Mid-Term Outcome Evaluation for Strengthening National Capacity for Mine Action in Yemen - Phase II

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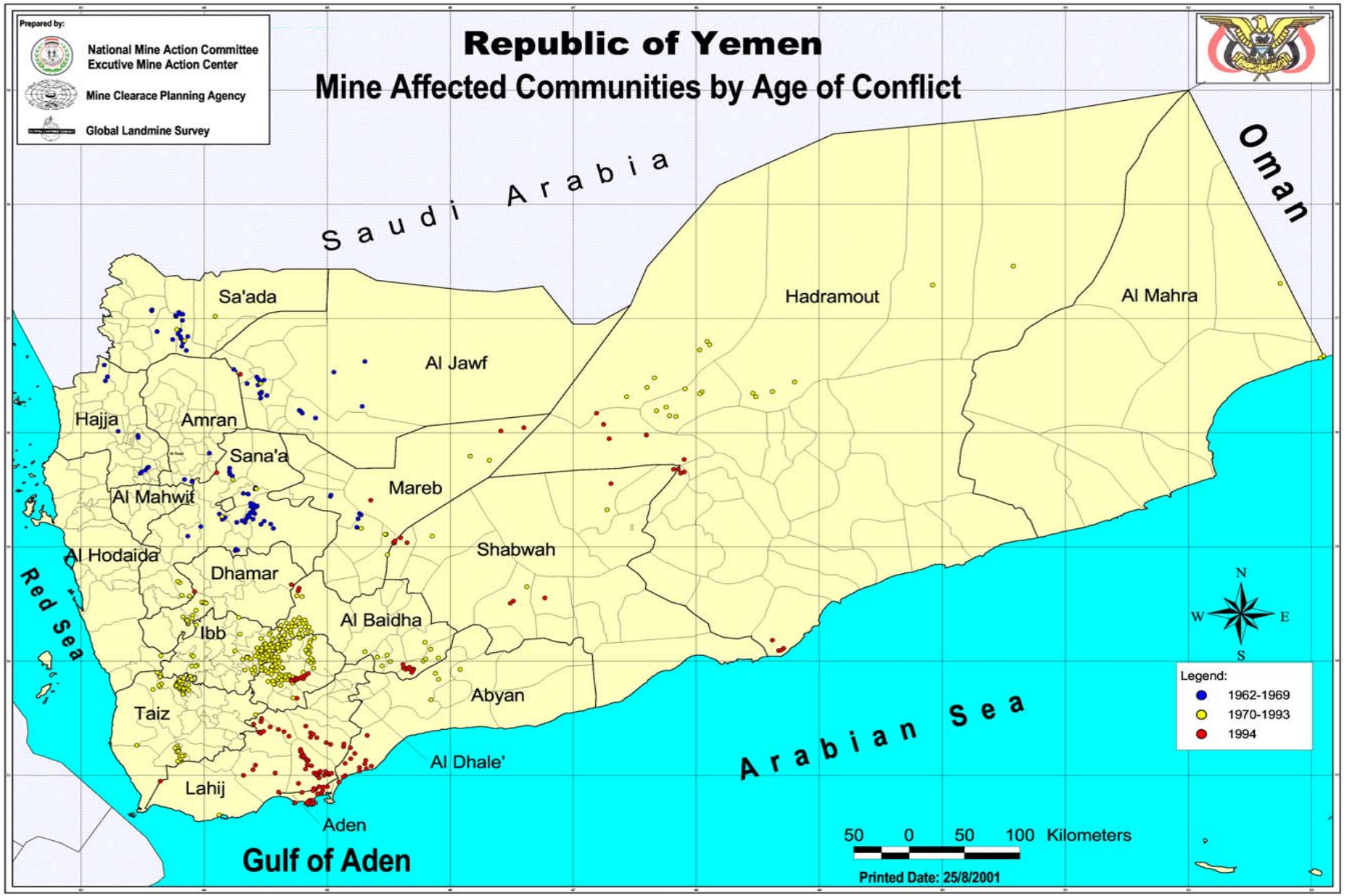
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National Mine Action Committee
Excutive Mine Action Center
Mine Clearace Planning Agency
Global Landmine Survey
Republic of Yemen
Mine Affected Communities by Age of Conflict
Saudi Arabia
Oman
Sa'ada
Hadramout
Al Mahra
Al Jawf
Hajja
Amran
Sana'a
Mareb
Al Mahwit
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Dhamar
Red Sea
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Abyan
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Arabian Sea
Al Dhale'
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Frans Anema Patrick Blagden

List of Acronyms

APMBC	Anti-Personnel Mine Ban Convention
APR	Annual Project Report
BCPR	Bureau for Crisis Prevention and Recovery
CO	Country Office
CTA	Chief Technical Advisor
DFID	(UK) Department for International Development
DRR	Deputy Resident Representative
EDD	Explosives Detection Dogs
ERW	Explosive Remnants of War
IMAS	International Mine Action Standards
IMSMA	Information Management System for Mine Action
GOY	Government of Yemen
GTZ	Gesellschaft für Technische Zusammenarbeit
HF	High Frequency
LIS	Landmine Impact Survey
LOA	Letter of Agreement
LOG	Logistics
MAP	Mine Action Portfolio
MAT	Mine Action Team
MAU	Mine Action Unit
MAX	Mine Action Exchange
MDC	Mine Dog Centre
MDD	Mine Detection Dog
MDDU	Mine Detection Dog Unit
MVA	Mine Victim Assistance
MIS	Management Information Centre
MOD	Ministry of Defence
MRE	Mine Risk Education
NDC	National Demining Centre
NEX	National Execution
NGO	Non-Government Organization
NMAC	National Mine Action Committee
NMAS	National Mine Action Standards
NMAP	National Mine Action Programme
NPM	National Programme Manager
NTC	National Training Centre
NTEU	National Technical Executive Unit
OCHA	Office for Co-ordination of Humanitarian Affairs
PPE	Personal Protective Equipment
QA	Quality Assurance
RMAB	Regional Mine Action Branch
SOP	Standing Operating Procedure
TORs	Terms of Reference

TQM	Total Quality Management
TS	Technical Survey
TTF	Thematic Trust Fund
UNDP	United Nations Development Programme
UNMAS	United Nations Mine Action Service
UNMASP	United Nations Mine Action Support Programme
UNOPS	United Nations Office for Project Services
UXO	Unexploded Ordnance
VA	Victim Assistance
VHF	Very High Frequency
YEMAC	Yemen Executive Mine Action Centre
YMAA	Yemen Mine Awareness Association
YMAP	Yemen Mine Action Programme

Executive Summary

Perhaps the most striking characteristic of mine action in Yemen is the strong support it receives from the Government of Yemen. This support comes from the highest levels in Government and is evident in the legal and management framework that has been put into place, and in the day-to day activities of the Mine Action Centre itself. The Government signed the Anti-Personnel Mine Ban Convention (sometimes called the Ottawa Treaty) in 1997 and ratified it in September 1998, the first country in the Middle East region to do so. It established a high-level National Mine Action Committee in 1998, chaired by a Minister of State who has direct access to the Prime Minister. The Mine Action Centre was set up in 1998, and is now managed by a dynamic strong leader. Yemen completed the first UN-certified Landmine Impact Survey in 2000, and shortly after developed a strategic plan for mine action that was subsequently updated and now covers the period 2004-2009. The Government managed to complete the destruction of its mine stockpile in April 2002 and expects to fully comply with the Anti-Personnel Mine Ban Convention (APMBC) by 2009. The seriousness of intent is also evident from the Government's annual contribution to mine action amounting to some US$3.5 million, mainly covering salaries and allowances of more than 1,000 mine action workers.

The evaluation team spent two weeks in Yemen and studied the outcomes of the UNDP programme activities, the on-going programme (both UNDP and nationally funded) in all its manifestations, and the prospects and needs for future UNDP support. Significant progress has been achieved in mine action. The Mine Action Centre has an organizational structure capable of addressing all components of a mine action programme. Top leadership is strong and heads of units seem competent. A management succession strategy will need to be put in place, and management is very much aware of that. There is scope for senior staff training, which has been hampered by, on the one hand, a lack of English language skills on the part of managers and, on the other hand, an absence of relevant courses in Arabic at Cranfield University. Some refresher training is necessary and the training of trainers at the National Training Centre would need to be fortified.

The evaluation team considered standards, quality and operational issues. National standards are based on the International Mine Action Standards (IMAS), and those already produced are translated into Arabic. The latter version is said to contain elements that better reflect the national requirements of Yemen. To back up Quality Assurance, there is a comprehensive set of Standing Operating Procedures (SOPs) for all activities, including SOPs for Quality Assurance (QA) and monitoring. These have been translated into Arabic and are available at field level. A number of operational issues were considered and some recommendations are made in this report mostly to "fine tune" the system. Of grave concern to the evaluation team, however, is the relatively large stock of munitions stored in a residential area of Aden, awaiting explosives for destruction. The team strongly recommends that

donors be approached as a matter of urgency to donate sufficient explosive and demolition stores to destroy this dangerous stockpile by detonation.

The team examined resource management issues. It recognized the vital importance of the role played by the UNDP, partly because UNDP involvement enhances transparency. In fact, donors interviewed confirmed the impression that the UNDP plays a crucial role in procurement, financial management and fund raising, and that any UNDP exit strategy with respect to those areas would, at this time, be ill considered.

A very promising start has been made with the establishment of Mine Detection Dog capability, including a small breeding programme. The dogs are used for mine clearance, technical survey (area reduction), and quality assurance. A chief instructor and his crew from the Afghan Mine Dog School in Kabul conduct dog training. Both the training programme and the breeding programme are commendable. A few suggestions are made in this report to enhance operations.

The mine action programme includes two high profile components; Mine Risk Education (MRE) and Victim Assistance (VA); both of excellent quality. MRE enjoys the full support from the highest levels of government and is dynamic and well organized. VA consists of a number of phases: survey, medical examination, medical support, and rehabilitation. This last phase includes training of victims and supporting them to re-integrate into their communities. Both programmes rank among the best in the world.

The Information Management System for Mine Action (IMSMA) manages to produce useful information that is effective for mine action planning purposes. The underlying GIS maps of 1:100,000, however, should ideally be changed to 1:50,000. The system should also be customized to allow details of MRE and VA programmes to be included. Cooperation between Operations and IMSMA should be improved in order to enhance accuracy.

Considering that the victims of mine action are not only individuals, but also communities as organic entities, the evaluation team discussed the need for socio-economic recuperation with various respondents. There was general sympathy for the idea to introduce a sixth pillar of mine action, (i.e. post-clearance community rehabilitation). Post-clearance assessments, combined with pre-feasibility studies for community development, may give rise to initiatives that could be included in national development plans and/or become integral parts of relevant donor projects. The evaluation team recommends that this sixth pillar be introduced into the YEMAC. It would require an enhancement of orientation in the Chief Technical Advisor's (CTA) traditional mandate, the appointment of a highly qualified counterpart, and collaboration with the UNDP, bilateral donors and relevant Government departments.

1 Introduction

During the last 30 years, Yemen has suffered from a number of conflicts, each leaving behind significant landmine and UXO contamination.[1] Yemen started its mine action programme in 1998 with the establishment of a management structure that included a National Mine Action Committee (NMAC) to provide guidance at the highest Government level, an Executive Mine Action Centre (EMAC) to carry out the mine action programme, and a regional mine action branch in Aden.[2]

A nation-wide landmine impact survey (LIS) was conducted that started in July 1999 and was UN certified a year later. The survey showed that 592 communities were affected by landmines and UXO, 14 of which were highly impacted (population of about 36,000) with the remainder having medium and low contamination (population of about 790,000). There was significant suffering in terms of socio-economic deprivation, and casualties were numerous. It was estimated that some 5,000 casualties had occurred during the previous ten years, 200 of which during the previous two years (1998/99). Reports of casualties continue with regularity.

During the first phase of the UNDP-supported programme (1999-2003), which was executed by UNOPS, significant progress was made in all areas of mine action, including Mine Risk Education (MRE), Victim Assistance (VA), surveying and, last but not least, land clearance. The seriousness of intent of the Government can be judged from various indicators. Of crucial importance is the government structure that has been created in support of mine action. Contributions made by the Government (especially the salaries and allowances of staff) amount to more than US$3 million a year. The various decrees by the Prime Minister and the Minister of State (Chairman of NMAC) provided a necessary legal framework for action. Mine action is of very high priority for the Government of Yemen. Numerous donors contributed to the programme either through the aegis of the UNDP (Japan, Norway, USA, Germany, UK, Canada, Sweden, Netherlands, Saudi Arabia,, Switzerland and Italy) or directly to the NMAC (Kingdom of Saudi Arabia). Total contributions received during the first phase amounted to US$ 4,255,788, including direct contributions from the UNDP as well contributions from the Government of Yemen (which were in addition to the more than US$3 million annually mentioned earlier).

A second phase, also supported by UNDP (Project number YEM/03/010/01/99) started in October 2003. Its overriding goal is to further strengthen national capacity for mine action in the country. One of the key accomplishments has been the drafting and acceptance of a revised five-year National Strategic Mine Action Plan for Yemen, 2004-2009. During this period, the Government is committed to achieving mine-

[1] The conflicts were: 1962-75 the war between republicans and royalists in the North; 1963-1967 the war of independence in the South; 1970-83 the leftist guerrilla war in the central provinces; and 1994 the unification war.

[2] A second branch was subsequently opened in Mukalla in 2003

impact free status, another important milestone on the road to full compliance with the Anti Personnel Mine Ban Convention (APMBC).[3]

This mid-term evaluation of Project number YEM/03/010/01/99 is an attempt to identify the strengths and weaknesses of the management and execution of mine action in Yemen. The terms of reference for the evaluation appear in Annex 1. The methodology used is results-based; specifically results in terms of outputs and outcomes. The approach is in line with the Results Based Management (RBM) monitoring and evaluation methodology adopted by the UNDP. The report discusses a logical progression of output/outcome indicators and provides analytical sections identifying interrelationships among outcomes. It provides an Executive Summary and a final chapter of conclusions and recommendations.

[3] In April 2002, the destruction of the national stockpile of anti-personnel mines took place, thus fulfilling one of the important commitments under the APMBC.

2 Methodology

The first phase of mine action in Yemen had been satisfactorily completed in the fall of 2003 with significant achievements in, *inter alia*: the completion of a UN certified Landmine Impact Survey (LIS); training and creation of mine clearance teams, technical survey teams and quality assurance teams; clearance of six highly impacted communities; introduction of an effective Mine Risk Education (MRE) programme; and the establishment of a Victim Assistance (VA) programme. The second phase was to continue to strengthen national capacity for mine action in Yemen, no longer with the support of UNOPS but through national execution. The mid-term evaluation of this second phase, therefore, will have to focus, in essence, on the achievements made by the Government in establishing sustainability in national mine action.

The methodology applied to this mid-term evaluation derives directly from the Results-Based Management (RBM) approach, which has been fully embraced by the UNDP. Based on the terms of reference, an evaluation matrix has been prepared identifying key outputs and their respective indicators. The latter may involve, in specific cases, first level outcomes. The matrix appears as Annex 2.

While RBM introduces a desirable level of discipline into the task, the evaluation team felt it necessary to elaborate not only on indicators, but also on the interconnections that exist among programme elements. This more analytical task can provide useful insights leading to certain strategic management recommendations. An example is the need to look at the continuing role of the UNDP in the programme, or the logical evolution of a mine action programme once the traditional elements have been completed or are nearing completion.

The evaluation team consisted of two specialists, one skilled in the technicalities of the various elements of mine action, the other focusing on management aspects. The team commenced on 9 April 2005, and completed its investigative work in Yemen two weeks later. Work consisted of interviews (see Annex 3 for a list of people interviewed), documentary analysis, and field observations.

3 Management Aspects

3.1 The structure of the Yemeni National Mine Action Programme (YMAP) appears remarkably well developed, and contains all the components necessary for a well-managed enterprise. Among the elements in place are the following components:

- A national decree, which was signed in June 1998, establishing both the National Mine Action Committee and the Yemen Executive Mine Action Centre as legal entities. This has been amended and kept up to date.

- A high-level National Mine Action Committee, which was set up in June 1998. It is chaired now (he is the fourth Minister with this responsibility) by Kasem Ahmed Al-Agam, a Minister of State and member of Cabinet. This means that mine action is coordinated at Ministerial level, with direct access to the President through the Prime Minister. The Committee includes the deputies of nine ministries, which is an excellent way of ensuring that the needs of all relevant Ministries are kept under review.

- A Yemeni Executive Mine Action Centre (YEMAC), which was set up in January 1999 to implement the plans and policies approved by the National Mine Action Committee. This is the main controlling agency for mine action in Yemen, and is involved with all aspects of mine action including Mine Risk Education (MRE) and Victim Assistance (VA) Programmes.

- A nation-wide Landmine Impact Survey (LIS), carried out in the year 1999-2000, which has given a clear picture of the national contamination. This LIS was carried out by the Survey Action Centre, and identified some 592 mine-affected communities in 95 districts, and 1,078 contaminated areas. The main casualties were among farmers, nomadic herdsmen, and their children.

- A National Strategy Paper, which was drafted in 2001 based on the LIS, initially covered 2001-2005 but has now been extended to cover the period 2004 to 2009, by which time it is estimated that the country will be free of the effects of anti-personnel mines, an important milestone on the road to full compliance with requirements of the Mine Ban Treaty, which Yemen has signed and ratified.

- National Mine Action Standards (NMAS), based on the UN International Mine Action Standards (IMAS), which are now in preparation, but many of which have already been drafted and translated into Arabic.

- A comprehensive set of generic Standing Operating Procedures (SOPs), specially prepared for mine action in Yemen. These SOPs have also been translated into Arabic.

- The signing of the Mine Ban Convention (AP MBC) in 1997, and ratification in 1998. Yemen was the first country in the Middle East Region to do so.

- The destruction of the national stockpile of AP landmines in April 2002.

3.2 This is extremely encouraging, and means that the Republic of Yemen has built up a solid legal and structural foundation to their mine action programme, an achievement that many other longer-lived national programmes have failed to produce.

3.3 It is also notable that although the mine action programme uses officers and soldiers for its mine action teams, the Programme Manager is not a serving officer, the teams do not wear military uniforms, and the mine action programme is not run by the Defence Ministry, although the staff members receive military salaries. This separation from serving army staff works well, and allows donors to fund the programme, since they do not have to fund salaries.

4 Overview of Progress Achieved

The Yemeni Programme has made significant strides since 1999. Some of the achievements are:

- The Programme is ranked in the top 20 UN-supported Mine Action Programmes worldwide. It was in the top 3 of the 16 programmes seen by the evaluation team.
- The LIS was the first UN-certified Landmine Impact Survey.
- The programme has successfully met its strategic targets for 2001, 2002, 2003, and 2004.
- It has created and trained eight mine clearance units, seven Technical Survey teams, three Quality Assurance teams, and one monitoring and evaluation team, with a total staff of over 1,000 people.
- It has built up a Mine Detection Dog (MDD) capability.
- It has cleared 10 of its 14 highly impacted communities, and the clearance of four others is expected to be completed by the fall of 2005.
- The Governorate of Aden, once a heavily contaminated area, is now free from landmines.
- Over 218 million m^2 have been surveyed and cleared of landmines and UXOs.
- Over 181,000 mines and UXOs have been discovered and destroyed.
- Over 450,000 people have received Mine Risk Education (MRE) in 266 villages.
- Over 1,100 victims have been medically checked and treated.
- Yemen is on track to fulfil its Mine Ban Convention commitments by March 2009.

4.1 Strategic planning capability.

4.1.1 Ideally, strategic planning should be done by the National Mine Action Committee, but in reality the strategic plans are drafted by the YEMAC, for submission to the Committee for approval. This is common in many national programmes. The Strategy Plan aims to rid the Republic of Yemen of the effects of landmines by 2009. This is a practical possibility provided that no further major mined areas are found which were not identified in the Local Impact Survey, which is unlikely. It may also be difficult to achieve due to slippage in donor funding.

4.1.2 The five-year strategy plan represents the Yemeni government's Mine Action Programme Plan, and was based on the initial five year strategy plan 2001-2005, mentioned above. Apparently it was drafted by the CTA in close consultation with the Programme Manager. This is not seen as a problem because the Programme Manager could use the existing plan as a guide to further planning documents.

In summary, the Yemeni Government has a functional and practical strategic capacity, which will be easy to modify. It also has the capability to carry out such modifications to its strategy.

5 Implementing Support for the structure – YEMAC and its Staff

5.1 The YEMAC is a well set up organisation, which is entirely national except for an expatriate CTA and Programme Adviser. It has a headquarters in Sana'a and regional offices in Aden and Mukalla (Hadramaut). The headquarters has sections devoted to operations, planning (including IMSMA), training, Finance and Logistics, Mine Risk Education (MRE) and Victim Assistance (VA). The majority of the staff interviewed seem competent, and their work appears to be effective. The MRE and VA sections are well integrated into the structure, and almost uniquely well organised, mainly due to initiatives from the Programme Manager. The mine and UXO clearance operations are undertaken by eight clearance companies, assisted by seven survey teams, one of each working with the Regional Centre in Mukalla, covering the distributed smaller mined areas in the east of the country. With the three Quality Assurance (QA) teams, the monitoring team and the MDD capacity mentioned above, YEMAC has all the necessary component parts for a highly effective mine action centre. The total staff complement is 1014, with 25 per cent at Headquarters and the remainder in the field, which represent reasonable numbers in a programme of this size.

5.2 The National Programme Manager is a powerful and hardworking man, with many original ideas, high motivation and strength of purpose. His supporting staff members appear to vary in quality, and to some extent seem to look to the Programme Manager for guidance. The Programme Manager is trying to achieve more delegation of responsibility. He is also trying to get junior staff members to expand in capability, and to feel comfortable with acceptance of responsibility. The problem is that many of the better staff speak only Arabic, which means they cannot work directly with some donors, nor attend the higher-level management courses. The inability to operate in a mixed language environment creates difficulties, which the Programme Manager is facing. This situation meets the present requirements, because expatriate technical advisers provide a valuable source of advice and information at all levels. When UNDP draws down its level of support, and expatriate staff members are removed, the overall reliance on the one high profile manager will increase. In the opinion of the evaluation team, the programme Manager is so capable, and with such a high profile at Ministerial level, that it is likely he will be promoted to another appointment, in mine action or outside it, either in Yemen or internationally. Without a strong and well-trained team to take over, YEMAC could suffer after his departure, but he is aware that it is his responsibility to ensure that such a team is available before he leaves his present post.

Lesson Learned 1

The success of Yemen's mine action programme is largely due to the very strong commitment coming from the highest levels of Government, translated into a powerful decision-making structure and competent management.

6 Standards, Quality, and Operational Issues

6.1 National Standards

1 National Mine Action Standards are in production, based on International Mine Action Standards (IMAS), and those already produced have been translated into Arabic. Although the English originals have relied heavily on IMAS, the Arabic version is said to contain elements that better reflect the national requirements of Yemen. Copies of these standards are available in the YEMAC.

Recommendation 1

It is recommended that the Yemeni National Mine Action Standards be retained in the GICHD for use as a working example for other Arabic-speaking national programmes.

6.2 Quality Assurance System

1 There is a Quality Assurance (QA) section in the YEMAC, but no Quality Manager as such, this duty being undertaken by the man in charge of the Quality Assurance teams. To back the QA, there is a comprehensive set of SOPs for all activities, including SOPs for QA and monitoring, which lay down the criteria required and the methods of achieving the required results. These have been translated into Arabic, and are available at field level. The Company Commander of 7 Company appeared to have the most important factors listed beside the operations map in his field-briefing site, and these were apparently read out to all team members on a daily basis, which is a practical way of passing on this knowledge.

(Quality assurance at field level is discussed under operations below.)

6.3 Operational Issues

1 <u>Clearance operations</u>

1.1 Operational clearance issues.

i. In the limited time available, it was only possible to visit one working mine clearance site. This was in Khanfar District of the Abyan Governorate, not far from the Aden Regional base. No 7 company, with three teams, was clearing a site previously cleared by the Yemeni Army, but it was apparently policy to

re-clear all Army-cleared sites, and three anti-tank mines have already been found in the area. The clearance area was 104,022m^2. Clearance started on 27 November, and 34,800m^2 have already been completed up to the end of March 2005.

ii. The clearance methods were conventional, using the Ebinger 421 mine detector and hand prodding. The mine detectors and hand tools seemed to be in good condition and the tool kit checked appeared complete. The operating system used was one man per lane, but the man was replaced after 30 minutes, and rested until the next changeover point, a necessary factor in hot weather. The work was slow, due to a high level of metallic scrap and fragments in the area, none of which had been removed by the previous clearance. Working hours were from 05.00 to a finish time varying between 11.00 and 13.00, depending on the temperature and conditions, which appeared operationally sensible.

iii. Post-clearance checking. Due to distances of minefields from main roads and shortage of time, one cleared area was examined which had been returned to the local community. The occasion of the visit was used for the presentation of certificates from YEMAC thanking the local people for their support and cooperation, and a small group of local people was present to receive them. The minefield had been on a ridge near Al Masharih in the A'adain Sada'a district. This ridge, though not cultivated, lay across the quickest communication route for all the fifteen villages in this area, and was used for the movement of livestock. The area of the minefield was about 37,500 m^2. Eleven PMN anti-personnel mines were found and destroyed by No. 7 Company. The fifteen villages in the area were said to contain about 30 families in each, so perhaps about 2,500 people benefited, and three to five times than number of livestock, since herds are moved to gain food from the shrubs and bushes in the area.

1.2 Future Operational Needs.

1 At the moment, there appear to be enough clearance resources to deal with the medium impact area identified by the LIS. It is however noted that the numbers of mines found is small, and they are not in patterned minefields. Experience in other national programmes has shown that increased use of Technical Survey techniques can increase the areas of land released by a significant factor, especially if dogs can be used to detect the actual mines or mined areas in a suspected area. There has been a decision that at least two clearance units should be converted for Technical Survey, and the results should be assessed at the end of a twelve-month period. This should be possible within the skills and equipment holdings of YEMAC.

2. Based on the extended strategic plan, YEMAC plans to restructure all its clearance units to smaller logistically independent platoons and introduce one man one lane drill to increase clearance outputs as well as safety. This results from experience that most of the minefields are small in size and a full Demining unit (54 deminers) cannot be employed at the same time. Also YEMAC plans to establish an

additional seven technical survey teams and two quality assurance teams. However, these plans are awaiting funding or in-kind contribution of equipment and if YEMAC could not secure funding/equipment to do so, there could be delay in meeting the convention's objective by March 2009.

Recommendation 2

It is recommended that the plan to convert two clearance teams to Technical Survey be implemented as soon as possible.

2 Safety issues

i. All clearance staff was wearing PPE, which appeared to be in good condition except for two visors, which were scratched. Soft visor bags were available.

ii. When mines were found, they were stored until they could be defused by a special EOD destruction team. Although this was contrary to IMAS, it was necessary due to the shortage of explosive demolition stores for mine destruction.

iii. UXO found during clearance were similarly stored, and the Aden Regional Mine Action Branch has accumulated a large stock of munitions, some in a potentially dangerous state. This is an unsafe practice, because the munitions are stored in a residential area in Aden, and a munitions fire or explosion could cause great damage to the surrounding district, as happened in Lagos, Nigeria. The problem is well known to the Programme Manager, but until explosives and demolition stores can be purchased, the munitions have to remain in situ in a guarded building.

Recommendation 3

It is recommended that enquires be made to explore the possibility of reducing the munitions stock by open burning techniques.

Recommendation 4

It is also strongly recommended that donors be requested as a matter of urgency to donate sufficient explosive and demolition stores to destroy this dangerous stockpile by detonation, a safer alternative to burning.

iv. There have been four accidents since 2002, resulting in one death and three seriously injured staff members. A Board of Inquiry was held in each case. These accidents were unfortunate, but understandable given the very difficult terrain in the mountain areas of Yemen.

3. Quality Issues

i. The first level of quality assurance is provided by the Team Leader, who monitors the performance of his team to ensure compliance with SOPs, and

carries out sampling of his own team. This is required by the Company Commander, and is the only internal form of QA. It is supported by the periodic and random visit of a two-man QA team, of which there are two in the Aden Region and one in Mukalla. These teams usually operate after the demining teams have left the worksite, and they carry out a sample clearance of up to 10% or more. Their effectiveness has been proved by the finding of two missed mines to date. There is also a single two-man independent monitoring team, which visits field sites to check compliance with SOPs and national standards.

ii. The above is a system that is unique to Yemen, but appears to work. The effectiveness of monitoring teams is measured by the follow-up action taken by the inspected teams, and it is to be hoped that this will be immediate and systematic, which it is not in some other national programmes.

Recommendation 5

Since there are three teams in a Company, it is recommended that (where possible) team leaders perform QA sampling on each other's teams rather than on their own, which can add to the thoroughness of the sampling process.

4 Medical issues

The doctor was in attendance, with an ambulance, which was fitted with radio for medical and casualty evacuation communications only. The medical kit was checked, and seemed unusually complete. The doctor estimated that the transit time to get a casualty to Aden hospital was about 50 minutes, and that the Aden hospital has the capability to carry out neurological surgery.

5 Communications issues

Communications were by VHF on site, and all team leaders and commanders seemed to be in possession of hand-held radios. In addition, there was HF communication to base, where the operations room were on listening watch throughout working hours. Mobile telephones are frequently used as alternative means of communication, but in the particular area visited, while possible, the signal was weak. The internet has become the communications means of choice for many organisations, including the UN, UNDP, the GICHD, Cranfield and James Madison University, all of whom provide a great deal of relevant information on topics and trends in mine action.

Recommendation 6

It is recommended that Company Commanders, Team Leaders and members of YEMAC and the National Training Centre be encouraged to use internet for educational purposes. **The Programme Manager is introducing a pilot scheme to investigate the practicality of doing so.**

6 Environmental issues

In the area visited, mechanical clearance could not be used without severe damage to the bushes in the area, which are the food supply for the local nomadic herds. This meant that manual clearance had to be used. Bushes were burned off before mine and UXO clearance, but this promotes re-growth. In addition, the area being burned off is minimal compared to the surrounding area, and has little effect on the local pasture. As a matter of policy, it was stated that the minimum possible damage is done to the soil.

7 Logistic support to operations

There appeared to be an effective manually-based logistic system in place, with reasonable safeguards for cost-effectiveness, including the use of three bids for each purchase, and money for equipment over US$2,500 being handled by UNDP rather than YEMAC. The stores vouchers seemed to be in order, and expensive items were signed for by individual users. There were some safeguards against over-purchase of expendable items such as batteries and motor vehicle tyres. The main problems derived from slowness in payment of purchase orders by UNDP, leading to cancellation of orders by vendors, and loss of credibility by the YEMAC purchasing staff. The stores inventory and purchasing, has not been computerised, although this is planned in the National Action Plan for 2005. There has also been lack of sufficient funding for some medical supplies to treat minor illnesses in the field, and on occasions there is insufficient funding to provide desired levels of equipment replacement at some stages in the programme.

8 Transport support to operations

The transport documentation and logistic system seemed to be satisfactory, although parts of that would also benefit from computerisation. All vehicles use work tickets, recording times and distances and fuels used. Receipts for fuels were checked against works tickets and retained. There was a system of documentation for maintenance and repair. There was an extensive vehicle repair capability in Aden, with a reasonable supply of spare parts for all vehicles.

Recommendation 7

It is recommended that donors be asked to fund the computerised system of stores and inventory management planned in the 2005 National Action Plan, and the training necessary for the logistic staff.

Recommendation 8

It is also recommended that the German Foreign Ministry be asked to supply medicines for the paramedics, at a cost of €12,000 per year.

7 Training issues

Basic Training

1 Basic training is carried out at the National Training Centre in Aden. This is a large facility with good equipment, and sufficient room to run four classes simultaneously. Recruits are only accepted for training after a rigorous physical check, and screening to ensure their motivation to undertake mine action. They also have to be fully literate. The course itself was stated to be about 10 weeks in length, which is long for such training. 70% of the instruction is field training. Subjects covered include use and care of all hand tools, use of electronic detectors and prodders, mine and UXO types, basic safety drills, first aid and MRE. The only subject deliberately omitted is demolition and destruction of mines and UXO, to ensure that explosive demolition is restricted to EOD teams, who have the most experience in this area. It also means that less staff has access to explosive, a valid security precaution.

2 The last two weeks of the course are spent on practical tests, and the recruit must pass all these tests before being allocated a place in a mine clearance team. Once in the field, they are closely supervised for one week, not only on their mine action capability but also their ability to live under field conditions. If the recruits fail the tests, some parts of the course can be covered again. Their early performance is assessed by risk evaluation officers, who can finally decide whether the recruit is accepted or not. This sounds to be a comprehensive training course, which should ensure that the mine clearance staff is adequately trained for their duties.

3 Basic UXO and demolition courses are also carried out at the National Training Centre. There was not time to discuss this course in detail.

4 Much of the training material has been updated by the Programme Adviser, who has provided training materials on ERW recognition, manual demining and demolition procedures, translated into Arabic. He has also updated the existing course material for Impact Survey training, Technical Survey, Quality Control, training of trainers and mine dog training.

5 It was claimed that refresher training takes place in two periods every year after return from leave, but this is left to the Company Commanders, and may not always happen.

Recommendation 9

It is recommended that a 3-day refresher-training course be designed and put into use after every leave period.

Team Leader training

This training course lasts 30 days, and was carried out by trainers from RONCO. It would be preferable if such courses were carried out by YEMAC instructors. The RONCO initiative was welcomed, but YEMAC training would be preferable.

Mine Action Training delivered at both senior and middle level

Since the majority of staff members in senior and middle management positions have been mine clearance staff in the past, the need for refresher training in mine action may not be needed.

Recommendation 10

Where staff is recruited direct from the Army, refresher training, and a reasonable period in the field, are highly recommended.

Recommendation 11

It is also recommended that administrative and logistics staff members spend a short attachment in the field, to ensure that they understand the problems at field level.

Staff Training system for YEMAC

1 Three senior staff members were selected for senior management training at Cranfield University, one each in 2000, 2002 and 2003. Two were selected for middle management training in Jordan in 2002. More senior staff members need this training, but cannot gain benefit from it while the training is conducted in English.

Recommendation 12

It is recommended that Cranfield University be asked to conduct their next regional middle management course in Arabic, and give priority to Yemeni candidates.

2 It is a fact that English is the most commonly used language in the mine action area, and both the UN and the GICHD use this as their working language.

Recommendation 13

It is recommended that middle and senior managers be given instruction in English, so they can benefit more from training material and other information produced in that language.

Training of Trainers

1 The training of trainers was done by the senior staff, all of whom were academically qualified engineers, with long experience of mine action. The courses varied in length, due to the capabilities and experience of the staff being trained. This was done at the National Training Centre in Aden. It was stated that there were sufficient trainers for their needs. The subjects covered in the instruction for trainers included all SOPs and standards, and the activities of all sections of mine action.

2 The National Training Centre was recently evaluated by an education expert from Sana'a University, when many recommendations were made. One of the shortcomings noted was the absence of computers and projectors for Power Point, which is a useful instructional tool for lesson plans.

Recommendation 14

It is recommended that computer equipment, projectors and training in Power Point be given to the instructors at the National Training Centre.

Recommendation 15

It is also recommended that trainers be periodically rotated into field positions as Team Leaders or Supervisors in field companies, quality control or survey teams, to allow them to gain valuable feedback from the operations. This will give them a better idea of areas where current training may be insufficient.

3 The National Training Centre also carries out specialist training as necessary, on such subjects as Mine Action Standards and IMSMA.

8 Resource Management

Resource mobilization

1 The system

1.1 Mobilization of donors' resources follows a system that can be conveniently summarized as follows.

- Resource requirements are, in first instance, based on a long-term mine action strategy. A five year National Strategic Mine Action Plan for Yemen, 2004-2009 (revised and extended) has been drafted. It was approved by the Government of Yemen in 2004. It contains strategic goals and objectives (the key one being completion of the MA programme in 2009) and indicates resources required each year;

- An annual work plan is prepared, with costing for each component. It is incorporated into the UN Atlas financial system following pre-determined categories;

- Annual work plans from all mine action programs are collected into the Global Portfolio, coordinated by UNMAS. The latter constitutes a basis for funding options donors can choose from;

- YEMAC prepares a monthly update for each project, which is sent to UNMAS with indications of funds, pledged and received and funds still required.

- Concurrently, YEMAC has an annual meeting with donors collectively and individually in Sana'a. Individual donors are approached for specific project financing.

- The Programme Manager of YEMAC, together with the Chairman of NMAC travel to donor countries to follow-up on expressed interest.

- Contributing donors transfer funds to the UNDP BCPR Thematic Trust Fund (TTF) in New York. Authorization to draw funds is then forwarded to the UNDP Country Office in Yemen.

1.2 In addition to contributions to the TTF, there are other ways of contributing, such as:

- Bilateral arrangements between the Government of Yemen and a donor country (e.g. Saudi Arabia)

- Bilateral cost-sharing agreements with the UNDP, for general or specific purposes.

- In-kind contributions, (e.g. USA, Germany and Switzerland)

1.3 The external resource mobilization system provides options for donors depending on preferences and, thus far, seems to have worked well. The system allows for a maximum of flexibility and offers various options in the pursuit of transparency. So far there have been no budgetary shortfalls.

1.4 While there is an acceptable process of informing donors with respect to resource requirements, there appears to be some room for improvement in progress reporting to stakeholders. At the moment, donors receive progress feedback on the basis of reporting frequency and content, stipulated in the respective contribution agreements. It may be worth considering the preparation of periodic updates on the YEMAC programme as a whole, thus complementing the existing website. Through enhanced interaction with the donor community, interest will be increased and sustained.

Recommendation 16

It is recommended that quarterly updates on the overall YEMAC programme be prepared for distribution to stakeholders.

2 Procurement

2.1 With the change in the execution modality of the UNDP support project to the national mine action programme from agency to national execution in the fall of 2003, procurement responsibilities changed and fell upon the shoulders of YEMAC. Controls were required and an agreement was concluded establishing a procurement system for purchases of $2,500 or below, and purchases over $2,500. Payment for purchases falling under the lower limit are made directly by the UNDP to the vendor, on the basis of quotes, invoices and receipts. The control of this system seems to work satisfactorily.

2.2 An advance system has been introduced whereby $100,000 is advanced each quarter against which purchases can be made. At the end of the quarter the advance is reconciled and left over funds go towards to advance for the next quarter. The purchase verification system (examination of purchase documents, spot price checks) seems adequate. However, it would be appropriate for the YEMAC finance officer to be allowed to perform periodic field checks for additional controls.

2.3 With respect to procurement above the $2,500 limit, YEMAC provides a service request to the UNDP Country Office. At that point, procurement follows standard UNDP rules and regulations.

Recommendation 17

It is recommended that a system of periodic field verification checks by YEMAC's finance officer be introduced.

3 Trials in Support of Procurement

3.1 There was no evidence of a systematic test and trial capacity at YEMAC, although some tests had apparently taken place on different types of mine detectors before accepting the Ebinger as the working instrument. In reality, there is no need for large-scale tests of equipment, since the companies have equipment that appear adequate for their purposes except for extreme conditions such as detection problems in areas of highly metallic rock, and removal of mines from deep sand. There is almost no mechanical clearance, but the Programme Manager has selected some new types of mechanical equipment, and trials on these will be conducted in Yemen. There appear to be no SOPs for equipment trials, but this is not uncommon in small national programmes. Unfortunately the soil characteristics in Yemen are so different from those in Europe and SE Asia that test results from systematic trials done in Croatia and Cambodia would have little relevance. The GICHD Equipment Manual was available in YEMAC. There have been several mine detectors trials and there is at least a national standard available on this and the programme personnel are fully trained on equipment test and conduct of trials. Senior YEMAC personnel (Director, Director of NTC, Director of RMAB Aden and CTA, OPA etc.) participated in the last detector trials.

3.2 In other programmes, the mine action centre has used a combination of the CTA, local staff and external assistance to set up ad-hoc trials. If trials were needed, this would be the recommended solution rather than establishing an expensive trials capability in a small national programme.

4 Budgetary Contributions

4.1 The resource mobilization system has resulted in external contributions sufficient to meet budgetary requirements. The overall financial summary of the mine action project is provided in Annex 4. Thus far, for the year 2005, some $1.5 million has been mobilized leaving about $2 million still to be found. The year 2005 represents the peak of required funds for the execution of a mature programme, tapering down in the ensuing years towards completion in 2009.

4.2 As mentioned earlier, one of the very noteworthy aspects of the mine action programme in Yemen is the strong commitment by the Government. This is expressed, among other things, in the financial contribution the Government makes each year, estimated to be the equivalent of about $3.5 million. It is difficult to calculate the precise monetary value of this contribution, but the table in Annex 5 prepared by the YEMAC advisory team, provides a rather accurate indication. The table shows that for the year 2004, some $3.5 million equivalent was contributed by GOY, some $2.9 million of which went for salaries and allowances of slightly more than 1000 demining personnel.

9 Mine Detection Dogs

1 The YEMAC has established a Mine Detection Dog capability, including a small breeding programme. The dogs are used for mine clearance, for technical survey (area reduction) and for Quality Assurance, and produce an output that is said to be many times faster than manual clearance. During the visit, it was only possible to visit the training site, and not the kennel area. The school was set up with the assistance of the Afghan MDD programme, and the chief instructor was on secondment from the Afghan Mine Dog School in Kabul, but the aim is to replace him with a Yemeni instructor.

2 The total number of dogs is 38 (about one tenth of the Afghan programme), with a further eight puppies under training. This number is sufficient for current operations, but may have be expanded if there is a change in the pattern of clearance operations towards increased technical survey, which usually involves search by dogs.

3 Dogs and handlers received periodic refresher training, including daily checks. The training area was located in a military camp, which ensured that the place was guarded. There was a wide area for training, but the fenced test area was relatively small, but well laid out. During the demonstration of search on a long leash, the search dog was a little erratic, but this may have been due to the large audience putting stress on the dog and handler. Another search area used actual mines outside the fenced area. In general, the use of such a search area means that the mines have to be placed shortly before the search, which can lead to the dog identifying the disturbed soil rather than the mine. Some other form of targets should be selected, which do not require secure guarding.

4 The breeding programme is commendable, since locally bred dogs are cheaper, easier to train and suffer less from local diseases and pests, but the number of puppies is small, and will barely cover wastage through age.

5 The main problems were:

- The training area is some distance from the kennels, which means that the dogs have to be transported by truck on a daily basis.
- The smallness of the test site, which has to be used repeatedly, allowing the site to become contaminated with dog smells, and the dogs and handlers to know where to look for the mines.
- The use of a military training area makes it difficult to expand with the increasing number of dogs.

6 Altogether, it seemed to be a commendable small programme, which could act as a model for other national programmes. Regrettably, the conditions in the only active clearance site visited in the Abyan Governorate were not conducive to the use of dogs, being dry and sandy, with a surface wind.

Recommendation 18

It is recommended that a senior instructor from the Afghan MDD programme remain with the Yemeni dog programme, to allow improvements to be passed across to Yemen.

Recommendation 19

It is recommended that the breeding programme be expanded, and computerised to optimise the selection of suitable parents.

Recommendation 20

It is recommended that if possible the guarded test area be expanded, to allow parts to "rest" and lose any contaminating smells.

Recommendation 21

It is recommended that alternative forms of targets such as TNT-contaminated cloth fragments be considered instead of mines in the unguarded search area, allowing them to remain indefinitely.

Recommendation 22

It is recommended that members of other teams, such as Survey or Quality Assurance teams, who could use dogs for their operations, also be given training mine dog operations, to understand the strengths and limitations of MDD

10 Victim Assistance Programme

1 The Yemeni Landmine/UXO Victim Assistance Programme was established in 1999 as an integral part of the YEMAC operations, and is probably one of the most advanced in the world. Staff consists of a five member medical team under the dynamic directorship of Dr. Fouad Al Shamery, with assistance from a highly qualified nurse Tzvetanka Dermendjieva responsible for field missions and general coordinating and administrative tasks. In addition, there is four field staff located in Aden. Both genders are appropriately represented in the overall staffing picture.

2 There are four distinct phases to the programme.

(i) **Medical survey phase**. Using data from the landmine impact survey, as incorporated into IMSMA, victims are identified and classified according to gender, age, location and medical needs. During this phase the medical team travels to the communities for interviews and medical examinations of victims, while identifying their socio-economic circumstances. The physical exam sheet provides personal details, medical and surgical history, extent and cause of trauma, medication, allergies and a general assessment including a treatment plan with special requirements and equipment requirements. During the survey stage, additional victims not identified in the LIS, or victims of other types of accidents, are included. The survey is usually conducted district by district lasting between 15 to 20 days. At the end of the survey, victims are classified on the basis of future medical assistance requirements. Each victim is assigned an ID number.

(ii) **Medical examination phase**. Victims requiring medical attention are collected from their villages by bus at pre-determined intervals and transported to a major hospital. The programme pays for transportation, accommodation, medical examination, medicine and (during the subsequent phase) all other required treatment. The victim assistance team arranges for necessary appointments in advance with various departments in the hospital depending on needs (e.g. eye, ear, surgical specialists) for an efficient examination process. Victims requiring prosthetic devices will visit Handicap International. At the end of the examinations, a list of required medical interventions is established in order to determine a comprehensive and individual medical support programme.

(iii) **Medical support phase.** During this third phase, victims identified as requiring further support return to the hospital or the Handicap International Prosthetic Centre for treatment and stay there until their treatment is completed. Victims are provided with wheelchairs, eyeglasses, hearing aids, artificial limbs and other means that allow them to return to a more normal life. A ceremony is organized to present the rehabilitated victims to the public at large. The ceremony is attended by senior people from NMAC, YEMAC, UN and NGOs with the

objective of informing the public through TV and radio of the importance of mine action.

Of considerable interest for this phase is the commitment by the Government of Italy to take up to five severely damaged victims per year and treat them in Tuscany in ways for which hospitals in Yemen are not yet ready, including cosmetic surgery. Under the agreement between the Government of Italy and the Government of Yemen, travel costs are paid by the latter and hospitalisation by the former. Thus far two victims have received this very costly, but very essential, treatment. In both cases, the outcome was most encouraging. This Italian contribution is not shown in the official donor statistics since funds are obtained from a special Italian regional budget.

The VA section in YEMAC produces a wide range of statistics that provide an excellent summary of achievements. These detailed statistics are not incorporated into IMSMA at this time.[4] From the beginning of the implementation of the programme, close to 1200 victims have been identified in 476 communities. Medical support that has been provided is shown in the following table.

Support Provided (2001-Febr. 2005)

Type of support	Number of beneficiaries
Hearing aids	13
Eye glasses	41
Wheelchairs	15
Artificial limbs	64
Corrective surgery	77
Physio therapy	28
Investigation	46
Hospitalisation in Italy	2
Total	**286**

Source: VA Section, YEMAC

(iv) Rehabilitation phase. The last phase in the victim assistance programme deals with reintegration of victims into the community. The Yemen Association for Landmine / UXO Survivors was established in the fall of 2004 with the purpose of providing mutual support among victims. The goal of the Association is to provide landmine victims with skills that will allow them to become fully participating members in their communities. Operations started in January 2005. With initial financial assistance from the UNDP, the programme has subsequently been supported by the Government of Japan, which continues to be the major contributor.

3 A visit to the training centre, located in Sana'a, revealed a very enthusiastic team of administrators, trainers and trainees, both male and female, all being victims,

[4] See chapter on IMSMA

engaged in training that currently focuses on computers, sewing and handicrafts. In a short period of time the centre has managed to train some 40 people, producing items of high quality (e.g. clothing, handicrafts), with good sales value. Trainees reside in the centre until they finish their programme. The centre is also active in finding them meaningful employment after completion of the programme and several of them have already returned to their villages to commence a new life.

4 The Victim Assistance programme is unique in the world in terms of strategy, scope, effectiveness and final results. Success can be attributed to a combination of high-level Government support (including from the Health Ministry), qualified and dedicated staff, a well-defined strategic approach, and strong support by the YEMAC Programme Manager. It can serve as an example for other countries to examine, and if applicable to emulate.

Case Study: Saba Ali Al-Jaradi

In the year 2000, the mine exploded. Saba was 14 years old. Her father died during the explosion. She lost both legs and her eyesight.

It was a normal day, a Monday, and there was no indication that her life would change forever. The minefield turned out to be very close to the house. The children had been going to that area thousands of time, and nothing had happened before. Her father decided that he was going to build a new house and took his daughter to see the new location. Saba was walking close to him when the bomb exploded. Her father died almost instantly, blown away by the impact. She fell down, with serious damage to her face, and then discovered that her legs were missing.

The Victim Assistance staff heard of her case, and arranged for her transportation to hospital. Her recovery was slow and traumatic. She stayed in hospital for almost a full year, received specialized artificial limbs, participated in physiotherapy, underwent surgery. In 2003 a final eye surgery took place giving her back part of her eyesight. All expenses were paid by the VA programme. She was given training in sewing and currently lives in the training centre of the Association for Landmine Survivors, learning computer skills. She feels grateful:

> *"I feel happy and relaxed here. I learned how to sew, how to work on a computer. I completed a specialized course for teachers. Now I am already a teacher in the centre. And best regards from me to Mr. Mansour* [YEMAC Programme Manager]. *Let him call more often!"*

11 Mine Risk Education Programme

1 Mine Risk Education has become an effective, high profile, activity of YEMAC with clear indications that its training programme has sensitised the population of the dangers of landmines. Thus far, of the 596 communities contaminated by landmines, 266 have been covered by the programme as of the end of 2004. The programme is currently financed by the UNDP and the Government of Japan on a 50-50 basis.

Mine Risk Education

Year	Men	Women	Total	Number of Villages
1999	0	0	0	0
2000	0	0	0	0
2001	24,500	12,000	36,500	24
2002	141,000	86,000	227,000	85
2003	38,332	36,648	74,980	76
2004	52,880	57,960	110,840	81
Total	**256,712**	**192,608**	**449,320**	**266**

2 The unit is well staffed with three individuals at headquarters (the Chief of section, his deputy and an administrative assistant), and some ten members located in Aden for fieldwork. The programme also benefits from a close association with a local NGO, the Yemen Mine Awareness Association, which provides six field staff (four women and two men). In addition, six women volunteers have been trained and participate in educational activities.

3 The programme itself seems well designed and involves officials at the highest Government levels as well as active roles for selected villagers. In the setting of priorities, activities are based on the operational strategies of YEMAC, focusing initially on high landmine / UXO impacted areas, then medium and low contaminated areas. Individual mission plans are drafted and approved at headquarters, relying on LIS data. Once approved, the plans are forwarded to the Aden branch for preparatory activities and coordination. Of considerable interest is the workshop conducted at the opening of the district programme, attended by high Governmental officials for visibility, and extensively covered by the media. The educational programme for each village is geared to prevailing circumstances. It includes gender-segregated activities and targets different groups (women, men, children). A programme for a single community normally involves a one-day period, and covers subjects such as types of landmines to be found, how to (not) deal with landmines / UXO, and how to report them. There are always one or two people targeted in a community (often male and female teachers) for onward training to ensure continuity. In all, MRE appears to be a highly effective and well-organized programme that can serve as an example to the rest of the world.

4 Mine risk education programs follow a standard and logical pattern and consist of three phases: (i) pre-clearance MRE; (ii) MRE in association with the survey team and/or the demining team; and (iii) MRE after clearance. Individual files are opened for each village, and statistical progress is reported to IMSMA.[5]

5 It is clear, and field observation confirms it, that Mine Risk Education in Yemen is mature and follows a well-designed strategy. The programme is subject to an internal monitoring process as part of the internal management feedback system. It has been integrated into the overall work plan and objectives of mine action in Yemen. Of key importance for its success is the high profile given to the programme and the full support it receives from high Government officials. Better recording of progress details, however, will need to be considered. Basic MRE information is captured through IMSMA but details of the various components are not.

[5] While IMSMA records the basic statistics, it is not yet in a position to report specific details (see chapter on IMSMA)

12 Information Management

1 The Information Management system currently used within YEMAC is based on the UN Information Management System for Mine Action (IMSMA), which is operational and effective in integrating information for mine action planning purposes. It is used frequently by management, and maps are of useful quality. Information is much in demand and can be accessed electronically by Government Departments, NGOs, companies and other users.

2 The 1:100,000 GIS maps underlying the system were used during the original impact survey. This large scale is a cause of concern because of its limitations in the amount of terrain detail that may be available. Another problem relates to the fact that the maps do not cover the country as a whole. The set of maps currently in use should be completed. Ideally, current maps should be replaced with a complete countrywide set of digitised maps at a scale of 1:50,000 or less. This will allow more detailed geo-referencing of satellite or aerial photography, and scanning in of other maps, because of the availability of accurate and identifiable points of reference. In order to decide on the best method of obtaining more detailed maps, a costing of alternative approaches should be carried out.

3 While the system is capable of providing basic information that is required, it has not been sufficiently customized to allow the incorporation of details with respect to MRE and VA. Every form of IMSMA has 20 user-defined fields that would allow the recording of considerable detail of mine action activity. At the moment the VA section is compiling an interesting set of data on victims. These data do not appear in IMSMA. The result is that task-forcing sheets fail to offer data that could be of enhanced usefulness for management purposes.

4 In general, there continues to be a serious constraint already mentioned in a review of activities and staffing for the period January – December 2004.[6] In this document it is stated, “the cooperation between the IMSMA and Operation Departments is poor and needs to be improved and strengthened. The result of this is that the reports generated are inconsistent and not useful either for planning or monitoring/evaluation”.

Recommendation 23

It is recommended that a donor be sought who can supply digitised base maps covering the whole of the country at a minimum of 1:50,000 scales. The US is likely to have such mapping.

[6] Yemen Executive Mine Action Centre, “Review Report on Activities and Staffing for the Period January-December 2004, p.3

Recommendation 24

It is also recommended that IMSMA be further customized to allow details of the MRE and VA programs to be incorporated.

Recommendation 25

It is recommended that cooperation between Operations and IMSMA be improved in order to enhance the accuracy and reliability of IMSMA output.

13 Community Rehabilitation

1 Mine Action consists of five pillars: stockpile destruction, advocacy, mine risk education, mine clearance, and victim assistance. In all five areas, Yemen compares very favourably to other mine action programs in the world.

2 The Government takes its responsibilities very seriously indeed. The ratification of the AP MBC to Ban Landmines came into force on 1 September 1998, and Yemen became a party to the Convention on 1 March 1999. The destruction of the national stockpile of anti-personnel mines was completed in April 2002. Yemen completed the first UN Certified Landmine Impact Survey in August 2000, and developed a Five-Year Strategic Mine Action Plan (2001-2005) that was updated in June 2004. The strategy aims to put an end to the casualties and suffering of the people for a mine Impact free country by March 2009, with some “mopping up” activities left to be done by that date. In addition, as is mentioned elsewhere in this report, Mine Action benefits from legal endorsement, a strong management and overseeing structure involving the highest levels of government, and substantial annual financial contributions of GOY. The evolution of the components of Yemen’s mine action programme is nothing short of impressive. What is the next step in this march forward?

3 The evaluation team pondered this question at length. It considered the ultimate purpose of mine action, i.e. the well being of the community. It realized that the five pillars are a mere prelude to this final goal. It realized that mine victims are not only individuals who lost a limb, but also the communities that lost a livelihood.

4 The team became convinced that a sixth pillar needs to be recognized in mine action, i.e. community rehabilitation. This sixth pillar is not officially acknowledged by the mine action world as yet. Nevertheless, its logic is indisputable. It is an inevitable final step in mine action capacity development, and completes the programme. Mine action should be regarded as an integrated and comprehensive set of activities with the final task of rehabilitating the affected community.

5 A chart has been prepared to illustrate this more comprehensive approach to capacity development (Annex 6). The chart shows the logic and the chain of responsibilities typical in building a viable mine action programme, with a project’s intermediate outcome the enhanced well-being of those affected.

6 In discussing the concept of community rehabilitation with representatives of five donor countries in Yemen, the evaluation team found general support for such an initiative, although in one or two cases it was pointed out that the mixing of mine action budgets with development budgets might present problems for the bureaucracy at home.

7 The process of community rehabilitation could be envisaged as follows:

1) It commences with the identification of community clusters where adjacent high-impact, medium impact and low-impact areas have been cleared thus providing a contiguous area for rehabilitative attention.[7]

2) A socio-economic assessment is conducted with the purpose of identifying (i) improvements that have occurred since clearance; (ii) remaining obstacles to socio-economic development; and (iii) key initiatives that need to be taken to remove such obstacles and/or enhance socio-economic well being.

3) On the basis of this assessment / pre-feasibility study, selected pilot projects are designed and costed.

4) Selected project proposals are submitted to the Ministry of Planning in order to be inserted into the National Strategic Development Plan of Yemen.

5) Other project proposals are submitted to prospective donors for possible funding and implementation.

8 It is not suggested here to erect a massive bureaucracy within the mine action centre. On the contrary, mid-way through a mine action programme, when villagers have started to return to their land, the CTA will be able to re-direct his/her attention to the final steps required in a comprehensive programme. The CTA can now begin to focus on coordination tasks to conduct assessments, pre-feasibility studies, and pilot project designs in collaboration with expertise that can be found within ongoing development programs sponsored by the UNDP and bilateral donors.

9 A community rehabilitation programme for post-clearance situations will have to be based on a well-designed strategic approach, identifying scope and design issues, as well as implementation and funding modalities. A CTA will need to train a strong counterpart who can ensure continuity when the CTA departs. One could envisage a small complement of staff within the Community Rehabilitation Unit. Cooperative arrangements with GOY, donors and the UNDP will need to be established. The CTA and his/her counterpart will need to be familiar not only with technical mine action issues, but also community development issues.

Recommendation 26

It is recommended that Community Rehabilitation become an integral part of mine action in Yemen, and be considered the last and essential sixth pillar in this particular programme.

[7] At the moment IMSMA indicates that clearance has been achieved in ten highly impacted communities, 52 medium-impacted communities, and 38 low impacted communities. The cluster approach recently adopted by YEMAC to reduce costs, would appear to fit in well with community development planning.

Recommendation 27

It is recommended that YEMAC establish a community rehabilitation planning and coordination competence that would become engaged in pilot assessments / pre-feasibility studies of selected village clusters, culminating in the design of pilot community-based initiatives.

Recommendation 28

It is recommended that the Community Rehabilitation Unit work in close collaboration with GOY, interested donors and the UNDP, with the intent of defining implementation and funding modalities.

14 Future UNDP-YEMAC Relationship

1 The first phase of the MAP was managed by UNOPS. For the second phase it was decided to switch over to national execution. This meant, in essence, that the Government of Yemen would be fully responsible for managing all aspects of the operations. It implies, for example, that advisors, including the CTA, would now report to the national Programme Manager, and no longer to UNOPS. It also implies that the YEMAC has to assume significant responsibilities in terms of fund raising, that the definition of strategy and the execution of work fall upon the shoulders of the Government. It means that the maintenance of standards becomes a Government responsibility, etc.

2 Given this move towards YEMAC away from dependency on external assistance, what role can, and should, the UNDP play in the future? Should an "exit strategy" be devised, and if so, what characteristics should such a strategy contain?

3 The UNDP continues to play an important role, a role donors would not like to see relinquished. Of key importance here are UNDP's activities in fund raising, procurement, and financial management. Discussing this matter with a number of donors, the evaluation team found unanimity with respect to the importance of UNDP involvement in these areas. The UNDP should remain the guardian of transparency. In addition, periodic monitoring/evaluation by an external agent was considered important, an area where the UNDP could play a useful role as well.[8]

4 Aside from matters of transparency, it would seem that YEMAC management itself would also benefit from a close association with the UNDP. The provision of a CTA and the various tasks this person provides (in terms of assistance in strategy definition, preparation of budgetary summaries, progress reporting, analytical analyses, etc.) continues to be useful to YEMAC. The maintenance of internal financial controls to satisfy UNDP requirements results in a healthy internal financial discipline. The general confidence of the donor community as a result of an ongoing relationship with the UNDP would tend to facilitate fund raising efforts by GOY. Similarly, the support of the donor community would tend to strengthen the Programme Manager's hand in dealing with his own government.

5 In considering these arguments, the evaluation team felt that it is pre-mature to talk about an "exit strategy" for the UNDP.

[8] While an internal monitoring competence has been established successfully within the YEMAC, this service is designed to support day-to-day management only.

Lesson Learned 2

The concept of National Execution does not automatically exclude support from the UNDP. In fact, the latter continues to play a vital role in Yemeni mine action.

Recommendation 29

It is strongly recommended that UNDP continues support for mine action in Yemen following the end of their current Phase II support programme (YEM/03/010/01/99).

6 Nevertheless, the universe evolves in its own inscrutable way. And so does YEMAC. Systems are currently working, programs seem efficient and effective, operational autonomy is no longer a pious hope but a looming reality. What seems to be required at this time is an adjustment to the support the UNDP now provides. This adjustment is especially focused on the role of technical assistance.

7 In the view of the evaluation team, technical assistance will no longer require two external specialists, but one only. In order to encourage the development of local expertise, the one remaining CTA should have a highly capable local counterpart who could, through on-the-job familiarization, take over when the CTA departs. This idea would accomplish two things: a reduction of external expertise from three in December 2004, to one in starting in May 2005[9]; and the introduction of local capacity able to take over former advisory functions.

8 The tasks of this CTA team would be focused on:

(i) Traditional areas that would be of benefit to the Programme Manager (e.g. budgetary preparations, progress monitoring and reporting, strategic analyses); and

(ii) Design and coordination of a community rehabilitation programme as a sixth pillar of mine action. (See previous chapter)

Recommendation 30

It is recommended that an advisory team be appointed consisting of one external CTA with a highly competent local counterpart, both of whom to be familiar not only with the technicalities of mine action but also community development.

[9] As of May 2005, the current CTA, Mr. Harald A. Wie, has resigned, leaving one technical expert in place, Mr. Faiz Mohammad, whose contract expires in August 2005.

15 Conclusions, Recommendations and Lessons Learned

Conclusions

The mine action programme in Yemen is showing a depth of maturity that is comparable to the best mine action programmes in the world. Since the first convening of the high-level National Mine Action Committee in June 1998 and the establishment of the Yemeni Executive Mine Action Centre in January 1999, the programme has evolved in all directions, and shows results at the outcome level that reveal focus and clarity of purpose. The fundamental reason for the progress achieved is, without any doubt, the strong commitment of the Government. This commitment is not only revealed through the establishment of a legal, policy and management structure, but can also be judged from the substantial funds contributed from the national budget, amounting to some US$3.5 million annually.

Under capable management, the YEMAC has established impressive MRE and VA programmes that can serve as examples to the rest of the world. There is a promising MDD programme, currently benefiting from training by Afghan specialists. National mine action standards are translated into Arabic, a comprehensive set of SOPs have been produced, including SOPs for quality assurance and monitoring. Operational concerns are of a relatively minor nature except for the existence of a large stockpile of munitions stored in a residential district of Aden awaiting sufficient explosives and demolition stores for destruction. Some training needs have been identified, especially for middle and senior management that might address the challenge of management succession. IMSMA fulfils a basic requirement, but some improvements in terms of accuracy and detail are necessary.

The resource mobilization system seems to work well, and thus far no budgetary shortfalls have been experienced. The participation of the UNDP continues to be of importance particular in terms of fund raising, procurement and financial oversight.

With a mature mine action programme that can serve, in many ways, as a model to the rest of the world, the question arises as to what should come next. The evaluation team has concluded that the next and final step in the mine action programme should recognize the rehabilitative needs of the affected communities, post clearance. To achieve the goal of community rehabilitation, the team proposes the incorporation of a core competence within the YEMAC to animate this activity, working in collaboration with the UNDP, bilateral donors and the Government.

Recommendations

The recommendations are based on the findings and opinions of the evaluation team In all cases they have been discussed with the staffs concerned, whether UNDP or YEMAC.

Recommendations to UNDP[10]

Recommendation 4 (page 11) – It is strongly recommended that UNDP assist in finding donors as a matter of urgency to donate sufficient explosive and demolition stores to destroy the dangerous stockpile of munitions in Aden, by detonation, a safer alternative to burning.

Recommendation 7 (page 13) – It is recommended that UNDP assist in finding donors to fund the computerised system of stores and inventory management planned in the 2005 National Action Plan, and the training necessary for the logistic staff.

Recommendation 14 (page 16) – It is recommended that UNDP assist in finding donors for the funding of computer equipment, projectors and training in Power Point, to be given to the instructors at the National Training Centre.

Recommendation 16 (page 18) – It is recommended that quarterly updates on the overall YEMAC programme be prepared for distribution to stakeholders.

Recommendation 23 (page 27) – It is recommended that a donor be sought by UNDP and YEMAC who can supply digitised base maps covering the whole of the country at a minimum of 1:50,000 scales. The US is likely to have such mapping.

Recommendation 29 (page 33) – It is strongly recommended that UNDP continues support for mine action in Yemen following the end of their current Phase II support programme (YEM/03/010/01/99).

Recommendation 30 (page 33) – It is recommended that an advisory team be appointed consisting of one external CTA with a highly competent local counterpart, both of whom to be familiar not only with the technicalities of mine action but also community development.

Recommendations to YEMAC

Recommendation 2 (page 11) – It is recommended that the plan to convert two clearance teams to Technical Survey be implemented as soon as possible.

Recommendation 3 (page 11) – It is recommended that enquires be made to explore the possibility of reducing the munitions stock by open burning techniques.

[10] As UNDP plays a supporting role to Yemen's mine action programme, all recommendations addressed to UNDP also require agreement and complementary action by the government and/or YEMAC.

Recommendation 4 (page 11) – It is also strongly recommended that donors be requested as a matter of urgency to donate sufficient explosive and demolition stores to destroy this dangerous stockpile by detonation, a safer alternative to burning.

Recommendation 5 (page 12) – Since there are three teams in a Company, it is recommended that team leaders perform QA sampling on each other's teams rather than on their own, which can add to the thoroughness of the sampling process.

Recommendation 6 (page 12) – It is recommended that Company Commanders, Team Leaders and members of YEMAC and the National Training Centre be encouraged to use internet for educational purposes. The Programme Manager is introducing a pilot scheme to investigate the practicability of doing so.

Recommendation 9 (page 14) – It is recommended that a 3-day mine action refresher-training course be designed and put into use after every leave period.

Recommendation 10 (page 15) – Where staff is recruited direct from the Army, refresher training, and a reasonable period in the field, are highly recommended.

Recommendation 11 (page 15) – It is also recommended that administrative and logistics staff members spend a short attachment in the field, to ensure that they understand the problems at field level.

Recommendation 13 (page 15) – It is recommended that middle and senior managers be given instruction in English, so they can benefit more from training material and other information produced in that language.

Recommendation 15 (page 16) – It is recommended that trainers be periodically rotated into field positions as Team Leaders or Supervisors in field companies, quality control or survey teams, to allow them to gain valuable feedback from the operations. This will give them a better idea of areas where current training may be insufficient.

Recommendation 17 (page 19) – It is recommended that a system of periodic field verification checks by YEMAC's finance officer be introduced.

Recommendation 18 (page 21) – It is recommended that a senior instructor from the Afghan MDD programme remain with the Yemeni dog programme, to allow improvements to be passed across to Yemen.

Recommendation 19 (page 21) – It is recommended that the dog breeding programme be expanded, and computerised to optimise the selection of suitable parents.

Recommendation 20 (page 21) – It is recommended that if possible the guarded test area be expanded, to allow parts to "rest" and lose any contaminating smells.

Recommendation 21 (page 21) – It is recommended that alternative forms of targets such as TNT-contaminated cloth fragments be considered instead of mines in the unguarded search area, allowing them to remain indefinitely.

Recommendation 22 (page 21) – It is recommended that members of other teams, such as Survey or Quality Assurance teams, who could use dogs for their operations, also be given training in mine dog operations, to understand the strengths and limitations of MDD.

Recommendation 25 (page 28) – It is recommended that cooperation between Operations and IMSMA be improved in order to enhance the accuracy and reliability of IMSMA output.

Recommendation 26 (page 30) – It is recommended that Community Rehabilitation become an integral part of the mine action programme in Yemen, and be considered the last and essential sixth pillar.

Recommendation 27 (page 31) – It is recommended that YEMAC establish a community rehabilitation planning and coordination competence that would become engaged in pilot assessments / pre-feasibility studies of selected village clusters, culminating in the design of pilot community-based initiatives.

Recommendation 28 (page 31) – It is recommended that a Community Rehabilitation Unit work in close collaboration with GOY, interested donors and the UNDP, with the intent of defining implementation and funding modalities.

Recommendations to GICHD and Others

Recommendation 1 (page 9) – It is recommended that the Yemeni National Mine Action Standards be retained in the GICHD for use as a working example for other Arabic-speaking national programmes.

Recommendation 8 (page 13) – It is also recommended that the German Foreign Ministry be asked to supply medicines for the paramedics, at a cost of €12,000 per year.

Recommendation 12 (page 15) – It is recommended that Cranfield University be asked to conduct their next regional middle management course in Arabic, and give priority to Yemeni candidates.

Recommendation 24 (page 28) – It is also recommended that IMSMA be further customized to allow details of the MRE and VA programs to be incorporated.

Lessons Learned

Lesson Learned 1 (page 8) – The success of Yemen's mine action programme is largely due to the very strong commitment coming from the highest levels of Government, translated into a powerful decision-making structure and competent management.

Lesson Learned 2 (page 33) – The concept of National Execution does not automatically exclude support from the UNDP. In fact, the latter needs to continue to play a vital role in Yemeni mine action.

Annexes

Annex 1. Terms of Reference

Terms of Reference for a 'mid-term' Outcome Evaluation for "Strengthening National Capacity for Mine Action in Yemen"

A. BACKGROUND

- **National Context**

During the past 30 years, from the revolution to the period of civil confrontation in 1994, Yemen has witnessed a number of conflicts, each leaving behind a significant level of mine and UXO problem. In 2000, a Landmine Impact Survey (LIS) was carried out in Yemen. The survey provided vital data and information about the landmine and UXO impact on the Yemeni communities. A total of 592 communities were identified to be impacted by landmines and UXOs, out of which 14 communities, with a population of 36,000 were found to be highly impacted, while medium or low impact was reported in 578 communities with a population of 791,400.

Human suffering and economic losses due to landmines and UXOs in Yemen are believed to be significant. Although the total number of mine/UXO casualties is not precisely known, the LIS reports indicate the number of mine and UXOs casualties to be as high as 5000 over the past 10 years, with 200 casualties over the past two years alone. A large number of casualties are believed to be women and children, while farming and grazing are the main activities affected by landmines. Blocking agricultural lands, irrigation sources and grazing areas can be of significant economic losses on both national and local levels as only 2.6% of the total land area is arable. It is therefore expected that economic pressure may force some of the local communities to enter mined areas, risking their lives in order to gain some land for agricultural activities or for tending domestic animals.

The Government of the Republic of Yemen is committed to eliminate the impact of mines and UXOs in Yemen. Realizing that the mine and UXO problem cannot be solved unless an integrated mine action initiative is launched, the Yemen National Mine Action Committee (NMAC) was established in June 1998 to provide policy level support and act as steering body for mine action activities in the country. Furthermore, the Yemen Executive Mine Action Centre (YEMAC) was established in January 1999 as a national mine action implementing body. Since the establishment of these bodies, the Government of Yemen has been spending approximately three million dollars annually from its own budget in support of mine action activities nation wide.

All these developments have demonstrated the strong commitment of the Government of the Republic of Yemen to eliminate the landmine problem in Yemen. Such commitment on the part of the government has also been a key element in promoting donors confidence in the Yemen Mine Action Programme (YMAP).

The Republic of Yemen was the first country in the region to ratify to Ottawa Treaty to Ban Landmines. The ratification was received by the United Nations on 1 September 1998 and Yemen accordingly became a party to the Convention on 1 March 1999.

- **UNDP Support Project – Phase I**

The UNDP Mine Action Support Project YEM/98/002 phase one was officially launched in 1999. The project mainly focused on developing a sustainable national capacity to effectively address the mine problem in the country. Phase I ended in September 2003. The achievements have been very satisfactory. During Phase I, the project in collaboration with NMAC throughand its implementing body YEMACYEMAC has significantly contributed to enabling the Yemen Mine Action Programme achieve:

- Completion of the first UN Certified Landmine Impact Survey
- Developing a Five-Year Strategic Mine Action Plan (2001-2005) and successfully achieving the target set for the 2001and 2002.
- Training and the creation of seven Mine Clearance Units, seven Technical Survey Teams, and three Quality Assurance Teams, with a total manpower of more than 800 personnel.
- Clearance of six highly mine impacted communities, out of a total of 14 highly impacted communities.
- Conducting Mine Awareness in all 14 most-affected communities, and expansion of a comprehensive mine victim assistance programme.
- Yemen's full compliance with Ottawa Treaty obligations, and the destruction of national stockpile of anti-personnel landmines took place in April 2002\.

- **Previous evaluations/assessments:**

An evaluation of the YMAP was carried out in October 2001. The findings of the evaluation were encouraging. It mainly concluded that the programme is a well-founded programme enjoying full Government support and effective management. The programme successfully achieved the objectives of the first year of the Five Year Strategic Mine Action Plan. The evaluation identified certain areas for improvement, mainly improving the safety and productivity of the mine action activities and suggested a more decentralized management structure for the Programme.

Additionally, an assessment mission from the UNDP Mine Action Team (MAT), New York, visited the programme in October 2002 to assess the status of the programme and to provide recommendations on future strategy for UNDP support to mine action in Yemen. The mission identified certain strengths of the programme and highlighted opportunities for improvement. Government commitment, a well integrated approach, good donors support and a well-established technical capacity were highlighted as the main strengths of the Programme. However, in order to ensure sustainability of the Programme in the long run, the following areas were identified as requiring improvement and strengthening and will remain the main focus of the UNDP capacity building efforts during the second phase of the Project:

- Develop a more effective management structure, reasonably decentralised, to ensure responsiveness to the operational needs and long term sustainability requirements.
- Develop a more competent management capacity, especially at the middle management level.
- Improve the Quality Assurance (QA) system
- Improve the finance and logistic system to ensure quality support to the organization's operational needs

- Effective usage of International Management System for Mine Action (IMSMA)

Based on the recommendations from the MAT, New York the Programme Document was revised and approved in June 2003. The UNDP Mine Action Support Project was turned in to National Execution (NEX) in October 2003, which also started Phase II (2003 – 2006).

- **UNDP Support Project – Phase II**

The main objectives of this second phase are: 1) To further strengthen and develop management and technical capacity of the Yemen Mine Action Programme (YMAP); 2) To improve the safety of the mine affected communities by reducing the landmine threat through the implementation of an integrated programme; 3) To contribute to the Yemeni economy by safely returning additional mine free land to Yemeni communities for productive use; 4) To meet the needs of the mine victims and develop strategies for their socio-economic reintegration; and 5) To further improve the Mine Risk Education to reduce accidents and causalities casualties among Yemeni citizens through massive awareness campaigns.

According to the evaluation plan of UNDP Yemen, a mid-term evaluation will be conducted in the fourth quarter of 2004.

The following intended outcome is to be evaluated:

1. Capacity strengthening

1.1 National Mine Action Standards (NMAS) for Yemen based on the principles and within the framework of the International Mine Action Standards (IMAS) developed and introduced.
1.2 An effective Quality Assurance (QA) system based on the Total Quality Management (TQM) concept developed.

1.3 A proper finance department within YEMAC established and a finance, logistic and admin manual compatible with the UNDP requirements and national rules and regulations developed.

1.4 Training Manuals to ensure all aspects of operations are covered and any changes in the procedures/drills are incorporated updated.

1.5 Equipment test and trial capacity within YEMAC developed.

1.6 An effective Management Information System (MIS) developed.

1.7 Mine Action Management Training at both senior and middle levels delivered.

1.8 A Regular Revision Training system for the YEMAP Operations staff developed.

1.9 Special training packages to upgrade the technical and professional skills of the YEMAP training staff to ensure better training for the YEMAP personnel developed.

1.10 Sustainable Explosives Detection Dogs (EDD) capacity including in-country breeding facility established.

1.11 Resource Mobilization Capacity within YEMAC and NMAC developed.

2. Field operations

2.1 Within the YMEAC Strategic Mine Action Plan, 45.7 square kilometers of mine and UXO contaminated areas technically surveyed and cleared from mines and UXOs. By doing so, all the fourteen highly impacted communities will become free from the impact of mines and UXOs.

2.2 At least seventy-two Mine Affected Communities trained on direct Mine Risk Education.

3. Mine Victim Assistance

3.1 2380 mine victims reported in 488 communities (in the Level One Impact Survey) visited and necessary medical treatment provided.

- **Partnership Strategy**

UNDP in collaboration with the Government of Yemen will seek to ensure coherent and effective cooperation with other donors who share the common mission of promoting integrated humanitarian mine action activities. The programme will also form or strengthen partnerships with national, regional and international organizations with expertise in areas related to humanitarian demining and institutional building.

The network established during the first phase of the Programme (1999-2003) with international donors, local and international NGOs, UNMAS, and UNOPS will be further strengthened and efforts will be undertaken to mobilize additional resources from regional Funds and global Thematic Trust Funds (TTF).

Furthermore, the project in collaboration with UNDP and the Government of Yemen will explore resource mobilization and partnership opportunities with currently contributing donor countries (10 donors) and other potential donors such as the Nordic countries as well as the European Commission (EU). It will also develop relations with countries having similar mine and UXO problems through the UNDP Mine Action Exchange Programme (MAX).

B. OBJECTIVES OF THE EVALUATION

The outcome evaluation shall assess the following: (i) *outcome analysis* - what and how much progress has been made towards the achievement of the outcome (including contributing factors and constraints), (ii) *output analysis* - the relevance of and progress made in terms of the UNDP outputs (including an analysis of both project activities and soft-assistance activities[11]), and (iii) *output-outcome link* - what contribution UNDP has made/is making to the progress towards the achievement of the outcome (including an analysis of the partnership strategy).

C. SCOPE OF THE EVALUATION

This outcome evaluation will be looking at the relevance and contribution of UNDP project activities with regard to the outcome. Specifically, the outcome evaluation is expected to address the following issues:

1. Outcome analysis

- What are the current situation and possible trend in the near future with regard to the outcome?
- Whether has sufficient progress been achieved vis-à-vis the outcome as measured by the outcome indicator?
- What are the main factors (positive and negative) that affect the achievement of the outcome?

[11] For UNDP, soft assistance activities include advocacy, policy advice/dialogue, and facilitation/brokerage of information and partnerships.

2. Output analysis

- Are the UNDP outputs still relevant to the outcome?
- Has sufficient progress been made in relation to the UNDP outputs?
- What are the factors (positive and negative) that affect the accomplishment of the outputs?

D. PRODUCTS EXPECTED FROM THE EVALUATION

The key product expected from this outcome evaluation is a comprehensive analytical report in English that should, at least, include the following contents:

- Executive summary
- Introduction
- Description of the evaluation methodology
- An analysis of the situation with regard to the outcome, the outputs and the partnership strategy;
- Key findings (including best practice and lessons learned)
- Conclusions and recommendations

E. EVALUATION CONSULTANT

An international consultant will be contracted to perform the evaluation. The consultant should have the proven knowledge and relevant work experience in the field of mine action, sound knowledge about results-based management (especially results-oriented monitoring and evaluation). The consultant will take the overall responsibility for the quality of the evaluation report.

Specifically, the Consultant will perform the following tasks:

- Design the detailed evaluation scope and methodology
- Review documents and make field visits if necessary
- Meet with relevant government and development community counterparts
- Conduct an analysis of the outcome and outputs (as per the scope of the evaluation described above);
- Draft and Finalize the evaluation report

F. EVALUATION TIMEFRAME

It is expected that the evaluation will take place in the first two weeks of December 2004.

Annex 2. Evaluation Matrix

Mid-term Evaluation
Strengthening National Capacity for Mine Action in Yemen – Phase II

Key Objectives – Phase II	Intended Output	Possible Indicators
(1) Strengthening management and technical capacity of YMAP	**(1.1)** Organizational structure of YEMAC clearly designed and fully staffed with local and trained expertise.	- Structure adequate to address all key components of mine action programme. - Staff in place for all key tasks. - Degree of staff competence independent of UNDP support.
	(1.2) Introduction of National Mine Action Standards for Yemen.	- Stage of development of NMAS. - Approval of developed NMAS by NMAC. - Training manuals prepared. - Extent and effectiveness of NMAS training for YEMAP personnel. - Extent and quality of NMAS introduction in YMAP operations
	(1.3) Effective Quality Assurance system developed.	- Preparation of SOPs for all functions. - Approval of SOPs by NMAC. - Training manuals completed - Effective SOP training provided on ongoing basis. - Quality of application of SOPs by YEMAP
	(1.4) Establishment of proper finance department in YEMAC.	- Adequate staff in place properly trained. - Updated financial procedures and administration manuals available

		and applied / computerized. - Financial planning capability established, identifying future resource requirements. - Ongoing staff training programme in place.
	(1.5) Equipment test and trial capacity developed in YEMAC.	- Routine equipment tests are conducted by YEMAC.
	(1.6) Installation of logistic system	- Manual system functioning - Progress in installing computerized system.
	(1.7) Effective Management Information System developed.	- Degree of functionality of IMSMA for survey and clearance data and basic reports - Progress in development of IMSMA for other functions . - Staff training in IMSMA provided and ongoing. - Results of staff training in IMSMA and effect on operations.
	(1.8) Mine Action Training delivered at both senior and middle levels.	- Method of identification of training needs. - Relevance of training packages. - Quality and frequency of training provided. - Training results.
	(1.9) Staff training system for YEMAP in place.	- Proper system to identify operational training needs in place. Relevance of training packages. - Training manuals / modules prepared. - Quality and frequency of training. - Results of training

	(1.10) Training of Trainers system in place for YEMAP.	- Quality of trainers available - System to enhance quality of trainers in place - Special training packages developed for instructors
	(1.11) Mine Detection Dogs capacity in place.	- Clearly formulated MDD capacity development plan in place. - Sufficient and trained national staff of the MDDC. - On-going dog training programme in place and being implemented - Refresher training of MDDs and handlers in place and being implemented. - Dog breeding programme in place. - Clear progress towards MDD capacity development plan being achieved.
	(1.12) Resource mobilization capacity within YEMAC and NMAC developed.	- Resource mobilization system in place and functional.
	(1.13) Strategic planning capacity in place in YEMAC and NMAC. .	- Planning capacity in place and functional.
(2) Implementation of an integrated programme	**(2.1)** Restructuring clearance resources and increasing TS and QA capacity.	- Number and quality of demining units. - Number and quality of survey teams. - Number and quality of Quality Assurance teams
	(2.2) Mine/UXO free land returned to communities	- Contaminated areas surveyed and cleared from mines and UXO.

		- People/communities returned to their land. - Integrated support provided to returnees.
	(2.3) Enhanced Victim Assistance	Nature and effectiveness of achievements with respect to: - Medical survey process - Medical examination process - Medical support programme - Rehabilitation phase
	(2.4) Adequate reporting system for mine victims established.	- Quality and efficiency of reporting system. - Role of monitoring and evaluation
	. **(2.5)** Improved Mine Risk Education.	- Quality of operational planning and coordination. - Effectiveness of Mine Risk Education programmes. - Quality of monitoring and evaluation.

Annex 3. List of People Interviewed

GOY Government	Kasem Ahmed Al-Agam	Minister of State
UNDP	Flavia Pansieri	Resident Representative
	Moin Karim	Deputy Res Rep (programmes)
	Jamal Jarallah Jabwah	Programme Analyst
	Harald Wie	CTA Mine Action Programme
	Faiz Mohammad	Adviser, Training
	Walid Baharoon	Policy Analyst
	Jamil Khan	Security Adviser
YEMAC	Mansour M. Al Azi	Programme Manager
	Mohammad Al Amrani	Deputy Director Operations
	Dr Fuad D. Al-Shamery	Head, VA
	Mabil Rassam	Head, MRE
	Ahmed Y. Alawi	IMSMA manager
	Mohammad Al Himyari	Director of Logistics
	Tzvetanka Dermendjieva	Field Coordinator, VA
	Ali S. Alzogarey	Head of Operations
	Enaz Al-Arashi	Finance Officer
	Ahmed Al-Khader	Head, MDD
	Ali Alazi	Head,Monitoring and Evaluation
	Dr. Abubaker M. Abbass	Head, Medical Unit
Aden Regional Office		
	Fadel Gharamah	Director
	Nabeil Alghassaly	Deputy Director
	Gaid Haithm	Operations Director
	Abdul Aleah	7 Company Commander
	Salah Abdullah Omer	Training Manager
	Qaid Saleh	Team Leader QA
Embassies	Hisatsugu Shimizu, Counsellor, Japanese Embassy	
	Janet Alberda, First Secretary, Dutch Embassy	
	Frank M. Mann, Ambassador, German Embassy	
	Dr. Stephan Buchwald, Counsellor, German Embassy	
	Michael Gifford, Ambassador, British Embassy	
	Gacomo Sanfleci, Ambassador, Italian Embassy	
Other	Saleh Al Dahyani, Director, Assoc. for Landmines/UXO	
	Mohamed A. Ahmed, Regional Coordinator, IMSMA	

Annex 4. Overall Financial Summary

Overall Financial Summary of the Mine Action Project

09.Apr.05

	Actual Expenditures					Estimated Expenditures			
Donor	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**Total**
UNDP	16,988	404,785	171,133	172,564	202,504	124,555	263,000		**1,355,529**
Yemen					91,682	100,000	208,538	100,000	**500,220**
Netherlands				340,279	135,431	520,000			**995,710**
Italy				169,816	538,292	237,530	190,840		**1,136,478**
UK			159,815	202,903	41,263	333,284			**737,265**
Germany		50,153	119,220	134,663	119,384	620,000	343,650		**1,387,070**
Japan		214,582	38,782	75,808	10,120	300,000	136,616		**775,908**
USA		120,364	135,826	13,126	20,684				**290,000**
Norway		90,595	121,655	35,930	26,512				**274,692**
Canada			54,695	17,884	24,286	122,122	110,000	110,000	**438,987**
Sweden			47,427						**47,427**
Belgium							330,250	330,250	**660,500**
Total Contributions	**16,988**	**880,479**	**848,553**	**1,162,973**	**1,210,158**	**2,357,491**	**1,582,894**	**540,250**	**8,599,786**
Requirement*							***3,500,000***	***2,500,000***	***11,850,000***
To Be Mobilized							**1,917,106**	**1,959,750**	**9,726,856**

* Programme Requirement in accordance with the five-year National Strategic Mine Action Plan for Yemen (2005-2009).
2005 - Contributions already received so far.

Annex 5. Estimated Financial Contribution by GOY, FY 2004

Yemen National Mine Action Programme
Estimated Financial Contribution by the Government of Yemen, FY 2004

No	Particular	Units	Unit Cost	Total in YR	Total in US$
1	Salary	1050	21,500 YR	270,900,000	$1,472,282.61
2	Allowances	1050	600 YR	226,800,000	$1,232,608.70
3	Incentive	1050	5,500 YR	11,550,000	$62,771.74
4	Uniform	1050	12,000 YR	12,600,000	$68,478.26
5	Food	1050	1,000 YR	12,600,000	$68,478.26
6	International Travel				
	DSA	3	200 US$	6,624,000	$36,000.00
	Air Tickets	3	1,000 YS$	6,624,000	$36,000.00
7	National Travel DSA	10	3,500 US$	12,600,000	$68,478.26
8	Rent of Facilities	6		32,016,000	$174,000.00
9	Contribution to UNDP	1	100,000 US$	18,400,000	$100,000.00
10	Sundries at NMAC	1	100,000 US$	18,400,000	$100,000.00
11	Overhead	1	2%	69,750	$68,381.96
12					
Total				**629,183,750**	**$3,487,479.79**

Annex 6. Typical Logic & Responsibility Chain for a MAC