

Building Sustainable Local Capacities for the Assistance of Landmine Victims in Southern Africa: A Concept from the Minefields of the Zambezi Basin Escarpment

After various intense conflicts in the region, southern Africa is plagued by landmines and UXO. The author describes the concept and implementation of Minefield Reaction Sticks to help alleviate the problem.

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Landmine Burden in Southern Africa—Situation Analysis

Over the past three to four decades, theatres of war and bitter conflict involving various militant parties across southern Africa have left the region's soils home to millions of mines and UXO. Exact per-country landmine contamination figures are difficult to obtain, but useful gross citations are available that help define the regional landmine victims problem. At the June 2002 Luanda Landmines Conference, heads of the region's Mine Action Centres (MACs) estimated that southern Africa's soils still harbor in excess of 20 million mines and that at an approximate cost of \$195 million (U.S.) obtained through a 20-arm donor conduit, it took 35 demining operators some five to six years (1995–2001) to remove close to 600,000 landmines from the region's soils. Extrapolating the mathematics shows that at the current pace of mine clearance, it will take over 200 years and a cost exceeding \$5.9 billion to clear

the currently known minefields of southern Africa. Thus, the landmine victim register of southern Africa shall continue to admit new entries for the next *two centuries!*

Landmines have affected communities of southern Africa in various ways. The death of 116 people and injury of 56 others when a truck struck a mine on 16 August 2001 in Cuanza Norte province (Angola) and the instant killing of eight children who were collecting scrap metal to sell on 5 December 1995 in a village in Maputo (Mozambique) are only two of the thousands of such incidents that communities who live trapped in areas littered with landmines have to endure in southern Africa. The Southern African Development Community (SADC) Trade, Industry and Investment Review 2001 notes that before the outbreak of its civil war, Angola was the fourth largest producer of coffee with an annual output of 200,000 tonnes and that recovery in the agricultural sector will be possible once peace is secured and a mine clearance programme is successfully carried out. In numerous mined pockets of southern Africa, such as the upper reaches of Carbora Bassa Dam in

Mozambique, access to roads, agricultural land, safe drinking water, public health outreach programmes (such as HIV/AIDS awareness campaigns and malaria/cholera control) and land for collecting and gathering firewood has been hampered by the presence of minefields.

A mushroom of parties has done sterling work to improve the plight of mine victims in southern Africa at both individual and community levels, which includes assisting states in landmine clearance programmes. This pool includes the European Union (EU), United Nations Agencies and non-governmental organizations (NGOs) such as Handicap International, POWER, the International Committee of the Red Cross (ICRC), Mines Advisory Group (MAG), People Against Landmines (MgM), the Vietnam Veterans of America Foundation (VVA), the Jaipur Limb Campaign, HALO Trust, Norwegian Peoples Aid (NPA) and the Jesuit Refugee Service. They, among others, have worked in cooperation with national governments in establishing prosthetic centres and victims' rehabilitation programmes such as the Vienna in Luanda, Angola.

The June 2002 Luanda Landmines Conference Committee on Mine Victim Assistance reported that the process of formulating and implementing mine victim assistance programmes in southern Africa has been slow and poorly coordinated due to:

- Inadequate documentation of the scale of the landmine victim problem.

- Unavailability of the high capital and technical resources that are required for the execution of mine victim assistance projects. (For example, limited national health budgets and ever-competing priorities are made worse by the HIV/AIDS pandemic and mine victims end up stuck in the general pool of persons with disabilities competing for the limited resources with the rest of the population.)

- Legislation protecting the rights of landmine victims that is already in place in mine-affected countries in the region and donor organizations calling for more sharing of the project costs with national governments as provided for in Article 6 of the Mine Ban Treaty.

- The need for greater financial accountability in the running of mine victim assistance projects to avoid interruption of the same due to diminished donor confidence.

Evolution of a Landmine Victim Assistance Concept from the Minefields of the Zambezi Basin Escarpment

During the course of an EU-funded mine clearance project by a commercial demining company (Koch Mine Safe) in northeast Zimbabwe (1999–2000), a total of 41 landmine trauma victims were successfully evacuated for surgery by the demining company's medical crew. Nine of the victims were from the local communities who resided in villages situated along a 167 km x 50 km (8,350 sq km) belt, and the remainder was from the demining personnel ranks. Issue 6.1 of the *Journal of Mine Action* (Winter 2002) reports of one such mine accident in which supervisor John Kirby assisted in the evacuation of an 81-year-old man who had sustained traumatic amputation of the right foot after stepping on a mine. The other eight are:

- A 9-year-old boy who threw a stone at an R2M2 mine and sustained serious facial, chest and abdominal burns with total loss of vision.

- A 61-year-old man who sustained

gross right foot cellulitis following partial detonation of an R2M2.

- Three young boys who sustained second degree burns of 30–40 percent to their legs, abdomen, perineum and chest regions following multiple detonation of their 22-mine harvest behind a mechanical clearance device.

- An old woman who had ipsilateral left hand traumatic amputation and severe facial injuries with total loss of vision after she hit a mine with a hoe in the fields.

- A 20-year-old young man who sustained traumatic amputation of the left foot, having stepped on a mine while looking for his cattle, and his friend who had superficial burns and lacerations.

The medical crew was alerted of the above mine accidents by runners dispatched from the community. The mean evacuation time (from accident report time to surgery) for the nine cases was 2.5 hours. Definitive surgery for all the nine cases was successfully done at Karanda Hospital, which is 90 km away from the minefields. The total cost of the medical equipment that was used in evacuating all the patients was \$700. All nine victims are still alive with varying residual anatomical and psychological incapacitation.

From the experiences of the medical crew, the following lessons were learnt:

- Members of the communities who live close to minefields are very keen on assisting victims when a mine accident occurs.

- The work of the medical crew was made quicker and safer by the support provided by the deminers in clearing access routes to the blast victims. This reduced delay in evacuation and prompted early surgery, thereby increasing the chances of victim survival.

The Concept

Based largely on the experiences gained from the project above, a concept for the building of local capacities aimed at reducing mine accidents and assisting landmine victims in the region has been developed by the Southern Africa Demining Services Agency (SADSA). SADSA recognizes the ongoing consoli-

dation of peace currently taking place in the region. A ceasefire has just been signed in Angola, brightening the chances of durable peace while efforts are underway to resolve the conflict in the Democratic Republic of the Congo. Among the very useful resources that the new era of peace will realize are the armed forces of the respective states. Certain skills within these forces could be reassigned to programmes aimed at improving the situations of mine-affected communities and thus augment the efforts of commercial deminers and donor organizations.

Establishment of Minefield Reaction Sticks

SADSA calls for the creation of permanent, inexpensive, locally sustainable strategic minefield reaction sticks (MRSs) to be deployed in the mine-infested areas of the region. These reaction sticks would be from and maintained by the armies of the affected countries as part of the forces' assistance to the civil community. The proposed functions of MRS include:

- Carrying out a mine victim census within the area of responsibility, documenting accurate identification of survivors by name, national, age, sex and physical local location, when and where the victims were injured, the type of medication received, survivors' pre- and post-occupational status, victims' self-assessment, community views towards victims and their prosthetic needs.

- Identifying what vocational skills are available and how survivors can participate in self-help projects such as carpentry, small animal husbandry and nutritional gardens.

- Conducting periodic mine awareness programmes.

- Placing danger-warning signs in areas reported as suspect by the villagers and destroying reported mines/UXO.

- Assisting in rendering first aid and evacuation for surgery of reported landmine victims.

- Through MACs, the reaction sticks would invite their respective countries' relevant government departments to slot in their community outreach programmes within the MRS schedules. (For instance,

the Ministry of Health officials could conduct public health campaigns such as malaria control and HIV/AIDS awareness while agriculture extension workers impart knowledge on environment protection and land use.)

- Compiling monthly reports on all activities conducted by the MRS submitted to the MAC of the respective country on standard report sheets.

Organization of the MRS

Manning

- Three military engineering soldiers with experience in taking care of mines/UXO

- One paramedic from the military
- Helpers provided by the local communities

Projected Setup Costs of MRS

Security Devices Harare, a leading manufacturer of demining equipment, estimates that procurement of items 1–6 of the MRS Assets Guide costs approximately \$30,000. The following methods could be used to calculate the total number of sticks required per country and project total setting-up costs.

The medical crew mentioned above assisted landmine victims spread over a surface area of 8,350 sq km. Angola and Mozambique are mined in all their provinces and districts, and reaction sticks would be spread across their mainland. The surface area for Angola is 1,247,000 sq km and for Mozambique is 799,380 sq km. Communities living close to minefields in Zimbabwe reside along an approximate 25,000 sq km belt.

Factoring in 8,350 sq km as area

MRS Assets—A Guide

Item	Remarks
1. 4 x 4 vehicle	For use by MRS for reacting to call outs as emergency evacuation, transport for conducting MACs.
2. High-frequency radio, Global Positional System	Communication to be compatible with in-country MAC.
3. Ridge tent, three pavilion tents	Accommodation and office use.
4. Demolition box	One detector, one set of personal protective equipment and a visor, prod, trowel, demo cable, exploder.
5. Mine awareness stores	Dummy mines, posters, danger warnings signs, demarcation tape.
6. Medical stores	Stretchers, bandages, emergency trolleys.

Table 10 the author.

cover for a single MRS, Angola would require 149, Mozambique 95 and Zimbabwe 3. The requirements for Namibia, Zambia, Malawi, Tanzania and Swaziland could be derived using the same method.

It therefore requires 972 soldiers and a cost of \$7.4 million to set up vital inexpensive locally-sustainable capacities to reduce landmine accidents and to assist victims of the mine scourge in southern Africa.

Towards Implementation of the MRS Concept

In its English and Portuguese versions, the concept has been submitted as a project proposal to and accepted by the SADC Mine Action Committee, which is headed by General Andre Santana Petra of Angola. SADSA invites practitioners in mine victim assistance to come aboard their MRS concept for the decimation of the landmine carnage in southern Africa. ■

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