



Living in a minefield

The mine problem in Afghanistan

Report

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LIVING IN A MINEFIELD

A MSF REPORT ON THE MINE PROBLEM IN AFGHANISTAN
MAY 1997

LOGO
MÉDECINS SANS FRONTIÈRES

MSF Charter

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1. Médecins Sans Frontières provides aid to people in need, to victims of natural and man-made disasters, wars and civil wars, irrespective of race, religion, ideology or politics.
2. Médecins Sans Frontières observes strict neutrality and is completely independent. Based on universally recognised principles of medical ethics and the right to humanitarian aid, Médecins Sans Frontières demands complete freedom in the performance of its task.
3. The members, volunteers and staff of Médecins Sans Frontières observe the medical code of conduct and maintain complete independence from any political, religious or economic power.
4. The members, volunteers and staff of Médecins Sans Frontières decide for themselves whether the risks and dangers of the work are acceptable and do not demand any compensation whatsoever for themselves or claimants aside from that which the organisation can give them.

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Introduction

This report is designed to give an accessible update on the mines situation in Afghanistan in 1997 to diplomats and politicians meeting in Brussels, followed by Oslo and Ottawa to prepare a treaty banning anti-personnel mines. To the many negotiators who have never visited a mined country, the report tries to give a flavor of the continuing effect of millions of mines on people's lives, and to examine the response made by Afghans in 1997.

MSF wishes to add its voice, in the strongest way possible, to the international movement aimed at banning landmines. MSF believes this report underlines the urgent need in Ottawa for an international ban on landmines: the ban must *work on the ground*, and be without loopholes.

The report was compiled by MSF's landmine officer Ian Woodmansey, during time spent in Afghanistan in the months of March and April 1997, and is based on numerous interviews with managers of the Afghan Mine Action Programme, Afghan deminers, mines awareness teachers, doctors, nurses, and personnel from other medical NGOs. Their contribution is warmly acknowledged.

Afghanistan remains a perfect example of the devastation wreaked by landmines. Despite an effective demining programme, and a well developed mines awareness programme, the mines continue to claim civilian victims every day. Over US\$100 million has been contributed to the programme, enough to clear one fifth of the known mined area in the country. The mines situation in Afghanistan is unacceptable: in Ottawa the international community has an opportunity to ensure it does not happen elsewhere.

• Moves to ban landmines in Ottawa

Since the inception of the International Campaign to Ban Landmines in late 1991, NGOs have been engaged in a campaign aimed at educating governments about the effects of landmines on civilians.

In recent years, in response to the Campaign, numerous governments have expressed concern about the indiscriminate effects of anti-personnel mines. Many states have ended the export of anti-personnel mines. However, few countries have been prepared to renounce their own use of these weapons.

Governments are now starting to take the problem of landmines more seriously. After the disappointing conclusion in 1996 of UN talks aimed at restricting the use of anti-personnel mines, the Canadian Government announced a fresh attempt to ban the production, possession, transfer, and use of anti-personnel mines.

With a group of supportive countries, the Canadian approach will draw up a new international treaty banning anti-personnel mines. States will meet in Ottawa, Canada, in December 1997 to sign the new treaty.

MSF's position on mines

As a medical and humanitarian organisation, MSF cannot ignore the problem of mines in Afghanistan and elsewhere. Working closely with Afghans in hospitals and health clinics throughout the country, MSF staff see the daily impact of mines in Afghanistan. MSF clinics regularly provide the first line of emergency treatment to mines victims before referral to surgical hospitals.

To prevent future deaths and injuries from these weapons, MSF supports an international ban on the production, possession, transfer, and use of mines, combined with increased funds to tackle the current needs of demining, mines education, and medical response.

A ban will prevent the mine horrors of Afghanistan happening elsewhere in future. MSF wishes to see a comprehensive ban on mines written into international law at the governmental conference in Ottawa in December 1997. States which claim to prioritise humanitarian concerns must sign up to such a ban.

MSF staff intend be present at the conferences in Brussels, Oslo, and Ottawa to share field experience of the impact of landmines with government negotiators, to present the results of data-gathering in the field, and to demand a ban on mines for humanitarian reasons.

MSF supports the calls of the International Campaign to Ban Landmines:

- A comprehensive ban on the production, possession, transfer and use of anti-personnel mines
- Increased funding for mine-clearance work in Afghanistan and other mine-affected countries
- Increased funding for rehabilitation projects for the victims of mines

The victims of mines in Afghanistan

Mines kill and injure Afghans throughout the country. Scattered or buried beside roads, on mountainsides, in pastureland, on the banks of rivers and irrigation systems, inside houses, and elsewhere, mines still claim victims daily.

In particular, there are many minefields in and around villages, towns, and cities. For example, in 1995, the mines accident rate in and around Kabul city was horrific. The UN Demining Office in Kabul estimates that in 1995 there were 50 mine and UXO accidents every week: people returning to their homes, inspecting war damage, out in the fields, playing, and walking around mined areas of the city unaware of the danger¹.

Bald statistics are valuable to those who know Afghanistan. They conjure images of a young boy lying in a hospital bed with a gap where his leg should be, who one day before was sitting out on the mountainside eating a picnic, watching the sheep. Or a young mechanic who, out of curiosity, bent down to pick up what he thought was a pen, and will now never hold a spanner in his right hand again. Or an old man with bandages round his head and no eyes, who was out digging clay to repair the roof of his house to protect from the coming rain.

But statistics cannot in themselves give much idea of the fearful lives that people must lead in order to survive in mine-infested Afghanistan. Statistics are feeble things: “50 accidents every week” is the kind of thing your eye glides over registering little. And yet what a wealth of misery it can cover:

The shock of the explosion which means you feel nothing for a few minutes; then the pain flooding over your body; the wait for help, lying in the minefield losing blood; the sight of your shattered and jagged bones sticking out from the end of your leg; the horror and fear of your companion or helper; the wondering if you will live or die; the journey to hospital on a horse and cart, or a car, or somebody's shoulders;

the arrival at hospital where there may be no surgeon to treat the injury; the scramble for money to try to raise the sum necessary for an operation; the difficult task of cleaning the wounds of dirt, shrapnel, and bone; the likely amputation; the phantom pains following the amputation; lack of physiotherapy; the possibility of infection of the wounds and the bone; the good chance that the amputation is not done properly, leaving sharp pieces of bone pushing into the stump;

the second operation required to recut the bone in order to make it suitable for a prosthesis; the lack of mobility of a wheelchair or prosthesis; the impossibility of a

¹ Demining Operation in Kabul City, UN Office for the Coordination of Humanitarian Assistance to Afghanistan (UNOCHA), Demining Office, Kabul, October 1996

disabled person finding a job; the shame of being a burden to family and community; the reduced likelihood of marriage, and children.

MSF's experience

In order to gather data on mines injuries in Kabul, MSF systematically registered all mines victims at clinics and referral hospitals under MSF supervision in and around the city between mid-March 1995 to the end of 1996². During this time, MSF registered 108 mines victims. One in three of these victims registered were children under 15. Only 4 per cent were soldiers. The rest were civilians, mainly men. Most accidents happened in fields, on paths, or on the mountainsides outside Kabul.

There are 108 forms registering accidents known directly to MSF Afghanistan.

Here is a form recording the injury of Rouf, a 12 year old boy who received face, chest, and leg injuries while repairing the road - a common activity in Afghanistan where the poor shovel earth from the verges of the road to fill in the potholes, hoping for a few thousand Afghani (10 US cents) from passing drivers.

Here is the form recording Amanullah's injury. He was cutting wood from a bush for cooking. He didn't know there were mines in the area, he hadn't received any mines awareness training. Amanullah has seven dependents, is 70 years old, and has now had his foot amputated, as well as injuries to both legs and groin.

And here is Bashir, who was having a look at the state of his family house which had been badly damaged by fighting in Kabul. After sustaining severe injuries to the back of both legs he was brought to hospital in a taxi. Bashir died, leaving 5 dependents.

Here is Noorzai, a 16 year old boy. He was collecting scrap metal at the side of the road in his village, and he suffered injuries to both legs. Scrap metal is valuable in the market, where it can be sold for melting down.

And here is Pari (35): she was entering into her house. And Ahmed Zia (14) who was playing with other children. And Noor Agha (20) who was going to the market to buy some things for his house. And here is Raqibullah (15) who was washing a car when the mine blast tore in to his face, body, legs, and arms. And Said Yaqub (12) who found a mine and was playing with it, without realising what it was: he knew there were mines in the area, but had not been through a mines-awareness lesson.

This form shows that Naadia (18), was cutting grass at the foot of one of the mountains surrounding Kabul when she was rushed to hospital in a taxi with severe damage to her left foot and knee. And Shafiqullah (7) was "picking up the sticks" when he trod on a

² It is important to note that these figures are not exhaustive. They offer a snapshot of the mines situation in and around Kabul. MSF registered only a small proportion of mines accidents in and around the city.

mine, and was brought to hospital on someone's shoulders with injuries to his chest and both legs.

The findings from MSF's survey demonstrate the indiscriminate nature of landmines, and their human cost. In Afghanistan, anyone who must work in the fields or hills is at risk.

Where are the mines in Afghanistan?

Despite international contributions of US\$101 million since the Afghan Mine Action Programme began in 1988, and 32 deminers³ who have lost their lives, there are still millions of unexploded devices in Afghanistan waiting to claim victims. While many of the minefields targeted for urgent clearance (usually important agricultural and grazing land, and around urban centers) have been marked and mapped by Afghan mine surveyors, lower priority areas remain unmarked.

Minefields have been laid by both Soviet and Afghan forces, and mines have been used in all phases of the Afghan conflict: in vast quantities during the Soviet occupation, during the power struggle between mujaheddin commanders after the Soviet withdrawal, and now during fighting between Taliban forces and other Afghan commanders.

A 1993 mines survey gave the best nationwide picture of the mine situation in Afghanistan to date, showing that all provinces bar one in Afghanistan have been contaminated by mines⁴. Since 1993, the known mines situation in Afghanistan has changed dramatically. New minefields have been laid, mainly on the front lines, during the fighting of the last four years. And minefields not recorded in the national survey of 1993 (due to impossibility of access to certain regions, or lack of reliable information), have since been discovered.

Regional Use

Minefields are found throughout all regions in Afghanistan. In the north the problem appears to be patchier, and is less well documented, although there are definitely extensive minefields in areas such as the Salang Pass; near certain cities (such as Kunduz); and around numerous military installments (such as around the Sugar Factory in Baghlan City).

The worst areas for mines are the Provinces in the south and east bordering Pakistan, and in the west bordering Iran. Mines were used here in an attempt to hamper mujaheddin movements near these borders, and for the protection of strategic positions and towns.

Strategic and Tactical Use⁵

Mines have been used extensively around many of the major cities in Afghanistan. The regional capitals of Kandahar (south), Jalalabad (east), and Herat (west) were all

³ Figures provided by UNOCHA, Islamabad, April 1997

⁴ Report of the National Survey of Mines Situation, Afghanistan 1993, Mine Clearance Planning Agency

⁵ The information in this section comes from various interviews with Afghan deminers and UNOCHA staff

extremely heavily mined, with bands of defensive minefields around the cities. Extensive mining also took place *inside* the cities of Kandahar and Herat. For example, in Herat, the huge barrier minefields laid by the Soviets - which ran through the western part of the city - were laid to defend against mujaheddin insurgencies from close to the Iranian border.

The verges of important roads in and out of the cities were mined, and mines were used to protect strategic supply routes, such as the road from Pakistan to Kabul, and other major arterial roads. The lines of red warning rocks demarcating minefields, which run along the sides of roads, are a common sight while driving in Afghanistan.

The mountains around urban centers were mined to prevent opposition forces from gaining control of strategic high-ground around the cities. Hilltops around cities provide the perfect gallery from which to look down on to a city, while selecting sniping, rocketing, and mortar targets.

Soviet and Afghan Government forces used numerous outlying military posts to control localities. Mines were used to protect these posts from mujaheddin attack. For example, the village of Khalchi in Chimtala (north of Kabul), is heavily mined. An oil pipeline supplying a nearby Soviet base was destroyed by mujaheddin fighters in the early 1980s; after repairing the pipeline the Soviets built a military post in the village to defend their oil supply. The Soviets mined heavily around the military post. Over a decade later the mines are still there, and civilians returning to their village are now targeted by mines originally laid to protect against mujaheddin attack.

Soviet forces used air-delivered mines to disrupt suspected mujaheddin supply routes and escape routes. Many of these were butterfly mines (PFM-1), which still lie on the hillsides and mountainsides of Afghanistan. It is unlikely that the mine problem in remote mountainous regions will ever be fully known.

The capital, Kabul, was mined heavily by mujaheddin commanders after the Soviet withdrawal. Between 1992 - 95, Kabul became the focus for severe fighting between rival mujaheddin factions battling over control of the city. Large parts of the city - particularly western Kabul - were mined as a result of house-to-house fighting.

Mines are reportedly currently being used on the front lines north and west of Kabul, and north east of Herat, where there is fighting between ex-mujaheddin commanders and Taliban forces.

Medical care for mines victims

Dying before treatment

A survey in Afghanistan by Vietnam Veterans of America in 1995 indicated that 59 per cent of landmines victims die from their injuries⁶. Most are likely to die before arrival at hospital.

Mines victims do not arrive at hospital for a range of different reasons. The most common types of anti-personnel mines in Afghanistan frequently cause immediate fatality. The Soviet PMN and PMN2 blast mines contain a large amount of explosive with the possibility of fatal results. The most common fragmentation mines are the Soviet POM-Z and POM-Z2, which also frequently cause immediate death.

Even if a victim survives the initial explosion, mine accidents in Afghanistan often happen in remote places, particularly on mountainsides used for grazing animals. In these remote areas, if mine victims are discovered at all, they may be taken to traditional local healers for inappropriate treatment, delaying or perhaps even preventing the arrival at hospital.

Furthermore, it may not be possible to evacuate the victim quickly to hospital. Transport to hospital may not be available. Distances to the nearest hospital may be hours or days over extremely poor roads. During the winter and the rainy season, many roads become impassable because of snow or rain.

Making it to hospital

The state health sector in Afghanistan

If victims do arrive at hospital, they will receive basic treatment. Afghanistan is a country with an extremely undeveloped health infrastructure. The most sophisticated medical facilities are situated in the five regional capitals of Kabul, Kandahar, Herat, Jalalabad, and Mazar. Outside these cities, medical facilities are usually rudimentary.

Medical facilities even at the biggest hospitals are often basic. Hospitals are underresourced and unhygienic, with no mattresses on the beds, peeling paint, broken windows, unpaid staff, and a lack of surgical facilities. Many of the best doctors and surgeons have fled the country, and the remaining surgeons often lack the training to deal properly with traumatic amputations. Nurses are in short supply, and family members are expected to take care of patients' needs, including food and sheets and blankets. In

⁶ In After the Guns Fall Silent: the Enduring Legacy of Landmines, Roberts and Williams, Vietnam Veterans of America Foundation, 1995

government hospitals, family members must provide dressings and medicines from the local bazaar.

Standards of treatment for mines victims

The standard of treatment of mines victims can vary widely in different hospitals. The hospital to which a victim is evacuated is a vital consideration in assessing the quality of care a mine victim will receive.

If, for example, the victim is evacuated to Mirwais Hospital in Kandahar, where The International Committee of the Red Cross (ICRC) supports surgical operations, the chance of receiving high quality, sterile treatment is excellent. However, other hospitals lack the expertise and resources required for successful operations.

Payment for treatment

In government hospitals, treatment is reliant on (unofficial) payment. Payment is usually required for the services of the surgeon, the drugs used, the hiring of the necessary equipment for surgery, injections, nurses, and dressings for the wounds. If a patient is unable to pay, treatment will almost certainly be refused. For poorer families, treatment is extremely costly, and hospital payments will require the selling of livestock, family possessions, or other items of value.

Cleaning the wound and surgery

There are three common patterns of anti-personnel mine injury⁷:

1. Amputation of the foot or leg from standing on a blast mine;
2. Multiple fragment injuries from triggering a fragmentation mine, where the legs are injured and often so too are the head, neck, chest, and abdomen;
3. Hand, arm, face, and eye injuries from handling a mine.

On arrival in hospital, ICRC administers antibiotics, an intravenous infusion of fluids, and anti-tetanus injection. If the wound is abdominal, or needs amputation, it will be X-rayed. The wound will be cleaned and dressed in preparation for treatment. In non-ICRC hospitals it is likely that only the cleaning of the wound will happen before surgery.

Mine injuries often leave large open wounds which are difficult to clean thoroughly even using state of the art techniques. However, in Afghanistan where many hospitals are dirty

⁷ Abridged from Injuries from antipersonnel mines: the experience of the International Committee of the Red Cross, Robin M. Coupland & Adriaan Korver, British Medical Journal, Volume 303

environments and techniques are basic, infection of injuries - including infection of the bone (osteomyelitis) - is common.

A skillful amputation should aim at saving as much of the limb as possible, while excising all dead and infected tissue. The amputated bones should be rounded off with a file to ensure no sharp edges will dig into the stump. For below knee amputations, the fibula should always be amputated higher than the tibia to ensure the patient can wear a prosthesis.

Amputations are often basic. Bones are often cut to the wrong lengths, making the fitting of prostheses problematic. Poor amputation often leaves sharp pieces of bone aggravating the tissue of the stump. The muscles of the leg, which should be folded round the end of the amputated bone to act as a cushion (a myoplastic amputation), are often left dangling from the stump.

After an amputation, the wound should be dressed and left unsutured for a few days, to ensure it is free of infection, and to allow swelling to subside. This is known as 'delayed primary closure'. If clear of infection, in a second operation the wound will be closed with sutures.

Care of the fresh stump

A fresh stump should receive physiotherapy attention as soon as sutures are removed, about two weeks after amputation. Physiotherapy is necessary to keep the limb moving to avoid problems such as muscle contractures which cause limitations to moving the limb. Patients should be walking with crutches to maintain their upper body strength, and exercising the limb to rebuild muscle body.

Once the stump has healed sufficiently, stump massage is necessary to ensure that blood supply is maintained to the stump.

In government hospitals trained physiotherapists are in short supply, and there is often a lack of training about how to look after the fresh stump, leading to further complications.

Access to a prosthesis

There are prosthetics workshops run by ICRC and other NGOs in all of the major regional cities in Afghanistan, and a few smaller towns. These centers provide free prostheses to amputees. For example, in Kandahar an Afghan NGO called Guardian makes some 85 prostheses every month. Patients who receive an amputation in hospital are often - but not always - informed by hospital staff that there is access to a prosthesis.

In 1995 and 1996, ICRC made over 8000 leg prostheses. More than 80 per cent of these were for mine amputees⁸.

Often, only when victims come to orthopaedic centers in the hope of receiving a prosthesis does their stump receive adequate attention. Orthopaedic centers employ physiotherapists to show amputees how to care for their stump to avoid infection and other complications.

If there are no complications, the whole process from measuring a patient for a prosthesis, to walking out of the center with a new leg, should take about ten days. On arrival the amputee will be registered, and will receive basic stump massage from a physiotherapist to check whether the stump can receive a prosthesis.

Prosthetics centers deal with many victims who are unable to accept a prosthesis because of poor amputation or poor post-operative care. These patients are sent for a stump revision operation or intensive physiotherapy before returning for a prosthesis.

If the condition of the stump is satisfactory, plaster of paris will be smeared around the stump, allowed to dry, and removed: this is known as a negative mould. After drying, more plaster of paris will be poured into the negative mould, making a positive model of the stump. This model will be used to make a good-fitting prosthesis for each individual patient.

The patient must now wait for the few days it takes to make a prosthesis. The stump model will be encased by polypropylene plastic and lined with padding on the inside, and an ankle rod and foot will be bolted on to the bottom. A new prosthesis made by an NGO in Afghanistan costs between US\$60 - 70 to manufacture.

After receiving a new prosthesis, the patient must learn to walk again. Older and larger patients tend to find it more difficult, and above knee prostheses are more difficult to master than below knee prostheses.

When the physiotherapists are happy that the patient can walk confidently and correctly, they can leave with their new legs. Patients should return for a new prosthesis within 18 months to three years: normally the foot of the prosthesis starts to disintegrate after this time. Other problems which may encourage an early return to the prosthetics center are rubbing of the stump or a broken prosthesis.

In theory, patients should return to the orthopaedic centers regularly for replacement prostheses, or to discuss problems concerning the false limb. In practice, many patients have problems with the prosthesis but do not return to the centers, preferring not to wear the painful leg, and reverting to the use of crutches. This is particularly true of patients from more remote villages. Many patients who suffer problems with their prostheses are

⁸ The ICRC Orthopaedic Project in Afghanistan Information Sheet, Alberto Cairo (Head of Project), 1997

not motivated to make the journey to try a new false limb. For some patients, a return to the center, refitting a prosthesis, and ensuring the stump is healthy could take two weeks.

Encouraging orthopaedic patients

Some orthopaedic centers offer outreach programmes, going to isolated villages to find amputees for treatment. Many amputees injured by mines during the Soviet occupation are unaware that prosthetic workshops have now been established in Afghanistan. For example, a recent outreach programme conducted by Sandy Gall's Afghanistan Appeal (a British NGO) around Jalalabad found numerous people in outlying villages who had no prosthesis or wheelchairs, and no idea that help was available.

Orthopaedic centers often provide transport to and from the center, and accommodation in dormitories at the centers during the ten day fitting, manufacture, and physiotherapy process. Many amputees would otherwise be reluctant or unable to make the expensive journey to the centers.

Orthopaedic centers also provide a limited number of wheelchairs for amputees who cannot be fitted with a prosthesis. The traditional 4-wheel wheelchair can be unstable on the uneven roads and paths of Afghanistan: in Jalalabad, an NGO called Motivation is producing 3-wheel chairs designed to offer greater stability and maneuverability to Afghan amputees.

The thirst for knowledge

Local knowledge is vital in the fight against mines in Afghanistan. Information on victims and the location of mines in Afghanistan is imperfect, hard to come by, and time-consuming to gather. But it underpins an effective Mine Action Programme. Accurate information helps prioritise areas for mine-clearance operations, mines awareness training, and medical response.

During the month of May 1997, MSF clinics throughout Afghanistan used their medical access to tens of thousands of patients to gather mines-related information. When analysed, the survey will show how many families have been affected by mines incidents, where accidents took place, and who was involved. The survey asks about family members *killed* by mines in Afghanistan - deaths rarely make it onto the hospital records. MSF hopes that this information will give a clear picture of the medical impact of mines in Afghanistan in 1997. It will help mine-clearers and mines awareness teachers in Afghanistan, as well as supporting the advocacy of the Afghan and International Campaigns to Ban Landmines.

The results of the survey will be analysed and available by late summer 1997. They will be presented at the governmental meeting in Oslo to prepare the treaty banning anti-personnel mines.

Finding the mines

By the end of 1996, some 500 square kilometres of minefields had been discovered in Afghanistan. During the past seven years, the deminers have cleared over 100 square kilometres, and they still have 150 square kilometres of high priority land to clear before turning their attention to the 250 square kilometres of lower priority land⁹. In the process of clearing minefields and old battlefields, just over half a million explosive devices have been destroyed.

Around most of the major cities in Afghanistan, one sees the deminers at work. With their red flags fluttering in the wind, their army fatigues, and piles of rocks painted white and red, they work by the sides of roads, in amongst houses, sweeping over graveyards, on the hillsides, and on the plains on the outskirts of town. They walk along the safe lanes through the minefields, crouch down watching their colleagues at work, or lie in the dust excavating carefully for a suspect object. Sometimes one sees the dog teams working on the areas outside town. The deminers move forward metre by metre, checking every square centimetre of land.

Demining is a high status job in Afghanistan. Afghans believe that the deminers are still fighting the Jihad (Holy War) against the Soviets, clearing up the last vestiges of the occupation.

• History of the Demining Programme

Starting in 1988, Afghanistan was the UN's first humanitarian demining programme, so the first years included a steep learning curve. The idea behind the Programme has always been to assist Afghans themselves to clear Afghanistan of mines and unexploded ordnance (UXOs).

The original - unsuccessful - approach was to train a deminer from each village, give him the necessary equipment, and send him back to the village to begin work. It soon became clear that this method was unworkable: there was no medical support for injured deminers, no central control, no prioritisation, no guarantee of quality clearance, and in some areas no guarantee of clearance at all. The final straw came when demining equipment began to appear for sale in local bazaars.

• Structure of the demining programme

Realising that the "village deminer" approach had serious problems, in 1989 the present approach was introduced. The idea was to centralise control to ensure quality clearance,

⁹ Figures provided by UNOCHA, Islamabad, to end of 1996

prioritisation of clearance areas, and professional training for such a dangerous task. Under the present approach, there are 5 Afghan NGOs involved in the Afghan Mine Action Programme. The Mine Clearance Planning Agency (MCPA) is responsible for surveying, marking and mapping minefields, and centralising data on mined areas. The Mine Dog Centre (MDC), Afghan Technical Consultants (ATC), The Organisation for Mine Clearance and Afghan Rehabilitation (OMAR), and the Demining Agency for Afghanistan (DAFA) are responsible for clearing minefields.

The Afghan demining NGOs are coordinated by the UN Office for the Coordination of Humanitarian Assistance to Afghanistan (UNOCHA), which has a central office in Islamabad, northern Pakistan, and regional offices within Afghanistan. UNOCHA has regional demining offices in Kabul, Kandahar, Herat and Jalalabad - reflecting the seriousness of the problem in large parts of the country.

Funding comes from many sources, although the UN and the European Union are the major donors. In all, the Mine Action Programme has over 50 teams working around Afghanistan doing surveying, mine-clearance, battle area clearance, bomb disposal, and training new deminers. There are some 3300 employees of which 5 are expatriates. Afghans are responding to the problem of mines in Afghanistan.

The HALO Trust, an independent mine-clearance NGO, works in Kabul and is the only mine-clearance organisation working in the north of the country. Coordinating work with the UN but maintaining its independent status, the HALO Trust's eighteen demining teams play an important role in responding to the mine threat in Afghanistan. The HALO Trust uses manual and mechanical clearance methods

- **Demining school**

Before working in the field for the first time, Afghan deminers of the Mine Action Programme must attend Demining School outside Jalalabad. Before passing out as deminers the men must pass two separate courses, first learning to use their equipment, and second learning how to work as a team, and learning how to work with partners in the minefields.

Having completed the courses, the men are now ready to be deployed to the field as basic deminers. To become minefield surveyors, battle area clearers, or other more specialist jobs, further courses are offered to qualified and capable students.

- **Marking and mapping minefields**

The first stage in clearing an area of mines is to find the danger areas. This is the job of the surveyors of the Mine Clearance Planning Agency (MCPA). The surveyors must reduce

as far as possible the boundary of mined areas, to cut down the amount of work for the deminers.

Few military mine maps exist in Afghanistan: to discover minefields, the surveyors are reliant on information from local communities and hospital accident records. Settled local communities usually know where the danger areas are in their locality, either because accidents have happened, or because they have seen mines or UXOs lying on the surface. While this information is far from perfect, it is the best available in Afghanistan.

Community leaders are encouraged to report suspicious areas to the local authorities, who should then report either to the Government's Department of Mine Clearance in Kabul, or the regional UNOCHA Demining Office. UNOCHA should then request MCPA to survey the area, and mark danger areas.

MCPA uses local knowledge to demarcate the edge of a minefield as accurately as possible. Locals will usually know which paths, roads, and areas are safe, and these will be used to demarcate the edge of the suspect area. Sniffer dogs are used to reduce the size of the suspected minefield, to ensure that the perimeter of the minefield is safe, and to check that no mines have been missed for 2 metres outside the boundary. Minefields are usually marked with red painted rocks - which have no value to the local community, and are unlikely to be removed for other purposes.

Once surveyed by MCPA, the area will be given a clearance priority rating, reflecting the urgency for clearance, and based on the needs of the local community. Residential areas and important agricultural areas are usually top priority, while scrubland and mountain tops are likely to be given a lower priority rating. The demining happening presently in Afghanistan is in top priority land, frequently around major towns and cities.

Because communication and the structures of government are weak in Afghanistan, the reporting system is not always reliable. Particularly in remoter areas where mine awareness training has not penetrated, villagers may not know to whom to report a minefield. Villagers may not even know that minefields can be cleared by professional deminers.

For this reason, hospital records and village surveys are important to keep track of where explosions are happening. MCPA conducts active surveys, going out to remoter villages to check whether the villagers know of unsurveyed mined areas.

Finding new minefields is an ongoing process in Afghanistan. For example, refugees returning from Iran have encouraged the surveying of 20 sq. kms of minefields in Herat Province in early 1997¹⁰. Old minefields laid during the Soviet occupation are still being discovered, and new minefields are being laid on the frontlines in current fighting.

¹⁰ Interview with UNOCHA regional demining officer, Herat, April 1997

Mined areas discovered by returning refugees and internally displaced people (through mine accidents) are often immediately classified as high priority clearance areas. The recent movement of people from the front line in Badghis to Herat has led to the prioritisation for clearance of areas outside Herat city.

- **Clearing the fields**

When marking a minefield, as well as giving it a clearance priority (urgency for clearance), MCPA also categorises it (type of minefield):

category A - mines are visible;

category B - mines are not visible, but have been found during surveying;

category C - mines cannot be seen, and there is no evidence of mines during the survey, but locals will not use the land unless it is checked.

The category will influence the method of clearance.

Dogs

Often, Mine Dog Teams are used on category C “low probability” minefields, anti-tank minefields (where the number of mines is usually lower), and minefields containing ‘minimum metal’ mines.

The sniffer dogs can check the area rapidly, searching for the smell of explosive which has leached into the ground. For the dogs themselves, it is a game. If they find something suspicious they sit down in front of the smell. They are then congratulated by their handlers who throw a ball for the dog to chase. A deminer with a metal detector will then check the suspect spot.

The effectiveness of the dogs depends entirely on their level of training, the skill of their handlers, and using them in the right place at the right time. The dogs now used in Afghanistan are estimated by the UN to be 85 - 90% effective. Two dogs are always used to check the same piece of ground. Dogs are only useful where there is not too much explosive in the ground. If there are too many mines, dogs can get confused and excited: mines will be missed and accidents will happen. The conditions must also be right. The dogs are used most frequently on the plains outside cities, but the wind can prevent work on some days. For example, in Herat, dogs cannot be used for one third of the year, during the “120 day wind” between May and August.

Mechanical clearance

Because many mines have been used in built-up areas in Afghanistan, new methods of mine-clearance have been invented locally to deal with this. Manual clearance of residential areas is extremely dangerous.

Clearing residential areas poses numerous problems. Houses destroyed by shelling and fighting have left rubble metres deep, any part of which can be infected with mines or UXOs. Mines have been laid on the roofs of houses to prevent opposing forces from coming over the roofs. Mines have been laid in cellars which have been completely filled with rubble from subsequent fighting. Metal detectors are useless in residential areas because there is so much domestic waste and fragmentation in the area (ring pulls from Coke cans, forks, drawing pins, grenade and mortar fragments). In one area in Kandahar, deminers were finding 90 metal fragments per cubic metre of rubble. The fired clay bricks from which many of the houses are built give off a continual metal signal. It is hardly surprising that manual clearance in these circumstances is extremely dangerous.

Both the HALO Trust and UN demining NGOs are using variations of mechanical clearance. In Kabul, the HALO Trust is using a device based around an armour-plated earth mover. The ingenious system works like this: the earth mover picks up contaminated earth and rubble in its armour-plated bucket; a wire net is attached over the bucket which allows earth, but not landmines or larger pieces of rubble to escape; on a flat piece of ground the earthmover reverses while tipping its load, leaving suspect devices caught in the wire net, and a thin trail of earth in its wake; any explosive devices (such as fuses) which have slipped through the net are caught in a device which skims the trail of earth.

UN demining NGOs are using a similar system in Kandahar, employing a mechanical digger/ backhoe to excavate the contaminated rubble.

It is estimated that, as well as reducing accident rates, these mechanical demining systems accelerate demining of difficult tasks by as much as 300 - 400%.

Manual demining

Manual demining is used in any terrain unsuitable for dogs or mechanical clearance. For example, manual clearance is being used for residential areas in Herat because the layout and architecture of the buildings do not allow enough space for mechanical clearance.

Working in a team of 28, deminers usually work in pairs on the minefield. In each pair, one man works for 15 - 30 minutes while his partner rests and watches at a safe distance. The working partner checks the ground with a metal detector. When a signal is found, the "side approach" method is often used rather than prodding with a bayonet. Because the ground is often so hard, this technique is considered safer by the Afghan demining agencies. Starting half a metre away from the signal, the deminer digs a small trench, which he then widens towards the suspect signal, carefully removing earth from the side of the work face. The deminer will come across the side or bottom of the mine first, and be able to identify it and destroy it where it lies.

When the source of the metal has been discovered (it may be a mine, but it is more likely to be a bullet cartridge or other shrapnel), and dealt with appropriately, the deminer will return to searching the ground with the metal detector.

In residential areas, where a metal detector is often of no use, deminers work individually among the rubble and destroyed houses, using only their eyes and a hand-excavator.

The Day of proof

After the deminers have cleared a piece of land, they invite local people to “the day of proof”. The deminers will walk over the land they have cleared, showing the community it is safe. The land will then be officially handed back to the community. Often, there are prayers of thanks organised by the local community, and a ceremony to thank the deminers for their work.

- **Accidents**

Demining Afghanistan is a dangerous business. The Afghan Mine Action Programme has significant - although falling - accident rates. There were 65 accidents during 1996, more than one a week. Thirteen deminers were injured in the first three months of 1997¹¹.

The terrain being demined is often extremely difficult - especially in residential areas. Seventy five per cent of accidents take place during house clearance and canal clearance, where mines are buried deep in silted channels¹².

Demining is also an extremely boring job. Depending on the terrain, deminers will routinely check up to 50 signals every day without finding a mine or UXO. Such a high percentage of signals which reveal nothing more than a nail can make a man inattentive or uncareful

- **Seasonal clearance**

Afghanistan is a country of extreme weather conditions. Therefore, different areas are designated “summer clearance” areas, and “winter clearance” areas. For example, demining in Kabul in mid-winter is impossible: the ground is frozen solid, deminers’ fingers would freeze, and morale - and safety - would be poor. Therefore, for the four months of mid-winter (December - March), deminers from Kabul move down to the warmer climes of Kandahar and Jalalabad to work in the minefields surrounding these cities. As soon as the weather permits - usually the end of March - the demining teams prepare to begin work once again in Kabul.

¹¹ Figures provided by UNOCHA, Islamabad, April 1997

¹² Interview with UNOCHA regional demining officer, Kandahar, March 1997

Deminers do not work in the rain. Metal detectors do not function properly in the wet, and a deminer who is wet, cold, covered in mud, and miserable is not concentrating fully on the job. For safety and morale reasons, rainy days are spent inside, often maintaining equipment.

Living with mines

In the city of Kabul alone there are numerous mines awareness sessions every day run by the Organisation for Mine Clearance and Afghan Rehabilitation (OMAR). In early April, OMAR was running 21 courses daily. Here, men and children of the district gather to learn of the dangers that surround them in their city. Women are conspicuous by their absence: they are denied access to any kind of education by the Taliban authorities.

In classes of between 20 - 50, men and children learn skills to protect themselves from mines. To get the message across, teachers use cotton banners illustrating the most common mines, wooden mine models, and examples of red mine warning flags. Depending on the education level of the class, lessons last between two and four hours.

- **The need for mines awareness**

There are simply too many minefields in Afghanistan to be cleared in the near future. Rough estimates from the UN show that *high priority* minefields (around cities, and vital rural land) should be cleared in around 5 years time. This is based on the - unlikely - assumption that no new minefields are found in the future.

Once the high priority areas are clear, it is anticipated that deminers will need to work in Afghanistan clearing lower priority areas for at least another decade. Afghanistan will never be completely cleared of mines. For this reason, it is imperative that Afghans know how to live with the mines which surround them, and that they have knowledge and skills to protect themselves.

- **The structure of the mines awareness programme**

While the Demining Programme is dominated by the Afghan demining NGOs, the Mines Awareness Programme includes international NGOs. OMAR works throughout the country, while other NGOs provide mines awareness training in specific areas. Save the Children (US) is active in Kabul, teaching children about the dangers of mines. Handicap International works in Kandahar, and the Refugees Relief Group of Ansar (an Iranian NGO) works on the Iranian border with returning refugees. The Afghan Red Crescent Society has mines awareness teams working in Kabul, and some other provinces. The International Rescue Committee is teaching mines awareness lessons in the Afghan refugee camps in Peshawar in northern Pakistan.

- **Content of the lessons**

Many people attending the training are illiterate: OMAR's preferred method of teaching is through repetition of key messages, and the use of pictures, models and other props. OMAR uses one teacher trainer and one local volunteer teacher. When the teacher trainer moves on to another district, the local teacher should continue to run mines awareness initiatives in his area. The 'local teacher' system is new, and it is hoped that it will lead to a sustainable approach to mines awareness training.

Mines awareness training always involves a difficult balance: teachers feel that it is important to give the students enough information to protect themselves, but give too much information and this may have the undesired effect of making the students over-confident around mines.

OMAR Lessons

OMAR lessons often start with the survivor of a landmine explosion telling of their accident. This can be an emotional start to the session as the victims implore others - and particularly the children - not to make the same mistake they made.

Types of Mines: Lessons include information on the most common types of mine and UXO in the area: how do they work, what do they look like, and what injuries do they cause? In Kabul, 15 types of mines are taught, but elsewhere in Afghanistan it is slightly higher.

Recognising Mined Areas: Students will learn about how to recognise a mined area, and what clues to look for. Clues include overgrown, disused and derelict areas, signs of fighting in an area, evidence of previous explosions etc. They will learn where the danger areas in the vicinity are.

Marking of Mined Areas: Students will learn how minefields and other danger areas are marked by the surveyors in Afghanistan: red painted rocks and walls for uncleared minefields; yellow paint for uncleared battle areas; and white paint for safe areas. Students are taught how to mark a danger area themselves if they find mines or UXOs: make a small pile of stones, a makeshift flag from available material (a stick and an old piece of clothing), or an arrow from wood or stones. After carefully marking the spot, the danger area should be reported immediately to the authorities.

Reporting Danger: Students learn to whom to report a danger area. They should go to the local police, elders, Taliban authorities, or deminers working in the area, who can then pass on the information to the government's Department of Mine Clearance or the UN's regional demining offices for a response.

At the end of the session, people slowly break up, and drift away back to their homes near the minefields. They should have digested and learnt the most important messages: don't touch, stay on the safe path, and report anything suspicious to the authorities. The training should have provided some protection from the threat of mines.

Other NGOs

Handicap International's programme in Kandahar Province aims at establishing 'mine committees' in each village. Village elders and mullahs are encouraged to take on the responsibility of teaching people in their village, and gathering information on minefields to pass to the authorities.

Save the Children (US) works in a number of different ways. SCF used to work in schools in and around Kabul, but since the closing of girls schools by the Taliban authorities, SCF female teams have turned their attention to mines awareness messages at hospitals and health clinics. An emergency response team of male staff teaches children in mosques. A children's network is being established: children are given mines awareness messages, board games, memory cards and other play things. They are encouraged to use the games to talk to their friends about the dangers of mines.

- **Educating women**

It is extremely difficult to reach women with mines awareness messages in Taliban controlled areas of Afghanistan. The Taliban authorities do not allow women to receive mines awareness training. It is argued that, after attending a mines awareness course, husbands and fathers should pass on mines awareness information to their wives and daughters. There is no way of checking whether this is happening, and if it is, whether the information being passed on is accurate. In Kandahar, Jalalabad, and elsewhere, mines awareness teams are starting to tackle the problem of reaching women by using the imperfect methods of a loudhailer on trucks, blaring out information over the walls of family compounds; and trying to target women visiting health clinics with brief mines awareness messages. Médecins Sans Frontières is supporting attempts by OMAR to reach women with mines awareness messages through the MSF clinic in Herat.

- **Reaching nomads**

Because of their lifestyle, Kuchis (nomads) are also vulnerable. They are extremely difficult to reach with mines awareness messages. Roaming for hundreds of kilometres over the hills and plains of Afghanistan with their camels, donkeys, dogs and herds of sheep and goats, Kuchis settle where the grazing is good then move on after a few days or weeks. They are usually illiterate. Until recently they have fallen outside the scope of mines awareness training. Handicap International is trying, with a new project around Kandahar, to trace the traditional migration patterns of the Kuchis in order to discover certain commonly used paths. Mines awareness training will be established on these paths.

- **Using the media**

Newspapers, TV, and radio have all been used by the mines awareness programme in Afghanistan to put across mines awareness messages. The use of TV is now forbidden in Taliban controlled areas, and newspapers reach only relatively few people. Radio is by far the most useful medium for reaching large numbers of people. The BBC Pashto and Persian Service runs a popular educational soap opera called “New Home, New Life” which carries messages on a range of subjects, from how to avoid malaria to the benefits of immunisation. After discussions with mines awareness trainers in Afghanistan, story lines also carry mines awareness messages. For example, a recent story line followed Jandad, a young shepherd boy who crossed a line of red painted rocks with his herd, and was injured by a mine. Radio is also a good way to reach women.

- **Targeting refugees**

Because they are on the move, and because they do not know where danger areas are, returning refugees are amongst those most at risk of mines explosions. Refugees passing through UNHCR border ‘Encashment Centers’ between Iran and Afghanistan - where they receive a repatriation kit before reentering Afghanistan - receive their kit only after they have a certificate proving they have taken a short mines awareness course given by the Refugees Relief Group of Ansar. OMAR use a similar system at the main crossing points between Pakistan and Afghanistan.

The International Rescue Committee is conducting mines awareness education in schools in the refugee camps in Peshawar in northern Pakistan.

Stopping Future Use

The need to ban landmines in Afghanistan is underlined by reports of new mines being laid during recent fighting around the Salang Pass, while old mines are being cleared 100 kms to the south in Kabul. Although the scale of current mine use does not approach that during the Soviet occupation, the problem in Afghanistan carries on growing.

The Afghan Campaign to Ban Landmines (ACBL) includes numerous NGOs involved in demining, mines-awareness, and the medical response to landmines in Afghanistan. MSF is a member of the ACBL. The Campaign was established to:

- Support the International Campaign to Ban Landmines
- Encourage the warring factions within Afghanistan to refrain from using mines
- Promote international awareness about the mine problem in Afghanistan
- Attract financial support for mine clearance activities in Afghanistan

The ACBL meets with governors and commanders in Afghanistan to educate them about the problems caused by mine use, and to urge them not to use mines.

The ACBL is working towards an end to mine production, possession, transfer, and use in Afghanistan and internationally.

Conclusion

Mines continue to haunt Afghanistan's recovery after long years of war. The process of clearing the mines is proving vastly expensive for one of the world's poorest countries. Mines have an insidious health impact on Afghan communities. Lost agricultural production, useless grazing land, and deadly irrigation systems lead to malnutrition, ill-health and increased poverty.

Afghanistan stands as a good example of the effects of landmines. The deminers will need to work for at least another fifteen years to clear the known mined areas. In the meantime, large areas of the country will remain crippled. The case of Afghanistan must act as a spur for international action.

As a result of Canadian leadership, governments have the chance to act in 1997, and finally to ban anti-personnel mines completely. This opportunity must be grasped to prevent more countries becoming mine-infested like Afghanistan, and to take a vital step towards eliminating landmines from the world.

In Ottawa in December 1997, Médecins Sans Frontières supports a comprehensive ban on the production, possession, transfer and use of anti-personnel mines.

(Back cover)

MSF in Afghanistan

Médecins Sans Frontières (MSF) began to work in Afghanistan in 1980. In 1997 MSF works in 14 of the 31 provinces, providing medical assistance to tens of thousands of Afghans each month.

MSF in Afghanistan has implemented projects including emergency surgery, primary health care, vaccination, rehabilitation and support of hospitals and health centers, water and sanitation, and malaria control.

MSF in Afghanistan currently works with refugees, internally displaced people, and local populations.

MSF's work is impartial and neutral; it treats patients from all sides of the Afghan conflict.

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