries of the South Caucasus area, central Asia, Canada, Europe and the United States. Representations from the European Commission attended, along with the OSCE.

At the workshop, several examples of confidence building and regional cooperation in other mine-affected regions were presented, which formed the basis for discussions on how regional cooperation might be achieved. For example, in the first part of the workshop, Armenian and Canadian governments. Here all countries of the region expressed consensus in suggesting the need for landmines to become a depoliticized issue and the need for a common strategy to approach local concerns.

The ITF continued promoting regional cooperation, incorporating observations from this first OSCE seminar. The result was the first Regional Management Training for Middle Managers of the Mine Action Program. This training of managers included participants from all countries of the region, improving their knowledge in mine-action management. Even more importantly, it established relations and raised confidence among participants. In concluding lectures, participants realized and suggested several points of possible cooperation on the regional level. This included joint training, cross-border mine-action projects, sharing of equipment, etc.

The Slovenian experience with SEEMACC managed to depoliti- cize the mine-action issue, establish a forum to debate between members and stimulate joint cooperation. Slovenia sincerely believes regional cooperation and confidence building can be achieved to a significant extent through mine action and can also lead to other implementations of aid throughout the country, i.e., reconstruction of infrastructure. When countries start to cooperate after the war, they are much more attractive for donors in all other fields.

Workshop in Tbilisi

On 5–6 October 2005, the OSCE sponsored a regional workshop in Tbilisi, Georgia, with the intention of establishing the proper environment for dialogue among the nations of the South Caucasus and central Asian regions. The workshop focused on “Confidence Building and Regional Cooperation through Mine Action.” Previously, cooperation in the region has been limited to some attempts at joint training.

This workshop was organized by the OSCE Centre in Tbilisi and the ITF, and was sponsored by Canada, the Netherlands, Slovenia and OSCE. The specific objectives of the workshop were to create an open exchange of information on the issue of landmines and to promote successful models of regional cooperation for countries in the southern Caucasus and central Asian regions. The workshop contributed to confidence building among nations and the possibility of accession to the AP Landmine Ban Convention by non-signatory states from the respective regions.

During the workshop, several issues of confidence building and cooperation were presented, which formed the basis for discussions on how regional cooperation might be achieved. For example, in the first part of the workshop,
Demining of Underground Adits in Ukraine

During World War II the Soviet Union established ammunition deports with over 10,000 metric tons (11,023 U.S. tons) of explosives around the Ukrainian towns of Sevastopol and Kerch. Stored in adits, these explosives threaten the peaceful lives of present-day Ukrainians. In 2002, teams began the task of removing unexploded ordnance, landmines and debris. They encountered many problems while pursuing their goal of eliminating these stockpiles by 2010. Their efforts are described in this article.

by Yuri Kolesnyk (Ukroboronservice State Company)

In spite of the fact that 60 years have already passed since the biggest and the most severe war of the 20th century, the problem of clearing a large number of unexploded ordnance from Ukrainian territories is still topical. Engineering and demining units from the Ministry of Defense completed partial clearance of the territories in Ukraine in the mid-1990s. Despite the considerable work the deminers have done and are still doing on extraction, neutralization and destruction of the detected World War II unexploded objects, there are still accidents resulting in injuries to and deaths of the civilian population. Nowadays, the government of Ukraine is improving the procedures of mine action in accordance with the requirements of International Mine Action Standards and plans to set up a specialized governmental body for coordinating all mine action in the country.

Clearing unexploded objects from Ukraine’s territories is the obligation of the Ministries of Emergency and of Defense. Ukroboronservice State Company (through its structural subunit, the Center of Humanitarian Demining) specializes in carrying out commercial projects in Ukraine and abroad. This company has played the leading role in establishing humanitarian demining in Ukraine. The area most contaminated by unexploded objects is the Crimea Peninsula, namely the towns Sevastopol and Kerch, where 30 people have perished or been injured due to WWII unexploded objects in recent years. In January 2001 the Cabinet of Ministers of Ukraine adopted a state program—“Clearance of WWII Unexploded Objects in the Area of Towns of Sevastopol and Kerch until 2010”—based on the results of investigations the specialists of Ukroboronservice State Company had done. This program will run until the end of December 2010.

The Inkerman Adits Ammunition Depot

The main area that needs to be cleared of explosives within the framework of this program is the destroyed Inkerman Adits located two kilometers (1.3 miles) from Sevastopol. The Inkerman Adits were destroyed due to an ammunition explosion in June 1942. Before the explosion, they served as the Soviet Army ammunition depot, storing more than 10,000 metric tons (11,023 U.S. tons) of ordnance. A considerable amount of ammunition (approximately 1,000-3,000 metric tons [1,012 to 3,307 U.S. tons]) did not detonate during that explosion and until now access to it has been obstructed. The intact state of the galleries’ is practically inaccessible. The majority of the ammunition that did not detonate has been mechanically and thermally damaged as well as affected by weather, such as erosion and the periodic influence of ground heave. Examination of the destroyed adits has shown that the rock mass above them consists of separate blocks (more than 1,000 cubic me-
Economy, Finance, Industrial Policy and Defense to coordinate program activities. Project financing is provided by Ukraine. The main executor of the work is Ukroboronservice State Company. The specialists of Ukroboronservice conducted the clearance task proposed a problem-solving strategy comprising several stages:

1. Thorough investigation
2. Ensuring access to unexploded ordnance
3. Localization
4. Maximum clearance

Thorough investigation. The first stage took place from 2002 to 2004. During this time the working group hired a special group of guards to prevent unauthorized persons from accessing the adits. The working group cleared unexploded ordnance from the ground surface up to 0.25 centimeters (0.1 inches) in depth and determined a scheme of probable adit locations before the explosion. A specialized Crimean team conducted seismological investigations while a local institute made inspections using such technologies as impulse electromagnetic traversing. Ukroboronservice conducted engineering and technical investigations. The lack of reliable information regarding the adits’ layout and stockpiled ammunition before the explosion has caused problems for specialists at the Centre for Humanitarian Demining.

According to the results of this stage, Ukroboronservice has determined the location of most of the unexploded ordnance, their nomenclature, approximate quantity, condition and the possibility of accessing them. Ukroboronservice decided the following:

• To make five vertical excavations (with areas no less than 5 square meters [50 square feet]) deep, 25–35 meters (82–115 feet) each), to reinforce the walls of passages with concrete braces no less than 30 centimeters (12 inches) in width to prevent soil dislocation.

• To move the ammunition and in case of an emergency evacuation make up to 100 running meters (329 feet) of underground horizontal passage, which can provide access to explosives in the places where they are most concentrated.

• To reinforce the overhang layer with wooden or concrete supports and protective constructions to prevent collapse.

• To destroy on a special range all ammunition allowed to be transported.

• To preserve the ammunition that cannot be transported by pouring concrete in special places under the ground.

During this stage the state company Ukroboronservice provided its expertise, collaborating with the private company ATIK. Project completion is expected before the end of 2010.

Ensuring access to unexploded ordnance. From 2004 to 2006 Ukroboronservice and ATIK carried out the second stage. During this stage, Ukroboronservice did the main preparations to start the extraction of unexploded objects. Also, ATIK installed three vertical shafts (25–30 meters [82–99 feet]) and horizontal shafts (30 meters [99 feet]) towards the place where the objects were concentrated.

The engineer of safety monitored this step, ensuring that deminers cautiously transported the UXO by hand and machines safely destroyed the ordnance. ATIK constructed additional concrete supports to protect against landslides.

Taking into account all safety regulations, trains executed the task of demining at an intensive and dangerous rhythm. Seismologists and deminers worked out a special system that considerably increased efficiency and safety. To reduce risk, the deminers of Ukroboronservice State Company constantly made technical and engineering inspections during the construction of vertical and horizontal excavations. Teams made wide use of mine-detector Vallon EL 1303D with the Vallon EL/2000 Module Base Hole and Surface software. With its help deminers detected large-caliber aerial bomb and were able to confirm and refute information concerning the ammunition's main location. While accompanying adit excavations during this stage, deminers detected and destroyed more than 2,000 unexploded objects, including shells, mortar mines, aerial bombs and the different types of blasters.

One of the difficulties of adit excavation is the fact that the rock and soil are constantly in motion. In time new holes and cracks appear that give access to the underground section. To control ground movement a Crimean team of specialists conducts constant seismological investigations of the working site. Based on the results, the safety engineer takes the appropriate measures to ensure the staff is protected against a possible landslide.

Localization. A group of deminers from Ukroboronservice have been executing the third stage since mid-2006. The third stage marked the start of intensive extraction of unexploded objects from underground obstacles. During detonation of the ordnance concentration of a 20 metric tons (22 U.S. tons) of TNT equivalent, a camouflet5 explosion may happen and during larger ones, a blowout.6 That is why the working group believes that reducing the scale of possible accidental explosions is important. Deminers must ensure safety limits, dividing excessively mine-laden areas into smaller, more manageable quantities of UXO.

During this stage (which at the time of writing was still ongoing), the teams have extracted more than 20,000 pieces of ordnance. This total includes munitions of varying types and calibers: aerial bombs from 10 to 1,000 kilograms (22 to 2,200 pounds), shells from 37 to 180 millimeters and mortar mines from 50 to 122 millimeters. Also during this stage Ukroboronservice has prohibited unauthorized persons from accessing the “black diggers”7 working site. Maximum clearance. The working group will execute the fourth stage from 2007 to 2010. Ukroboronservice plans to construct two more vertical shafts in order to extract a maximum quantity of UXO. Paying attention to safety factors the working group will implement a system of actions:

• Collaborating with state services such as labor protection, ecology, fire safety, etc.

• Constantly monitoring the rocks, supporting the walls of passageways with concrete and inspecting equipment constantly.

• Controlling the ammunition’s condition, defining the level of damage and handling it carefully.

• Communicating reliably between cave- mining teams and surface-level teams.

A speleologist inspects an explored area in order to determine rock condition and its displacement.
International Eurasia Press Fund Works in Azerbaijan

Problems with explosive remnants of war in Azerbaijan stem from emplacement of mines by the Soviet Union between 1988 and 1994. Mines were used along Azerbaijan’s expansive border region and military installations. More recently, ERW have been left behind from Azerbaijan’s battles over territorial integrity. The International Eurasia Press Fund has developed a program to address the needs of mine victims in one of the country’s most heavily mined regions. The Mine Victims’ Association of the Terter district is working to rehabilitate victims in numerous ways, providing participants with the skills and information they need to lead productive, independent lives that take full advantage of their individual talents and interests.

by Gary Cox [Mine Action Information Center]

The IEPF has been instrumental in the rehabilitation of a mine-plagued Azerbaijan, providing or facilitating countless post-conflict remedies to a war-torn country. In the past, the IEPF has conducted Level One Landmine Survey programs in areas affected by war, a Landmine Impact Assessments, and several other mine-action programs. With the financial support of the European Commission, the IEPF conducted the “Mine Victims’ Needs Assessment project” in 2004 to determine the most pressing needs of the Azeri people. Based on its 2004 survey, the IEPF determined that most mine victims in the country required more post-rehabilitation assistance; medical services were deemed adequate for mine victims, but support following the survey period seemed lacking.

Extent of the Problem

Surveys were conducted in 629 villages and 29 en-closures in 11 war-torn regions of Azerbaijan. More than 74,000 people were interviewed to accurately define hazardous areas, needs of the population and initial sta-tistics concerning mine victims. Umud Mirzoyev, IEPF Chairman, says the surveys indicated more than half a million people in 643 communities were affected by 970 mine and unexploded ordnance areas. The Terter district of Azerbaijan was deemed highly contaminated—36 square kilometers (14 square miles) of land in 23 villages were thought tainted by mines and UXO. This contaminated remains of heavy battles, deeply affected the infrastructure and impeded development. Mirzoyev says 36,291 people out of a total local population of 70,039 were affected by contamination. Ten percent of all Azeri landmine victims lived in the Terter district, he added.7

IEPF Focus Areas

Working with several national and international partners, the IEPF devised a solution to meet the needs of the mine-affected population and created the Mine Victims’ Association of the Terter district. The IEPF used its extensive experience in demining, mine-risk education and other mine-related projects to define the focus areas of the IEPF. Based on its 2004 survey, the IEPF has worked to identify the most pressing needs of the Azeri people.

IEPF has facilitated media roundtables, meetings and conferences. Additionally, it has published several books, brochures and other information materials to provide objective coverage of the ranges of war on Azerbaijan. Coverage has also been directed at the suffering of refugees and internally displaced persons.

Peacekeeping and conflictology actions. Peacemaking actions and other projects in this focus area have been directed at protecting human rights in Azerbaijan. The IEPF has spent a large amount of time investigating national and military problems with the goal of remediation. The Level One Landmine Survey, Landmine Impact Assessment and Mine Victims’ Needs Assessment all began as projects implemented through this focus area, ultimately growing to larger endeavors. Several international conferences, seminars and roundtable were also organized or attended.

Refugee/IDP problems and community development. IEPF efforts in this area include the analysis of migration problems, resolving refugee/IDP problems and assisting in community development actions. Working under the direction of the President of Azerbaijan, the IEPF constantly seeks to improve the quality of life for refugees and internally displaced persons, and to provide for their reintegration and employment into society. Evidence of success is seen in the Community Mine Action Team at the IEPF, nearly 40 percent of which is composed of refugees/IDPs.

Genesis of the MVA

In conjunction with the completion of the Mine Victims’ Needs Assessment, the IEPF provided extensive experience in providing humanitarian aid and demining efforts, IEPF sought to further its humanitarian development activities. The MVA laid out a three-year strategic plan and outlined goals for the Working and Initiative Groups. The Working and Initiative Group members are currently active in the process of establishing these managerial infrastructures. Close cooperation with officials has allowed MVA participants to receive necessary assistance from social programs.

First-aid training. Regular instruction was given to participants in the application of first-aid techniques, including fractures/disloca-tions, nursing patients with amputations, bleeding/wounds, frostbite and sundry burn types. They also were taught about blood-pressure measurements and providing hypodermic, intravenous and intra-venous injections. Information on general hygiene rules, treatment of diabetic patients and other basic medical procedures was provided. The program’s medical adviser regularly visits mine victims and their families, sometimes sending the more seriously injured to treatment centers in Baku.

Small-business development. Initiative Group members par-ticipated in extensive training on themes directly associated with developing small businesses. They learned about financing, market-ing, opportunity analysis, advertising and other business practices. Participants also had the option of submitting business plans to Working Group staff members for advice and evaluation; all business plans were specific to the Terter district. The business plans dealt mostly with grain growing, cattle breeding, poultry raising, beekeeping and carpet weaving. Further collaboration will help to bring these business plans to fruition.

Mine-risk education. General information on the landmine/UXO problem in Azerbaijan was also a component of the MVA education. Participants were informed about the threat to the popula-tion from landmines and the physical, psychological, and economic effects of the mine problem. Members of the Initiative Group expressed interest in mine-risk education activities that were focused on safety around mined areas, which taught officials how to inform about mine threats and how to conduct MRE activities. Participants also joined Working Group leaders in carrying out MRE sessions in villages of the Terter district—Aghkand, Darnichchars, Jamilly, Seydimly, Shikharkh and other villages all received MRE as part of this process.

Computer seminars. Initiative Group members also received training in the operation and use of personal computers, beginning...
economic state, to establish their farm units, to realize individual business plans and to assign social aid to mine victims in poor living conditions,” he says.3

There is also the problem of addressing the needs of mine victims in other regions of the country. Regional bodies of the MVA are prepared in Agroakta, Baku and Finchal.4

See Endnotes, Page

MINE-victim Entrepreneurs

Many of the participants in the MVA seminars have started or furthered their own businesses in the Terter district based on information and support provided in the workshops. Three participants—Nizami Bardary, Khalil Hazarim and Mohammed Shirinov—are currently involved with seedling activities and one—Nuru Gouliev—with beekeeping. Most of the mine-victim entrepreneurs make four to five times their annual pensions from their salaries.

Despite their injuries, these mine victims are actively contributing to their local economies—and they are a part of a larger trend toward increased personal independence with viral assistance programs. Beyond providing valuable services, these entrepreneurs are integrating into society and serving as models for other mine victims.

Long-term Goals and Enduring Challenges

Unud Miriyayev is proud of the accomplishment of the Mine Victims’ Association in the Terter district of Azerbaijan, but much remains to be accomplished in assisting mine victims and their families integrate fully into society.

Miryayev says the MVA will help establish more agricultural units in accordance with mine victims’ business plans, conduct vocational courses for victims and their family members, and provide new job placements to further improve socioeconomic status. All these undertakings will be accomplished “to support the mine victims as they settle their most important problems,” he adds.5

Plans are already underway to improve the repair process on agricultural equipment. Miriyayev says, “Mine victims have to leave for Baku or Ganja cities, and, of course, they have some difficulties in doing it,” he says.6

The IEPF is currently preparing information on how easy repairs can be made without the need for expensive travel. But all problems have not been that easy to solve.

Miryayev notes that providing assistance to mine victims who must be treated and rehabilitated abroad is incredibly difficult. The MVA also faces difficulty in implementing the prepared business plans for seminar participants. “Great support is needed to improve the mine victims’ socioeconomic state, to establish their farm units, to realize individual business plans and to assign social aid to mine victims in poor living conditions,” he says.4

Implementation of the Ottawa Convention in Southeast Europe: Meeting Expectations in a Challenging Environment

by Kerry Brinkert | Geneva International Centre for Humanitarian Demining |

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hose wanting to solve the problems caused by anti-personnel mines had high expectations when the Ottawa Convention was adopted on 18 September 1997. After all, this event occurred little more than 17 months after the Convention on Certain Conventional Weapons failed to meet expectations in addressing the problems caused by anti-personnel mines. Indeed, the CCW’s marginally enhanced restrictions on the use of anti-personnel mines were deemed by the President of the International Committee of the Red Cross to be “weefully inadequate” and “unlikely to significantly reduce the level of civilian landmine casualties.” Even the United Nations Secretary-General criticized the U.N.’s own vehicle for addressing the needs of mine victims in other regions of the country. Regional bodies of the MVA are prepared in Agroakta, Baku and Finchal.4

The Expectations and Challenges Ottawa Presents

The journey referred to involves addressing both external and internal expectations. When state parties or acceding to the Convention, externally, other states expect that state to fulfill the obligations it has freely accepted. In addition, internally, a state’s population will also expect that state to do what is obliged of it to end the suffering and casualties caused by AP mines. In few other instances are the internal and external expectations as high and the challenges as great as they are in Southeast Europe?7

The expectations in SE are high because the states of this region have in recent memory experienced the devastation of armed conflict in which anti-personnel mines have been used and have remained as a deadly legacy. As the Minister of Foreign Affairs of Bosnia and Herzegovina remarked in December 1997, all parties to war in that country created another. As noted by Croatia’s Deputy Minister of Foreign Affairs when the Convention was opened for signature in December 1997, “We should bear in mind that we have not completed our journey yet. We have merely obtained a tool that will enable us to reach our final goal.”8

...
from pre- to post-Cold War state structures. Moreover, some SEE states lack the means to completely fulfil state responsibilities for mine action, and they have not made the necessary investments.

Challenges notwithstanding, every SEE state has expressed its consent to be bound by the Ottawa Convention. In doing so, each state has created expectations that significant mine-action progress will be made and that the ultimate desired impact, an end to suffering and casualties for all people for all time, will eventually be realised. On 18 September 2007, a decade will have passed since the Convention was adopted. States Parties are now on the eve of a judgment day for progress in meeting these expectations.

In accordance with Article 5 of the Convention, States Parties must now be expected to do three things:

1. Each State Party must “make every effort to identify all areas under its jurisdiction or control in which AP mines are known or suspected to be emplaced.”

2. Each State Party identifying such areas must "make every effort to be emplaced." When Macedonia was able to fulfil its obligations in a 10-year period, it was by no means straightforward. Of course, common sense also dictates that States Parties must establish a high degree of confidence that necessary measures have been taken. Macedonia illustrated its commitment to building such confidence by providing clarity with respect to the standards being applied and the means of verification and quality assurance being used. In doing so, Macedonia alluded to the International Mine Action Standards, which states are expected to use in mine action by defining a "clearing process" and hence providing guidance to States Parties in proceeding with tasks such as identifying mined areas, establishing a national demining programme, locating and removing AP mines, and assuring that a high standard has been achieved in mine clearance and related activities. No state is obliged to use the IMAs as it sees fit, but States Parties are expected to use them as guidance to establish national standards for operational actions in order to meet expectations in fulfilling their legal Ottawa Convention obligations.

BiH and Croatia: More Time is Required

While Macedonia was able to fulfill its obligations in a 10-year period, it was understood when the Convention was adopted that some States Parties may need more time to "ensure or destroy the destruction of all AP mines in mined areas under its jurisdiction or control," as was possible but not later than 10 years after the entry into force of this Convention for that State Party.

Hence, the expectation that is stated in States Parties is nothing more or less than what is stated in Article 5 and in the Ottawa Convention. States Parties are all understood to see the estimated date for determining whether mined areas indeed exist in their territories as the estimated date for determining whether mined areas indeed exist in their territories. The fourth sentence in Article 5 makes it clear that States Parties must establish baseline data for measuring and verifying their progress toward Article 5 obligations. In this regard, while BiH and Croatia have indicated that their challenging environment means that they can be specific, measurable, and relevant, and that they can articulate metrics that are specific and relevant to the actual objectives of the Ottawa Convention and quantitative targets to the extent possible, in addition, it should be noted that the Ottawa Convention states that it “establishes baseline data for measuring progress.” Consequently, questions that naturally may be on the minds of States Parties evaluating a request for an extension might be:

- What means have been used to verify whether there indeed are mines available at a certain location? Has the problem been clarified in any way? It is clear that a detailed plan is in place to enable each to declare completion in as short a time period as possible after 2009.
- BiH and Croatia can be specific, measurable, and relevant, and can articulate metrics that are specific and relevant to the actual objectives of the Ottawa Convention and quantitative targets to the extent possible, in addition, it should be noted that they can again be specific, measurable, and relevant, but also articulate metrics that are achievable in a time-bound manner.
- For a State Party like BiH, its Landmine Impact Survey report may be a good example of what is required. After all, the report in part claims that it “establishes baseline data for measuring progress.”
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Safe and Efficient Use of Mine Dogs in the Republic of Croatia

In this article, the authors discuss the use of mine-detecting dogs in the mine-action community as a whole, using the Republic of Croatia as an example. Specifically, they describe guidelines that must be followed to ensure MDDs are employed properly and maintain a high level of effectiveness.

by Mirko Ivanušić, Davor Laura and M. Stj. Zeljko Šarić | Croatian Mine Action Centre

In the Republic of Croatia, a large mine-suspected area covers forests, pastures, agricultural areas and karst.1 The fact that only one-third of the 1,044 square kilometres (1,249 square yards) of mine-suspected area in Croatia is actually mine-contaminated speaks in favour of using dog-handler teams in mine-search operations for the purpose of simple, faster and more cost-effective work. However, the matters of safety, efficiency and creating the preconditions for their use need to be considered. For these reasons, special attention must be paid to all technical requirements in the process of testing approaches, methods of monitoring, condition- ing and training procedures, quality-assurance activities, test-site preparations, daily tests prior to the commencement of works, daily inspections, status of dog-handler teams, and prescribed forms of verifying efficiency.

Brief Historical Overview

Humanitarian demining as well as wider usage of MDDs have had a relatively short development period. MDDs have been used for 15 years globally and 10 years in Croatia, and their usage and training is a maturing process.

In 1998 RONCO Consulting Corporation began training and using mine-detecting dogs. Croatia was the first country where the company used dogs to find mines on a consistent basis. Soon the Croatian Mine Action Centre legally undertook the commitment of using dogs to perform quality control over mine-clearance operations. Development of demining companies from 1999 to 2000 and especially in the period that followed resulted in the procurement of several dogs and creation of teams for area inspection as a second method after mechanical mine clearance. The level of training for the dogs, trained mostly in foreign countries, depended upon which centre trained them. During this time, CROMAC was active in a number of important international workshops and assemblies, learning about MDD usage. Leading authorities were visiting CROMAC and setting the guidelines for team usage and competence verification modes. When CROMAC took over the commitment of accreditation and testing of demining teams, it started the process of developing the methodology of testing the teams, monitoring their work in the field and constructing test sites.

During that period, demining companies in Croatia were also trying to upgrade their own methodology by creating standard operating procedures mandatory for the testing and accreditation process. With the assistance of the representatives of the United Nations Scientific Council and members of the Committee for the Establishment of MDD Information, the first test site was built in Snack on the area called Jedsna, which is no longer in use. There have been four more sites established since then, but only two are currently in use: Cerovac (continental part of Croatia) and Škabrnja (southern coastal part of Croatia).

Sphere and Forms of Dog-handler Usage

Countries today use dogs for mine-clearance operations in a variety of ways. MDDs are used:

- To reduce mine-suspected areas by defining mine-field boundaries primarily in the low-risk areas.
- As the first method during mine detection combined with other manual-detection methods.
- During the MSA search from the safe access lanes on the area of differently marked and defined minefields—safe access lanes are areas of lower risk and a good location for beginner dogs and dog trainers.
- As the second method in mine-clearance projects, mostly on mechanically treated areas after some period of soil stabilisation.
- During mine detection in devastated buildings with significant quantities of metal, along with removal of rubble in layers.
- For mine clearance of railway infrastructure as well as other firm surfaces along asphalt, stone and concrete systems, and areas with significant quantities of metal (water-supply systems, gas pipelines, etc.).
- For sample search during final quality control over clearance operations.
- To inspect the safe access lane in case of an urgent need to approach a mine victim.

It is important to note that for all activities, CROMAC sends at least two dogs, one by one, into the test site or actual mine clearance area.

Dog-handler Usage Laws

Implemented in Croatia during 2005, the Law on Humanitarian Demining and the Rules and Regulations on Methods of Demining enabled the use of dogs and handlers as an independent method in mine-search projects. The two legal acts that regulate mine action in Croatia are the Law on Humanitarian Demining and Rules and Regulations on Methods of Demining. Several key guidelines regulate dogs and handlers in the mine-detection and mine-clearance process from the Rules and Regulations on Methods of Demining.

When search operations are conducted using MDDs, the demining team leader must carry out certain tasks prior to the beginning of work. First the leader must hold a meeting with handlers and define individual tasks. The leader then temporarly sends handlers who are incapable of performing their daily task off the site. After these handlers leave, the leader then directly assigns the remaining han- dlers to the worksite. Continuous monitoring of handlers during worksite search and the conditions for the work of MDDs is required. A dog handler, who must be accredited by the relevant ministry, directs the dog towards terrain search and gives orders during mine search.

The handler who gives the dog certain instructions must be a deminer or a supporting worker. The deminer must also direct the worker to search the area where the dog detected mines and unexploded ordnance to be positive nothing was missed. When the worksite is searched by MDDs, two different dogs must search the same part of the worksite to ensure the same UXO is discovered and that none is missed.

The Law on Humanitarian Demining and the Rules and Regulations on Methods of Demining, passed in 2005, enabled the use of dogs and handlers as an independent method in mine-search projects. The ultimate goal, after testing and accreditation for dog and handler, is that all other factors in monitoring and com-

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Trainability Verification and Dog-Handler Team Evaluation

Though there is a widespread necessity for dog-handler teams, these teams must exercise care and take their time with each task. In every situation, four points must be taken into consideration before using dogs: the size and structure of a mine-suspected area, developed and sufficient capacities, legal and normative regulations, and quality of dog accreditation. The development of dog-training companies in Croatia during 1999–2000 resulted in not only the significant expansion of the programme from four companies to 10 but also the procurement of machines and dogs. In 2000, 10 companies existed with a total of 15 dogs.

By 2005, 18 companies with over 130 dogs existed. In the early period of development, demining companies in the Republic of Croatia were achieving varying results from the use of MDD teams. The results of CROMAC’s Quality Assurance and Quality Control Department from 2005 also undoubtedly confirm the value of certain MDD procedures that are questionable.

Assessment of Searches and Demining

This SOP defines the efficiency estimates of MDD search and clearance operations in different mine, soil, vegetation and climatic conditions with different work methods. This SOP also clearly defines the situation and limiting factors when dog-handler team usage is not allowed, such as when the air temperature is below freezing.

The SOP prescribes other important conditions for working with dogs. For instance, marked boxes can be 50 metres x 10 metres (54 yards by 11 yards), 4 x 25 (4.5 x 27) and/or 10 x 10 (11 x 11). Also, if there has been a fire in the area previously demined, MDD inspection cannot go forward until two days after the fire so fumes do not disrupt the dogs’ sense of smell.

It is extremely important to maintain cooperation between the Team Leader, QA Officer and QC Monitor with the purpose of achieving good results and accurate mine detection in the field. If these parties do not work together properly, items may not be found, which could lead to a “workplace fail” rating. In this event, the whole demining process would have to be repeated.

Work in humanitarian-demining operations is assessed for a period of six, nine or 12 months according to a point system. One important precondition is that the dogs detect all buried mines in the boxes assigned. The maximum number of points is 100.

The average number of points in CROMAC’s collective practice is 62, indicating an inadequate quality of work and a need for quality improvement. A number of ongoing activities conducted by the Committee for Testing Dogs and Handlers in Humanitarian Demining Operations, QA Officers and QC Monitors.

Generally, the aim is to monitor all the processes—accreditation and testing and provide the conditions for the work in the field. QA Officers and QC Monitors control the work in the field and after the completion of operations, Quality Control procedures have to determine whether the area remains mine contaminated. According to the Law on Humanitarian Demining and Rules and Regulations on Methods of Demining, the clearance company has to guarantee the complete clearance of mines, UXOs and their fragments.

Other Factors

Besides the large number of limiting factors, experience from around the world shows that even when dogs receive training related to the scent of explosives, there are situations when they do not detect UXO containing the explosive TNT, the type most frequently used. Research and indicators show this anomaly actually occurs with UXO that is hermetically sealed. This was clearly evident from two CROMAC’s 2005 demining projects. All those involved in the mine-action community should bear in mind that MDDs are trained to recognize “the complete bouquet” related to all scents of a “military arsenal.” Also, it has been proven that a soil temperature of 26°C (78°F) is the most suitable for spreading of the explosive particles to the environment, and this range is the most optimal for MDDs.

Conclusion

The training and assessment of the MDDs is not easy, and daily and weekly conditioning conducted by the handler is needed to guarantee quality MDDs. Several factors are responsible for the total quality rating and should be closely connected. The first two involve accreditation and rules and regulations. For accreditation, the handler needs to have a certificate or other type of proof that he passed the test in schools involved in training and dog breeding, which should be compliant with conditions prescribed by the established rules and regulations. The company also should submit breeding, training and performance documents for each dog as per standard operating procedure.

The final factors concern testing and monitoring/quality control. These basic measures should result in wider and safer usage of dog-handler teams in humanitarian demining in the near future. High quality and equitable testing must exist along with field survey to gain an insight into the status of companies’ test sites and prescribed forms of daily, weekly and monthly conditioning and verification.

Permanent monitoring and quality control, as well as education of QA Officers and QC Monitors, is necessary.

See Endnotes, Page

Table 2: Point system for rating MDD teams.

<table>
<thead>
<tr>
<th>No</th>
<th>Working procedures description</th>
<th>Prescribed number of points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assessment of level of handler’s knowledge-written exam</td>
<td>0-5</td>
</tr>
<tr>
<td>2</td>
<td>Obedience exercises</td>
<td>0-5</td>
</tr>
<tr>
<td>3</td>
<td>Walking by handler’s leg on leash</td>
<td>0-5</td>
</tr>
<tr>
<td>4</td>
<td>Walking by handler’s leg without leash</td>
<td>0-5</td>
</tr>
<tr>
<td>5</td>
<td>Stops, while walking</td>
<td>0-5</td>
</tr>
<tr>
<td>6</td>
<td>Abort of the dog</td>
<td>0-5</td>
</tr>
<tr>
<td>7</td>
<td>Moving in front of the handler</td>
<td>0-5</td>
</tr>
<tr>
<td>8</td>
<td>Resting dog</td>
<td>0-5</td>
</tr>
<tr>
<td>9</td>
<td>Modes to let a dog enter the test field</td>
<td>0-5</td>
</tr>
<tr>
<td>10</td>
<td>Evaluation of systematic searching method in accordance to the</td>
<td>0-10</td>
</tr>
<tr>
<td>11</td>
<td>Handler’s rapport with the dog</td>
<td>0-5</td>
</tr>
<tr>
<td>12</td>
<td>Safety of the dog while detecting mines</td>
<td>0-10</td>
</tr>
<tr>
<td>13</td>
<td>Reliability of dog’s findings and handlers</td>
<td>0-10</td>
</tr>
<tr>
<td>14</td>
<td>Distance between an indication and a buried mine</td>
<td>0-5</td>
</tr>
<tr>
<td>15</td>
<td>Number of wrong indications</td>
<td>0-5</td>
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<tr>
<td>16</td>
<td>Evaluation of found and indicated UXO fragments</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Level of motivation to search</td>
<td>0-5</td>
</tr>
<tr>
<td>18</td>
<td>Level of focus intensity during search</td>
<td>0-5</td>
</tr>
<tr>
<td>19</td>
<td>Evaluation of overall work quality and behaviour of handler-dog</td>
<td></td>
</tr>
<tr>
<td></td>
<td>team, total number of points</td>
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</tbody>
</table>

**New Bug-like Demining Robots Tested in Arizona**

Explosives investigation is a common task for remotely operated robots, but Mark Tilden has developed a new kind of robot with a unique approach to explosives. The robotic physicist at the Los Alamos National Laboratory built a demining robot resembling a stick insect that is nearly autonomous.

The insect–robot recently participated in a live-fire test at the Yuma Test Grounds in Arizona and performed well, according to reports. The robot sought out landmines, purposefully stepping on a mine and making one of its many legs. When it lost a limb, the robot simply picked itself up and readjusted to move on its remaining legs through the minefield.

Left with only one leg, the machine continued to pull itself forward and demine the field. At this point, the Army colonel in charge of the test ordered the exercise stopped.

The colonel, it seemed, could not watch the scarred, crippled robot dragging itself through the desert minefield with just one leg. He said the test was just too inhumane.
I
n 1993 His Majesty the late King Hussein bin Talal ordered the Jordanian Armed Forces to begin demining in Jordan. The King was deeply concerned by the disastrous humanitarian im-

pact landmines were having upon innocent Jordanians and believed before Jordan joined the Ottawa Convention. King Hussein and his wife Queen Noor set the trend for years to come by emphasizing this issue. Mine action became a national priority and was consequently viewed not only as a humanitarian imperative, but as a goal intrinsi-
cally tied to development.

Jordan’s Lessons

To date, several lessons have been learned from the Jordanian experience in mine action.

The most vital is the recognition that without political will and leadership from the top, such initiatives will fail. Mine action is slightly different from other humanitarian causes due to the great number of stakeholders involved. For instance, mine action in developing countries demands the involvement of a wide cross-section of society, including key government ministries; in the case of Jordan, the Ministries of Foreign Affairs, Interior, Defence, Planning, Social Development, Agriculture and Tourism have all played catalytic roles. The military, police, civil defence, lo-
cal councils, notables, religious leaders and mine-affected communities have also provided key contributions. In the view of the NCDR and the Jordanian government, success in mine action is sustained by strong leadership that requires all players share a common vision and objective. Without such direction, mine action will be subjected to bureaucratic obstacles and delays and will be thrown into a basket with numerous other national priorities. What is required early on in mine-affected countries trying to establish demining programs is the nurturing of political awareness and stewardship from the top.

Mine-affected Countries Have Needs

Many mine-affected countries simply do not have the financial re-

sources to earmark for mine action and instead rely on international donor funding. Mine-affected countries have to realize, however, that donors only like to fund projects in countries that show maturity in their approach to mine action and are willing to own the problem rather than outsource it. The idea of national ownership is crucial because it places responsibility on the shoulders. By having a viable national authority that gathers information, plans, strategies and implements projects, the chances of success and sustaining the overall effort will no doubt be higher.

Certainly mine action in Jordan is not always been easy. The difficulties have been attributed to bureaucratic and technical chal-

lenges more than anything else. Having said this, however, Jordan has recently redoubled its efforts and taken a different approach. Thanks to the direct support of His Majesty King Abdullah and the Jordanian government, the National Committee for Demining and Rehabilitation, which spearheads mine action in Jordan, has been able to develop into a responsible organization that knows what it wants and how to get it.

Two years ago, the NCDR formulated a national plan for mine action in Jordan, with input from all key local stakeholders and the international donor community. In addition, the United Nations Development Programme supported the NCDR with a capacity-de-

velopment project, which saw the appointment of an international expert as a Chief Technical Advisor to the NCDR. The result of all these efforts is that Jordan can and will be—God willing—free of mines by its Ottawa Convention deadline, 1 May 2009.

Partnerships and Capacity Development in Jordan

One of the true hallmarks of mine action is the vibrant networks and partnerships that have developed over the past 10-15 years. Such collaborative efforts have focused on mobilizing political, financial and human resources, and today we can point to substantial pro-

gress in the sector—it is on the number of countries who have signed the Ottawa Convention or on the number of hectares returned to mine-affected communities. As noted above, capacity in Jordan has involved all manner of local stakeholders in forging a common system (organizational framework) for mine action to oper-

ate in the Hashemite Kingdom of Jordan. NCDR tabled the inte-
grated national mine-action plan two years ago, and for the first time, the country approached mine action from a holistic development perspective. Prior to the drafting of the plan, the landmine problem was being approached from an engineering perspective in Jordan, and it was clear to the local leadership that operationally, the work was not occurring with as much speed, co-

ordination and efficiency as was necessary. At this point the government sought the sup-
port of UNDP—there was an internal de-
mand for international involvement to pro-
vide strategic and technical assistance in the strengthening of the NCDR.

Since the government of Jordan and UNDP joined forces in 2003, Jordan has accomplished much in the operational and managerial areas. The NCDR has attained an active, quality-assurance capacity; socio-

economic and victim information is being collected, analyzed and disseminated; and most importantly Jordan’s Article 5 obliga-
tion is within reach. Clearly, mine action in Jordan can tap a relatively well-trained and educated population, its infrastructure is sound; and its overall mine problem is not large in comparison to other programmes. However, Jordan’s ability to reach out and utilize the existing political and technical knowledge networks has been exemplary. Also, this outreach has allowed Jordan to quickly build strong partnerships with the international community, which has seen Jordan as a role model and organi-

cation concerning the dual objectives of meeting its Ottawa Convention target and providing the space for human development to occur in some of the most fertile and ag-

riculturally important areas of the country. Although Jordan’s landmine problem is not large in size, the scope of its impact is great as the country has one of the highest popu-
lation growth rates in the world, and less than 25 percent of its territory is suitable for agriculture.

National Ownership and Partnerships for Capacity Development

Through the lens of Jordan’s mine-action history, the importance of strong leadership, national ownership and partnerships are detailed here as necessary for capacity development.

by Mirex R. Z. Al-Hussain National Committee for Demining and Rehabilitation and Olaf Juergensen United Nations Development Programme Jordan

und helps find resources

UNDP’s role in the case of Jordan’s capacity development has been to help in-

roduce and draw upon the international

resources that are available to mine-affected countries. First and foremost, strategic technical partnerships were built that al-

lowed for customization of general guide-
lines to what fits best the needs of Jordan. Finding the best fit has included working closely on a host of operational matters with outside technical actors, such as the Geneva International Centre for Humanitarian Demining, James Madison University’s Mine Action Information Centre, the International Committee of the Red Cross, UNICEF, the United Nations Mine Action Service and Norwegian People’s Aid. On issues related to the Ottawa Convention, words of encouragement and direction have come from civil society, as well as the International Campaign to Ban Landmines and ICRC have been valuable partners. In

perhaps the most important area of coop-

eration—donor-partnership—the NCDR has gone from almost negligible support in 2004 to today with more than 15 donors supporting mine action in Jordan. The reg-

ular flow of information (quarterly donor partners, etc.) and succinct reporting have helped this assistance develop.

Nontraditional donors such as China, Monaco and South Korea are now mine-ac-

tion partners to Jordan as well. Looking at Jordan’s approach to capacity development in mine action several lessons can be drawn. First, there needs to be strong leadership coupled with a long-term vision and commitment to what capacity needs to be built and why. Second, partnerships based on an open and balanced relationship—be

themselves something had to be done about it. King Hussein made this decision before Jordan joined the Ottawa Convention. 2 King Hussein and his

viewed not only as a humanitarian imperative, but as a goal intrinsi-

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they government, donor or implementing partner—help promote sustainable and real-

istic local capacity development solutions.

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Perspectives on Capacity Development

Richard Kidd, PM/WRA
by Daniele Ressler | Mine Action Information Center

On 5 March 2007, Daniele Ressler interviewed Richard Kidd, Director of the U.S. Department of State’s Office of Weapons Removal and Abatement in the Bureau of Political-Military Affairs. The interview was conducted to discuss Kidd’s perspectives on capacity development and how it is tied into mine action. Through the course of the interview, Kidd addresses how PM/WRA understands capacity development, successful examples of capacity-development project implementation, lessons learned and the future of capacity development in the mine-action process.

Daniele Ressler: How do you, as a representative of PM/WRA, define or understand capacity development in the context of mine action and what are the underlying things that make this concept important to PM/WRA?

Richard Kidd: While there is no simple or direct definition for capacity development … the United States basically considers that the indigenous capacity exists within a mine-affected country to get itself to an impact-free status and to maintain some form of residual capacity to respond after that as new trends emerge. That’s the closest thing we have to a definition, and it is taken on a different sort of form and structure in different countries, based on both the mine threat and the capacity that may have existed in that country to begin with.

This belief is what we in WRA operate under as we do our country planning: impact-free status—can the country get there? What makes this concept important? The underlying foundation of why this is important is a major component of U.S. political philosophy and international-relations philosophy: States must be responsible for providing the public goods that states provide; and they cannot walk away from those responsibilities. So in this case the public good that might affect its state’s need to provide is safety—safety for their citizens, access to land and livelihood. That is a responsibility of states to provide and, we, the U.S. government, will help them get there.

DR: Does PM/WRA actually look at capacity development in terms of working at a national level, such as large-scale funding and support for the national mine information centers, or do you view capacity development in terms of a smaller-scale level of applications, such as funding and support for specific individual institutions or tasks like technical support?

RK: It depends on the country because for each country we do a country-support plan. And that plan is based on that country’s specific approach to solving their mine-action problem and what that country’s strategic plan contains. As you know, the United States has been a strong champion of strategic planning, and back in 2004 we made our assistance contingent upon countries producing strategic plans. So, we don’t deny that we are going to do national capacity development over a more local capacity development. We say that countries have a sense of ownership. They want efficiency and they want accountability, which sadly, seem to be less important when countries don’t commit their own resources toward the problem.

DR: Are there any projects, activities or general initiatives that you are presently doing or planning for the future to promote or sustain capacity development in mine action that you think are particularly interesting for our readers to know about?

RK: More important than any projects or activities is U.S. policy, in terms of assistance. As I mentioned earlier, U.S. policy makes our assistance contingent upon national strategic planning because that forces countries to address hard questions about their future and to hopefully look at their structures, training needs and requirements in a focused, analytical way. I think that has been the United States’ greatest contribution to this issue. We were the first country to expect the existence of a strategic plan, a policy that has been copied, in a related manner, by the United Nations and by the Ottawa Convention. So that has been our biggest contribution to the issue of capacity development. In terms of project specifics, integrated into a lot of our programs are management training, strategic planning training and quality-assurance training for the actual demining. our assessment in terms of capacity development is that it’s not a matter of technology or technique. The countries have learned how to demine safely. The key issue is one of management, leadership and planning skills, and that’s what we’re focusing our efforts on.

DR: When did the U.S. start moving toward this policy of asking for and requiring strategic plans?


DR: Has there been a large increase since that time in the number of countries that have been providing strategic plans?

RK: Yes … not only an increase in the number of strategic plans but a gradual increase in the quality of those plans. Back in the early 2000s, you had plans that said, “It will take 200 years to clear our country of landmines, please give us ($50,000,000) a year to do that.” That was the extent of the articulated strategic vision of a lot of these countries. Fortunately we are well past that and countries are now able to differentiate between the contamination that causes impacts and the contamination that doesn’t. [They now] prioritize their resources and construct mine action programs that are matched to the impact.

DR: So it sounds like you are seeing progress in this aspect of working on capacity development.

RK: We are, and the other way you can measure progress is by looking at what is no longer there. Previously, say five years ago, the model was massive U.N. bureaucracies that ran mine-action programs in Cambodia, Afghanistan, Bosnia, Mozambique, and northern Iraq. Those bureaucracies have disappeared and they have not been replaced by an expatriate presence on the same scale. And that alone is indicative of the development of national capacity.

DR: What, if any, innovative lessons learned has PM/WRA identified after working on capacity-development initiatives in mine action?

RK: The lesson learned is this: Is the country making some form of investment? If not, then the capacity-development effort is probably not going to lead...
Massive U.N. bureaucracies that [previously] ran mine-action programs ... have disappeared and they have not been replaced by an expatriate presence on the same scale. And that alone is indicative of the development of national capacity.

Daniele Resseger is Assistant Editor and Research Specialist for the Journal of Mine Action. She holds a Master of Science in violence, conflict and development studies from the University of London’s School of Oriental and African Studies. She has also worked in both Texas, Switzerland, earning a Certificate for Applied Studies in peacebuilding, and Nairobi, Kenya. Daniele has previously worked in the fields of conflict and youth counseling.

In your opinion, what are some examples of successful capacity-development initiatives in mine action and what are the key components leading to this success?

Another aspect to consider in mine action is “mainstreaming.” The threat posed by mines should be mainstreamed in the sense that, where you have to build a road you also have to take into consideration other obstacles for development and access to social and physical infrastructure. The difference between current and required or desired performance. Capacity development would be an ongoing approach and process concerned with identifying and boosting and sustaining national capacity to enhance overall development. That’s the core mandate of what we do.

The whole idea of UNDP supporting mine action obviously stems from the fact that landmines are senseless remnants of war that create obstacles for development and access to social and physical infrastructure. Obviously, it’s something that lies very close to our mandate, but also to the Millennium Development Goals. What UNDP does is assist national mine-action programs. We may assist to actually establish them and then we work, in particular, with capacity development to support mine-affected countries’ ability to manage mine-action institutions and to oversee and coordinate mine-action activities in their respective countries.

Secondly, in mine-action centers, there are many different aspects of capacity development that UNDP works with. Perhaps some of the more obvious aspects are technical and operational issues, for example, we can deploy a Technical Advisor who has map-drawing expertise if that is identified as a need in a mine-action center.

Additionally, when we talk about mine action, we talk about so many different factors related to capacity development - the legislative framework for mine action; the national institution and their staff and personnel; administration and financial management; public and societal factors such as mechanisms do you have for manual clearance; coordination and awareness-raising requirements for survery and victim assistance; and resource mobilization to determine the plan and strategy for future sustainability of programs, to name a few.

We talk about how mine action fits into the overall development planning of a country in order to facilitate the social and physical infrastructure, rehabilitation and expansion. We talk about the ability to perform or to draft national mine-action plans, and to integrate mine into broader development planning agendas, national development plans and budgets. Ultimately, mine action is a very resource-demanding, complex activity and until now remained quite donor-dependent, which we’re trying to build down by learning the dependency on foreign support to mine action.
We’ve learned that we don’t acknowledge the contributions from other sectors such as the affected communities themselves, development, administration and management sectors with specific expertise on community needs, management, administrative, financial, logistical and outreach skills, to name a few.”

“We’ve significantly improved mine-action clearance operations, but during these 10 years, we’ve also become much better at questioning where we do mine action and why we do it.”

SS: I think we’re talking about optimal activities where we’ve reached the level of desired capacity and where we’ve learned many, many good examples of activities that have reached a level of performance to the full satisfaction of those involved, including national institutions, operational counterparts conducting the programs and donors funding the activities. This requires taking into consideration the challenges and the conducive environment of the situations where these tasks are supposed to be achieved or carried out. Clearance activities may or may not have been to a full level of the International Mine Action Standards, which require a level of resource mobilization many affected countries will not be able to obtain in the long run. Desired performance, however, would be the best practices with a justifiable and transparent level of efficiency and effectiveness.

International, national and local mine-action actors have had an extremely steep learning curve over the years. In countries like Afghanistan, Cambodia and Laos PDR, we’re talking 15, 18 years of humanitarian or development mine action. During that time period, we have seen a narrowing in the gap between the professionals carrying out mine action and the professionals working in development. We’ve also watched a growing understanding of the need for measuring the impact of mine-action activities.

Ten years ago, you had a clear focus on measuring the results of mine action in terms of the number of mines and square meters cleared. However, we have found that you can have remote mountain areas and borders that are littered with mines and high-density minefields, and you can clear as many square meters and mines there as you wish, but there may be little or no impact in terms of facilitating for, or directly improving, the living conditions for civilians and mine-affected communities. Exceptions occur, of course, where border areas contain high levels of cross-border activities such as the heavily mined KS belt on the border between Afghanistan and Pakistan.

So over these 10 years, that whole notion has completely changed. I think you are expansion of the mine-action activities. It’s always been said that we’re supporting national authorities to address the mine problem with capacity development and transition, to help them reach desired performance levels and have national ownership of progress. But we have not necessarily clarified what is really meant by capacity development at large in the international community and, even more challenging, identified how we mean to systematically achieve these goals associated with capacity development.

To that extent, we now have a project in the UNDP Mine Action Unit where we’re trying to establish benchmarks for all the countries we’ve worked in, to gauge where these countries are now in terms of the level of capacity development achieved within a huge range of activities as well as determine together with [country] authorities where we are going. The goals of this project are to look at a country’s actual needs and projected performance to gauge where we are at now; establish common indicators something that will create a uniform methodology and approach to capacity development in order to achieve desired outcomes in the various countries, through the expectations may differ between countries, depending on how a country wants to address its mine problem.

As of today, I can’t really say that we have anything that proves we’ve achieved what we said we would endeavor to try to achieve, even though, as mentioned, huge improvements have been made.

DR: Where do you see the greatest areas of hope or promise for future success in capacity development in mine action? What about the greatest challenges for the future?

SS: Future success builds upon the acknowledgement of lessons learned and I think we’re getting there. Another facet of future success is that institutions have learned to maintain their mine-action activities that are sustainable: ensuring that mine action needs are addressed within the broader development planning and implementation. The future success of capacity development faces a great challenge in our limited understanding regarding diversification in mainstreaming of mine action. Also, one political challenge is if we don’t see the successes of the initiatives we want to see in 2008 and 2009 in terms of the Anti-personnel Mine Ban Convention it might be difficult to argue to continue supporting mine action directly. Another challenge is how to ensure that counterparts are qualified, and not political appointees who are less capable and perhaps even less interested in constructively addressing the mine problem. There are a number of examples where undesirable effects of political appointments and corruption stymied development. There has been a huge amount of [administrative] work that’s not done properly, right from the ground up, for mine action over the last 15 years. That money has been made available, either bilaterally or multi-laterally, to governments, national or international organizations and operators in various forms. With that amount of money comes a range of opportunities that can be interpreted in a wide variety of ways, but which requires responsibility in ensuring the funds are used effectively and efficiently in solving the mine problem.

There are also a lot of cultural differences and other needs to be met, particularly in countries that are going through a major post-conflict phase and/or facing severe poverty problems with dysfunctional social services. Often, general and specialized education
Building Prosthetics & Orthotics Capacity in the Balkans

The government of Bosnia and Herzegovina (BiH) has been working with the Northwestern University Prosthetics/Orthotics Center in developing the Center for International Rehabilitation’s distance learning program to give formal training to experienced prosthetic technicians since 2003. In January 2006, the program’s first students graduated with an International Society of Prosthetics and Orthotics Category II certificate.1 The efforts of the CIR have led to the formation of the BiH Association of Orthopedic Technicians, which is in the process of creating an ISPO regional center.

by Nikola Privoljevic, Justyna Przyjocka and Dr. William K. Smith
(Center for International Rehabilitation)

T he 1992–1995 war in BiH left the country heavily contami-
nated with landmines and unexploded ordinance. During
the conflict, landmines and UXO were used to protect the
front lines. After the war, these devices were set next to roads
and around houses to prevent people from returning to their homes. As a result, BiH is among the most mine-infested countries in the world, with the largest and most complex landmine-contamination prob-
lem in Europe.

Unreliable information on minefield locations and a lack of
minefield maps make this situation extremely dangerous. Since
the beginning of the war, there have been 4,921 mine/UXO ca-
nucts.2 Members of the international community and various
governmental organizations have responded to this urgent hu-
mankind problem by initiating a variety of programs, working
with the local government to clear landmines, promoting landmine
education/awareness, and offering landmine assistance programs
that provide education, employment and rehabilitation services to
landmine survivors.

There are currently 2,280 men, women and children living in
BiH who have suffered the amputation of one or more limbs due
to mine/UXO incidents.3 As a result, there is a tremendous need
for specialized care who are able to provide high-quality prosthetic
services quickly and efficiently. To address the demand for more trained
prosthetic technicians, the Center for International Rehabilitation
introduced a Distance-Learning Program in prosthetics in BiH in
early 2003. The CIR is establishing a regional hub in Bosnia to pro-
vide training upgrades to technicians working in rehabilitation cen-
ters throughout the Balkan region.

Implementation of the CIR’s Distance Learning Program

In June 2002, the CIR conducted a program assessment as the
first step toward establishing a distance learning program in the
Balkans. Based on this assessment, the CIR selected a group of cen-
ters to participate in network activities. A few of the activities were
distance-learning data collection and reporting, technology develop-
ment and clinical consultation.

The CIR Distance Learning Program was launched in January
2003 and is headquartered in the Prosthetics Department at

1. For additional information, see http://www.undp.org/bcpr.
2. Balkans. Based on this assessment, the CIR selected a group of cen-
ters to participate in network activities. A few of the activities were
distance-learning data collection and reporting, technology develop-
ment and clinical consultation.

The CIR Distance Learning Program was launched in January
2003 and is headquartered in the Prosthetics Department at the

University of Hawaii, Honolulu. A Category II International Society of Prosthetics and Orthotics certified prosthetic

educator was hired to develop the capacity of the prosthetic services

and staff at the UCK. Four local individuals were employed in sup-
porting roles as a prosthetics assistant, IT specialist, translator and

regional administrator.

The CIR’s program was designed for prosthetic technicians who
had three to five years of experience providing prosthetic services
but had not received any formal training. This innovative education
program stresses collaborative, interactive learning and is designed
to be adapted to different cultures, learning styles and technologi-

cal resources. The online portion of the program is supplemented

with hands-on instruction, periodic evaluations, weekly quizzes, and

theoretical and practical examinations. The content incorporates
text, graphics, photographs, case presentations, videos and hybrid

CD-ROMs. To facilitate online communication and interaction,

the CIR initiated a cooperative agreement with WebCT, an enterprise


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The CIR students discussing modifications to a plastic mold before making a

test socket. ALL PHOTOS COURTESY OF THE CIR/BIH
Software and services company serving the education industry, to develop the first ever Serbian dialect language plug-in for WebCT’s Campus Edition 3.8 software. The CIR later switched its online platform to a system called Moodle, an open-source distance-education platform that offers over 50 language packages, offline course-delivery options, and customizable communication and assessment tools.

The CIR’s distance education courses were developed in collaboration with the Northwestern University Prosthetics/Orthotics Center. To date, four courses have been developed: Lower Extremity Prosthetics, Upper Extremity Prosthetics, Lower Extremity Orthotics and Upper Extremity Orthotics. Relevant topics within each course are designed based on module sets, which are comprised of individual modules covering specific topics. For example, the Lower Extremity Prosthetics course is comprised of the transfemoral module set, the transfugal module set, the ischial containment module set and the partial foot amputation module set. The transfugal module set is comprised of 12 modules covering topics such as anatomy, casting and evaluation. ISPO Category II curriculum guidelines were used to develop the course content so that students would be able to obtain Category II certification upon completion of their studies.

The first class to participate in the program included 25 prosthetic technicians from 11 different rehabilitation centers located in BiH and one center in the Republic of Slovenia. These students completed the program in approximately three years. In January 2006, 19 graduates of the program took the ISPO Category II Prosthetic Technologist Certification examination, conducted by the Chairman and one member of the ISPO Education Committee. Independent international examiners from Bosnia, Germany and Macedonia also assisted with the evaluation. The exam was comprised of both theoretical and practical components, and students were required to make a case presentation and fabricate a prosthesis device for a patient. Seventeen of the participating students received ISPO Category II Certification in lower extremity prosthetics (transfemoral and transfugal), and the other two students were given the thoric training programs. As a result of these discussions, the Ministry of Education appointed a liaison officer to the CIR and review its curriculum for possible incorporation into a national curriculum for PoO.

The CIR is working in close collaboration with the UKC and the Cantonal Ministry of Education to explore ways of improving local recognition and integrating the CIR’s program into the higher-education system in BiH. In 2005 the CIR participated in a roundtable discussion with the UKC, representatives of ISPO, the president of the Association of Orthopedic Technology in BiH, and the Federal Ministry of Health and Education (Tušla cantonal and federal) of both the Federation of Bosnia and Herzegovina and the Republica Srpska. All parties engaged in a positive dialogue regarding the future of Pro2O education in the region and agreed to work towards recognition of practicing technicians.

Institutional development. Following the ISPO accreditation in January 2006, the CIR began to formally transfer its distance learning program to the UKC. The CIR is licensing the course content and materials to the UKC while continuing to assist in faculty of the delivery of the online portions of the training and management of the planning and implementation of all hands-on practical evaluations.

The CIR will provide program development support and assist the UKC in securing human and financial resources to develop new educational content in other areas of rehabilitation. The CIR and the UKC have been working with the Federal Ministry of Health of Bosnia and Herzegovina to leverage funding from the International Trust Fund for Bosnia to support the implementation of a distance learning program for a new generation of prosthetic technicians and an additional orthotics course for the CIR’s recent graduates. When the process is complete, the UKC will be in the position to train local and foreign technicians from neighboring countries. It will charge tuition to recover all costs.

The CIR, in partnership with the UKC, is in the process of developing a Train-the-Trainer program, designed to transfer advanced technical and management skills. Through this program, the UKC lead prosthetics instructor will travel to the United States for further training at the CIR and Northwestern University.

Summary

From 2005–2006, the CIR successfully ran an innovative distance learning program in prosthetics in BiH. Of the initial cohort of 19 students, 17 received ISPO Category II certification upon completion of their studies. The CIR also worked with local and governmental ministries to begin the process for national adaptation of its prosthetics curriculum and made strides toward securing professional recognition for prosthetic technicians in BiH. Going forward, the CIR will continue to build capacity in the region by developing new collaborative initiatives with the UKC and government officials. The CIR will provide technical assistance to the UKC to support the development of a PoO training program and will support the expansion of professional resources and networks such as the Association of Orthopedic Technology. Ultimately, these efforts will improve the services available to landmine survivors throughout the region and strengthen the rehabilitative care infrastructure in BiH. 

See Endnotes, Page 26

Dr. William Smith is President of the Center for International Rehabilitation and founder of Physicians Against Land Mines. He is a board-certified plastic surgeon and professor of surgery and public health at the University of Massachusetts at Boston where he received a bachelor’s degree in political science with a certificate in international relations and a minor in economics. Jastyna Przygocka recently joined the Center for International Rehabilitation after graduating from the University of Massachusetts at Boston where she received a bachelor’s degree in political science with a certificate in international relations and a minor in economics. Jastyna is a policy analyst and a Policy Analyst to the CIR’s President.
As the founder and president of Landmines Blow!, Alison Bock has built an influential organization that raises awareness about landmines and unexploded ordnance, and helps victims all over the world. "In the eyes of many people, Bock is truly an Unsung Hero," says Matthew Voegel, who has worked as an Editorial Assistant for the Journal of Mine Action since October 2006. He is currently working at the U.S. Department of State’s Bureau of Political-Military Affairs Office of Weapons Removal and Abatement, where he edits and carries out the responsibilities and requirements of this publication.

In today’s world, sometimes it seems intimidating to stand up and make a difference. That feeling was no different for Alison Bock. After receiving her Bachelor of Science degree in International Relations and Global Studies from the University of Illinois, Bock attended the summer at Mine Free World in Nevada, Kraya in 2004. "When I was addressing the summit, I realized that I had just met one of the top 30 Google searches under the term ‘landmines’. On top of that, the organization has been able to work closely with the U.S. Department of State’s Bureau of Political-Military Affairs Office of Weapons Removal and Abatement on certain projects. I feel like I am part of their Public-Private Partnership Program along with dozens of other organizations.

However, when it came down to choosing between her education and making a difference, she chose the latter. "It was hard in the sense that it required a lot of time, especially the first year when I applied for the 501(c)(3) status,” she says. “Along with a different focus and approach, the organization’s name itself has turned heads and gained attention. "I have a nephew that was about 18 at the time and he told the word ‘landmines’ to describe his relationship with his girlfriend,” reveals Bock. "It was in the middle of doing a research project for a cultural anthropology course on landmines, and I said ‘out loud, landmines, blow’, because they really do. That became the name of my paper and thus my presentation and then my organization.”

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Since the beginning, Bock and Landmines Blow! have continued to grow and make a positive difference in this world. "Making it Person to Person" is the organization’s slogan. "The organization has a clear goal of raising awareness about landmines and unexploded ordnance,” says Bock. "The organization’s main goal is to bring clean water to the people who need it the most. In Cambodia, the organization has made another one of its main objectives. The organization’s main goals include raising awareness about landmines and unexploded ordnance and promoting women in their respective communities. By using the organization’s name, we hope to make a difference in the life of one person at a time. You can make a difference in one life, so I did and the rest, as they say, is history.”

Bock was selected as a Volvo for Life Award semi-finalist from the state of Illinois because of her work to educate young Americans about the landmine crisis. Bock was selected for the award for her work with the State Fund for Education, where she worked with kids and started a book project. "I started the organization with about $150 from my spare change," reveals Bock. "It designed the logo and started selling T-shirts on-line and that is how we paid the bills for the first year. At the time, Bock was also attending school, holding a grade point average of 3.8 and intending to gradu- ate. "It was hard in the sense that it required a lot of time,” especially the first year when I applied for the 501(c)(3) status,” she says. “Along with a different focus and approach, the organization’s name itself has turned heads and gained attention. "I have a nephew that was about 18 at the time and he told the word ‘landmines’ to describe his relationship with his girlfriend,” reveals Bock. "It was in the middle of doing a research project for a cultural anthropology course on landmines, and I said ‘out loud, landmines, blow’, because they really do. That became the name of my paper and thus my presentation and then my organization.”

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A single mother, Vanja Ražnjević felt that she had no other choice than to apply for a demining position with Norwegian People’s Aid. “I needed a job,” says Ražnjević, “and this job seemed really normal for me because I spent time in Croatia during the war and became accustomed to danger.”

During the war, Ražnjević lived in Benkovac, a little town close to Zadar. The town was a part of former Krajina, a region in Croatia where Serbs live; therefore, Benkovac was on the front line of the war. As a civilian, she encountered danger every day. “Bombs and grenades were all around,” says Ražnjević.

Landmines are still a pressing problem in Croatia, and Ražnjević’s children are learning about them as a result of their mother’s job. “I always talk with them about the landmine situation and about my job. They understand what I am doing and they know the dangers of demining.”

It has been six years since Ražnjević attended the Croatian Ministry of Interior’s national demining training course in Zagreb. She was the only woman in the group of trainees. She graduated from the course as one of the best participants and started working in the field alongside other male deminers. “In the beginning I was inexperienced,” says Ražnjević, “but my more experienced colleagues taught me the demining procedures that I was not familiar with. I can say that I have not received any criticism for my work as a deminer. It is not permissible to make a mistake in this job.”

Ražnjević’s calm confidence and her ability to assist professional life have won admiration from her colleagues. Silvija Bogdany, Ražnjević’s former team leader, says of Ražnjević, “She is under much more pressure: I think that her children are always on her mind. For me, things are rather simple, I don’t have as much responsibility. I try not to bring my work home with me, but it is easy for me to do so because nobody is waiting for me at home except for a few spiders that I have and they are good listeners. For Vanja, things are different. It is hard to be a mother and a deminer at the same time.”

Likewise, Ražnjević expresses respect for her co-workers. “The courage of my colleagues has made an impression on me,” says Ražnjević. She recalls one time when a fire started in a mined area. “It was very dangerous, but we did not run. We fought the fire and we won, of course.”

In the past six years, Ražnjević has learned a lot about demining and about teamwork. “I can help build the foundation for good relations between us deminers,” says Ražnjević. Even with all the knowledge she has already gained, she still wishes to learn more about mine action. In 2007 she will finish her studies in pyrotechnology, which will include subjects such as anti-personnel mines and unexploded ordnance, explosion physics, management and humanitarian demining. “I think that it is important for deminers to be adequately educated and I think that it is important to develop deminers’ rights.”

Her vision for the future of demining is optimistic. “I believe that we will find a more effective way to remove the problem. I hope that I will still be working in this field when we do,” says Ražnjević. “In the future I wish to work as a leader of demining projects all over the world. To do that, I will need practical work experience as an assistant to a person who already is doing this type of work,” she says.

Reflecting on her career as a deminer, Ražnjević says her experiences with demining have been good. “I can say that I have found myself in this job. I am clearing landmines with pleasure. I feel happy when I can destroy something that can destroy somebody’s life. I am ready to continue demining in the future, but I will never do the opposite—I mean I don’t want to lay mines. There is no politician, no idea and no money that can pressure me to do that!”
The Comité Européen de Normalisation has organised workshops to aid the establishment of standard methodologies for demining. This article discusses the workshops and the agreements reached in those workshops. The author includes a list of contacts for additional information on demining equipment and methods.

by Franciska Borry | International Test and Evaluation Program for Humanitarian Demining Secretariat |

The increase of humanitarian-demining activities in the late 1990s awakened the need for a standardised assessment of the equipment used in these activities. Although trials of the capabilities of available demining equipment were already taking place, the lack of testing standardisation made it difficult to compare test results to determine which equipment was best suited to any particular need. Therefore, test results were frequently of limited use to the end-user community. It was within this context that the European Commission mandated in 2000 that the Comité Européen de Normalisation establish standard methodologies for humanitarian demining. In order to fulfil this mandate, the CEN Technical Committee created Technical Working Group 126 (CEN BT/WG126) to ensure coordination and generate specific standardisation initiatives.

The CEN Workshop Approach

CEN has introduced the CEN Workshop, a mechan-ism and approach to standardisation. It is intended to be a process in which clients can bring their standardisation and technical specification requirements, and have the opportunity to find a solution in an environment “tailor made” for their needs. The workshop concept provides an opportunity for any party faced with a technical challenge to find others in a similar situation and develop a result by consensus, validated in an open arena.

The procedures for setting up and operating CEN Workshops are deliberately kept to a minimum and all decision-making powers rest with the nominated parties themselves (i.e., the workshop participants). They cover their costs and are responsible for the direction of the workshop as well as the approval of the deliverables.

The main activity of a CEN Workshop is the development and publication of the CEN Workshop Agreement. The CWA is a technical agreement endorsed and adopted by interested parties on a voluntary basis. Published CWAs are publicly available on the International Test and Evaluation Program (ITEP) website, and can be used free of charge. They are promulgated in the International Mine Action Standards after consideration by the IMAS Review Board.

Since the creation of the CEN BT/WG 126, the following CEN Workshops have been completed and the associated CWAs published:

• CEN Workshop 26—Humanitarian Mine Action—Performance Standards—Metal Detectors
• CEN Workshop 12.1—Humanitarian Mine Action—Test and Evaluation—Military Equipment
• CEN Workshop 13: Humanitarian Mine Action—Competency Standards

Two of the completed workshops were on the test and evaluation of demining equipment. They were strongly supported by the International Test and Evaluation Program (ITEP) through active participation of the ITEP participants’ experts, as well as the hosting of the respective CEN Workshop Secretariats. These two testing standards are discussed in more detail below. As the CWA 15464, “Competency Standards,” is not of direct interest to the test and evaluation community, it is not discussed further in this article.

CWA 14747, “Test and Evaluation of Metal Detectors,” and CWA 15444, “Test and Evaluation of Demining Machines,” have been included in the IMAS on test and evaluation of mine-action equipment during the July 2005 amendment. During 2006 the following new CEN Workshops started:

• CEN Workshop 26—Humanitarian Mine Action—Performance Standards—Metal Detectors
• CEN Workshop 7 (reactivated)—Humanitarian Mine Action—Test and Evaluation—Metal Detectors—Part 2: Soil Characterisation for Metal Detectors and Ground Penetrating Radar Performance

Both Workshops will publish final CEN Workshop Agreements by the end of 2007.

Published CWAs for Test and Evaluation of Humanitarian Demining Equipment

CWA, Test and Evaluation of Metal Detectors (CWA 14747, June 2003). CWA 14747 provides guidelines, principles and procedures for test and evaluation of metal detectors. As far as possible, procedures for testing have been closely specified. The agreement applies to all handheld metal detectors for use in humanitarian demining and is intended to be used for commercial off-the-shelf detectors, but many of the tests specified could be applied to detectors under development. It should be noted that few users of the document will wish to or be able to perform all of the tests specified. Different parts of the CWA are intended to be used by research and development laboratories, manufacturers and organisations needing to procure metal detectors, mine-action centres and metal-detector users in the field. A user in the field, for example, may perform the detection reliability test, some of the tests of operational performance characteristics, and some of the basic performance and sensitivity measurements. Furthermore, users of the CWA who wish to conduct a trial of various metal detectors using the tests specified may also conduct a pre-trial assessment to exclude detectors that clearly do not meet their requirements from the start. Such a pre-trial would include one or more of the tests specified in the CWA, with acceptance levels set by the users according to their own requirements.

In order to help different users get the maximum benefit from the CWA, guidelines are provided under the form of a matrix as to which CWA tests are considered appropriate for different categories of trials.

At the time of the publication of CWA 14747 (June 2003), it was stated that further work was needed on the understanding of the effect of the soil and how to best characterise it, as well as on the design of a practical approach to measure detection reliability. In the meantime, the CWA 14747 test protocols have been verified during several trials, among others, the comparative trial of commercial, off-the-shelf metal detectors. A list of CWA 14747 updates is now being proposed and plans exist to reconvene CEN Workshop 7 in 2007. The main objective of the reconvened Workshop 7 will be to produce an addition to the CWA 14747 that incorporates new scientific knowledge on testing procedures and provides user guidance on key performance tests for field users as well as for laboratory testing.

CWA, Test and Evaluation of Demining Machines (CWA 15044, July 2004). The aim of CWA 15044 was to create industry-accepted criteria for the testing, evaluation and acceptance of COTS mechanical equipment used in humanitarian demining. Among other things, it should help users find the key technique or combination of techniques best suited to a given mine-clearance operation.

In CWA 15044, demining machines are defined as those machines whose stated purpose is the detonation, destruction or removal of landmines. It should be noted this does not necessarily mean a fully demined area following passage of the machine. The machine could be a ground-preparation machine, primarily intended to improve the efficiency of subsequent demining activities. CWA 15044 provides a standardised methodology for test and evaluation of demining machines using a systematic and stepwise approach. It includes provisions and technical criteria for:

• Performance testing: Testing to establish whether the machine and its tool(s) are capable of performing the role for which they are intended under comparable and repeatable conditions, and to evaluate the manufacturer’s specifications;
• Survival testing: Testing of the explosive forces on the machine and operators. The explosive force used is based on the level of threat against which the machine is designed;
• Acceptance testing: Testing to ensure the machine is able to work in the environment in which it is intended to be used. The criteria provide guidelines for local authorities when accepting the machine;
• Test targets: The criteria provide testing agencies with guidelines to develop standardised test targets.

CWA 15044 also provides a list of all information that should be provided by the manufacturer before testing. It further recommends a pre-trial assessment, but does not include specific guidelines. This assessment is a qualitative examination of the equipment looking at the different functions, suitability, basic operating parameters, capabilities and manufacturer specifications and should answer the question: “Is it suitable for continued testing?” The ITEP testing community recommends a pre-trial assessment for all demining equipment considered for testing prior to embarking on a full-scale trial.

It is acknowledged that the current version of CWA 15044 is written with an apparent bias toward Ralls and similar machines; however, it is noted that other machines—including rollers—could be tested equally well using the same procedures. In addition, machines intended to remove mines (versus triggering or breaking them), such as sappers, could be tested according to the procedures.

At the time CWA 15044 was published (July 2004), it was recognized that the CWA concentrates on the testing of machines to clear mines and there is a need...
Burmese Separatist Group Signs Statement Against Landmines

The International Mine Action Standards are guidelines set by the United Nations to implement mine-action programs safely and effectively. The author discusses the purpose and processes of the IMAS as well as provides various references for those interested in learning more about the IMAS.

Franciska Barry has been working for the Secretariat of the International Test and Evaluation Program for Humanitarian Demining since June 2005. She provides advice, assistance and coordination services to the ITEP Executive Committee. She is further responsible for the maintenance of all ITEP information databases and serves as the point of contact for any communication with ITEP.

Points of Contact

- ITEP Secretariat: secretariat@itep.ws
- ITEP Working Group on Test and Evaluation of Mechanical Assistance: Geoff Coyle, Geoff.Coyle@drdc-rddc.gc.ca, or Chris Weickert, Chris.Weickert@drdc-rddc.gc.ca
- ITEP Working Group on Test and Evaluation of Dual (Multi) Sensors: David Lewis, dlewis@qinetiq.com
- GICHD: Erik Tollefsen, e.tollefsen@un.org
- UN Mine Action Service: Noel Mulliner, mulliner@un.org

The IMAS are a framework to assist the development of National Mine Action Standards that can more accurately reflect specific local situations in a given country. The IMAS can be adapted as national standards where the United Nations, or another international body, temporarily assumes the responsibility of a mine-action authority. IMAS can also provide the framework for legal contracts between donors and implementing organizations.

There are currently a number of IMAS covering a wide range of issues from establishing to evaluating mine-action programs. They include not only general guidelines for mine action but also standards for specific field activities such as clearance requirements or marking of hazards in demining operations. New IMAS are produced periodically based on requirements realized either in the field or at the management levels in mine action. The existing IMAS are reviewed every three years and amended or replaced with a new edition as needed.

UNMAS has the mandated responsibility for development and maintenance of the IMAS. The work of preparing, reviewing and revising the IMAS is conducted by technical committees, with the support of international, governmental and non-governmental organisations. The Geneva International Centre for Humanitarian Demining coordinates this process at the request of the United Nations. There is a Review Board of the IMAS that is responsible for overseeing the review and development of the IMAS.
Notes from the Field

Cluster Bombs by 2008. Belgium was also the first country to entirely ban cluster munitions, and more than 40 countries have pledged to develop new international agreements to ban the use of cluster munitions. Belgium is terminal its investments in such companies, as the new law prohibits Belgian banks from owning shares in cluster-bomb manufacturers or offering them credit.

Investment in Cluster-bomb Manufacturers Criminalized

Belgium is the first country to criminalize the investment in companies that make cluster bombs. The Belgian Senate passed legislation in early March to make such investment illegal and the Parliament will publish a list of companies that manufacture cluster bombs. Several Belgian banks terminated their investments in such companies, as the new law prohibits Belgian banks from owning shares in cluster-bomb manufacturers or offering them credit.

More than 40 countries have pledged to develop new international agreements to ban the use of cluster bombs. Belgium was also the first country to entirely ban cluster munitions, which at least 23 countries have used.

On Ecuador’s own mine problem.

I am in Ecuador, a Latin American country of 13.3 million people, at the invitation of the Office of Humanitarian Demining of the Organization of American States. The OAS oversees demining projects throughout Latin America. Some of you may remember that two years ago I went to Nicaragua on a similar mission. This time I was asked to conduct trauma-training seminars in Quito and then do a field assessment.

The purpose of my field visit was to evaluate the emergency medical capabilities and evacuation process in the unlikely event of a demining injury. I spent time visiting the worksites and medical facilities, interviewing deminers and medical personnel, and gaining a full understanding of the situation. Overall it was a very productive mission and I received substantial positive feedback.

A little background:

Ecuador is one of the smallest countries in South America and sits astride the equator—hence its name. There are four distinct regions: the coast, the Andes highlands, the Oriente (the east) and the Galápagos Islands. Quito, the capital city of 1.4 million people, sits in the Andes at about 9,000 feet (2,743 meters) in a long valley surrounded by mountains and volcanoes. The recently renovated Centro Histórico (historical center) is the old part of town designated as a UNESCO World Heritage site; it is quite impressive. The new part of town is quite modern, and plenty of American chain restaurants are visible on numerous street corners.

With a pre-capos' gross domestic product of US$3,700, Ecuador is better off than most of the countries I have visited recently, but it still has a long way to go. Interestingly, in September 2000, Ecuador exchanged its currency and began using the U.S. dollar. Now I don’t mean that their currency is pegged to the dollar; they actually only use real U.S. dollars. I don’t know how the Ecuadorians get their real U.S. dollars, but they actually have a currency pegged to the dollar. A few years ago, Ecuador switched its currency and began using the U.S. dollar. Nowadays, they are back to using their own currency.

Ecuador’s situation:

Since the humanitarian mine-action programs began in Ecuador in 1999, there have been no demining injuries, however, one civilian death and two injuries have been reported in the region around Santiago. The sites we visited most recently began operations in 2004. Clearing is expected to continue until 2008 or 2009. Although clearing landmines is usually a slow, arduous and dangerous task, working in the jungle presents even more complex problems. Unlike minefields I have observed in Afghanistan, Kosovo, Bosnia and Sudan, in Ecuador the mountainous terrain mixed with the thick jungle vegetation, humidity and high temperatures present even greater challenges.
MITS Training

My first week in Ecuador was spent teaching the Mine Injury and Trauma Seminar to Ecuadorian, Peruvian and Colombian military paramedics, nurses and physicians. This seminar, which I created from numerous sources, provides a review for medical personnel working in demining units and concentrates on the basics of trauma care, including the “ABCs”. Airway, Breathing and Circulation. Airway, breathing and circulation are the cornerstone of the MITS, which is sponsored by the OAS’s Office of Humanitarian Mine Action.

During May 2004 in Nicaragua and again in November 2006 in Ecuador, with OAS support, I ran the seminar for military and civilian paramedics, nurses and physicians. The seminar is designed as a short refresher course for medical personnel with specific emphasis on treating mine victims.

MITS is held over two days, with the first day consisting of lectures, videos, and discussions and a second day devoted to skills practice and role-play scenarios. I taught two full sessions, and all the participants stated that they learned a great deal. Apart from the Quito pre-

IMT training units, I also cover issues relating to all types of trauma in general. When I am in the field, I eagerly strive to include civilian personnel whenever possible; they are the ones more likely to treat traumatic injuries on a daily basis, unlike the military personnel who are on standby and see few victims.

The goal of the seminar is to instill in review procedures to keep an injured victim alive and to facilitate transfer to a hospital for definitive care. These goals are accomplished through teaching basic trauma principles, such as the ABCs, which include life-saving maneuvers for getting oxygen to the lungs and stopping bleeding.

The seminar focuses on understanding the principles behind the causes of wounds. As many injury-prevention experts say, injuries are not accidents; there are identifiable and preventable risk factors. Prevention is the optimal therapy, but by understanding the mechanisms of injury, differing patterns of wounds, forces involved, and anatomy and physiology, many injuries can be predicted and efforts made to anticipate the needs of the victims.

According to data from the International Committee of the Red Cross, landmine injuries occur in three distinct patterns. Pattern I injuries result from a person stepping on a blast mine and suffering a traumatic amputation of the foot or leg. Pattern II injuries can affect the entire body, particularly the abdomen and chest, and occur from activation of a fragmentation or bounding mine. Pattern III injuries affect the face and hands (often leading to blindness) and result from handling mines.

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Although MITS was designed for military medical personnel working with demining units and specifically for treating landmine victims, the principles which are taught are applicable for all types of traumatic injuries. Students not only learn how to care for mine injuries, but also how to care for injuries resulting from motor vehicle crashes, gunshot or stab wounds, assaults or falls.

The theory is to provide a framework for medical personnel to assess the entire situation. This includes observing the local environment, determining what types of mines are emplaced in the area and what safety precautions are in place and then determining what the likely injuries will be and what patient needs will result. Controversial topics such as tourniquet use, needle cricothyroidotomy, needle thoracic decompression, and the use of pneumatic anti-shock trousers are covered. Emphasis is placed on each team deciding its own protocols, assigning team members to undertake these procedures and determining what level of training is required. While these procedures are often life-saving, especially in the remote locations of the demining camps, if undertaken by unskilled personnel, substandard outcomes can result. MITS is not designed to certify personnel in new procedures but to review principles and indications.

Additional issues covered include methods for safe transport, intravenous fluid administration, antibiotic use, pain relief, data recording and the importance of mental health.

The second day is a practical session in which scenarios are presented and students demonstrate their skills. Student volunteers act as victims and are cared for as they would be in the field. Immediate feedback is given and situations are altered to test responses and knowledge. A mannequin was incorporated during the Ecuador seminar and was very useful for practicing airway skills.

The primary philosophy of the MITS program is to emphasize the principles of airway, breathing and circulation, thereby optimizing immediate survival for mine victims by allowing stabilization and facilitating transport to a hospital for emergency surgery to begin the long road to recovery and rehabilitation.
starting in early 2003, the Survey Action Center, CNIDAH and six implementing partners carried out the Angola Landmine Impact Survey’ fieldwork in 10 of the country’s 18 provinces. It was completed when the project faced a funding crisis in mid-2005. SAC had to close its office due to lack of funding, CNIDAH assumed responsibility for coordination, the six partner nongovernmental organizations sought funding on their own to continue fieldwork in their agreed provinces, and the United Nations Development Programme established a project to provide key technical support for the database. Funding from the European Union. Following an interruption of a few months, an additional five provinces were surveyed by August 2006. Two of the three remaining provinces were completed in February while the last is expected to be completed by May 2007. Final results of the ALIS suggest that there will be a total of about 2,000 mine-affected communities covering less than 1 percent of the national territory. This figure is lower than previous estimates; it is in line with results of the Landmine Impact Surveys conducted in many other countries and is accepted by experienced actors in the country and government. The ALIS has identified about 2 percent of affected communities as suffering high socioeconomic impact, 23 percent a medium impact, and about 75 percent as low impact. These results have generated discussion about the surveying system and how impact is measured, including the role the number of recent victims has in accounting for impact. SAC has welcomed this discussion on alternative surveying systems and has kept attention on the high- and medium-impact communities. CNIDAH used the interim results from the first 14 provinces as the basis for the Angolan National Mine Action Strategic Plan 2006–2011, adopted by the Council of Ministers in September 2006.

The Survey Action Center and Comisión Nacional Intersectorial de Desminado y Asistencia Humana carried out the Angola Landmine Impact Survey. In July 2006, SAC sent the author on the first of three planned missions to Angola as Technical Advisor for the completion of the LIS. The article explains the Provisional Provincial Reports, which contain a section of guidelines on the use of LIS results for operational planning. The National Mine Action Strategy for Angola was developed based on interim LIS results, and the detailed data supporting those results are made freely available to all interested parties.

by Charles Dawes | Survey Action Center |

To ensure realism and a greater chance of success, each task should include a quantifiable indicator (e.g., number or percentage of coverage per year); examples are indicated below by “x,” with the number or percentage to be determined at the provincial level during the annual planning process. Planned activities should be consistent with available assets. Implications for an increased number of teams and budget. The author and partners should be reassured that the activities are realistic and include estimates of mine-affected communities and economic activity in the affected areas. The ACC is provided in the PPR.)

Clearance

Survey

• Display xxx specialized survey teams to determine more precise boundaries and dimensions of suspected hazardous areas, with priority to those sites where no survey has been conducted and high confidence in the accuracy of the data.

• Identify areas that should be surveyed and recommend the most efficient survey methods. (Note: The survey results should be made readily available on CD-ROM format to all interested parties.)

• Identify and survey high- and medium-impact communities with the highest priority to clearance. (Note: The survey results should be made readily available on CD-ROM format to all interested parties.)

• Identify areas that should be surveyed and recommend the most efficient survey methods. (Note: The survey results should be made readily available on CD-ROM format to all interested parties.)

• Display survey results to CNIDAH on all new mine incidents, rapidly identifying impacted communities or SHAs and changes to previous information.

• Submit quarterly progress reports and task completion reports to CNIDAH.

Conclusions

CNIDAH, SAC and the several ALIS implementing partners are striving to ensure that the LIS results are as useful as possible. Change in the LIS scores provides a measure of the impact of mine action; it is a measure of “outpur” like measures of area cleared or anti-personnel mines removed. The National Mine Action Strategy for Angola has been developed based on interim LIS results, and CNIDAH have made the data available on CD-ROM format to all interested parties.

The preceding “guidelines”...
have also been widely circulated in an effort to assist with the practical use of the results at the provincial and local level to further both humanitarian and developmental goals. While operators should continue to be concerned with efficiency in clearance of areas and disposal of anti-personnel mines, periodic monitoring of the change in the number of communities that move from high to medium or low impact will be a clear indicator of the outcome of mine-action activities. The acceptance of the LIS as the basis for the National Mine Action Strategy is a major step forward in enhanced accountability and effectiveness of the mine-action program. Comments are welcome to improve the guidelines, and CNIDMM will monitor the results to refine this process.

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**News Brief**

**Canadian Mine Survivor Gets Custom Motorcycle**

When Canadian Master Corporal Jody Mitic lost both his legs after stepping on a landmine in Afghanistan, Mitic never thought he would be able to ride a motorcycle again. After months in recovery at Toronto's St. John's Rehabilitation Hospital, Mitic had two new prosthetic feet and was walking with just a cane but still had little hope of ever riding a motorcycle. Having contacted the Barrie Harley dealership before his accident about purchasing a bike, Mitic had to write back and say, “Things have changed.”

In April, owners of the Harley Davidson in Barrie, Ontario, Canada, presented Mitic with a custom-made chopper.

Community organizers heard of Mitic’s situation and raised more than CN$50,000 for the custom bike, which includes a hand-operated shifter and a hand brake that works both front and rear brake. To supplement the funding shortfall, bike builders from the Barrie Harley dealership donated 260 hours in labor to build Mitic’s perfect custom Harley.

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**The Child to Adult Method in Mine Risk Education**

The author explains a child-to-adult approach to mine-risk education and how it uses the power of children as “little” MRE instructors in their communities. As part of this method, children use MRE lessons to teach adults and peers in their homes about the dangers of landmines and unexploded ordnance.

**by Mudhafar Aziz Hamad (Ako) [Iraq Kurdistan Mine Action Agency]**

Mine-risk education is a program carried out at the community level in which MRE operators exchange information with the community to help reduce the risk of death or injury by mines or explosive remnants of war. In many communities, children may not count as the group at highest risk as young men often face the most danger from ERW. However, the risk from mines/UXOs may be one that becomes more relevant to the children as they get older, and it is easier to reach them and influence their behavior while they are young.

What is Child-to-Adult?

Child-to-Adult is an approach used to train children to be teachers in their homes teaching family members about MRE messages and instructions. The aim of this approach is to establish a community-based MRE program and to make use of the emotional relationship between the child and his/her parents in order to get parents and other adults to change their attitudes toward mines and ERW. After IKMAA tested the Child-to-Adult method in a mine-affected village, it became clear that children not only looked after younger siblings but that they could also have a powerful influence on their peers, their parents and even the communities in which they live. The way in which messages are transmitted from children to others differs greatly depending on the experience and skills of the children and the group they may be asked to influence. The easiest group for children to reach is generally their peer group and the hardest is their parents. It is not normal in most cultures for children to “teach” their parents; however, children can involve their parents in activities that indirectly help to educate the parents or inspire them to seek further information. The situation may be different if parents ask their children for information, for example in communities where parents are not literate and they regard their children as important sources of information.

Child-to-Adult: A Different Approach to Learning

The child-to-adult method is an approach to learning that involves children as full participants in learning about and promoting MRE messages to their families, friends and communities. It demands that the children:

1. Participate in developing and designing activities
2. Link what they are learning with problems they face
3. Involve their family members and others outside the immediate learning environment

Child-to-Adult has powerful links to the United Nations Convention on the Rights of the Child. It is a practical way in which a child’s right to participate in decisions that affect him or her can be truly implemented.

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**Why is the Child Selected?**

The MRE department at IKMAA selected children to deliver MRE through Child-to-Adult approach because:

- Most of the time he/she is available for training and living in the community.
- He/she has more time to meet and participate in different activities.
- He/she is able to stay focused on and easily understand the messages and retain them for a long time.
- He/she follows the adults in the daily activities such as collecting wood and herbs, cultivation, grazing animals, etc.

Which Child is Selected?

Additionally, the MRE operators should look for the following characteristics when selecting a child. The child has to be:

- Between 9 and 15 years old
- Literate
- Clever and active
- Able to relay MRE messages and instructions to his/her family members in an effective way
- Able to use posters, leaflets or any education materials
- Recommended by his/her family to be involved in this method
- Able to take on the role of leader or instructor

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**Photo Courtesy of Mike Kendenken**

PHOTO COURTESY OF MIKE KENDENLEN

LIS community interview by HALO Trust in Benguela province

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PHOTO COURTESY OF MIKE KENDENLEN

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Implementation of Child-to-Adult

Child-to-Adult approach is well-suited for implementation under conditions in which adults are unable to meet. For example, if there are difficulties or problems in gathering or meeting with adults due to their occupation with daily activities or because they are civil government officers, members of the military or policemen, the Child-to-Adult method is applicable. Other adults such as shepherds, farmers, smugglers and bostees are usually out of the village and thus unable to participate in traditional MRE activities. Sometimes there may be social, religious or security reasons, or restrictions in some communities preventing the MRE team from meeting with adults. Also, adults are not generally able to meet the MRE team for long hours or consecutive days of MRE sessions.

Examples of Emotional MRE Messages from Children to Adults

- **Father, please don’t get close to mines or ERW because if you die or become disabled, who would run our family?**
- **Think about our lives when you try to touch mines/ERW.**
- **If you become disabled you will not marry easily.**
- **We have the right to grow up under the supervision of our parents.**
- **We can struggle through the difficulties of life (e.g., we may be hungry for a short time but our lives will be worse if you die or become disabled).**
- **If you become disabled you will not be able to work.**
- **We have the right to grow up under the supervision of our parents.**

Many conditions must be satisfied to use the Child-to-Adult approach. The first condition involves designing a special MRE curriculum and educational materials such as posters and leaflets for distribution. Next, an area and group to work with the children (who will be chosen using the aforementioned criteria) should be selected. Seven to 10 days of training are necessary. A prepared CEP containing information about mines and MRE distributed to the participating children as an educational tool will assist the children later in explaining MRE messages and instructions to their family members. It is important that there be strong coordination among the MRE operators, local authorities and the child’s family for the task to succeed.

While implementing MRE instructions, the child has to:
- Respect his/her family members and assist them.
- Perform daily chores so his family can rely on him/her.
- Try to play his/her role in the family as an MRE instructor and teach them messages in convenient times.
- Be patient and kind in relaying the MRE messages.

The Child-to-Adult Approach

For many children, mine-risk education is a vital and sensitive topic. Teaching about the risk of mines should start with finding out what children already know and feel about mines. Learning activities must be based on the children’s resourcefulness, on the knowledge they have and on their creativity and ability to understand the dangers. Children behave responsibly when adults trust them and foster in them self-respect and respect for others.

There is great potential for children to become involved in MRE programs. The child-to-adult approach can use local culture and tradition to reinforce messages. It can also challenge local culture and tradition when those traditions lead to unsafe behaviour by involving children and their families in exploring the problems as they apply to the local context. This forms the basis for the design of appropriate interventions.

**Advantages of the Child-to-Adult Approach**

In rural communities, children are mostly forced to go out either individually or with the adults to perform daily activities such as grazing animals, collecting herbs or wood and to participate in dangerous actions such as dismantling mines or ERW to sell for scrap metal. In this case both of them will be in real danger, but the trained child can help the adults to recognize dangerous items (mines and ERW) and warn them not to touch them because they may detonate. In addition to recognizing mined areas by becoming aware of mine warning signs, children warn the adults not to conduct the mentioned activities in mined areas. Thus the child helps the adults to stay away from the danger of mines and that reduces mine accidents.

**Training the Child to be a Teacher**

The six steps of the Child-to-Adult approach can be used to train the child to be a teacher in his/her home as are follows:

**Step 1: Understanding activities**

**Step 2: Finding out more**

**Step 3: Discussing and planning**

**Step 4: Taking action**

Children’s self-esteem and communication skills will be greatly developed through participation in child-to-adult activities, but as the start of a project they need plenty of encouragement and careful guidance.

Attitude of adults. Children’s lack of skills in this kind of approach must not be overlooked. It is remarkable how quickly children adapt to having their ideas and opinions taken seriously. Observers are often amazed and delighted at how easily and freely children discuss problems and solutions during these sessions, which suggest that the key problem to working with children is in this way the attitude of the adults, not the abilities of the children.

Habits of some communities. In some communities, the adults do not accept their children as instructors or advisers. Their culture and habits do not allow the child to sit with the adults, especially in the nomadic and tribe families; however, some progress has been made due to the effect of media and the technology on the communities and people’s general (rural communities in particular). This point has to be taken into consideration and it becomes a challenge for the operators.

Messages must not be wrong. As children are powerful communicators of messages to others, it is essential they get the messages right. If the messages are incorrect, children will effectively learn and repeat the wrong information.

**Conclusion**

The child is like clay; you can mold him into anything you want by preparing him with the appropriate teachings or instructions. In this case, you train the child and prepare him or her to be an instructor for his/her peers and parents at the same time. This is a suitable method when MRE officers cannot meet with adults because of security reasons, like in Iraq, Afghanistan and other countries. IKMMA has found that children are not only easiest to meet with for MRE lessons, but they also have a powerful influence on their peers, family members and others in the community.

See Endnotes, Page

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Mudhafar Aziz Hamad, graduated from Saladin University in 1980. After that, he worked with the Mines Advisory Group and then with the United Nations Office for Project Services as an MRE Officer. Since 2004 he has been working as the Director of MRE at IKMMA. Mr. Aziz has had more than 50 articles published in the Iraqi press in Arabic, Kurdish and English. He is also Editor-in-Chief of Atyra magazine, a periodical aimed at creating regional awareness among children in Kurdistan about mines and ERW.

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armed non-state actors are currently involved as fighting parties in conflicts all over the world; hence, for a true universalization of the rules and principles of human rights and international humanitarian law, the involvement of NSAs must be considered. This is equally true for prohibiting the use of AP mines because NSAs currently employ these devices. As NSAs are part of the problem, any solution must include them.

This article presents some of the main findings of a 2006 report, Armed Non-State Actors and Landmines. Volume II: A Global Report of NSA Mine Action, which maps and analyzes mine action by NSAs. The report is the second part of a wider project, following a 2005 report that focused on the negative aspects of the involvement of NSAs in the landmine problem. The 2006 report presents:

• Some general findings concerning involvement by NSAs in mine action, separated into the five mine-action pillars: mine-ban advocacy (also including mine-ban policy), stockpile destruction, mine clearance, mine-risk education and victim assistance.
• The findings of an analysis of mine action globally by NSAs—examining mine action, the advantages, difficulties and lessons learned.

NSA’s Involvement in the Five Mine-action Pillars

The report found practical mine-action examples in the areas of each of the five mine-action pillars. A total of some 50 groups was documented as involved in some type of mine action, which was more than expected. The mine-action activities recorded were not entirely conducted by non-state actors. They were also performed by independent or local or international organizations but facilitated by NSAs.

There are important differences in the numbers of NSAs involved in the different mine-action pillars. The greatest numbers of NSAs were involved in activities related to the mine-ban policy—35 NSAs have banned AP mines. Of these, 31 had signed Geneva Call’s Deed of Commitment, and at least an additional 14 had allegedly introduced some type of limitations (temporal or applied) to their mine use. At least six NSAs, all of them signatories to the Deed of Commitment, have reportedly been involved in promoting the mine ban to other non-state actors.

NSAs are rarely involved in stockpile destruction, although this has occurred in a total of 10 instances. Sometimes NSAs do not destroy stockpiles because they have not yet agreed to a total ban on AP mines. In some cases, the failure to destroy their stockpiles has also been due to circumstances beyond their control—a lack of funds or non-cooperation by a concerned state, for example.

Thirty-one NSAs have participated in mine clearance and related activities. In 10 cases, these activities formed part of a mine-action program. The remainder participated on a spontaneous or ad hoc basis, involving activities such as clearing camps when leaving them, clearing mines on the request of the population and adopting policies to map the mines employed.

Few NSAs have been directly involved in large-scale MRE programs; four groups were conducting mine-risk education programs themselves and 12 were facilitating projects or programs. NSAs engage more frequently in ad hoc MRE by providing information about mines to civilians (14 cases documented).

There are different reasons why NSAs become involved in mine action. Recurring themes are humanitarian and development concerns and self-interest. Community pressure is sometimes highlighted as a main factor. An NSA’s decision to engage in mine action could also be motivated by a combination of factors.

The primary benefits of mine action by NSAs are considered to be the same as those arising from other forms of mine action, i.e., principally humanitarian and developmental. Nevertheless, the complementary effects of mine action (employment and stability; peace-building; security and disarmament; and openness to discussing other humanitarian norms) are different, and these are often perceived to be as important as—or even more important than—the primary benefits of working with NSAs. In addition, the primary benefits for the population in the area controlled by or influenced by NSAs may be relatively more significant, given that these areas often greatly lack developmental and humanitarian activities.

The main factors that appear to make humanitarian mine-action organizations regard involvement by NSAs as necessary, rather than merely desirable, are:

• The group’s military training
• The provision of information about the mines in the area (and possibly maps)
• Its links to the territory and the population
• The security and cost-effectiveness of working with these actors

Challenges, Tentative Solutions and Lessons Learned

The Armed Non-State Actors and Landmines. Volume II: A Global Report of NSA Mine Action report showed it is possible to work with NSAs in humanitarian mine action, although various difficulties and challenges involved were identified. The following sections present some of the tentative solutions and lessons learned:

Need to understand and adapt to the political and conflict situation. The report found the need for flexibility and understanding of the circumstances in which mine action by NSAs takes place to be particularly important. This openness requires the situation to be carefully analyzed in detail, taking into account local knowledge.

Although it has sometimes been argued that a ceasefire, or even a peace agreement, is a necessary condition for comprehensive mine-action operations, it is generally agreed that some mine-action opportunities may present themselves before these ends. In fact, a step-by-step approach taking certain minimum actions may not only save lives, but also facilitates larger-scale mine-action activities following the cessation of hostilities.

Flexibility and adaptability are crucial features for security-related problems, a major concern for mine action involving NSAs. Mine-action organizations introduce new security procedures and use local guards to overcome such problems. Another possible solution, at least on a temporary basis, has been to work at a distance by training staff in a safer environment and undertaking other aspects of mine action that can be performed at a distance (e.g., certain parts of mine-risk education activities).

Need for cooperation by the concerned state. One of the main conclusions of a workshop on mine action in the midst of conflict held in Zagreb, Croatia, in 2005 was related to the allocation of legal responsibility for mine action in areas under control by NSAs. It was found that States Parties to the Mine Ban Convention have reportedly directly provided assistance to civilians of landmine accidents in 20 cases and have allowed or facilitated outside organizations to provide victim assistance in areas controlled by the NSAs (15 such cases were documented). While not always reported, it can be assumed that NSAs generally provide their own combatant victims with assistance to the extent possible. Assessment of NSAs’ Involvement in Mine Action and Its Advantages

Generally, NSAs that have banned mines are more likely to be involved in mine action than groups that have not. Some mine-action practitioners (as well as Action 46 of the Nairobi Action Plan) suggest that there should be greater support for mine-action activities when the concerned NSAs have committed to a mine ban.

Armed Non-state Actors: Their Contribution to Solving the Landmine Problem

This article presents some findings and lessons learned from a report on armed non-state actor involvement in mine action. The report shows that it is possible to engage in humanitarian mine action with NSAs. The main conclusion is that engaging NSAs in mine action has significant benefits since their involvement supports the implementation of the main objective of the Anti-personnel Mine Ban Convention, to reduce the humanitarian impact of AP mines and unexploded ordnance.

by Anki Sjöberg [ Geneva Call ]

 Armed Non-state Actors

Armed Non-state Actors (NSAs) are considered to be ‘involuntary fighters’. They are involved in landmines in various ways. They are often not parties to the conflict and are victims of landmine accidents. The involvement of NSAs has significant benefits for mine action. The main conclusion is that engaging NSAs in mine action has significant benefits since their involvement supports the implementation of the main objective of the Anti-personnel Mine Ban Convention, to reduce the humanitarian impact of AP mines and unexploded ordnance. The involvement of NSAs in mine action has significant benefits since their involvement supports the implementation of the main objective of the Anti-personnel Mine Ban Convention, to reduce the humanitarian impact of AP mines and unexploded ordnance.
Such measures may also avoid unnecessary tensions between mine-action organizations and NGOs.

Need for increased support. In general, mine-action practitioners have found third-party states and the international community quite supportive of mine-action efforts involving NSAs, although not sufficiently so. Third-party actors could make greater contributions in raising funds and pressuring non-cooperating states. Both the financial and political aspects of support are crucial; however, despite the problems related to funding for NSA mine action, it has been argued some governments are only interested in supporting mine-action work with NSAs largely because of the expected peace-building gains. It has also been claimed that humanitarian actors themselves might not make greater efforts to convince governments of the need for mine action and the humanitarian benefits it brings. Need for confidence-building, commitment and cooperation. To work in difficult situations, mine-action practitioners need to build relationships of trust, not only with the NSAs, but also with the local communities and authorities. In some cases, a mine ban on behalf of the NSAs (such as the Deed of Commitment) would be crucial to ensure non-state actors’ cooperation with mine-action organizations. Since some NSAs have begun mine-action activities on their own before enrolling in international programs, this may facilitate the commencement of such programs. Mine-action issues should also be included (but not exclusively) in exploratory discussions and peace negotiations between governments and NSAs.

Implementing mixed demining teams (made up of NSAs and government forces), aimed at confidence and peace-building, is likely to require communication among all parties and leadership by an independent NGO to facilitate the process. Need for transparency. One key practice to facilitate mine-action activities in difficult situations is transparency. By being open and clear about their activities, humanitarian actors can convince NSAs and concerned states of their neutrality in order to avoid accusations and restrictions of “spying.” In return, NSAs and the concerned states also need to be transparent to humanitarian actors in order to maximize the benefits from mine action since restrictions on the sharing of information may damage confidence and the effectiveness of operations. Humanitarian actors should also engage with each other in order to solve common problems with joint solutions. Finally, the main parties (NSAs and states) should ideally be as forthcoming as possible with each other in terms of sharing relevant information about mined areas and the progress of mine-action activities.

Need for organization and coordination. When strong NGOs serve as implementing or intermediary agencies, the process works. The donors provide the funding to the NGO, which works directly with the NSAs. It requires coordination, information-sharing and open communication among all the parties. Need to involve the local communities. Mine-action practitioners are increasingly working with local communities, notably in so-called community liaison roles. NSAs are sometimes part of these local communities. When NSAs are involved in host mine-action activities, it is especially important that mine-action practitioners deal with them by consulting, collaborating and including them in the execution of the mine-action program to avoid tensions between international/national and local efforts. In addition, involving NSAs in mine action is relevant to the issue of accountability, since the people who demine stay in the area afterwards and would therefore have a vested interest in the program’s success. It can be beneficial to include affected communities in the processes of dialogue and negotiation with NSAs since their relationship with the NSAs allows the community representative to put pressure on the armed actors. However, it can also put the population at risk. In these cases, it is of utmost importance to carefully analyze the situation and, if necessary, take measures to protect the communities or to limit their involvement in NSA mine action.

Elements of Analysis

When considering involving NSAs in mine-action activities, there are some relevant parallels that can be drawn to the involvement of the regular military in mine action. As for the regular armed forces, the political situation and the NSAs link to the population determine whether:

- NSAs should be involved in mine action during or after armed conflict;
- It is more advantageous to work with demobilized rather than active NSAs;
- Civilian actors are preferred.

Sensitive issues that need to be carefully considered in different conflict and post-conflict situations include:

- Whether the population trusts the NSAs;
- The nature of the relationships between the NSAs and other relevant

armed actors in the area

The possible outcomes of the actions

Conclusion

In conclusion, Armed Non-State Actors and Landmines. Volume II: A Global Report of NSA Mine Action, which was published in November 2006. The report can be downloaded from Geneva Call’s Web site at http://www.genevacall.org/home.htm. Hard copies can be obtained by writing to info@genevacall.org

Anki Sjöberg received her bachelor’s and master’s degrees from Stockholm University, Sweden, She is a doctoral candidate at the Graduate Institute of International Studies in Geneva, Switzerland. Sjöberg has authored The Involvement of Armed Non-State Actors in the Landmine Problem: A Call for Action, Armed Non-State Actors and Landmines, Volume I: A Global Report Profiling NSAs and Their Use: Acquisition, Production, Transfer and Stockpiling of Landmines and Armed Non-State Actors and Landmines, Volume II: A Global Executive Summary. Anki Sjöberg

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See Endnotes, Page 37

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In January 2007, the GICHD unveiled a new look for its Web site and publications. The GICHD implemented these changes to give the organisation a modern, fresh appearance, and to increase the utility of the Web site as well as reduce the cost of publications. The redesigned Web site can be seen at www.gichd.org and includes a number of new features such as shortcut buttons, an improved search function, an evaluation repository and a training calendar.

One of the first publications to be issued in the new style was the Metal Detectors and PPE [Personal Protective Equipment] Catalogue, published in March 2007. This catalogue features handheld, large-loop and vehicle-mounted detectors, as well as the relatively new multi-sensor systems. In April, the third edition of the Guide to Mine Action and Explosive Remnants of War was published. This edition provides updated information, such as the text of the Convention on Certain Conventional Weapons’ Protocol V on explosive remnants of war; it also includes new chapters on mine action and mobilisation and technology. Since the beginning of the year, the GICHD has also completed an independent assessment of the residual threat in Kosovo on behalf of the United Nations Mission in Kosovo.

In March 2007, the GICHD hosted its tenth annual meeting of Programme Directors and U.N. Advisers on behalf of the United Nations Mine Action Service. The meeting brought together over 200 people from 35 mine-affected countries, along with representatives from the various U.N. agencies, nongovernmental organisations and donor countries involved with mine action. Since the first annual meeting was held, attendance has increased tremendously; in March 1998 only 40 people from seven countries attended. The idea for the meeting came about as there was a growing need for better standardization, coordination and sharing of experiences among the emerging mine-action programmes. The initial meeting focused only on U.N.-conducted or -supported programmes, but since then, the meeting has expanded to include nationally supported programmes. Over the years, the topics discussed at the meeting have included U.N. policy updates, capacity building, national ownership, information management, standards, resource mobilisation and technology. Since the beginning, all meetings have been funded by Switzerland and hosted by the GICHD.

The GICHD continues to provide training and advice on the conduct of mine-action evaluations, as well as to undertake selected evaluations itself. Early in 2007 the GICHD undertook an evaluation of the United Nations Development Programme’s capacity-building project in Albania and also completed an independent assessment of the residual threat in Kosovo on behalf of the United Nations Mission in Kosovo.

In late 2007, the GICHD will undertake a thematic evaluation in the Caucasus as part of a rolling series of evaluations for the European Commission.

Tenth Annual Meeting of Programme Directors and U.N. Advisers

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that this aspect of ISO 9001:2000 Quality Management System alone is enough to generate vast quality improvements in an organisation, purely through the domino effect caused by genuine management commitment.

Operations people must realise that they are responsible for quality—good or bad. Quality-assurance/quality-control personnel are only responsible for reporting on the state of quality, not for generating quality.

Product Realisation

The product realisation process is none other than the core business process of manufacturing its product(s) or service(s). It is self-evident that the best practise dictates that this process should be properly planned and developed to meet the requirements of the product and of the customer. This statement is further supported by Oakland who found in his research that “identifying key-business processes” was one of the best practices found among award-winning companies. In demining, all processes in the minefield are described and guided by standard operating procedures. However, the miner must be able to change these procedures to suit the different stages of the process. It must be measured to ensure that problems do not occur further down the process. Oakland calls these changes “internal customer relationships” or “quality chains,” and demands them vital in being able to meet customer requirements.

Slater refers to measurement activities as “the feedback loop” and further states that without it, any system that seeks to add process control will fail. People need to know how well they are achieving in order to progress. An organisation needs to know the same in order for it to survive and indeed prosper.

Oakland states that “a good quality management system will not function without adequate audits and reviews.” A further advantage of audits is that they automatically review processes and systems and are therefore useful for continual improvement.

The Standard requires organisations to continually improve their processes through a range of activities from reviewing nonconformities to reviewing corrective actions. This should be taken further in organisations that should identify potential nonconformities.

The Standard is even more useful for demining organisations in developing countries, as it can be a framework to direct the organisation’s activities without having to purchase management expertise from developed countries.

The Standard encompasses the essence of those variables in the production/service process and seeks to impose the discipline on them that is required to prevent these aspects from drifting into chaos.

Measurement, Analysis and Improvement

Customer satisfaction not only relates to the end user or external customer, it is also applicable for internal customers, i.e., those people who develop the product through the different stages of the processes. The product must fulfill certain requirements before it can be passed on to the next stage of the process. It must be measured to ensure that problems do not occur further down the process. Oakland calls these changes “internal customer relationships” or “quality chains,” and demands them vital in being able to meet customer requirements.

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Charles Loxton was born in South Africa in 1960 and served in the South African Army for more than 15 years. Building on his strong military and managerial background as Lieutenant Colonel Charles Loxton, serving in the Army, he started a new career in mine action. Between 1994 and 1999 Mr. Loxton worked for commercial demining companies in South Africa and Malawi, before joining UNMACA and the Mine Action Programme for Afghanistan in 2004 as Chief of Quality Management. He was certified ISO 9001:2000 in 2005.

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Hidden threat: almost all people living in contaminated areas are potentially at risk of exposure to landmines. All children born to women exposed are born with permanent nervous system damage. JOURNAL: The Journal of ERW and Mine Action Issue 11.1

MINES ADVISORY GROUP

Needs Assessment in Lao PDR

This article describes the needs-assessment process and findings for mine-risk education in Lao PDR.

Specific issues that arise are identifying those who are at risk, why they are at risk, and what can be done about it.

by Jo Durham [Mines Advisory Group]

Mine-risk education is an integral component of humanitarian mine action and, as such, with other HMA components, should be a planned intervention. A needs assessment—the process of systematically collecting and analysing information in order to identify who is at risk, why, and what can be done about it—is an essential precursor to programme planning and implementation. A good needs analysis can ensure that the best practices are targeted, targeted and effective interventions that address the needs of the target populations. It is a crucial step in framing an appropriate response to risk reduction.

Relying on the importance of a needs-assessment preparation for its new five-year strategy for the Lao People’s Democratic Republic and based on an earlier Geneva International Centre for Humanitarian Demining evaluation, UNICEF commissioned Mines Advisory Group to undertake an MRE needs assessment in free provinces in the Lao PDR.

The assessment identified a number of subgroups that are at risk and helped bring into focus the myriad of contributing factors that influence behaviour. It highlighted the differences in the ways the mine-action “experts” perceive the problems and take decisions, and structure and solve problems in order to determine an appropriate response. The findings suggest that in a country such as the Lao PDR, where communities have lived with unexploded ordnance infestation for over 25 years, more traditional mine-risk education may not be the most effective way forward. What may be needed alongside traditional message-based interventions is a more holistic and pragmatic risk-minimisation approach, which may also require a collective paradigm shift in the way different stakeholders view UXO risk. Such methodology would help bridge the current gap between experts’ and laypeople’s opinions and result in more effective MRE.

Alongside this risk-minimisation approach, a more complete, integrated style of CCOO action and development will help address some of the underlying vulnerabilities of at-risk populations. The assessment also pointed to possible new directions for reaching women and children including integrating MRE into a broader life-skills approach and parenting guides.

Background to the Assessment

Lao PDR has the distinction of being, per capita, the most heavily bombed nation in the world. 1 As a result of international crimes and extensive bombing during the Indochina War, 2 especially during the years 1964–
1973, there is a widespread contamination of UXO, which continues to act as a barrier to socioeconomic development and to the health and safety of at-risk populations. These injuries can result in long-term medical and psychological effects as well as a huge financial burden to affected individuals, families, their communities and health services. The government of Lao PDR, with assistance from the United Nations Development Programme and UNICEF, established the Lao PDR Trust Fund for UXO in 1995 to finance a national programme of UXO clearance and education. A National Survey on the Socio-economic Impact of UXO was conducted8 and reported UXO contamination in 25 percent of all Lao PDR villages. The United Nations Development Assistance Framework for Lao PDR, as well as other government and donor documents, identify UXO and the threat it continues to pose to both livelihood security and personal safety as cross-cutting issues in tackling poverty.

As with most other mine-affected programmes, the Lao MRE programme aims to promote safety in UXO-contaminated communities and has been primarily underpinned by psychological theories of behaviour change, such as the Health Belief Model.9 More specifically, UNICEF has supported MRE for children in several at-risk communities in 12 of the most heavily contaminated provinces. In preparation for its next five-year strategy, UNICEF commissioned MAG to undertake a risk assessment to ascertain who is currently at risk and why, as well as what can be done to mitigate the risk.

Methodology

The assessment took an eclectic approach to the risk assessment combining ecological approaches to health promotion and injury-prevention and risk-management approaches to environmental health. The study was also informed by the International Mine Action Standards (IMAS) Mine Risk Education Best Practice Guidebook2 Data Collection and Needs Assessment for MRE6 and UNICEF’s technical note Children Participating in Research Monitoring and Evaluation – Ethics and Your Responsibilities as a Manager.8

The assessment consisted of four main components: a literature review; development, testing and administration of a quantitative Knowledge, Attitude and Practice (KAP) questionnaire; a qualitative assessment; and data analysis. An analysis of the available accident data was also used to inform the assessment, which was conducted by a MAG research team.

The KAP questionnaire was administered in five UXO-contaminated provinces. Multi-stage cluster sampling, probability proportional to size to determine the sampling size and random sampling to identify the sample frame. The MAG research team analysed the KAP questionnaire using a statistical analysis software package, the Statistical Package for the Social Sciences (SPSS), and provided broad contextual information on a level of community UXO awareness, attitudes, behaviours, assessment of risk associated with certain behaviours, and how and where people gained knowledge about UXO.

The results of the KAP were used to develop qualitative survey tools then administered to two respondents using content analysis, the qualitative phase of the research enabled a better understanding of the individual circumstances, motivations and contributing factors which lead to voluntary or deliberate and unintentional exposure to live ordnance. It also allowed for a more detailed understanding of the range of contributing socioeconomic, psychological, cultural, political and legal factors that contribute to risk behaviours and exposure to live ordnance. Qualitative data was gathered from UXO clearance personnel—technical staff and programme managers using semi-structured and unstructured interviews to gain an “expert” perspective.

Findings

The assessment found overall a high level of UXO awareness and understanding among both adults and children. For example, 82 percent of the adult respondents indicated that no UXO is safe and provides a range of correct responses regarding common events that cause UXO to detonate—of the children surveyed, 99.6 percent considered UXO to be dangerous, with most of them reporting being afraid of UXO.

Despite these known risks however, many people, including women and children, reported continuing to interact with live or potentially live ordnance on an almost daily basis. Respondents rationally defended this apparent inconsistency, even though their view was often at odds with “experts” views. The assessment also found the general categories often used to characterise at-risk populations, that is, the unidentified, the unaware, the reckless and the intentional, were less relevant to the context of Lao PDR. Instead, the study distinguished between intentional exposure (i.e. voluntary) to live ordnance—where actors avert the risk purposefully expose themselves to live ordnance—and unintentional exposure (involuntary). Voluntary exposure may include for example, moving an item of UXO to another location or tampering with ordnance for economic gain. Voluntary exposure included groups identified as high risk, for example:

- Adult scrap-metal collectors
- Adults who move UXO out of farming land
- Scrap-metal dealers
- Adults who deliberately dismantle UXO
- Children who collect scrap metal
- Children who play or tamper with UXO
- Adults and children who work on agricultural land
- Out-of-school youth and young children

Unintentional exposure. Unintentional exposure to UXO is when a person’s livelihood or safety is unplanned and may include exposure due to inattention or lack of knowledge. While some of the prevention activities may be the same, inattention is an important variable and particularly relevant in Lao PDR where UXO injury due to intentional exposure is an insignificant source of income. Thus, while contributing factors of unintentional exposure to UXO were often rooted in poverty, it was rarely perceived by communities or individuals as the only option. More commonly intentional UXO risk-taking was found to be based on a rational decision-making process involving weighing the potential costs and benefits of a range of available options.

The most common ways in which people voluntarily expose themselves to UXO risk is through collecting or dealing in scrap metal, moving UXO from farmland and dismantling UXO. The following quote from one of the female respondents illustrates how contamination levels combined with the need to uphold basic food security and manner to reports of UXO on farming land, UXO removal being sometimes perceived as the removal of a legitimate cash crop, and a certain level of social and parental acceptance of UXO risk-taking behaviour, even where a UXO incident may have economic and social consequences for families and communities. Reinforcing factors include food-security problems, which motivate people to engage in the collection of scrap metal, lack of alternative income-generating activities, price of scrap metal and lack of access to alternative farming land that is not contaminated with UXO.

A respondent stated, “I moved three bombies from the bottom of a bomb crater. When I was digging I left one of the bombies so I slowly...
picked it up and moved it out from the bomb crater to a nearby area. I was afraid when moving the bomb crater because I needed the money. In one of the bomb craters I could get 60 kilograms (88 pounds) of scrap metal. Currently, scrap metal is approximately 1,700 kip per kilo (approximately 0.76 kip per pound). Nearly all UXO contamination is in rural Laos where most people—about 80 percent of the population—are subsistence rice farmers and have limited options for generating a cash income if they stay within their communities and take no action.

Almost all respondents who reported voluntary exposure to potentially live ordnance were able to provide examples of the risk-reduction strategies they took. These indigenous risk-reduction strategies are often at odds, however, with expert views of safe handling of UXO. Indeed, some respondents also recognized that their strategies might not be enough to prevent being killed or injured. To be effective, the MRE programme will have to take into account the determinants of behaviour identified in the assessment. This in turn will contribute to addressing underlying vulnerabilities and reduce UXO risk.

The Mine-action Process in Iraqi Kurdistan

The Iraqi Kurdistan Mine Action Agency has been working to clear Kurdistan of landmines and unexploded ordnance that were placed by the former Iraqi government over the past 40 years and the Iranian Army during the Iran-Iraq War from 1980–1988. The Agency is overcoming many challenges and has cleared a vast number of minefields so the land can be handed back to the owners. Casualties from explosive remnants of war are extremely high but a new mine-risk-education program will inform people who live in dangerous areas how to minimize the threat of explosive remnants of war.

by Jamal Jalal Hussein [Iraqi Kurdistan Mine Action Agency]

The existence of landmines and unexploded ordnance in any community has a direct impact on the local people, especially in regard to their economic, social and physical well-being. The previous Iraq governments systematically contaminated Kurdistan and the world with mines.

Since the initiation of the Kurdish freedom revolution and other Kurdish struggles, this practice was continuously applied to Kurdish lands and was prolonged when the former Iraqi regime came to power in February 1963. An "Arabisation" strategy was used in an attempt to change the demographics of northern Iraq where the Iraqi government displaced Kurdish families from their land and replaced them with Arab families from other areas of Iraq. In addition to dealing with this, during the consecutive conflicts that consumed all of Iraq and Kurdistan, huge areas of Kurdish land were heavily contaminated with mines and explosive remnants of war. This led to thousands of Kurdish citizens being killed or facing lifelong handicaps.

Clearance Goals

The vision of the Iraqi Kurdistan Mine Action Agency is to rid Kurdistan of ERW. Currently the mission is to reduce the impact of mines and unexploded ordnance in the affected communities of Kurdistan. This will be achieved through the demining process (survey of contaminated communities, mapping, marking of hazardous areas, and destruction of mines and UXO), mine-risk education and victim assistance. It is a great challenge to clear mines from Kurdistan due to the difficulty of the demining process, the large areas that were contaminated and the approximate quantity of emplaced mines numbering in the millions.

Achievements

There are 3,512 registered minefields in Kurdistan. From the beginning of the demining process in Kurdistan early 2003, most of the 567 minefields and battle areas have been cleared and returned to owners. Approximately 6,555,889 square meters (2.17 square miles) of minefields have been cleared with 25,226 anti-personnel mines, 890 anti-tank mines and 273,404 pieces of UXO destroyed. Throughout 2005 and 2006 a total of 100,083 people have directly benefited from KBAM’s clearance, mine-risk education and MRE efforts.

Factors Influencing Demining Difficulties

Experience shows many factors directly affect the clearance process and lead to a slowdown in progress. The age of the minefields, for example, is more than 20–30 years old, leads to a number of complicating factors and difficulties in conducting demining operations. Some of these factors are related to Kurdistan's natural terrain and topography while other factors stem from the difficulty of mine clearance, the risks associated with mine clearance and difficulty of implementing the International Mine Action Standards due to safety concerns. Specific factors that affect mine clearance are:

- Limited period of time to work in some minefields due to weather
- Hard ground
- High, dry vegetation in most minefields
- Lack of desire by deminers to work in mine clearance because of the threat of dealing with suspected areas
- The existence of high numbers of metal fragments that slow progress because mine-clearance personnel must check each square meter of ground with metal detectors. Most of Kurdistan’s large minefields were battle areas during the Iran-Iraq War (1980–1988).

Joi Durham has worked in mine action for the last five years. She is currently the Country Programme Manager for Mine Action for the Iraqi Kurdistan Mine Action Agency.

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The role of mine-risk education in IKMAA presented its achievements and works toward reducing the impact of ERW and landmines. IKMAA will continue to demine dangerous areas, educate the public, and assist mine victims with prosthetic limbs and orthopedic devices to find other sources of income and to be productive members of society.

The organization has handed over 39 cleared minefields (more than one million square meters [0.4 square mile]) to the landowners. There has been significant work toward reducing the impact of ERW in contaminated communities, returning the socio-economic infrastructure of the region. In 2006 IKMAA held four ceremonies to transfer the 39 cleared minefields. It is worth mentioning that the 39 minefields were cleared by local deminers from mine-affected communities. Direct beneficiaries of landowners signed the transfer-of-land documents and accepted the cleared lands during special ceremonies.

The MRE section at IKMAA has conducted three summer-school courses on mine/UXO-contaminated villages. The courses aim to enhance the awareness of children and pupils regarding the danger of mines/UXO to teach children skills such as using a computer, painting, learning music, acting, protecting the environment, administering first aid and understanding children's rights while also using the summer holiday to provide information in the form of special classes, rather than spending time inside dangerous areas around the children's villages.

Conclusion

The Iraqi Kurdistan Mine Action Agency is proud of its accomplishments, clearing and all that it can to make Kurdistan safe from landmines. IKMAA will continue to demine dangerous areas, educate the public, and assist mine victims with prosthetic limbs and orthopedic devices to find other sources of income and to be productive members of society.
These workshops will provide tools to understand and apply current best practices and integrate a social approach into planning and programs. Workshops can be delivered individually (one day each) or as a series spread over five days.

Adaptive Technology Catalog

The project goals for the Adaptive Technology Catalog are to assist communities and nations recovering from conflicts in providing economic security for individuals who have become disabled by landmines and other explosive remnants of war. We will do this by finding and compiling into a catalog a variety of tools to help survivors get back to work and gain independence.

The Catalog was researched with the help of the Canadian firm, Project Assistance, and will be published in September 2007. It will incorporate low-cost, low-technology products that can either be used directly off-the-shelf or can be easily modified by local vendors. It focuses primarily on the agricultural and mechanical sectors, and is designed to help landmine/ERW survivors become gainfully employed using simple, inexpensive technology. There are also several products related to kitchen work, computers, personal hygiene or grooming and transportation. Most of the tools are under US$500; a few are about $1,500. With about 800 tools listed, organized by tool function—auto, agriculture, construction, kitchen, mobility, recreation, etc.—there are ideas for overcoming many disabilities. Two of the supplying company owners are active and accomplished upper-extremity amputees themselves.

It is expected that the Adaptive Technology Catalog will be an excellent resource for survivor-assistance personnel, governments and organizations planning rehabilitation projects, donors and physical trauma survivors.

There are many benefits to a catalog of this type, including:

- Allows people to get back to work
- Gives donors something specific to fund
- Creates survivor independence

The Mine Action Information Center staff enjoys providing useful, needed products to the mine-action community as well as partnering with like-minded organizations to develop and deliver the projects. For more information about any of these projects, please contact Dr. Suzanne Fiederlein at sfiederlein@jmu.edu or Lois Carter Fay at editor@maic@gmail.com.

The Adaptive Technology Catalog project was inspired by Purdue University’s Breaking New Ground Resource Center Agricultural Project, which was developed to help farm accident victims from the United States. For more information about this resource, visit: http://tnsgur.umn.edu/maic.

Ms. Lois Carter Fay joined the Journal of Mine Action as Editor-in-Chief in 2003 and recently retired; she has also served as Project Manager of the Adaptive Technology Catalog project. Her project management, writing, publishing and editing skills have been a solid addition to the MAC’s staff. Lois can be contacted at: lois.carter.fay@poluscenter.org. MAIC in 1999 as a faculty associate and currently serves as the Victims’ Assistance Team Leader. She has been a faculty of James Madison University and currently serves as the Victims’ Assistance Team Leader. She has worked on projects related to International Mine Action Standards, victim and survivor assistance, mine action databases, field work and program evaluation. In addition, she has coordinated the curriculum for the UNDIP Mine Action Senior Managers Course. She holds graduate degrees in Latin American studies and political science and has served on the faculty of James Madison University and Virginia Commonwealth University.

Dr. Suzanne Fiederlein joined the MAC in 1999 as a faculty associate and currently serves as the Victims’ Assistance Team Leader. She has worked on projects related to International Mine Action Standards, victim and survivor assistance, mine action databases, field work and program evaluation. In addition, she has coordinated the curriculum for the UNDIP Mine Action Senior Managers Course. She holds graduate degrees in Latin American studies and political science and has served on the faculty of James Madison University and Virginia Commonwealth University.

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The Adaptive Technology Catalog will be available as a DVD/CD or PDF in September 2007.

The Mine Action Information Center

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International Symposium Draws 170 Participants

Numerous key figures in mine action recently gathered in Croatia to attend the international symposium, “Humanitarian Demining 2007—Mechanical Demining.” The symposium featured several presentations on demining, including a live field demonstration, discussed in detail here.

by Lois Carter Fay [Mine Action Information Center]

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he symposium, “Humanitarian Demining 2007—Mechanical Demining,” held in Split, Republic of Croatia, at the end of April 2007 had something for everyone. There were 170 people from 35 countries registered for the week-long conference, and each presentation drew a minimum of 100 participants. The donor, manufacturing, governmental, research and development, testing and evaluation, and user communities were represented at the symposium.

Topics covered use of demining machines in area reduction, cost-effectiveness of using demining machines, risk management, machine methods and use in combination with other demining methods, along with a few miscellaneous subjects. Everything was presented in Croatian and English using live translators and state-of-the-art audio headers in the Congress Center of the Solaris Holiday Resort. An exhibit house rooms and trade booths for various demining machines and the respective manufacturers.

Field Day

The most interesting presentation at the conference was the demonstration held 25 April. Participants were shuttled to the outdoor demonstration site and seated comfortably upon chairs to safely view the demonstration without exposure to the hot sun or flying debris.

The Mine Action Information Center staff enjoys providing useful, needed products to the mine-action community as well as partnering with like-minded organizations to develop and deliver the projects. For more information about any of these projects, please contact Dr. Suzanne Fiederlein at sfiederlein@jmu.edu or Lois Carter Fay at editor@maic@gmail.com.

The Adaptive Technology Catalog project was inspired by Purdue University’s Breaking New Ground Resource Center Agricultural Project, which was developed to help farm accident victims from the United States. For more information about this resource, visit: http://tnsgur.umn.edu/maic.

MS. LOIS CARTER FAY JOINED THE JOURNAL OF MINE ACTION AS EDITOR-IN-CHIEF IN 2003 AND RETIRED RECENTLY; SHE HAS ALSO SERVED AS PROJECT MANAGER OF THE ADAPTIVE TECHNOLOGY CATALOG PROJECT.

Preliminary results were presented at the conference; see Table 1 for average ground-penetration depth of the equipment demonstrated. CROMAC plans to send these results to participants and post simultaneously on its Web site, www.ctro.hr.

This machine and quality-control demonstration took place offshore in a very dry, hard, light-vegetation, dirt terrain that had been specially readied for the demonstration held 25 April. Participants were shuttled to the outdoor demonstration site and seated comfortably upon chairs to safely view the demonstration without exposure to the hot sun or flying debris.

by Lois Carter Fay [Mine Action Information Center]
Conclusion

The organizers followed a very strict testing procedure in accordance with international testing standards, which contributed to the overall results being regarded as representative under testing conditions. In these conditions, there was an astonishing difference between the trials and the tiller. It became apparent in the case of the flail that under dry conditions the operations are heavily affected by limited visibility due to dust. Whether the machines were remote-controlled or manned, lack of visibility affected the performance of the operators because they couldn’t see where to “drive” the machine.

The two Benzol flail machines both adequately cleared the test lanes, although the Benzol-6 was the slowest machine, clearing to an average depth of 19.44 centimeters (7.65 inches) in a total time of 26.10 minutes. The Benzol-5 flail cleared its lane to an average depth of 25.06 centimeters (9.87 inches) in 16.53 minutes. Both Benzol machines were unmanned.

The superiority of the two MineWolf tillers in terms of clearance capacity was indisputable among observers. The larger MineWolf and its MineWolf models demonstrated superior results under these test conditions, the use of a till is sometimes preferred in certain circumstances, for example, shallow top soil over bedrock. For this reason the MineWolf machines may also be fitted with a flail, according to the manufacturer.

“Humanitarian Demining 2007: Mechanical Demining” was a well-organized and important symposium for the international mine action community. In just one week, participants from 35 countries learned the value of various demining technologies and had the opportunity to witness several demining machines in action. Several people commented that the controlled nature of the testing made it very easy to follow and comprehend. Each participant of the symposium will take this experience back to his or her country to continue making progress in the field of humanitarian demining.

The author would like to express a special thanks to Sneja Volhebo and Nikola Pantirevi of HCR CTRO and Karl Franger of MineWolf Systems for their assistance in clarifying details of the demonstration.

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he idea of forming the Japan Alliance for Humanitarian Demining Support was conceived by Hiroshi Tomita in November 1992 when it was discovered that a ground-penetrating radar tool developed by his company, Geo Search, which was used for the detection of landmines under roads in Japan, could detect an anti-personnel mine in a sandbox. This discovery started a period of research that led to the development of a mine-detecting GPR tool called Mine Eye. Since Geo Search was too small a company to fund a large-scale development programme, Tomita recruited the moral and practical support of major industrial companies operating in Japan such as Toyota, Honda, IBM, Ontron and Secon Co. to help with development.

Practice Example Needed for Product Improvements

JAHDS was founded as a nonprofit NGO to support mine action in March 1998 and donated funds and equipment to existing mine-action NGOs. In return, the NGOs were asked to assist in Mine Eye development by providing access to minefields and trials reports, but such support was difficult to obtain.

Consequently in January 2001, JAHDS set up its own small mine-clearance team, preferring to work in Thailand. It created a clearance team in alliance with the General Charucho Choonhavan Foundation, a Thai NGO. Since the border demarcation adjacent to the Preah Vikar (Khao Phra Viharn) temple area was still contested by Thailand and Cambodia, the first demining task JAHDS undertook was at Sadok Kok Tom, another temple near the main road between Thailand and the Anghor Wat complex in Siem Reap, a main artery between Thailand and Cambodia. This site was identified by Norwegian People’s Aid in 1991 as being of high priority for clearance, and this was endorsed by both the Thailand Mine Action Center and provincial authorities. Clearance began in December 2002 and was JAHDS’ first demining experience. It was carried out successfully and without incident.

JAHDS Makes Use of Clearance Skills

After the successful clearance of the temple at Sadok Kok Tom, the situation at Preah Vikar was sufficiently resolved for JAHDS to work there. The JAHDS demining team reformulated itself, splitting off from the GCF, and recruited another group of deminers from the Kamrathalak district of Siem Reap province. These deminers under-went a six-week basic course at the Thai Army Engineer School in Ratchaburi province and were then added to a field team by Johan van Zyl, an experienced mine-clearance manager who had also trained the deminers at Sadok Kok Tom.

The new team set up camp on Khao Phra Viharn, part of the land belonging to the Thailand Department of National Parks, Wildlife and Plant Conservation (DNP) in the Kamrathalak dis-

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Current Landmine Situation

The majority of Armenia’s landmines and UXO are a result of the Armenian-Azerbaijani conflict (1988–1994) over the Nagorno-Karabakh region in southeastern Armenia. Following the ceasefire, the Armenian Army surveyed the border where most landmines were placed and estimated that there were from 50,000 to 80,000 active landmines. The two countries have not signed a peace treaty and Armenia reports security issues to be the reason the country has not signed a peace treaty. In 2005 a Landmine Impact Survey was conducted in Armenia. It did not include areas under the control of Armenia that are outside of Nagorno-Karabakh, such as Nagorno-Karabakh. The United Nations Development Programme, the European Commission and the Armenian government financed the LIS. It concluded that there were 600 suspected contaminated areas that covered a combined 312,714 square kilometers (124,342 square miles), including 20 “UXO hotspots.” Sixty communities with a total population of 68,737 live close enough to the 102 sites to be directly affected. The Ministry of Defense and the Ministry of Transport, Communication and Infrastructure has marked all known minefields with barbed wire and warning signs; however, the LIS found that only five of the 60 impacted communities had any blocked off areas. There were five people injured by landmines and UXO in 2005.

Armenia has banned the testing of anti-personnel landmines at the national level. In 2005, the Armenian government, the international community and Armenia demonstrated its commitment to the international landmine ban by marked the first anniversary of the Ottawa Convention. Armenia is not a member of the Ottawa Convention nor are any of its armed forces using Anti-Personnel Weapons but voluntarily submitted to a report to the U.N. Secretary-General on the status of landmines in 2005, which, according to the United Nations Development Programme and Development Web site, is the last time Armenia submitted such a report.

The Armenian Ministry of Defense, the Armenian Humanitarian Demining Center and the Ministry of Territorial Administration and Coordination have recently completed a three-year plan to coordinate and implement a demining program. The goals of 2006 were “conducting a Technical Survey, Marking and Clearance (one community, as a pilot project); conducting a public awareness campaign and mine-risk education in mine-affected areas; supporting the Armenian Humanitarian Demining Center; and assisting the government of Armenia in drafting a national mine action strategy and legislation.” Armenia faces a number of challenges in demining. Weather permits landmine clearance for only six months per year, from May to October. Of the three 18-person teams, only two are active in Armenia; the third is currently working in Iraq. In October 2005 the Red Cross and the Mine Action Information Center on Mine Action researched the leading factors for the lack of mine action. The committee concluded that “limited national expenditure and funding” were the most important factors to a national mine-action strategy. There are contributing factors, according to the Ministry of Defense, for less than one mine-kilometer having been cleared since 2003.

<table>
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<th>Mine-action Organizations in Armenia</th>
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| The Armenian Humanitarian Demining Center was created in March 2002 through the flip-flop funding and training from the United Nations Development Programme and the Ministry of Defense and is in charge of mine action in Armenia. UNDP–Armenia, as the driving force behind much of Armenia’s mine action, works in coordination with the national government and humanitarian organizations to provide a “safer, more efficient, and effective implementation of mine-action components.” The Inter-Agency Governmental Committee on Mine Action has the process of becoming the managing body of all branches of mine action in Armenia. The UNDP has appealed for funds that will enable start-up support to strengthen the organization’s ability to function effectively.

Other organizations working on mine action in Armenia include the Marshall Fellowship, which introduced the Mine Detecting Dog Partnership Program in Armenia in 2002 to use handlers and professional dogs capable of “sniffing out” the explosives in landmines and UXO. The International Observer of the Red Cross helps the UNDP with victim assistance, mainly finding artificial limbs for landmine survivors, helping support healthcare and creating safe play areas for children. The Armenian Red Cross and UNICEF work with the UNDP to promote mine-risk education programs.

Looking Ahead

Armenia has set up a mine-action strategy for 2006–2011, based on “the assumption that the nature of the mine problem requires more effective risk management through continuous assessment of the situation and effective planning and coordination.” For the specific goals being accomplished through cooperation with the international organizations listed above, enabling continuous and efficient humanitarian-demining operations; establishing improved capacities for mine-risk education and victim assistance; and association with the international landmine-monitoring system. In Armenia; and working in conjunction with local and international research and development centers to create conditions for more effective mine action.

See Endnotes, Page

Azerbaijan

From 1988 to 1994, Azerbaijan was engaged in an armed conflict with its neighbor Armenia and Armenia and Azerbaijan. One of the most severe consequences of the conflict was the contamination of 44 million square meters (37.5 square miles) of land in 1988. As part of the National Strategic Plan, all high-priority areas have been made accessible in Azerbaijan by 2008. In addition, all low-impact areas are to be marked and fenced by 2008. “Local nongovernmental organizations have been active in mine clearance; the International Federation of the Red Cross and the White Cross launched the Saloglu village, where the explosion occurred in 1992, which is one of the most contaminated areas that were created in 2005. In 2007 the explosives in landmines and UXO have been destroyed or cleared of landmines and UXO have been destroyed.”

In 2006 mine-risk education in Azerbaijan has been gaining strength in those areas. Although the exact number of mine/UXO casualties was at a 10-year high in 2006, there are believed to be over 3,000 victims. Of the victims, over 200 were children and 1,900 are believed to have died. In 2005, mine/UXO casualties were at a 10-year high in Azerbaijan.6

The Ottoman Process

While the Republic of Armenia continued to recognize the Armenian Genocide of the Ottoman Empire until the conflict over Nagorno-Karabakh has been resolved, it has shown support for many of the conventions. Azerbaijan states that it is already satisfying some of the Convention because it does not produce or transfer anti-personnel mines and it actively participates in mine-risk management and victim-assistance activities. Azerbaijan also is not party to the Convention on Certain Conventional Weapons. An initiative group of 10 survivors received technical assistance and training from the IEPF. An initiative group of 10 survivors received technical assistance and training from the IEPF. Although Azerbaijan has not signed the Ottawa Convention, ANAMA has developed a National Strategic Plan based on the 2003 Landmine Impact Survey to help meet clearance objectives within the timeframe of the Convention. This includes both short- and long-term strategic plans for mine action in Azerbaijan in the areas of clearance, mine-risk management, and victim assistance.8

Mine Clearance

At the end of April 2007, ANAMA reported that about 479 million square meters (181 square miles) of accessible land had been reduced or cleared of landmines and UXO. In 2007, with the financial support of the U.S. Department of State, the IDEP plans to establish other branches of the Azerbaijani government to ensure their sustainability10. Following a 2005 needs assessment survey, ANAMA and other NGOs also organized several recent MVA projects in Azerbaijan.

Victim Assistance

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Conclusion

With the presence of such an organized and dedicated mine-action program, the mine and UXO threat in Azerbaijan is slowly disappearing. An initiative group of 10 survivors received technical assistance and training from the IDEP. An initiative group of 10 survivors received technical assistance and training from the IDEP. With the presence of such an organized and dedicated mine-action program, the mine and UXO threat in Azerbaijan is slowly disappearing. An initiative group of 10 survivors received technical assistance and training from the IDEP. An initiative group of 10 survivors received technical assistance and training from the IDEP.
Bosnia and Herzegovina
by Katie FitzGerald | Mine Action Information Center

Red Cross Society of BiH. The Red Cross Society of BiH gives great importance to mine awareness. In 2006, the organization provided 7,500 children with Mine Risk Education (MRE) workshops. In 2007, they plan to provide 9,000 children with MRE workshops.

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Mine Clearance

In 2005, 4,009,051 square meters (991 acres) were cleared. In accordance with the Dayton Peace Agreement, the United Nations Mine Action Service (UNMAS) took on the responsibility of clearing landmines and UXO in Bosnia and Herzegovina. By 2007, the UNMAS had already cleared 8,486,763 square meters of land (20% were cleared). In accordance with NATO’s Partnership for Peace Trust Fund, the South Eastern Europe Initiative Trust Fund was launched to support the defense reform efforts of BiH in June 2006. The SEEI Trust Fund is designed to provide technical assistance to military personnel made redundant by the transformation of the Armed Forces of BiH into a NATO-compatible single military force.

While there is an obvious commitment by all mine-action players in BiH to mine clearance, the main obstacle for BiH’s mine-action plan is funding. According to the Electronic Mine Information Network, “In terms of government institutions addressing mine action (namely, the Bosnian Armed Forces and civil-protection authorities), limited funding has caused difficulties in procuring demining equipment and introducing new demining techniques. Nongovernmental organizations and demining companies also struggle with funding challenges.” In 2007, mine clearance in BiH will cost a projected US$2,469,356.

Mine-risk Education

MRE is one of the largest BiH mine-action activities. BHMAC estimated over 100,000 people reached MRE in 2006, and 200,000 people reached MRE through the activities of organizations such as Genesis, Spirit of Soccer and the Red Cross Society of BiH.

Genesis. Genesis devotes its efforts to providing interactive education through live puppet shows representing diverse educational topics such as ecology, environmental protection, mine-risk education, children’s rights and prevention of diseases of addiction. Genesis has provided school-based MRE since 1996, and 6,497 children have benefited from the MRE puppet shows so far. Currently, with the support of UNICEF, it has produced and broadcast 15 educational TV shows for children and adolescents in Srebrenica.

Soccer of Spirit. The British NGO Spirit of Soccer provided MRE to over 7,500 children through its sport-related activities and during 2006 distributed nearly 10,000 posters featuring world famous soccer stars endorsing MRE messages in BiH. “I feel that the project we implemented in BiH has proved to be a solid method of promoting MRE to at-risk children through the medium of soccer and other sporting activities,” says Spirit of Soccer Director Scotty Lee.

UNICEF and Mine Action in 2007

This year, UNICEF plans to support the formation of a Mine Information Center in BiH, funded by the Federal Ministry for Education and the Voice of the Mountains. The center will be the main resource for information concerning mine- and UXO-related casualties, the most mine-UXO-affected communities, and the preparation of MRE and other activities. UNICEF also plans to support mine-victim-assistance activities in Chechnya, such as the Grozny Prosthetic Workshop, which provides训练in the enhancement of prosthetic-orthopedic devices for survivors. In the area of MRE, UNICEF also plans for the implementation of a large festival, “Mines Free Chechnya,” to be held on two occasions, which will involve youth and media to heighten awareness of the need for clearance activities. MRE presentations will also be conducted by Voice of the Mountain’s instructors and by the State Crime Drama Theatre actors.

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Mined Chechnya
by Katelyn Shane | Mine Action Information Center

More than a decade of conflict between Chechen armed forces and Chechen separation has left Chechnya polluted with landmines, improvised explosive devices and cluster munitions. Although clear- ance has been produced, organizations such as UNICEF have brought victim assistance and MRE to the region. The conflict has been so severe that several human-rights groups have accused Russian forces of brutality.

In 2006, Russia reported that its forces were still laying anti-personnel mines in Chechnya for the purpose of protecting important facilities. Russia has also dropped cluster bombs in several locations in Chechnya during and after the war, causing many civilian casualties and leaving unexploded ordnance. One of the most serious areas of concern has been the Grozny Market in 1997, which left 137 people dead and many more injured. It is estimated that 15,000 landmines and 70,000 UXOs are used in Grozny alone. It failed to detonate.

Chechen insurgents have also used mines, improvised explosive devices and other guer-illa tactics extensively against Russian forces. Although there have been no reports of large-scale military action in Chechnya since 2005, landmines and UXOs continue to affect civilian life. In 2006, UNICEF conducted 3,000 landmine and UXO related casualty surveys, and over 700 of these incidents have involved children. Chechnya is not an internationally recognized state and therefore cannot participate in any legislation concerning the use of mines or other weapons.

Clearance Activities

Despite the urgent need for mine and UXO clearance in Chechnya, it has been difficult for demining agencies to enter the region for large-scale clearance activities due to the ongoing conflict. The political decision to support this conflict is illus- trated in the example of The HALO Trust, an international non-governmental organi- zation working in 28 countries, which is unable to conduct trainings in mine/UXO clearance. The group was forced to leave Chechnya in 1996. The Ministry of Foreign Affairs of Russia accused HALO of espio- nage and aiding the Chechen rebels, which halted HALO activities. The Emergency Committee of Russia entered Chechnya for a short demining mission, in which they cleared 16 hectares (40 acres) of land and destroyed 3,845 pieces of UXO. UNICEF also reports that the conflict has prevented some mine clearance along the main roads and railways of Chechnya.

Mine Action in Chechnya

Due to the lack of a mine-action au- thority in Chechnya and the surrounding region, UNICEF has assumed the position as the coordinating body for mine action activities in the North Caucasus. UNICEF has brought victim assistance in Chechnya for a short demining mission, in which they cleared 16 hectares (40 acres) of land and destroyed 3,845 pieces of UXO. UNICEF has also reported that the conflict has prevented some mine clearance along the main roads and railways of Chechnya.

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Bosnia and Herzegovina
by Katie FitzGerald | Mine Action Information Center

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JOURNAL: The Journal of ERW and Mine Action Issue 11.1
Croatia

by Adam Gosney [Mine Action Information Center]

In 25 June 1991, Croatia became an independent nation when the Yugoslav forces invaded the country, with the area known as Slavonia being a major battle-ground. However, the war ended only partly through-out the conflict. The Dayton Peace Accords in November 1995 ended the fighting and Slavonia became a Croatian province. In January 1998. In 2003 Croatia applied for European Union membership and in 2004 received of-ficial candidate status. In August 2004, Croatia was recognized by the United States as a State Party in 1999. It comprises 11 counties and 100,000 landmines, and 100,000 mines-clearance companies and the NPA utilizes 583 deminers, 45 demining machines and 10 mine-destruction dogs to perform demining. According to Kristina Iki Banek et al from the Bembo Association organized 10 MRE projects in Croatia. Some of these groups include Adopt-A-Minefield, the International Trust Fund for Demining and Mine Victims Assistance, Norwegian People’s Aid, the Croation Red Cross, the International Committee of the Red Cross, the Rembo Association, and many others. As of February 2006, the NPA has cleared over 1880 square kilometers, of which 788 square kilometers (30 square miles) were released through surveys. These efforts focused on a de-mining of 25 square kilometers (10 square miles) in the area of the Southern Ray. The CRC and CROMAC also visit schools and inform children and their parents that it is a good project to completely mine-free. See Endnote, Page

Mine/ERW Problem

The primary focus of mine action in Croatia centers on agricultural land and areas near population centers, while most of the unexploded ordnance from the war re-sides within mountainous and high-wilderness areas. Since 2000, and 1,188 victims have resulted from a reported number of 240,000 mines-clearance companies and the NPA utilizes 583 deminers, 45 demining machines and 10 mine-destruction dogs to perform demining. According to Kristina Iki Banek et al from the Bembo Association organized 10 MRE projects in Croatia. Some of these groups include Adopt-A-Minefield, the International Trust Fund for Demining and Mine Victims Assistance, Norwegian People’s Aid, the Croation Red Cross, the International Committee of the Red Cross, the Rembo Association, and many others. As of February 2006, the NPA has cleared over 1880 square kilometers, of which 788 square kilometers (30 square miles) were released through surveys. These efforts focused on a de-mining of 25 square kilometers (10 square miles) in the area of the Southern Ray. The CRC and CROMAC also visit schools and inform children and their parents that it is a good project to completely mine-free. See Endnote, Page

Mine-Risk Education

The Croatian Red Cross in Vinkovci performed a theatrical show called “Mines: An Invisible Killer”, for 100 children in late 2005. The CRC program “Plaguegrounds Without Mines”, has installed over 40 play-grounds in 14 counties since 2001. United funds from donors, the CRC assists local communities in building playgrounds so children will not play in mine-suspected areas. The CRC and CROMAC also visit schools and inform children and their par-ents about ERW.

Since 2002, Norwegian People’s Aid and the Rembo Association have used Croatian celebrities in their play “Bomb and Friends Against Mines,” to educate young children about ERW. In 2005, NPA, CMVA and the Rembo Association organized 16 more shows in elementary schools, which were widely published through mass-media coverage; over 2,000 children and 20 teac hers were reached.

Conclusion

Croatia has made significant gains in mine action. With such CROMAC projects as the Geo Information Project database and the Scan Center, Croatia is developing and using technology to identify MSAs at a rate never before seen. Several factors depend on 100-percent removal becoming a reality, but CROMAC is optimistic that with this amount of MSA cleared over the past 4 years, Croatia is on its way to becoming completely mine-free.

Georgia

by Jina Kim [Mine Action Information Center]

Since Georgia claimed independence from the Soviet Union in 1991, the number of landmine accidents has increased. One of the prominent targets for demining was the demilitarized zone (DMZ) that stretched 322 kilometers (200 miles) along the border between Georgia and Abkhazia. In 2002, Croatian Red Cross, the International Committee of the Red Cross, the Rembo Association, and many others. As of February 2006, the NPA has cleared over 1880 square kilometers, of which 788 square kilometers (30 square miles) were released through surveys. These efforts focused on a de-mining of 25 square kilometers (10 square miles) in the area of the Southern Ray. The CRC and CROMAC also visit schools and inform children and their parents that it is a good project to completely mine-free. See Endnote, Page

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Georgia

by Jina Kim [Mine Action Information Center]

Since Georgia claimed independence from the Soviet Union in 1991, the number of landmine accidents has increased. One of the prominent targets for demining was the demilitarized zone (DMZ) that stretched 322 kilometers (200 miles) along the border between Georgia and Abkhazia. In 2002, Croatian Red Cross, the International Committee of the Red Cross, the Rembo Association, and many others. As of February 2006, the NPA has cleared over 1880 square kilometers, of which 788 square kilometers (30 square miles) were released through surveys. These efforts focused on a de-mining of 25 square kilometers (10 square miles) in the area of the Southern Ray. The CRC and CROMAC also visit schools and inform children and their parents that it is a good project to completely mine-free. See Endnote, Page

Conclusion

Croatia has made significant gains in mine action. With such CROMAC projects as the Geo Information Project database and the Scan Center, Croatia is developing and using technology to identify MSAs at a rate never before seen. Several factors depend on 100-percent removal becoming a reality, but CROMAC is optimistic that with this amount of MSA cleared over the past 4 years, Croatia is on its way to becoming completely mine-free.
T he State Union of Serbia and Montenegro has faced many political and social difficulties since the dissolution of the Socialist Federal Republic of Yugoslavia. On 18 September 2003, the then-unified coun-
try of Serbia and Montenegro acceded to the Convention on Certain Conventional Weapons, becoming a State Party on 1 March 2004. In June 2006, Montenegro declared independence from Serbia. Both Montenegro and Serbia are subsequent accedes to the Convention as a separate country; Serbia remained bound by the original agreement. Both Serbia and Montenegro are subject to the Convention on Certain Conventional Weapons, having assumed the obligation of the States parties to comply with the international agreements. It was established by the government of Montenegro in 2002 and organized by its Ministry of Internal Affairs. It is recognized as a public institution and yet works independently to achieve the tasks set forth by the government of the Republic of Montenegro.

The Office of the Kosovo Protection Corps Coordinator, under the authority of the Special Representative of the United Nations Secretary-General, handles all mine action and explosive ordnance disposal in the province of Kosovo. As the status of Kosovo is still being decided, there is no current mine-
action organization run by Kosovo citizens; however, the Explosive Ordnance Disposal Management Section of OKPC, which is part of the KRCU, enjoys autonomy and is yet to achieve general recognition. As of March 2003, the RCU was established so as to provide assistance for the implementation of the Roadmap. In 2004, the RCU was able to clear 178,000 square meters of minefields, 5,373 anti-personnel mines, 54,744 explosive remnants of war, and 10,943 injuries from mines and UXO from 1965 to 2003.

The Road to Clearance

Although landmine clearance has been completed, UXO still pose a threat to the southern region of the country, and the Directorate continued to carry out its functions and print journalism at James Madison University.

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Russia and Montenegro by Matthew Voegel [Mine Action Information Center]
Editor's Note: Some organizations consider mines and ERW to be two separate categories, since they are regulated by different legal documents or because the latter is not officially recognized. However, since mines are explosive devices that have similar effects to other ERW and it is often impossible to separate the two during clearance operations, some in the community have adopted a "working definition" (as opposed to legal use) of ERW in which a landmine is considered to be an unexploded ordnance (UXO), landmines and explosive remnants of other explosive devices.

The Total Risk of ERW as a Threat to Civilians, Nema [from page 10]

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The Role of ERW as a Threat to Civilians, Nema [from page 10]

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The Total Area of ERW at Risk, Nema [from page 10]

The 1980 Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Employed in Armed Conflict, also known as the Geneva Protocol on Conventional Weapons in Respect of Gas, Bacteriological (Biological) and Nuclear Weapons, which came into force on 29 January 1983, has been described as the "world's first disarmament treaty to ban the production and use of a specific category of weapon."

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“Press Conference by Humanitarian Relief Coordinator.”

“Lebanon Update.”

“The Emergency Situation in Lebanon.” Office for the Coordination of Humanitarian Affairs.


7. The 25 percent reduction was over the previous system we used. We have weekly reports covering a four-month period which include the steaming times for the various sized projectiles; however the data is not yet complete for all of the mines.

8. For example, many mines found in Bosnia today in ground where there is regular frost are not functional.

9. When mines are placed on the surface,例如, they can be removed by a mechanical means.

10. Cluster munitions are explosive ordnance designed to release many submunitions upon detonation. Submunitions are spherical payloads that contain metal fragments, or “pins,” that can travel up to 1,000 meters. About one-third of the aerial-delivered explosive ordnance used in Afghanistan during Operation Enduring Freedom is now estimated to be cluster munitions.

11. Cluster munitions are designed to achieve their effects by releasing submunitions in large numbers in the “no man’s land” between armies. To be effective, both armies must know there are no easy avenues of escape between them.

12. “ 34-day war” in Lebanon and northern Israel, occurring from July 12 to August 14, 2006.

13. Israeli government vs. Hezbollah (Lebanon-based Islamic militant group).

14. E N D N O T E S

Fact Sheet: Recent Use of Cluster Bombs in Lebanon

Background

In what is being referred to as the “34-day war” in Lebanon and northern Israel, occurring from July 12 to August 14, 2006, the Israeli government vs. Hezbollah (Lebanon-based Islamic militant group). E N D N O T E S

How cluster munitions work

Small bomblets called submunitions (submunitions) are designed to be exploded, mina and kill as they scatter across a target area from the air and hit the ground.

Cluster munitions come in many forms and can be used by many different countries, but those which are accused by Amended Protocol III (incorporating a non-weaponary purposes. Protocol V came into force November 2006.

Cluster munitions and their effects in Lebanon

Most of the submunitions were dropped in final 72 hours of conflict “when we knew there would be an end” (source: Jim Eganland, U.N. Under-Secretary-General for Mine Action, personal communication). If the future of use in Humanitarian Mine Action (HMA) 5.1.2. http://snipurl.com/10t8v. Accessed 30 October 2006.

Cluster munitions are explosive ordnance designed to release many submunitions upon detonation. Submunitions are spherical payloads that contain metal fragments, or “pins,” that can travel up to 1,000 meters. About one-third of the aerial-delivered explosive ordnance used in Afghanistan during Operation Enduring Freedom is now estimated to be cluster munitions.

Clearance of unexploded ordnance and submunitions is estimated by the UNAMCC-5 to take anywhere between 12 and 15 months.

Action against cluster munitions and what’s happening since August 14, 2006

Convention on Cluster Munitions (CCW), Protocol V international law regarding post-conflict clean-up of unexploded ordnament and abandoned explosive ordnance (cluster munitions, cluster munitions are weapons of war after the recent conflict in Lebanon.

Cluster munitions come in many forms and can be used by many different countries, but those which are accused by Amended Protocol III (incorporating a non-weaponary purposes. Protocol V came into force November 2006.

Discussions continue on further steps to take in order to restrict use of cluster munitions and decrease fatalities (dead /tured). Third CCW Review Conference was held November 7–17, 2006, and during that time efforts were made to address cluster munitions and the threat unexploded submunitions hold for civilians. The conference failed to reach a deal to restrict the use of cluster munitions, instead agreeing only to keep talking about the issue.

After failing to reach an agreement within the framework of the CCWM, civil society actors and countries (by far the largest group) have called for a new international instrument separate from the CCW that would control or ban cluster munitions.

Two U.S. senators, Dianne Feinstein (D-CA) and Patrick Leahy (D-VT), voted to stop U.S. production of cluster bombs, but the measure was defeated on Senate floor by a 48-52 vote. United Nations

No United Nations High Commissioner for Refugees. The difference between one and two million submunitions is not significant, as both are potentially significant.

Conferences take up by many individuals and organizations including the Lebanese Army, United Nations Interim Force in Lebanon, and groups contracted under the United Nations Mine Action Service: MAG, Swedish Rescue Services Agency and BMETC.

UNICAP is supporting the National Stockpile to implement mine risk education.

Along with many other ideas, USAID humanitarian assistance to Lebanon is being provided. http://www.unamcc.org/areas/africa/mideast.html. For an overview of cluster munitions and their use in Iraq, go to http://tmpal.org/10Bars5

Interactive, day-by-day map of 54-day war available at http://www.ipv.com/164


For an overview of cluster munitions and their use in Lebanon, go to http://tmpal.org/10Bars5

Interactive, day-by-day map of 54-day war available at http://www.ipv.com/164

The editorial staff of the Journal of Mine Action goes to great effort to make sure that what is printed in our magazine is accurate, properly documented and unbiased. However, in Issue 10.1, we expanded a short caption to fit the story and we should not have done so. In the editorial, "An Alternative Perspective on Landmines and Vulnerable Populations" by Dr. Shelby Weitzel, the caption of the photo, which was used with ICRC’s permission, was modified without ICRC’s permission to state: “Minefields can be used to create barriers to defend vulnerable populations.” The original caption accompanying this photo reads “Champs de mines,” and means “minefields” in English. We also failed to properly credit the photo used on the cover of Issue 10.1. The photo was provided by Vinicus Souza and Maria Eugênia Sá. The proper URL should be https://snipurl.com/15lqm.

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On page 54 of issue 10.1, we gave an incorrect URL for additional references pertaining to the article by Daniele Ressler. The proper URL should be http://snipurl.com/15lqm.