



COUNTRY CASE STUDY

Support to Mine Action in Ethiopia – Lessons Learnt and Recommendations

Location	Afar, Somali and Tigray Regions in Ethiopia
Budget and Donors	USD 24.8 million (Australia, DFID, European Union, Japan, Italy, and UNDP)
Implementing Partner	Ethiopian Mine Action Office (EMAO)

INTRODUCTION

In post-conflict communities, landmines prevent access to arable land, social services, clean water, roads and thereby, restrict free movement and prevent local and regional trade. In so doing, they inhibit the affected community to productively utilise both natural resources and social and physical infrastructure, and also challenge the ability of the government and its partners to assist the mine-affected communities in advancing from the rehabilitation to the development stage.

Mine action is not merely about dealing with landmines, but it is about people and their interaction with mine infested environment that affects economic, social, political and environmental aspects. The presence and threat of landmines and other unexploded ordnances affect human security. Human insecurity negatively impacts development of individuals, communities and beyond. Recognising the impact of landmines and other Explosive Remnants of War (ERW) on human beings, the United Nations (UN) has become involved in the issue since the early 1990s.

The international community, notably the UN, have shown remarkable progress in setting institutional, legislative and policy frameworks to address the issue of landmines and ERW and streamline mine action in the endeavours of development. Some of the relevant international instruments that guide mine actions include the Anti-Personnel Mine Ban Treaty (APMBT), Protocol IV (2003) and Protocol II (1996) of the 1980 convention, International Mine Action Standards (IMAS), and various working groups and regular conferences to include the state party meeting.

Ethiopia's mine and ERW contamination stems from a series of internal and international armed conflicts dating back to 1935, including the Italian invasion and subsequent East Africa Campaigns, the Ogaden war with Somalia and the Ethiopian-Eritrean war. As a result of these conflicts, the Tigray, Afar and Somali regions, which border Eritrea and Somalia, are the most heavily affected parts of the country. With the cessation of hostilities between Eritrea and Ethiopia in June 2000, many displaced people returned to their local areas hoping to resume their normal life, despite official warnings not to return until the land was made safe. Consequently the number of civilian casualties peaked over the period June, July and August 2000.

The Government of Ethiopia established the Ethiopian Mine Action Office (EMAO) in 2001 as an autonomous legal entity responsible for mine clearance and mine risk education. Other tasks, such as victim assistance and anti-personnel mine (APM) stockpile destruction fell under the responsibility of the Ministry of Labour and Social Affairs, and the Ministry of Defence, respectively. Although EMAO remained relatively independent, it answered to a supervisory board composed of members drawn from Ministry of Labour and Social Affairs, Ministry of Defence and other relevant ministries.

In 2002, after an initial survey of 'dangerous areas' carried out by The HALO Trust in Tigray and Afar regions, an Ethiopian Landmine Impact Survey (ELIS) was conducted by the Norwegian People's Aid in coordination with the Ethiopian Mine Action Office. The survey which was completed in 2004 identified 1492 communities in Ethiopia as contaminated with landmines and unexploded ordnance (UXO).



The United Nations Development Programme with a core group of donors (including Canada, the Netherlands and Norway), initiated a Mine Action Support Group to assist Ethiopian Mine Action capacity building through the Ethiopian Mine Action Office. The project labelled “**Mine Action in the Tigray, Afar and Somali Regions of Ethiopia**” set out to support the Ethiopian Mine Action Office’s activities and to significantly increase Ethiopian mine action productivity. The project aimed to allow families, (including internally displaced persons in Tigray, Afar and Somali regions) to enjoy the benefits of sustained peace and stability; to live free of the threat of landmines and unexploded ordnance; and to make full and productive use of land for agricultural development and increase food security.

PROJECT IMPLEMENTATION

In relation to mine action, the vision of the United Nations is a world free of the threat of mines and explosive remnants of war (ERW), including cluster munitions, where individuals and communities live in a safe environment conducive to development and where the human rights and the needs of mine and ERW victims are met and survivors are fully integrated as equal members of their societies.

UNDP works closely with governments in post conflict countries to ensure mine action efforts are an integral part of recovery, development and livelihoods endeavours. UNDP provides training, advice and support to mine action authorities in 40 countries, helping to reinforce local capacity.

Mine action includes five pillars:

1. **Demining:** surveying, clearing and destroying landmines and explosive remnants of war (EWR)
2. **Victim assistance:** providing assistance and rehabilitation and reintegration services to victims
3. **Mine-risk education:** mitigating risk by helping people understand how to stay away of harm’s way and preventing new victims
4. **Advocacy:** promoting a total ban on anti-personal landmines and cluster munitions and compliance with relevant international legal instruments
5. **Stockpile destruction:** helping countries destroy their stockpiles of landmines and ERW

In Ethiopia, under an agreed United Nations interagency mine action strategy, UNDP’s primary contribution to mine action was to support capacity development. UNDP provided assistance to mine action from 2001 to 2012 in the context of support to Humanitarian Response, Recovery, and Food Security, which was one of the five strategic areas of cooperation in the then United Nations Development Assistance Framework (UNDAF). This meant providing technical advice and institutional support on mine action activities.

UNDP’s support to mine action in Ethiopia was a follow-up to the previous UNDP initiative executed through the United Nations Office for Project Services (UNOPS) and built on its achievements. UNDP helped to assist the Ethiopian Mine Action Office (EMAO) to continue fulfilling its role as the national humanitarian demining operator in Ethiopia.



UNDP capacity development support initially focused on building the national capacity through assignment of international advisors, facilitating training of Mine Action managers and senior officers and exposure to and supporting learning from best international practices. Equipping the EMAO with modern materials and transport facilities were among many. Advisory services through the programme advisor working full time for EMAO and resource mobilization were the other areas of capacity building support.

The UNDP's Mine Action project was largely supported by the EU, with other contributions from a number of donors, including Australia, Japan, Italy, and United Kingdom as well as from its own resources.

MAJOR ACHIEVEMENTS

The major achievements of the project were:

1. **The development of a national mine action capacity** in Ethiopia, known as the Ethiopian Mine Action Office (EMAO)

The project built on mine clearance work done by the World Bank and the UNDP capacity building support via agency execution by UNOPS and stepped into national implementation modality as the capacity of the government was improved. By the beginning of its second phase in 2010, it included a mix of mine action assets including five manual demining companies, five technical survey/rapid response teams, and 17 mine detecting dog teams, supported by three ground preparation teams each with two machines.

2. **Reduction of landmine casualties to zero**, through EMAO activities (mine clearance, explosive ordnance disposal and mine risk education)

During the course of the project there were two different sets of casualty data collected in Ethiopia: one set maintained by EMAO and another set by the Landmine Monitor. Both data sets show a clear reduction in casualties over the course of the UNDP supported project. The reduction of landmine casualties was achieved through various mine action activities (mine clearance, explosive ordnance disposal and mine risk education) UNDP supported.

The extensive mine risk education, as part of UNDP's engagement in mine action, increased the awareness of the risks involved and helped to reduce the amount of casualties. As a result of the mine risk awareness-raising education, more than half a million people were enabled to mitigate threats posed by suspected landmines and ERWs. Community members reported of more than 71,588 ERWs that were disposed in the presence of the community and local authorities in compliance with international and national standards. Community members likewise informed EMAO demining teams of suspected landmine areas and helped EMAO demining teams to clearly mark, fence, monitor and conduct other precautions for the protection of the civilian population, individuals and civilian properties. All this enabled EMAO to significantly reduce and avoid casualties.



According to the 2012 Landmine Monitor, the total number of landmine/UXO casualties in Ethiopia (since record-keeping in the country began) was 16,849. The majority of these cases occurred before the start of the UNDP mine action project. By the end of 2011, the number of casualties was reduced to zero.

3. Mode of operations for the clearance of landmines

Landmine clearance was conducted by EMAO through a combination of manual demining companies clearing identified areas, and 'technical survey' conducted by a Mine Detecting Dogs and Technical Survey Teams / Rapid Response Teams. The Technical Survey Teams / Rapid Response Teams were used to delineate the boundaries of actual contaminated areas. Where these were found to be small, Mine Detecting Dogs were also used to assist the manual companies to delineate the boundaries of contaminated areas to complete their clearance.

The clearance and release of land has enabled affected communities and individuals to have access to safe land for farming, grazing, resettlement, housing, free movement of people and goods and basic services. Further, the mine action facilitated the construction of infrastructure and social services including roads, schools, health centres, telecommunication lines, electric power extensions and drinking water sells. These achievements have greatly benefited communities and further, investors. Previously contaminated lands, for example, in Tigray (Humera and Adiabo areas) and Somali (Shinile area) have been utilized for commercial farms and agro processing industries.

4. Successful resource mobilisation and partnership- building

UNDP created a platform bringing various partners together and mobilising more resources towards government's mine action initiatives.

The Norwegian People's Fund (NPA) supported the Government of Ethiopia extensively with their own mine action initiative. This support was complementary to the assistance provided by UNDP. NPA and UNDP interacted closely and the different activities benefitted from each other. As an example, the Entoto integrated demining training centre was constructed through support from NPA and the materials needed to equip the centre were provided by UNDP.

The establishment of a framework for regular consultations, bringing together affected AU Member States (Ethiopia included) and international organizations working in mine action to assist Member States was vital in meeting mine clearance deadlines, as well as providing advocacy platforms.



5. Commitment and close to compliance to the International Mine Ban Convention before the deadline (2015)
while other countries of similar levels of contamination have had to request for an extension.

Ethiopia, as a party to the Anti-Personnel Mine Ban Treaty (APMBT), has the obligations stipulated in the convention that include a total ban on the use, stockpiling, production and transfer of anti-personnel mines. The convention imposes obligations on Ethiopia to destroy or ensure the destruction of all stockpiled anti-personnel mines, to identify all areas and destroy anti-personnel mines in mined areas under its jurisdiction. These obligations are aimed at realizing a state free of the threats of landmine and ERW ensuring the safe environment where people can move freely and engage in their daily productive life to improve their livelihood among others.

Ethiopia signed the Anti-Personnel Mine Ban Treaty on 3rd December 1997; however the ratification was delayed to 17th December 2004 because of the war with Eritrea. On 1st June 2005, Ethiopia became a State Party to the Convention. The deadline for the Mine Ban Treaty Article 4 (anti-personnel mines stockpiles destruction) was 1st June 2009, and the deadline for Article 5 (destruction of anti-personnel mines in mined areas) is 1st June 2015.

Over the course of the project, Ethiopia made steady progress to clear all the known anti-personnel minefields under its control. At the end of the EMAO project, a number of known minefields and suspect hazard areas, listed in the 2011 Article VII Transparency Report¹, remained to be cleared. Responsibility for completing these final minefields, all in remote areas and posing little substantive threat to civilian populations, were passed onto the Ministry of Defence.

LESSONS LEARNT

1. Scoping the size of the problem, project focus and design

The major challenge facing EMAO was the sheer scale of the problem, especially in terms of the 2004 Landmine Impact Survey (known as the Ethiopian LIS or ELIS). Even when interviewed in 2013 former EMAO staff listed this as their single largest challenge. The problem was exacerbated by a mutual misunderstanding of the nature of the ELIS. The LIS process, as used in a number of countries, was a 'social' survey exploring the impact of mines on communities, it was not (nor was it intended to be) a physical survey to map the extent of contamination. It largely depended on participatory processes that captured the interviewed population's perception of the contamination and as result generated very large suspect hazard areas (SHA).

Ethiopian Mine Action Office disputed the ELIS findings and took no ownership of the findings. This meant that in the absence of an agreed problem statement, it was hard to measure results against activities. When the ELIS findings were

¹ The latest information on Article 7 reporting can be found at [http://www.unog.ch/80256EE600585943/\(httpPages\)/A5378B203CBE9B8CC12573E7006380FA?OpenDocument](http://www.unog.ch/80256EE600585943/(httpPages)/A5378B203CBE9B8CC12573E7006380FA?OpenDocument)



used, they implied that EMAO activities were not going to be sufficient to meet the compliance with Ethiopia's Anti-Personnel Mine Ban Convention obligations (particularly Article V).

In 2010, the European Union conducted an evaluation on EMAO. The clearance data showed that the density of mines was very low. Typically, there were just two antipersonnel (AP) mines (known or suspected locations of mines or EWR) per hectare in the areas cleared. This meant that the area needing clearance was vast but very few mines were found. Hence, the reason for blocking² local communities' access to grazing land, agricultural land, water and other resources was primarily due to the suspicion of mines and not their actual presence.

The Mine Action project had a clear focus on landmine clearance and mine risk education related to its institutional mandate. It was clearly advantageous to have a well-defined project focus. It allowed concentration on the goal of the project without too many distractions. However, inclusion of the victim assistance component (with an additional implementing partner) might have been helpful in rehabilitating the entire affected population.

At an operational (programme) management level, it is key that following the selection of appropriate outcomes, relevant, objective and verifiable indicators are chosen, and that the project management structure has the capacity to monitor these indicators and that the monitoring is carried out. This should include the analysis of reported data on progress for trends and possible gaps. It is not enough to simply publish tables of data. Where innovative solutions to technical issues are found, these should be promulgated widely in order to share experiences that could help other similar projects elsewhere, acting as a 'multiplier' of donor contributions.

One example of a lesson learned during the Mine Action project was the improvement of reporting after the 2010 EC evaluation. According to the evaluation report "the EMAO record keeping is of very good quality. However, there does not appear to have been any systematic analysis of this data to provide detailed information about impact. This is a missed opportunity."

After the evaluation, EMAO began to include reporting on development outcomes in terms of the market value of crops produced on cleared land, rather than simply tabulating outputs in terms of square metres cleared. The findings from Ethiopia in this context are now in the process of being included by UNDP into a separate global study on developing monitoring processes for mine action.

2. Technical challenges

One of the main limitations of the ELIS process is that it only produces an imprecise idea of the extent of landmine contamination. EMAO developed a 'work-around' solution to this that was effective to the satisfaction of the EMAO Supervisory Board. However, as mentioned in the two EC evaluations, such activities – spreading the good news – were not well documented and the chance to learn detailed lessons as to how EMAO was able to do this was lost. Therefore, from a wider perspective, it is vital that mine action programmes should take the opportunity to document good work

² *Landmine Impact Surveys focus on "blockages" – resources that are unavailable to local communities due to mines/UXO or the threat of mines/UXO even if none are found to be present when clearance is done.*



done in the form of technical articles for relevant publications so that the skills developed are shared and not lost, alongside the more general website entries and factsheets. This being said, much more could

have been made of the ELIS data in terms of socio-economic impact if more had been done to encourage more participation (and hence 'ownership') of the ELIS data by Ethiopian stakeholders.



A mobile EMAO explosive ordnance disposal team preparing items of unexploded ordnance for demolition

Six Bozena mechanical mine preparation machines were provided to EMAO. The cost of these machines was approximately \$300,000 each, not including spares and maintenance. Therefore, the total cost of these machines was approaching \$2,000,000 which represents between 15-20% of the total cost of the first phase of the project (over €10,000,000 or \$13,000,000 at today's exchange rate). However, as seen from the EMAO data³, in the three years of the first phase of the project, an approximate average of only some 7% of the land was prepared by machine (and it is important to remember that these machines prepare land for clearance but do not clear land from mines). This means that it is important to make a detailed investment appraisal of high-cost equipment before accepting it.

The availability of Ethiopian staff with field experience in handling landmine problems in Ethiopia helped to gain technical perspective and insights of the problems at hand. Additionally, the availability of bilateral support (outside the UNDP project) from Norwegian People's Aid (NPA) helped to train the Technical Survey Teams / Rapid Response Teams (later incorporated into the UNDP project).

The Technical Survey Teams / Rapid Response Teams used a more in-depth analysis than the social processes used by the ELIS teams and located the perimeters of the actual contaminated areas. The EMAO staff members, in turn, used complementary technical surveys to the ELIS, and were able to estimate that the contaminated areas were smaller than initially suspected by the ELIS. This helped to reduce the suspected contaminated area from 2,500 km² of SHA to 37km² of 'confirmed' hazardous areas.

Calculations carried out in the 2010 EC Evaluation suggested that, at current rates of progress, the 37km² of 'confirmed' hazardous areas could be completed by the end of 2011, although it also noted that some small a

³ Quantitative data drawn from EMAO quarterly and annual reports, plus successive editions of the Landmine Monitor



additional contaminated areas continued to be found by the Technical Survey Teams / Rapid Response Teams which was added into the clearance plan.

3. Sustainability

Based on the instruction and oversight provided by the board, the EMAO was expected to lead and manage mine action on its own with very limited support from international organizations (like UNDP).

Strong ownership and leadership is typical in all sectors in Ethiopia. Under the board supervision, the EMAO developed a clear plan for the phasing out of international support so that it could stand on its own. Following this plan, the number of UNDP advisors was reduced from 6 to 1 and the modality of the project was changed to a National Implementation Modality (NIM).

The clearance of minefields is a finite process, the care of landmine survivors and other victims is a longer term engagement, and experience from other post conflict areas, not least in Europe with its legacy of WWII, suggests that explosive remnants of war (ERW) other than landmines, particularly scattered items of unexploded ordnance (UXO) will remain as hazards long after minefields are cleared. Thus, it is important to ensure that sustainable capacities able to deal with a long-term, chronic problem are put in place at the early stages of a mine action program.

In Ethiopia, mine clearance is largely complete, but some elements of a holistic mine action programme (namely the rehabilitation of the displaced people) were not included in the scope of either the EMAO or the UNDP initiative on mine action. Likewise, there is currently no capacity to handle the disposal of mobile explosive ordnance (EOD) or unexploded ordnance (UXO) that can be found decades after a war ends. This is due to the fact that the EMAO has been closed and the trained teams have been dismantled.

The role of disposing the mobile explosive ordnance was given to the Federal Police. However, there was a lack the training and equipment needed to handle the tasks at hand. The need for a victim assistance component was raised during both EC evaluations and the need for a sustainable EOD capacity (as opposed to a time bound mine clearance component that would not be needed once mine clearance was complete) was raised during the 2010 evaluation. Discussions with Ethiopian government stakeholders during the preparation of this note confirmed a continuing interest in these components.

The EMAO was closed abruptly in 2012, ahead of the programmed end in 2013. At this time, although the Ethiopian authorities had become satisfied that the EMAO had run its useful course, this was not communicated to the stakeholders (including UNDP), hence, it came as a surprise to other stakeholders (including donors) and did not allow for adequate planning and phasing out. This meant that it was challenging to clarify issues relating to maintaining records, facilitating verification and final evaluation of the project, establishing the commitment of the government on mine ban treaty obligations and follow-up on the findings of the expected verification mission.



Ethiopia is a State party of the 1997 APMBT Convention and as a result is obliged under Article V to clear all of the known anti-personnel minefields in areas under its control within 10 years of ratifying the Convention. For Ethiopia this date is due in 2015. It may be possible for Ethiopia to meet this target but since the closure of EMAO there is no clear focal point to speak authoritatively and formally on this issue⁴. It is understood that the data on clearance is now held by the MOD.

POLICY IMPLICATIONS AND RECOMMENDATIONS

UNDP addresses the landmine problem from a development perspective and promotes the mainstreaming of mine action into national and sector development plans and programmes. Equally important to the reduction in casualties and life-saving activities are the longer term development opportunities delivered in terms of handing over productive land to communities to sustain livelihoods and improve human welfare. Other UNDP Country Offices seeking to support local governments in their mine action efforts could benefit from creating a well-focused project design, ensuring necessary technical expertise and equipment is available, and making sure the appropriate organisational structure, system and administrative procedures are in place. Including mine-risk education and awareness raising activities within the communities have proven efficient in contributing to the sustainability and increased success of the mine action interventions.

UNDP could likewise capitalize on its experience in Ethiopia and develop a network amongst countries wishing to engage in similar mine action endeavours.

The Government of Ethiopia, with close cooperation with UNDP, has achieved commendable progress in mine action and come close to fully demining the contaminated areas across the country. A few issues remain and the government should be encouraged to engage with the relevant partners to pursue the status of a mine free state.

⁴ This is reflected in the most recent edition of the *Landmine Monitor*.





Meeting beneficiaries from EMAO mine clearance. This family has been resettled on formerly mined land after having been internally displaced (Photo from the 2010 EC evaluation)

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2. The Landmine Impact Survey of Ethiopia, 2004
3. EMAO quarterly and annual reports, 2007-2010
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Contact Information:

Takele Teshome: Programme Analyst,
Telephone: +251 115 444146, Email: takele.teshome@undp.org

www.et.undp.org



