

# How NGOs Can Build Peace: Landmine Clearance and Victim Assistance

Peacebuilding and post-conflict reconstruction are multi-disciplinary from a governance, organizational behavior, executive development and field perspective. Rarely, though, are the tools of competitive advantage, project planning and conflict resolution software used to seek linkages with non-governmental organizations (NGOs) to coordinate resources, particularly to integrate the disparate sectors of landmine and UXO clearance, victim assistance and resourcing across industries. One method is to employ “best practices” from developed countries proven to develop abilities for disabled farmers and youth in post-conflict countries as one of a number of agrarian and health care initiatives built around demining as agricultural preparation. The goal is for NGOs and government departments to change the rules of competition between post-conflict communities by shifting organizational behavior to reflect quality of care as a measure of gaining donor support.

by Maureen Morton

## Introduction

Demining and the clearance of UXO are necessary, extremely dangerous and technically complicated jobs that require cross-functional skills. In a post-conflict situation, many of the most skilled have either fled the community or lost their lives. NGOs who are “first-in” deal with crisis management and life-or-death community stabilization. These organizations generally should have a long-term mandate to reconstruct communities, which requires detailed planning with different interest groups and donors.

There are many national and international organizations that play a role in addressing the problems of landmine survivors; a Mine Action Center (MAC) should involve the relevant organizations. Included in this group are organizations of survivors. Such consumer organizations are important targets of education, information and training, particularly in the areas of self-help, maintenance of devices and the need for accommodations, supports and follow-up care. Because so many landmine victims are children, special attention must be directed towards the needs of those who are growing and developing, and for whom most prostheses or orthoses will have a limited period of utility.<sup>1</sup>

Longer-term planning requires industrial engineering, operations research, management information systems, logistics, manufacturing, human factors, engineering and operations management. Project tasks, both outside and inside a country, need university/industry collaboration. NGOs determine resident skill-sets and academic and technical qualifications, as well as engage industries and associations to support landmine and UXO clearance activities, mine-clearance awareness and victim assistance. Support infrastructure must be built with and by the communities.<sup>2</sup>

## A Firm Infrastructure

NGOs specializing in mine and UXO clearance must interface with other types of NGOs: medical, advocacy, technical, academic, societal, institutional and religious—all of whom must collaborate with government departments and militaries. Sadly, programs that do the physical demining and true victim assistance are seriously under-funded worldwide. Although expectations have been raised, the demand cannot be satisfied. To reduce post-conflict problems, financial backing and a sense of urgency are needed to clear land and provide occupational programs to allow both amputees and able-bodied individuals to

return to their work and farms.

A conceptual industry shift may be taking place from advocacy/military/humanitarian demining to “demining as agricultural preparation.” This is happening as individuals from academia and demining NGOs seek the expertise of soil scientists, agrologists and those who specialize in occupational therapy in disabled farming. Every post-conflict country and community is facing environmental and rural reconstruction issues. The task for an NGO is to search for the linkages and common denominators, as well as network these disparate groups of individuals to build a consensus across interest groups at home. These vertical linkages are similar to the linkages within the value chain—the way supplier or channel activities are performed affects the cost or performance of a firm’s activities (and vice versa).<sup>3</sup> In essence, we must cultivate communities of practice.

Ideas have been presented to deminers from a governance perspective to circumvent military technical sensitivities pertaining to demining and UXO remediation. Once clearance work can be seen as agricultural preparation, it perceptually opens up new opportunities for victim assistance. It especially creates program possibilities for disabled farmers in developed countries to help their counterparts, disabled farmers and disabled deminers in landmine communities. The similarity of occupational and farm injuries such as upper or lower extremity amputations and especially double or triple amputations, requires the knowledge and coping skills of those who have lived the reality. The poorest of deminers, if they survive an explosion, have to face life severely disabled. The status of the disabled in society is one of exclusion and alienation, which leads to a perception of the disabled as “less than human.”<sup>4</sup>

Only those rehabilitation programs that solve attitudinal problems by developing and proving ability in the newly

disabled population should be chosen for this growing sector of post-conflict reality. Paths exist to counteract violent anger and frustration by sharing coping skills. Individual agrarian occupational expertise is not a skill easily transferred.

Can peace building be achieved through agrarian occupational best practices after an individual survives a mine or UXO injury? Self-directed employment for the disabled is always the goal for allied health professionals and the community and family of those who have been injured. Other disabled farmers working through university farm-extension services may share the same language, type of farming or the same disabilities. Can one learn from the another's experience of adapting his or her farming lifestyle? One university farm-extension department specializing in fruit crops includes research and education. Faculty have research projects in plant propagation, viticulture, enology (wines), pathology, entomology, pomology, virilgy and bio-engineering.<sup>5</sup> Would this also carry with it best practices in irrigation or agro-forestry? In poor post-conflict communities, where traumatic injuries mean a life of begging, this type of resilience is unheard of, but help is available to employ skills and train others.

A recent e-mail on MgM, the Deminer's Network, detailed a partnership that has developed through the State Department's Bureau of Political-Military Affairs, Office of Mine Action Initiatives and Partnerships (PM/MAIP). Twenty-five U.S. Army Special Operations personnel drawn from Special Forces, Psychological Operations and Civil Affairs units—all graduates of the U.S. Department of Defense's Humanitarian Demining Training Center—have joined five military Explosive Ordnance Disposal (EOD) specialists in Azerbaijan's Fizuli region to train local humanitarian deminers and heighten popular awareness of the risks posed by landmines. Concurrently, the U.S. Department of State, the Humpty Dumpty Institute and the New York Wine and Grape Foundation have launched the "Mine Action Partnership" to clear the Fizuli region's mine-infested vineyards and help restore its war-ravaged economy.<sup>6</sup>

Since the demining and victim assistance effort overlaps every discipline,

NGOs have wide-ranging access to research markets and resources in order to accomplish goals. A firm can pursue a broader scope internally or enter into coalitions with independent firms to achieve some or all of the same benefits that a broader scope would provide. Coalitions are long-term agreements among firms that go beyond normal market transactions but fall short of outright mergers. Examples of coalitions include technology licenses, supply agreements, marketing agreements and joint ventures. Coalitions can allow sharing of activities without the need to enter new industry segments, geographic areas, or related industries. Coalitions are also a means of gaining cost or differentiation advantages of vertical linkages without actual integration, but overcoming the difficulties of coordination among purely independent firms.<sup>7</sup>

Coalitions may alleviate the problem of donor fund coordination, particularly where communities strive to show a higher percentage of need, fueling further competition. At the core, this is an organizational behavior problem requiring a complete shift in the rules of competition to change a disadvantage into an advantage. One method would be to rank each community on quality of service comparisons of patient care between hospitals. Holy Cross, a Chicago inner city hospital, improved its ranking against 495 hospitals moving from the negative fifth percentile to the upper fifth in one year.

If such a concept were presented to Health Ministries and to donors, could the rules of competition be changed to shift organizational behavior to quality of care comparisons as a measure of gaining donor support? The goal is to alleviate short term chaos to prevent turf battles from continuing 20 years into the future. If this change occurs, jobs may be created in landmine affected countries. By searching for best practice solutions, we add to the goal of peacebuilding and reconstruction. Demining is the larger objective. It changes the dynamic of a country by accomplishing goals: employment, asset recovery, organizational and institution building. This is in essence an exit strategy.

The baton should be passed to and trust developed with individuals and

populations who have experienced war.

### A Field Perspective

In demining and UXO remediation, every type of geographic, soil and infrastructure contamination is found at varying depths. As a community transitions from war to peace, land clearance also shifts from military breaching to humanitarian demining. In some cases with plastic mines, the search is for parts-per-billion explosive ions. Ordnance can be found in schoolyards, in trees, in and around homes, factories, around bridges, hydroelectric towers, irrigation ditches/culverts, waterways, roads and well-used paths. Vegetation covering the explosives can vary from golf-course smooth (Category A) to impenetrable, jungle-like conditions that cannot be effectively reduced. Funding restrictions may limit clearance activities to narrow safe paths reducing freedom of safe movement within a community and access to a water supply that graphically resembles the acid etching of a circuit board.

Best practices documentation may save development dollars for actual demining and offer a better quality infrastructure in post-conflict communities. The "Use of Range Clearance Re-Use Methodologies" provides engineering infrastructure development completed stateside through the U.S. Department of Commerce Re-Use Authority Economic Development Administration (EDA) Grant Program [Capital Improvement Projects]. Many post-conflict countries could also benefit from legislation such as the Ontario Disability Act. Available in both English and French, it provides detailed policy planning information that would be helpful to a country wishing to anticipate and eliminate its rehabilitation infrastructure reconstruction problems at the design and planning stages. "The purpose of this Act is to improve opportunities for persons with disabilities and to provide for their involvement in the identification, removal and prevention of barriers to their full participation in the life of the province."<sup>8</sup>

Other important mine action topic areas would include planning, impact assessments, trade-offs, exit plans and partnerships with university farm

extensions and allied health faculties in conjunction with Departments of Agriculture, Education and Health. Irrigation should be addressed and crops should be planted with trees that grow quickly, improve the fertility of the soil, and provide fodder to animals, firewood, wood for construction and protection from wind and erosion.

New, creative funding avenues must be secured; innovative funding implies proposal development that educates and demonstrates market opportunities or links at the executive development level. Opportunities are a progression of tasks each bundled into a complex negotiation of concerns and issues. Each individual task has costs that are both qualitative and quantitative.

While NGOs should continue their traditional relief and rehabilitation activities, they must adopt a more long-term perspective on their activities. Pamela Aall, in "Nongovernmental Organization and Peacemaking," *Managing Global Chaos*, suggests that the initial emergency relief response should be linked to a set of activities that leads to the transformation of those conflicts in a way that promotes sustained and comprehensive reconciliation among warring parties. Many NGOs act at the middle and grassroots levels of society, and are so well-placed to develop such links and transformative activities.

In providing relief and rehabilitation, NGOs should seek to draw on local resources. Developing local resources empowers people. Excessive use of external resources can foster dependence and passivity. External resources can also become a new object of contention, inadvertently fueling the conflict. NGOs should also seek to draw new participants into their activities. Women, who have often been overlooked in peace processes, have recently played key roles in reestablishing communication and economic ties between fighting groups in Somalia. One way to make the peace process more effective is to shift more towards a preventative approach to conflict. Local and grassroots-oriented NGOs are uniquely positioned to recognize the early signs of conflict and deteriorating social conditions. In many cases, the international community has had early warning of a potential conflict but has lacked the political will to act.

Here, NGOs might also act as advocates for early intervention.<sup>9</sup>

Through consultation and gathering of competitive intelligence from public sources, issues and tasks can be documented into project software. Filters can be built that reflect organizational, tactical and strategic activities of both donors and interest groups. This market research provides the links to bridge specific technical problems solved by industries, their associations and academia in developed countries to create their counterparts in landmine communities.

Linkages can lead to competitive advantage in two ways: optimization and coordination. They imply that a firm's cost or differentiation is not merely the result of efforts to reduce costs or improve performance in each value activity individually. More subtle linkages are those between primary activities. For example, enhanced inspection of incoming parts may reduce quality assurance costs later in the production process, while better maintenance often reduces the downtime of a machine. Linkages that involve activities in different categories or of different types are often the most difficult to recognize.<sup>10</sup>

### Maximize the Minimum Gain

While studying for his doctorate in engineering at Cornell University, Ernest Thiessen was working on a challenge given to him by his major adviser, Professor D. Pete Loucks.<sup>11</sup> He needed a rule for fairly distributing benefits when generating an optimal solution relative to an existing tentative agreement among any number of negotiators. The mathematical framework for Thiessen's solution was inspired also by Howard Raiffa's writings. Since Thiessen's goal was to develop a computer program to demonstrate the results of his research, an important criterion was that the methods would perform well in practical implementation. Thiessen came up with a rule called "maximize the minimum gain," which proved to be very effective using proven mixed-integer linear optimization techniques. Descriptions of these algorithms were first published in 1992.

As with Nash's, Thiessen's method of

generating optimal solutions also required rationality and well-represented preferences. Where Nash and Thiessen part ways is the requirement of parties to fully know each other's preferences. Realizing that real-world negotiators would not cooperate in that way, Thiessen specified a secure neutral site to fulfill the knowledge requirement. Thiessen's methods are now recognized as a patented invention, currently implemented in the SmartSettle Negotiation Support System.

### Maximize the Utility Product

Over the years, Nash's seemingly simple ideas have led to fundamental changes in economics and political science (Milnor, 1998). Estimates of benefits to business are already in the billions of dollars. This work also has implications for world peace. If superpowers could find a way of cooperating, then this would lead to a reduction in weapons and to cost savings for both sides (Singh, 1998). Unfortunately, Nash's theories stop short of prescribing how to cooperate, which is an even more complicated problem (Milnor, 1998).<sup>12</sup>

We believe a unique opportunity and set of circumstances exist to test cooperation and resourcing to the most disadvantaged communities to dovetail demining, cooperation between NGOs and governments through negotiation for development using the administrative tools of "industry value chain competitive advantage," project planning and SmartSettle Negotiation Support System.

For example, up until now in Afghanistan, "the talk of reconstruction has ignored the restoration of the natural resource systems, [which is] so crucial to Afghanistan's economy. Rural recovery cannot be discussed without [the] parallel discussion of critical natural resource issues. Environmental issues should form a part of the package being considered by governments for the rehabilitation of Afghanistan." The major environmental challenge facing Afghanistan is the impact of the return of refugees on already stressed water and forest resources. When the refugees return to rural areas, the carrying capacity of the land will depend not only

on food and fuel supplies, but more broadly on success in rehabilitating agricultural systems—particularly irrigation systems—including seeds and fertilizers.<sup>13</sup>

Desperate farmers run to their lands with the smell of rain, only to be blown to pieces by anti-personnel mines. Around 10 million landmines dot Afghanistan—45,000 landmines every 25 square kilometers—making it the world's most densely mined area, according to UN Secretary General Kofi Annan. And this is a major deterrent for the revival of agriculture and animal husbandry, which account for 95 percent of the population's livelihood.<sup>14</sup>

If the peacebuilding communication tool used between communities is the need for mobile clinics and equipment to stock them, then opportunities for collaboration between disputing communities may open up. Initially, each country could be approached to cover the cost of one vehicle, whether the country is a signatory to the Treaty or not. This should be attainable. A fleet of 190 vehicles would test the potential applications of surgical theatres, prosthetics workshops, physiotherapy, occupational and psychological therapies, home care and job training. In developed countries, many prototypes exist: surgical theatres (airborne), prosthetics workshops (Terry Fox mobile), Red Cross Blood mobile and CAT, MRI and PET scanning.

Each clinic could make "milk runs," offering a monthly rotation of services determined by greatest need. As communities can afford to build their own infrastructure of medical buildings and staff, services can be re-routed. Where simple community health care facilities exist, the design dimensions of the loading dock of both building and vehicle could align to allow for expansion to duplicate adjacent rooms to optimize the clinical flow of patient services.

Industries and their professionals can help by applying answers to problems already solved in developed countries and sponsoring faculties and associations in line with their expertise. Farming and demining injuries are not limited to amputation, but also extend to burns, hearing loss, vertigo, visual, sensory and communication impairment, and head and neck injuries.

In poor countries, technical

difficulties within business decision support structures (e.g., trade associations and ministries) inhibit resourcing across and through industry value chains. The same resourcing and staffing deficiencies exist across population health, agriculture and job-related rehabilitation. It is often possible to benefit both the firm and suppliers by influencing the configuration of suppliers' value chains to jointly optimize the performance of activities, or by improving coordination between a firm's and supplier's chains. Supplier linkages mean that the relationship is not a zero sum game in which one gains at the expense of the other, but a relationship in which both can gain.<sup>15</sup>

So many micro-enterprise opportunities exist for both the able-bodied and disabled: welding, machining, tool and die, manufacturing and mechanical. These skill sets are also required in a revised or revitalized economy. Ideally, training at the college and university level is needed to ensure competency and the ability to "train the trainers." The trainer can then accomplish support for less technical capacity jobs and community-sustaining contracts to ensure the long-term personnel development of the community.

Care Canada's Tools for Development, an excellent example, has a simple but powerful premise: Make secondhand equipment (band saws, lathes and sewing machines) available to poor entrepreneurs at an affordable price. There are no handouts. The entrepreneur pays for the tools either on credit or with interest rates slightly lower than the banks offer. Founder Roy Megarry has bigger ideas as well. He would like to tap U.S. corporations for tools. And he makes it clear again: "this is not a charity. We're fostering entrepreneurship."<sup>16</sup>

There are good times and bad times for intervening in a country's affairs. We contend that immediate post-conflict intervention provides the appropriate moment of greatest opportunity through chaos for the international community to become involved. There are very few disciplines that are not touched on in this "cross-functional" industry of demining and victim assistance. Most think of the logistics of the mechanics of demining, few think of the human resource, legal, soil science, agriculture,

agro-forestry, information technology, export and import, and shipping issues. The list is truly endless. ■

### Endnotes

1. "Notice of a Final Funding Priority for Fiscal Years 1998-99 for a Rehabilitation Engineering Research Center," *Federal Register*, 24 Mar. 1998, Vol.63, No.56, p.14252
2. An excellent example is Care International's "Tools for Development" program. Staffing and resourcing deficiencies exist across every discipline, especially allied and population health, agriculture and job-related rehabilitation.
3. Michael E. Porter, *Competitive Advantage, Creating and Sustaining Superior Performance*, p.50
4. Hugh Scher, Lyn Smith, "Attitudinal barriers faced by the disabled mean exclusion, marginalization and devaluation," *Action Life News*, Mar. 2000, p.5
5. E-discussion with farm extension service supervisor of the fruit stations field crew.
6. *Three-Pronged Attack on Azerbaijan's Landmine Legacy*, U.S. Department of State, MgM Demining Network, 8 Jul. 2002
7. Michael E. Porter, *Competitive Advantage, Creating and Sustaining Superior Performance*, p.57
8. [http://www.odacommittee.net/docs/oda2001\\_english.doc](http://www.odacommittee.net/docs/oda2001_english.doc) [http://www.odacommittee.net/docs/oda2001\\_french.doc](http://www.odacommittee.net/docs/oda2001_french.doc)
9. Pamela Aall, "Nongovernmental Organizations and Peacemaking," *Managing Global Chaos*, pp.443-444, 439 Summary by Tanya Glasser
10. Michael E. Porter, *Competitive Advantage, Creating and Sustaining Superior Performance*, pp.48-49
11. <http://www.smartsettle.com/more/content.php?thiessen.html>
12. <http://www.smartsettle.com/more/content.php?mind.html>
13. Richard Mahapatra, Kathmandu, Marinella Correggia, Kabul, Animesh Roul, Delhi, "Back to Beginning," *Down to Earth Magazine* 31 May 2002, p.34
14. Richard Mahapatra, Kathmandu, Marinella Correggia, Kabul, Animesh Roul, Delhi, "Back to Beginning," *Down to Earth Magazine* 31 May 2002, p.27
15. Michael E. Porter, *Competitive Advantage, Creating and Sustaining Superior Performance*, p.51
16. Kerry A. Dolan, "Capitalist Manifesto," *Forbes*, 27 May, 2002, p.90-92. Care Canada Tools for Development 1-800-567-6271

### Contact Information

Maureen Morton  
Project Assistance  
290 Gloucester Street, Suite 1A  
Ottawa, Ontario, Canada K1R 5E4  
Phone: 1-613-233-5334  
E-mail: [legs4amps@sympatico.ca](mailto:legs4amps@sympatico.ca)