

**GROUP OF GOVERNMENTAL EXPERTS 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**

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Working Group on Mines Other Than Anti-Personnel Mines

**Field Report on Angola**

**Presentation prepared by the United Nations Mine Action Service (UNMAS)**

**Introduction**

1. Throughout 2003, the Group of Governmental Experts (GGE) of the States Parties to the Convention on Prohibitions and 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 anti-personnel mines.' In order to assist delegates in their deliberations, the United Nations Mine Action Service (UNMAS) has prepared the following field report on Angola, illustrating the effects of mines other than anti-personnel mines (MOTAPM) on local populations, aid workers and clearance operations.

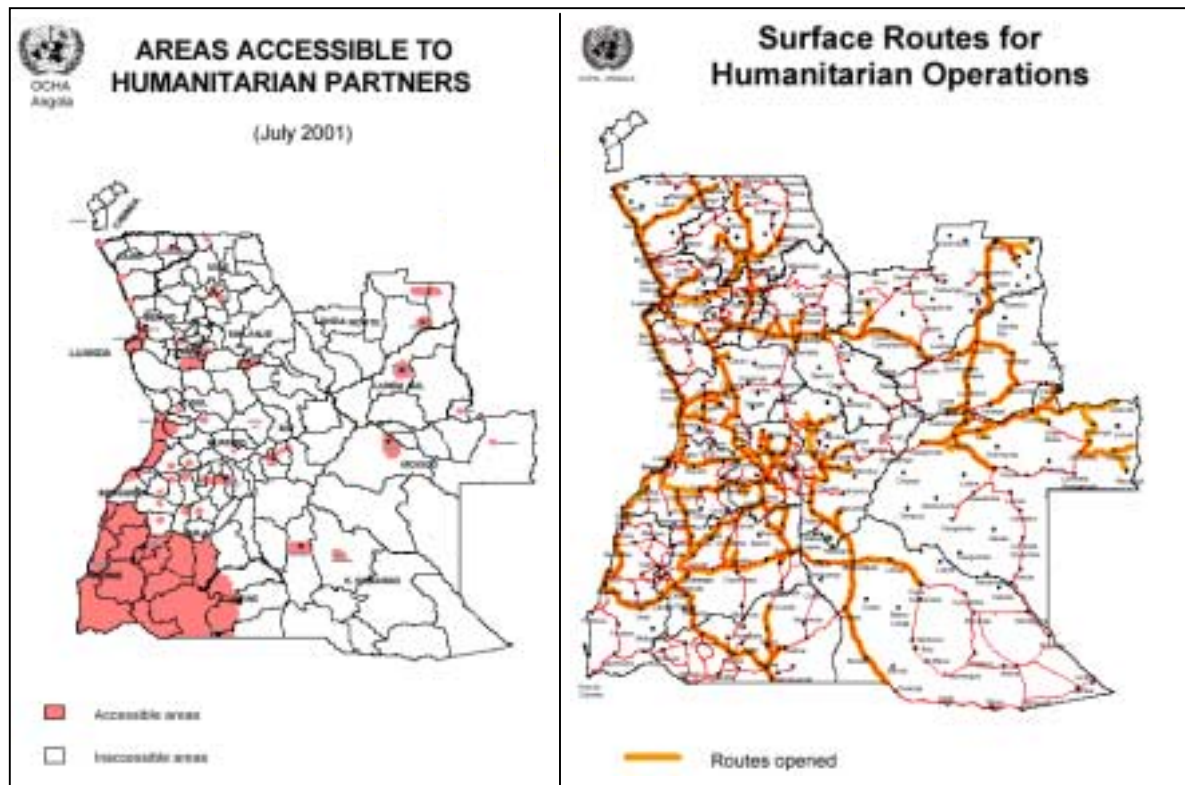
**Background**

2. Following almost thirty years of war, Angola is currently in a humanitarian emergency situation and has become one of the most mine-affected countries in the world. Throughout the conflicts, warring factions randomly planted MOTAPM, mostly without recording their location, marking or fencing them. As a result, the size, location and composition of minefields are unpredictable, and vast areas throughout the country remain inaccessible due to mined or suspected mined roads.

**Impact of mines other than anti-personnel mines in Angola**

3. *MOTAPM contamination has a direct impact on the return and re-integration of refugees and IDPs.* According to Angolan government and United Nations High Commission for Refugees (UNHCR) estimates, approximately 130,000 refugees have spontaneously returned to Angola since the 2002 peace agreements and some 400,000 are still remaining in neighbouring countries; the repatriation of 200,000 refugees is planned over a two-year period, including 150,000 in 2003. In addition, 2.37 million internally displaced persons (IDPs) returned to their area of origin, and 1.4 million remained internally displaced as of mid-June 2003. Many of the IDPs and refugees who spontaneously returned became victims while using MOTAPM-contaminated roads. Thus, UNHCR was forced to delay organised repatriation of refugees because roads could not be used before they were cleared.

4. *MOTAPM contamination has a direct impact on the ability to provide assistance to local populations.* Currently two million Angolans require food assistance or may require assistance to survive until their first harvest is brought in; even more people need medical support.<sup>1</sup> In addition, OCHA recorded between October 2002 and February 2003 16 accidents caused by MOTAPM affecting the delivery of humanitarian assistance to almost 300,000 persons (see graphic 3). Thus, for their own safety, humanitarian assistance convoys are only allowed to use roads that the United Nations Security Coordinator (UNSECCORD) has declared open. This means that large areas in Angola are still cut off humanitarian assistance due to suspected or real MOTAPM contamination (see also graphics 1 and 2).



Graphic 1: Areas accessible to humanitarian partners in July 2001.

Graphic 2: Surface Routes for humanitarian operations in January 2003.<sup>2</sup>

5. *MOTAPM contamination has a direct impact on the road construction business.* Many roads in Angola need to be rebuilt. However, construction companies would not send their personnel to work in areas that have not been cleared by an international NGO.

6. *The presence of MOTAPM has an impact on rural development.* In the longer term, the Angolan Government and the UN see a high priority in rural development, because over the past half-century, the urban share of the population has risen from 6% to 60%. Luanda alone now contains almost one

<sup>1</sup> UN Consolidated Inter-Agency Appeal 2003, p. 1, and Survey Report at <http://vam.wfp.org>

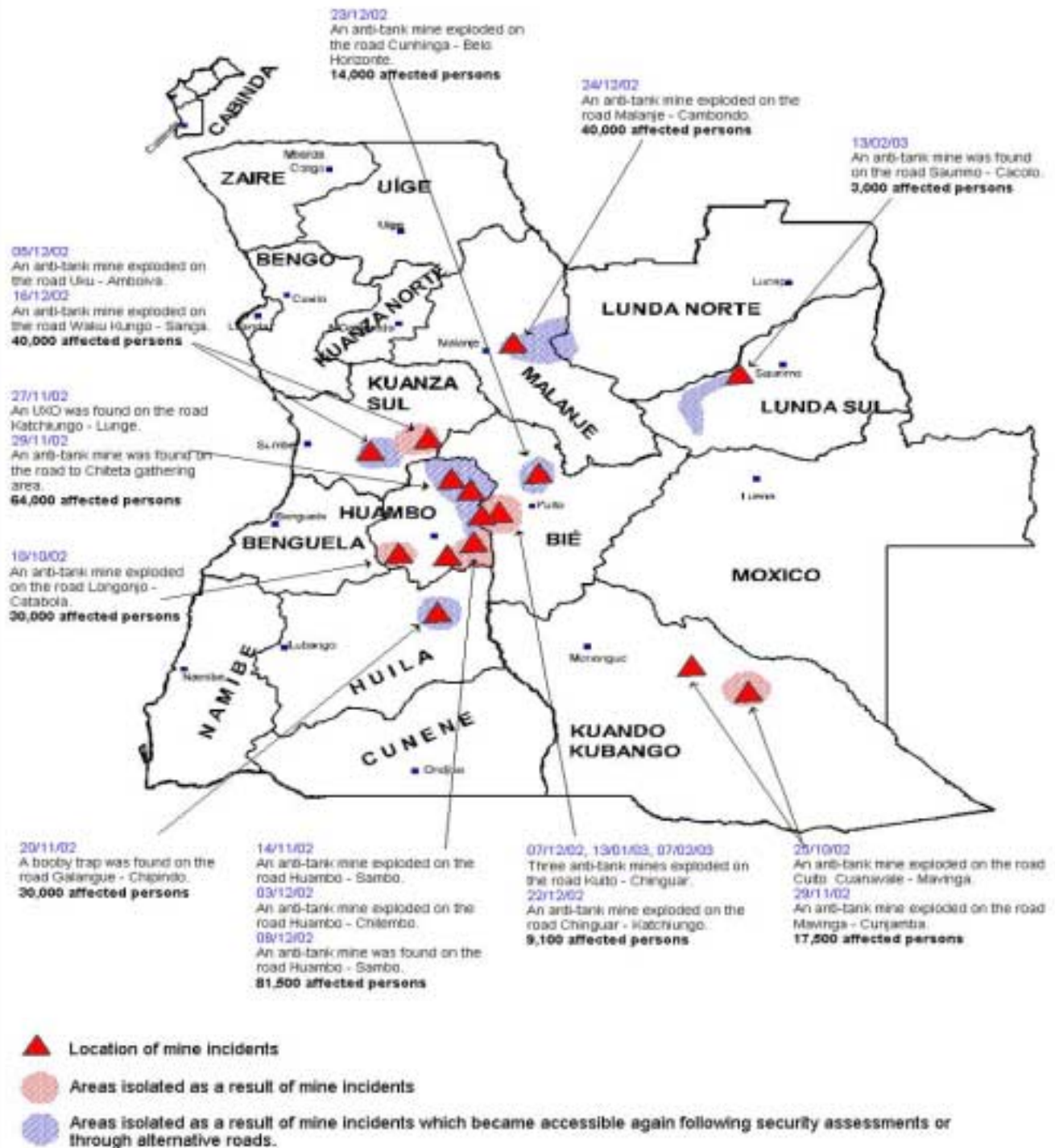
<sup>2</sup> Source: OCHA Angola



OCHA - ANGOLA

## Impact of Recent Mine Incidents on Humanitarian Assistance Activities

(October 2002 - February 2003)



quarter of the national population.<sup>3</sup> There is theoretically plenty of agricultural land available in the rural areas, but vast areas are not used, because they are contaminated or suspected to be contaminated with MOTAPM.

7. *MOTAPM cause accidents among the local population and international aid workers.* The following are examples of recent incidents:

- A truck of the World Food Programme drove on a MOTAPM in the central highlands. The driver was severely injured. Food delivery for the whole region had to be suspended.
- A team of the NGO Médecins sans Frontières (MSF) drove with their Landcruiser on a MOTAPM on their way to an emergency medical aid mission near Mavinga. The small road had not been cleared but was used by other vehicles. All operations had to be suspended.
- A Pick-up drove on a MOTAPM in the Province of Cunene. 3 people were killed, 1 severely injured. The road had been frequently used by vehicles, but never been cleared. When investigating the accident, more mines were found nearby.
- On the road from Ondjiva to Kuando Kubango in southern Angola a total of 18 accidents with MOTAPM were recorded by the NGO Menschen gegen Minen (MgM) when doing an assessment in 2003; the number of victims is unknown.
- Near Malanje, two tractors with 7 people drove on MOTAPMs on their way to their agriculture fields. The returnees wanted to re-start cultivation. Two of them died, five were injured. The little road was not confirmed clear, but the farmers could not wait for months or even years until clearance had been done.
- Near Xamuteba, a Volvo truck carrying food drove on a MOTAPM. The road had been used before by other trucks, even though it had not been cleared.
- The District Administrator of the Province Cunene drove on a MOTAPM near his brother's house. When investigating the area, 4 more MOTAPM were found. This area was not even suspected of being mined.

When these accidents were investigated by clearance organisations, it was discovered that all MOTAPM involved had been in the ground for many years. None of these accidents would have occurred, if the mines had had a limited life span. The incidents show clearly the dilemma in Angola: the locations of MOTAPM are unpredictable, but the people need to move in their environment. However, it is impossible to clear all roads in Angola at once. And given the current capacity for clearance, the known mined roads cannot even be cleared at the required speed to save the lives of refugees and IDPs.

### **Impact of mines other than anti-personnel mines on clearance operations**

8. *High level of MOTAPM creates an emergency situation.* As a result of the general situation in Angola, the mine action programme is in emergency phase. Efforts are now in place to establish a full national mine action programme, mostly generated by international agencies. The Angolan Government has set up a national commission (CNIDAH) to act as the overall national mine action planning agency, and a local implementing partner (INAROE) who is operating as a training, accreditation and operating agency. UNDP is supporting these efforts with funds and technical advice. Currently, the highest priority for mine action is regaining access for surface transport.<sup>4</sup>

<sup>3</sup> United Nations System in Angola: Angola: The Post-War Challenges. Common Country Assessment 2002, Executive Summary, p. vi

<sup>4</sup> United Nations Office of the Resident Coordinator of the UN System's Operational Activities for Development in Angola: Towards Improved Collective Mine Action in Post-war Angola. Workshop Summary Discussions & Recommendations, Luanda, 06 May 2003

9. *Reduction of suspected areas through surveys is impossible.* The degree of contamination is not well known or recorded and most mines are randomly laid. In addition, there are usually no reliable informants because of the large movements of populations. In the rare cases where former combatants can provide accurate information, the information they provide is not sufficient to get a full picture of the contamination since many warring factions fought over the same areas. This means that all suspected areas have to be cleared; they cannot be reduced through survey.

10. *Manual clearance is not efficient for the rapid clearance of roads contaminated by MOTAPM.* It is difficult to find a suitable technique to clear roads fast and safely. Manual clearance by itself is not an option because it takes far too much time. For example it would take more than 3 years to clear a stretch of road of 30 kilometres at a width of 8 metres with a manual team. Thus, mine detecting dog teams and machines clear the vast majority of MOTAPM on roads – but these methods need to be followed up by a manual team for quality assurance and to locate, excavate and destroy the mines indicated by the dogs.

11. *MOTAPM with low metal content are difficult to detect.* For the use of metal detectors and their correct setting, the manual clearance teams have to make a threat assessment first. More specifically, they find out which mines have been found so far and which are to be expected. In Angola low metal mines like the South African No 8 (nearly undetectable), the Spanish C-3-B, the Cuban plastic-cased AT-mine (only the metal fuze is detectable) or the TMA series of former Yugoslavia have been used. Thus, to provide a clearance rate of 100% in all areas, manual deminers have to set their metal detectors on the most sensitive scale; therefore, detectors indicate every small piece 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.

12. *It is likely to miss MOTAPM with low metal content during manual clearance operations.* The likelihood of missing a low metal mine during clearance work is understandably high and accidents keep occurring. For example near Malanje, a truck of the mine clearance NGO Norwegian People's Aid (NPA) drove on a mine, as it was approaching an area requested for clearance by another NGO for a water project. The site of the accident had been manually cleared by the Angolan Army and was currently used as a playground for children; WFP trucks also drove there when distributing food. 9 NPA staff members were injured, some of them severely. The armoured platform at the back of the truck protected the personnel against the real effect of the blast. The mine had been in the ground for years, but had never been found due to its low metal content.

13. *The clearance of roads using mine detecting dogs or mechanical equipment is expensive and needs a lot of logistical support.* Beside the regular use of mine detecting dogs, another technique is tested in Angola: Remote sampling – which means, the smell is brought to the dogs. Filters are used to collect the air possibly containing explosive particles on the roads. The filters are then presented to the dogs, who indicate contamination. This method requires mechanical assistance, because the suspected areas can only be entered with mine protected vehicles – a major cost factor for an NGO. For mechanical clearance, the amount of explosives contained in MOTAPM is the relevant factor. 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. In a country like Angola that has no infrastructure or logistic support system, they are nearly unworkable. In the Province of

Cunene, armoured Graders are used for the rapid opening of areas, followed up by the mine protected vehicle Wolf and mine detecting dogs. This system is one of the few workable options, but only on flat, sandy ground in southern Angola. Beside the clearance, the armoured vehicles of the mine clearance NGOs have to be used for the emergency transport of people, thus risking again and again loss of lives and equipment by being obliged to drive through mine contaminated areas. The graders of the NGO Menschen gegen Minen drove twice on MOTAPM, and only the fact that they were armed saved the operators from being killed. But the machines needed to go through repair and operations had to be suspended for that time.

14. *Impact of sensitive fuses and anti-handling devices.* MOTAPM with anti-handling devices cannot be picked up 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. This time factor is also a major cost factor: it makes a big difference if a deminer clears 1 or 100 metres a day. In areas with tripwire-, breakwire- or tilt-rod-activated or other very sensitive fuses dogs could not work at all.

## Conclusions

15. *MOTAPM have a humanitarian impact in Angola.* In the current post-conflict emergency situation, they aggregate the suffering of the people and hinder development. The minefields in Angola are not recorded and thus unpredictable in location and size. The contamination limits the circulation of people and goods, inhibits agricultural production and is an impediment to resettlement and return. Vast areas are simply inaccessible to international aid organisations because of MOTAPM: that restricts the delivery of assistance. The contamination also has an impact on urgently needed road construction. MOTAPM block potential for rural development, and they cause accidents with multiple casualties among the local population and international aid workers. 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.

16. *MOTAPM have an impact on clearance operations.* The factors that need to be taken into account when clearing MOTAPM are the following:

- A reduction of the suspected areas is not possible in Angola, because the mines have not been laid in patterns, fenced or recorded.
- 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 and dangerous.
- Many MOTAPM in Angola are cleared with the help of 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.

17. Therefore, in order to limit the humanitarian impact of MOTAPM and to ease the work of post-conflict mine clearance operations, the following principles should be adopted:

- 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.
  - 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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