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Working Group on Mines Other Than Anti-Personnel Mines

Field Report Afghanistan

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I. Introduction

1. Throughout 2002, the Group of Governmental Experts (GGE) of the States Parties to the *Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to have Indiscriminate Effects* (CCW Convention), met to 'further explore the issue of mines other than antipersonnel mines', as per their mandate. In order to assist the delegates in their deliberations, the United Nations Mine Action Service (UNMAS) presented at the July 2002 meeting a paper outlining the general humanitarian impact of mines other than antipersonnel mines (MOTAPM), based on experience from field operations. The paper was made available as CCW/GGE/II/WP.14.
2. As a follow-up to last year's work, we have prepared another paper illustrating the effects of MOTAPM on local populations and humanitarian mine clearance operations in Afghanistan. More specifically, the aim of this paper is to use the Afghan example to identify loopholes in Amended Protocol II (AP II) to the CCW Convention.

II. Background

3. Twenty-three years of war between Soviet and Afghan forces on the one hand, and between Afghan factions on the other hand, have made Afghanistan one of the most mine-affected countries in the world. Throughout the conflicts, the warring parties planted some minefields following military guidelines and recorded their location, as well as many other minefields that are unpredictable in size, location and composition. In addition, the factions did not mark or fence their minefields, except to protect their own troops. As a result, innumerable accidents have occurred among the civilian population of Afghanistan.
4. In response to this situation, the Mine Action Programme for Afghanistan (MAPA), the first United Nations programme for humanitarian mine action in the world, was established in 1989. Since then, more than 2 million mines and unexploded ordnance (UXO) have been located and destroyed in Afghanistan by implementing partners, including 11,626

MOTAPM. Despite this clearance effort and even though the fighting has ceased in most areas, mines still present a serious threat to the local population. Currently, more than 830 million square metres of land remain to be cleared, of which over 350 million square metres are high priority areas (roads, residential areas and primary production land).

III. The impact of MOTAPM in Afghanistan

5. In 2002, more than 1.7 million refugees¹, and even more internally displaced persons, moved back to their villages. In addition, scores of government representatives and humanitarian workers from UN agencies, international and non-governmental organizations returned to Afghanistan to operate all over the country. Since roads are needed for the transportation of people and goods, mobility has become one of the key issues for any kind of development activity: roads are the areas where most MOTAPM can be found.
6. The mere fact that local populations, humanitarian and development workers, or passing vehicles use the roads does not mean that they are safe. In Afghanistan, about 80% of the roads do not have a hard surface, and such 'soft' surfaces cannot be trusted unless they have been previously surveyed, marked or cleared. But, it is impossible to survey, mark or clear all roads in Afghanistan because of time and costs constraints. However, if they are not properly cleared, they cannot be rebuilt, and thus become worse and worse. As a result, drivers start searching for alternative routes—often through areas of potential risk. Hence, development is stuck in a vicious circle.
7. In addition to impeding mass movements of populations and to being an obstacle to the delivery of humanitarian assistance, MOTAPM have serious economic repercussions in Afghanistan. According to UNDP and World Bank estimates, the clearance of a road contaminated by MOTAPM provides about US\$ 250,000 in economic benefits per 50 km². On the other hand, the total amount that was lost during the twenty-three years of war due to restrictions caused by mine contaminations is estimated at over US\$ 550 million. This latter amount includes the fact that MOTAPM deny people access to farm and grazing land or shelter and water, they kill valuable livestock and prevent rehabilitation of other essential infrastructure such as bridges, irrigation systems, schools or other public buildings.
8. According to the limited data available, more than 40 mine- and UXO-related casualties continue to occur every week in Afghanistan³; the vast majority of accidents with multiple deaths are caused by MOTAPM. The following are examples of recent incidents with hand laid, pressure activated MOTAPM that have been in the ground for many years:
 - i. July 2002, near Bamian in Central Afghanistan: A bus full of local people drove on a MOTAPM. As the road was in poor condition, the driver chose a route beside the regular road. 13 people—men, women and children—were killed and 6 severely injured. The road and the unofficial bypasses were also regularly used by international aid workers.

¹ UNHCR assisted repatriation border crossing, 1 March to 29 October 2002

² UNDP/World Bank: Afghanistan –Preliminary needs assessment for recovery and reconstruction, 15/01/2002

³ Kelly, Richard Kelly (2002). Clearing the way forward, *Landmines*, Special issue, United Nations, July 2002.

ii. September 2002, Bagram, north of Kabul: A deminer was called by a woman, who had just returned to her damaged home from Pakistan, to take a look at a suspicious device in her ruin. While checking the device, the deminer had an accident. He was rescued by his colleagues and brought to the ambulance. When the ambulance started driving, it hit an MOTAPM with the back tire. All 4 people in the back of the car were killed, as well as 2 persons standing in the street. The ambulance driver was severely injured, when the blast pressure threw him on the road through the front window. Many more passers-by were also injured, either directly by the blast pressure or by fragments. The ambulance car was completely destroyed. When checking the road four more MOTAPM were found. The mined road was in the middle of a residential area and nobody knew about them. The road was regularly used by the local population; it was just a question of time and faith before the MOTAPM were activated.

iii. October 2002, Herat, West-Afghanistan: A minibus loaded with travellers and returning refugees hit a MOTAPM on the way to Herat. 8 people died, 13 were injured. The bus burned out completely. The driver had tried to avoid a pothole and so got off the road slightly. He hit the mine just beside the road.

iv. November 2002, Takhar, North-Afghanistan: A minibus loaded with travellers hit a MOTAPM when travelling south from the Tajikistan border. 12 people were killed and 8 severely injured. The minibus was driving on a regular road.

v. November 2002, on the road between Kabul and Jalalabad: The head of a road construction company approached the UNMACA⁴, because during their construction work on the road between Kabul and Jalalabad one of his excavators hit a MOTAPM. Fortunately, the mine did not explode and upon closer look, they found three more MOTAPM. It is a pure coincidence that no accident happened. Scared, the employees refused to go on working because of their fear for more mines. This created problems for the head of the road construction company because all construction projects have very narrow time frames imposed by donors, and of course he was scared of losing people and expensive equipment. There was no record of the mines, and nobody knew of their existence. Roads are especially difficult for surveys, because there are a lot of unpopulated areas along them, where nobody can provide proper information about the mine situation.

9. There are still plenty of MOTAPM planted in and beside Afghan roads, many of them not marked or fenced, waiting patiently to be activated by a tank, a local minibus, an international aid worker's car, or any other vehicle.

IV. MOTAPM: Clearance techniques used in Afghanistan

10. In Afghanistan, three techniques are being used to clear MOTAPM: manual clearance, explosive detecting dogs and mechanical clearance. However, the vast majority of MOTAPM are cleared by dogs that are bred locally. Because of this internal breeding programme, the clearance costs in Afghanistan as compared to other countries' are very low: only US\$ 0.77 per square metre minefield⁵.

⁴ UNMACA stands for United Nations Mine Action Coordination Centre in Afghanistan.

⁵ Kelly, Richard Kelly (2002). Clearing the way forward, *Landmines*, Special issue, United Nations, July 2002

11. All clearance techniques face specific problems when dealing with MOTAPM:

- Manual clearance: Many MOTAPM found in Afghanistan have low metal content, which renders them hard to detect with metal detectors and therefore increases the likelihood of missing them during clearance work. To respond to this added difficulty, manual deminers have to set their metal detectors on the most sensitive scale; therefore, detectors indicate every small pieces of metal. Since deminers have to investigate each signal, they waste a lot of time on small metal fragments. If the deminers still cannot locate the minimum metal mine, they have to use one of the following techniques, which are even more time consuming: 1) prodding, i.e. pushing a probe into the ground at regular intervals; 2) sapping, i.e. completely excavating the soil to a pre-determined depth. MOTAPM with anti-handling devices cannot be picked and brought to a central disposal site; they need to be remotely pulled out of their position with the help of a hook and a rope. This procedure is very time consuming. The described time factor is also a major cost factor: it makes a big difference if a deminer clears 1 or 100 metres a day.
- Explosive detecting dogs: The dogs only sniff MOTAPM under good environmental conditions and to a certain depth. For instance, they will not detect mines on a windy day or in areas with high vegetation. In addition, if the mine is buried deeper than usual because the soil was eroded, a dog will not find it. Furthermore, some models of MOTAPM found in Afghanistan are sealed in such a way that dogs are not able to smell a trace of explosives on the ground, and therefore cannot detect them either. All indications by dogs need to be examined by a manual deminer, facing the problems named above. In areas with tripwire-, breakwire- or tilt-rod-activated or other very sensitive fuses dogs cannot work at all.
- Mechanical Clearance: The amount of explosives contained in the MOTAPM is the relevant factor for mechanical clearance. Some machines do not resist the blast pressure of a MOTAPM, so they cannot be used to clear this type of mine. Those machines that can deal with MOTAPM have high operational and maintenance costs.

V. Conclusions

12. To facilitate the work of humanitarian clearance operation, it is important to have good minefield records, or for the minefields to be at least properly marked and fenced. In Afghanistan, through twenty-three years of conflicts, some minefields were recorded, but many other minefields are unpredictable in size, location and composition, rendering mine clearance more difficult.
13. MOTAPM impede the movement of populations. They are key obstacles for the delivery of humanitarian assistance or any kind of development. But most importantly, MOTAPM cause accidents with multiple casualties among the innocent local population and international aid worker: even if they are originally planted to destroy a tank, they can be activated by any other vehicle long after the end of the conflict, especially if they have an unlimited lifespan and are planted outside fenced or marked areas.

14. The factors that need to be taken into account when clearing MOTAPM are the following:

- MOTAPM with low metal content are difficult to detect; consequently; clearance is expensive and time-consuming. Furthermore, the likelihood of missing a mine is increased.
- MOTAPM with anti-handling devices make remote pulling necessary; which is time consuming.
- The majority of MOTAPM in Afghanistan are cleared by dogs; however, they cannot clear MOTAPM activated by sensitive fuzes such as tripwire, breakwire and tilt-rod.
- Mechanical clearance systems that can deal with MOTAPM have high operational and maintenance costs.

15. Therefore, in order to limit the humanitarian impact of MOTAPM and to ease the work of post-conflict mine clearance operations, the provisions concerning MOTAPM included in AP II should be amended to reflect the following principles:

- All MOTAPM, especially those used outside marked areas, should contain a self-destruction mechanism, or at least mechanisms for self-neutralization or self-deactivation so that they have a limited lifespan.
 - MOTAPM should be detectable by commonly available technical mine detection equipment.
 - MOTAPM should not be fitted with anti-handling devices. These devices delay clearance operations.
 - MOTAPM should not be fitted with sensitive fuses that can be activated by the presence, proximity or contact of a person.
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