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Published by: The Royal Ministry of Foreign Affairs

September 1996

Print: GCSM AS, Oslo

Circulation: 800

E-519 E

ISBN 82-7177-438-7

The Norwegian People's Aid Mine Clearance Project in Cambodia

by Coopers and Lybrand Consulting ANS

A report submitted to the Royal Norwegian Ministry of Foreign Affairs
by Coopers and Lybrand Consulting ANS

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Preface

The evaluation work described in this report has been carried out by Coopers & Lybrand Consulting ANS on assignment from the Norwegian Royal Ministry of Foreign Affairs. The work was conducted in the period from December 1995 to February 1996.

The evaluation mission consisted of Stein Fjeld, Bengt Lerpold, Petter Binde and Reinhard Pahlke. The field work was carried out by Bengt Lerpold and Petter Binde.

The mission takes the opportunity to thank all of those who have contributed to this work with their time and

by sharing opinions, ideas and experiences with the mission, a list of whom is contained in the annex of the report.

Special thanks to Chief Technical Advisor of CMAC Jim Prudhomme, Minister of Information in Cambodia and Chairman of CMAC Ieng Mouly, Ambassador of Norway Willy Fredriksen, Project co-ordinator for NPA Harald Smedsrud and Team leader for NPA's demining team in Cambodia Trond Kaalsaas who have all in different ways made valuable contributions to the missions work.

Oslo, 20. March 1996

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1. Executive summary and recommendations

1.1 Brief project history

Norwegian People's Aid (NPA) has been involved in demining work in Cambodia since the summer of 1992. Over this period of time the organisation has had different roles and conducted various assignments according to the developing needs for demining support in Cambodia. In 1992, the organisation started up on a small scale in co-operation with United Nations Development programme (UNDP) in the north-western province of Banteay Meanchey with only one platoon to monitor, which later expanded into three platoons. Since 1993, NPA has been working within the framework of the Cambodian Mine Action Centre (CMAC). The role of NPA has changed significantly also during this period, from a role of field operations and training to supervision and advisory services.

The arrangement has been based on an agreement stating that NPA pays the salaries for the Technical Advisors with funding from the Norwegian Ministry of Foreign Affairs (MFA). CMAC has ensured salary for local deminers and equipment for conducting the demining operation. The current agreement with CMAC elapsed as of 31. December 1995 and a new contract is about to be worked out.

There has been a lack of clear goals and objectives for the operations of NPA in Cambodia. There are no terms of reference or project appraisal documents stating the specific mandate of NPA's role in Cambodia. This fact presented a challenge for the mission with regard to evaluating NPA's degree of effectiveness in their work. As the mission had no specific goal achievement criteria upon which to base their evaluation, the report will also be affected by this in terms of structure and detail.

1.2 Conclusions

For future operations, it is necessary that clear and measurable objectives are set for NPA's involvement in de-mining in Cambodia. The mission will in this report provide some input as to which objectives that may prove useful for the project. Furthermore, recommendations are made as to how to improve reporting routines from the local operation and back to NPA and MFA.

NPA have assisted CMAC mainly in the regions of Battambang and Banteay Meanchey. The emphasis

over the past 2–3 year period has been on supporting regional managers and administrative staff in the areas of management and operations, logistics, finance and administration. There has been a total of 50 people from NPA involved at different stages over the project period, and given the changes that have occurred in the requirements to NPA, the organisation has adapted to these with a relatively high degree of flexibility.

The mission points out the following main findings from the evaluation work:

- Demining is still of vital importance to the Cambodian society and continues to be a necessary precondition for achieving a successful rehabilitation of the country. NPA has made a substantial contribution to this task, by supporting CMAC with qualified personnel in accordance with the developing needs of the organisation over the project period. The value of NPA's work is recognised, both by domestic and international authorities, as well as by local citizens. The achievements of NPA are highly relevant both with regard to local and national priorities.
- Considering the entire history of NPA's mine clearance project in Cambodia, and taking into account the deployment of staff over the period, NPA has managed to balance the type and amount of staff according to the developing needs of CMAC in an efficient manner. In general, the mission finds that NPA has achieved its project outputs through an efficient use of the financial, human and material resources that have been available in the project.
- NPA's mine clearance project has been effective in terms of capacity building at the operational level of mine clearance. These operations now run on a day-to-day basis under full control of Khmer staff. However, there is significant room for improvement in the way the job training of regional management is conducted. There does not exist clear terms of reference for this job and there is no formalised training programme for coaching and advising management at different levels. Furthermore, NPA have not implemented reporting procedures to evaluate progress of the managers they are training. The mission

have made some recommendations for how this could be improved in annex 11.

- The main impact of NPA's contribution is that operations in the field can now be considered self sufficient. However, to improve impact in the future, NPA should take on a more proactive role in promoting new innovative methods and focusing on research and development as well as using experience from other regions where they are involved in de-mining. Furthermore, NPA should actively take part in developing the socio-economic aspect of demining. This will have a considerable effect on the ultimate impacts of the de-mining process and will make it easier to measure the real results of de-mining to the Cambodian society.
- NPA's efforts with regard to creating a self sustained organisation within the fields of demining and paramedical personnel have succeeded. For the near future, the challenge lies in developing the management of CMAC. Thus the area with the greatest need for continued expatriate assistance is that of supporting management at various levels. For this reason, a clear focus should be kept on creating managerial sustainability and influencing CMAC towards developing a more integrated approach to the demining process from verification of mined areas to reutilisation of cleared areas (chapter 5). In order to continue and sustain the positive effects created by the efforts of NPA and other organisations, it is an absolutely crucial success factor to strengthen the ability of local resources to manage the large and relatively complex organisation that CMAC has become.

Hence, despite considerable success in establishing a viable demining organisation, substantial technical assistance is still required to strengthen the CMAC organisation, especially in the areas of management and planning, in order to secure a sustainable existence for CMAC as the national demining organisation in Cambodia.

1.3 Recommendations

The mission recommends a two year continuation of NPA's presence in Cambodia. NPA must be flexible in employment and where possible provide CMAC with high calibre personnel to fill a limited number of positions as technical advisors. NPA should pro-

vide CMAC with 4–5 technical advisors over a period of two years. The advisors should be deployed in positions with clear terms of reference. It is recommended that NPA provides 1–2 people at CMAC Headquarters (HQ) and 3–4 people in the regions.

In the future, NPA would greatly benefit from changing their role slightly by taking a more active part in influencing the decision-making process at CMAC headquarters. Although NPA's work in the regions is highly valued and respected, working only at the regional level does not provide the necessary influence on important decisions being made at HQ.

CMAC has made a strategic five year plan which provides a vision for how the organisation wants to develop in the future and points out in which direction the organisation wants to move. The document provides a good and very important basis for guiding the organisation in the right direction in terms of becoming increasingly professional. The strategy document is highly agreed upon both within CMAC and UNDP. The mission finds that the strategy plan provides a healthy vision for CMAC and supports the overall content. However, the document states little about how to reach the targets. To be able to influence the direction and strategy for CMAC in accordance with the five year plan, it is important for NPA to obtain 1–2 positions at HQ. In this way, NPA will have a direct influence on the direction of CMAC.

The interviews with CMAC and other organisations revealed a number of specific areas where CMAC needs to improve in the future to be able to implement the five year strategic plan. These are areas where NPA could take part and create an important impact. A further description of these areas is given on the following pages.

- a) **Public Relations/Fund-Raising.** CMAC has been criticised for not being proactive in marketing their organisation and for not being active enough with fund-raising. The organisation has relied on the support of UNDP and the efforts of NGOs. CMAC's new director, and the management in general, have become aware of this weakness and the importance of this skill for the future of the organisation. It appears to be recognised that CMAC needs to employ a highly experienced person in this position, with experience in lobbying and international marketing of non-profit organisations. An important

task will also be to develop a long-term funding plan together with local Khmer staff.

This is a position that will most likely be available in CMAC in the very near future and the position will have a significant impact on the future strategy of CMAC. Hence, it could be an opportunity for NPA.

- b) **Mine Awareness.** Mine awareness has been recognised as an area for improvement within CMAC, both by the recent UNDP evaluation mission and by CMAC. Mine awareness has been largely undertaken by traditional means and more effective measures must be taken to maximise impact. Ideas that have been discussed include combining awareness and marking campaigns and combining awareness programmes and casualty reports. Better planning and implementation of the annual mine awareness day will also be important areas of improvement.

Mine awareness will be important for the success of CMAC in the future, and providing a TA in this area could also prove to be an opportunity for NPA.

- c) **Socio-economic Branch.** It is likely that CMAC would benefit significantly by setting up a socio-economic branch. This has also been recognised by the recent UNDP evaluation report and positively received by CMAC. The primary objective of such a branch could be to ensure that the demining undertaken by CMAC is providing significant socio-economic benefit in the redevelopment process in Cambodia. The measurement of the socio-economic impact of demining is paramount for continued long term support from donors. A crucial part of this branch is to strengthen CMAC's institutional links with other Governmental Departments and establish partnerships with international agencies and NGOs in order to optimise the resettlement once an area of land has been cleared. Furthermore, a more active involvement and co-operation with governors and local authorities are critical.

Finally, this branch would have to integrate closely with the database programme for mine marking. As one of CMAC's weaknesses is lack of planning, the organisation would benefit significantly by being in possession of integrated information from initial

verification all the way to measuring the social impact of demining.

Chapter 5 of the report details a recommended strategy for how to improve the socio-economic impact of demining. CMAC is likely to initiate a socio-economic branch in the near future, and NPA would benefit from taking part in the development of this branch, as it most likely will be critical for CMAC's success in the future. Furthermore, such a position will represent a strengthening of the work for improved community development in Cambodia.

- d) **Roving team.** A strengthening of the current roving team by 1–2 technical advisors is recommended. Their objective is to strengthen internal controls through periodic reviews of field operations and administrative support provided at the regional level. This task is important in order to ensure consistent quality and also to bring in cross-learning from the various regions. Furthermore, the roving TA's would have the responsibility for planning and conducting management training for the various regional management teams. This unit could also be crucial in the sharing of competence between regions. This function could slowly take over the responsibilities of the local TAs as their activities are phased out. **This is another area where NPA could play an important part in the further development of CMAC.**
- e) **Research & Development.** Although CMAC is highly proficient in operations, demining is a very time-consuming process using today's techniques. More resources should be directed towards searching for, and evaluating, new technologies for identifying and destroying mines. CMAC would benefit from an active search for R&D organisations that have capabilities and who are willing to co-operate with CMAC. CMAC cannot afford to wait for R&D organisations to approach them, as is currently largely the case. A technical solution, especially for identifying mines, could prove revolutionary for the demining process. NPA could also be a driving force in this area.

Finally, and related to the above, NPA's mine-dog programme should be evaluated for use in Cambodia. Initial steps have already been taken in this respect by CMAC and NPA.

f) **Support of regional management and administrative staff.** There is a continued need for on the job training of regional management within the fields of planning and managing operations. Furthermore, there are still tasks to be conducted with regard to training administrative staff at regional level in the use of systems in finance, logistics and administration. There is significant room for improvement in the way the job training of regional management is conducted by establishing terms of reference for this job, formalising the training programme and implementing reporting procedures to evaluate progress of the management they are training.

Provided that recommended improvements can be made, it is recommended that NPA continues to provide support in the above mentioned capacities

1.4 Plan for continuation – Phasing out plan

CMAC is in need of continued technical advice in management and planning for years to come. NPA's role is considered highly valuable and constitutes an important part of the capacity building structure within CMAC. Given the fact that CMAC have become highly effective in field operations, and as the organisation has drawn up a five year plan giving the directions for how to become more effective at management and planning, it is important for NPA to take part in this development. If CMAC follows through their five year plan and develops in the right direction, the organisation could become a «world-leader» in demining operations. Being part of this development could provide NPA with further competence, which can be transferred to other regions of NPA operations.

It is recommended that NPA's participation should have a time horizon limited to two years. NPA participation after this period should only be considered after a thorough evaluation, which proves that NPA's competence is still needed in CMAC. Considering the not yet stable political climate and institu-

tional conditions in Cambodia, the need for and relevance of Norwegian participation should be evaluated with intervals of no more than two years. In line with the above recommendations, NPA should occupy 1–2 positions at CMAC headquarters and 3–4 positions at regional level. One of the staff should also take on the role as project manager for NPA.

It is likely that the controlling and advising functions at regional headquarters can be taken over by local resources within a time span of 2–4 years. At this time, a Roving team of technical advisors based at CMAC's national headquarters can provide a controlling function and this position should be the last one to be phased out of the NPA positions.

The nature of NPA's work in Cambodia, as integrated advisors in CMAC, does not call for a separate full time position on the Norwegian team as project leader. One of the full time advisors can have the role of team leader/project manager in addition to being a TA. This role will consist mainly of reporting to the NPA office in Oslo, and being a co-ordinator for the NPA staff with regard to NPA related issues.

For the future, there will be a greater need for flexibility in terms of employment in the regions and NPA staff must be prepared to work wherever the need is and not necessarily together with other Norwegians. Looking at the mine fields to be cleared in the future by CMAC, it becomes clear that there will be an increasing number of smaller fields spread over larger geographic areas, reinforcing the importance of flexibility.

It should be noted that NPA may have to consider different sources of recruitment, if they want to staff people at CMAC's headquarters in the future. The positions available at HQ do not necessarily require military background, but perhaps another type of management skills.

The table below provides a summary of the phasing out plan, as viewed by the mission.

Phasing out plan

Position	Place	Likely phasing out time	Evaluation
Supporting management	Region	2–3 years	2 years
Supporting admin. staff	Region	1–2 years	1 year
Supporting management	Headquarters	2–4 years	2 years
Roving TA	Headquarters	3–5 years	2 years
Project manager	Unspecified	2–4 years	2 years

2. Background

2.1 Background for evaluation

The Ministry of Foreign Affairs (MFA) has asked for an evaluation of NPA's mine clearance project to date, to provide a basis for the MFA decision on the possible continuation of the project. The evaluation includes an assessment of the project results, use of costs and resources and a quantitative review of the extension of demining.

Coopers & Lybrand Consulting ANS (CLC) were assigned after tender to take on the task of evaluating NPA's project. The evaluation work started in December 1995 and was completed by March 1996.

The main objective for CLC has been to provide MFA with a brief, accurate and reliable evaluation to provide basis for a decision on the possible continuation of the mine clearance project in Cambodia.

2.2 Description of project

2.2.1 *The roles of NPA and CMAC*

Norwegian People's Aid's (NPA) Mine Clearance Project in Cambodia was initiated in 1992. From the inception The Royal Ministry of Foreign Affairs (MFA) has allocated approximately NOK 29 million the project. Mine clearance is seen as a precondition for a successful post-war rehabilitation of the country, which is the reason why the MFA has supported the project.

The project is part of a UN assisted mine clearance programme initiated by the UN Transitional Authority in Cambodia (UNTAC). After the end of UNTAC's mandate in 1993, the programme has continued under UNDP auspices. NPA's local partner in Cambodia is the Cambodian Mine Action Centre (CMAC). UNDP funds the local component which is approximately 50 percent of the project cost.

The project objective, as stated in the evaluation missions terms of reference, is to clear mines in the Banteay Meanchey and Battambang Provinces. Through a training programme, led by Norwegian mine clearance experts, transfer of competence to local personnel provides a basis for the Cambodian authorities to take over the responsibility and manage the project themselves.

NPA's initial plan was to phase out the technical assistance within 1994.

The Cambodian Mine Action Centre (CMAC) was formally established in June 1992 by the Cambodian Supreme National Council (SNC). From April 1992 through September 1993 the Mine Clearance Training Unit (MCTU), established under the United Nations Transitional Authority in Cambodia (UNTAC), was the primary humanitarian demining agency, responsible for demining operations in Cambodia. CMAC was established under guidance of a governing council but started its operations within the wake of MCTU.

International funding was sought to sponsor the pledging of CMAC and in November 1993 the United Nations Development Programme (UNDP) were tasked with the responsibility of obtaining financial and technical support through cash funds, contribution-in-kind and technical advisors. Since November 1993 CMAC, in conjunction with UNDP, has been the primary agency for humanitarian demining in Cambodia.

An international trust fund under the administrative control of UNDP was established to assist CMAC cover a two year window to become a self-sufficient Cambodian institution without the need of foreign assistance. The end date for the two year programme was 30 November 1995. Due to delays in obtaining the foreign technical assistance CMAC requested an extension in the programme end-date to 30 April 1996, which was approved by UNDP.

A further extension of the end-date will be necessary as it is obvious that CMAC will be dependent on foreign assistance also after April 1996.

2.2.2 *Other organisations co-operating with CMAC*

In addition to NPA the following organisations co-operate with CMAC in different ways:

Handicap International (HI) is a French NGO that has been working in Cambodia for more than 10 years. The organisation's traditional main focus has been on production and provision of artificial limbs to mine victims. HI currently provides CMAC with technical ad-

visors at headquarters within the fields of finance, administration and information (partly funded by USAid). The organisation is in the process of setting up an additional demining unit within CMAC, after being chosen by the EU as the channel for a total funding of 1,5 million ECU to the purpose of demining in Cambodia. HI and NPA are the only NGOs that perform their demining work in Cambodia entirely within the organisational context of CMAC.

Mines Advisory Group (MAG) is a British charity that has been working in Cambodia since October 1992. The organisation currently employs a local staff of approximately 270 deminers and 50 personnel for mine awareness and data gathering. The organisation currently conducts demining activities in Cambodia on an independent basis but in co-ordination with CMAC. MAG has also been extensively involved in mine awareness activities in Cambodia. MAG's main sources of funding are Sweden, Great Britain and the European Union.

The Hazardous Areas Life Support Organisation, better known as **The HALO Trust (HALO)** is a British registered charity that has been working in Cambodia since late 1991. After starting with mine survey work, the organisation set up a mine clearance unit with 6 demining teams (5 expatriates and 170 Cambodian staff) and started clearance in close co-operation with development programmes in the region, such as CARE (Cambodia Resettlement and Reintegration). The organisation has emphasised the necessity of close liaison with local authorities and development programmes in order to optimise the utilisation of cleared land. The organisation currently conducts demining activities in Cambodia on an independent basis but in co-ordination with CMAC. As of January 1996 the expatriate component of HALO in Cambodia has been reduced to two persons.

Compagnie Francaise d'Assistance Spécialisée (COFRAS) is a French NGO sponsored by the Government of France under the umbrella of the EU. It was originally tasked with the responsibility of demining Angkor Wat and surrounding areas in the Siem Reap Province, working independently, but obliged to follow the technical standards and procedures established by CMAC.

UNESCO has also made an important contribution to addressing the mine problem in the form of a two volume report on the priorities for the production of mine awareness material to be commissioned by CMAC, en-

titled «Getting the Message About Mines: Towards a National Public Information Strategy and Programme on Mines and Mine Safety (UNESCO 1993).

2.2.3 Limitations

At the outset of the evaluation work, the mission assessed the available project documentation in the files of NPA and the MFA. The main purpose of this work was to learn about the project history and to establish clearly the objectives set for NPA's work in Cambodia. The exercise proved useful in terms of learning about the project's history. However, it also revealed some findings that posed limitations on the mission:

- a) **Lack of clear goals.** The mission's first finding was that there has been a lack of clear and quantifiable goals for the work of NPA in Cambodia. There is no appraisal report, project mandate or terms of reference stating the goals of NPA's presence in Cambodia with objectively verifiable indicators, making an evaluation of results achieved difficult.
- b) **Changing roles.** Since NPA started demining in Cambodia in June 1992, the role and scope of work has changed considerably. Whereas in the beginning of NPA's presence in Cambodia, the main field of work was mine clearance and on the job training of deminers and paramedical personnel, the role of NPA today has changed and consists of an advisory and supervision function within the framework of the national demining agency CMAC. The communication channels and reporting lines have changed from a direct relationship between NPA and UN agencies to NPA becoming an integrated part of CMAC.
- c) **NPA as part of CMAC structure.** The fact that NPA's presence in Cambodia, since 1993, has been as part of the CMAC organisation calls for special attention with regard to the evaluation of NPA's work. In this respect, there are certain aspects that the mission wants to highlight:
 - **NPA's work cannot be evaluated in isolation from the work of CMAC.** By working within the CMAC structure, NPA is obliged to follow the decisions made by CMAC and the priorities that apply for the work of CMAC. NPA are given certain assignments within a greater context and the outputs of NPA's work are closely related to those from other parties.

- **Many parties are contributing to CMAC's achievements.** It is a complex and uncertain task to determine to what extent certain parties of CMAC are responsible for the outcomes of the organisation in terms of achievements. Even though the achievements of CMAC are relatively easy to measure, the contribution from different parties to CMAC's achievements are not easily registered and thus hard to determine.
- **NPA's work in Cambodia can not be regarded as a conventional project, but must be regarded as an ongoing operation within the framework of another organisation.** NPA has been contributing as an important but relatively small player, with changing roles, within a greater context, to the achievement of a set of common CMAC objectives. On issues such as cost effectiveness this creates difficulties with regard to measurement since NPA is not separable from CMAC which itself lacks a set of established criteria and reliable data for measuring cost effectiveness.
- **There are no clearly articulated directives for NPAs assignments within CMAC.** NPA's role in Cambodia today is to follow up and supervise managers at various levels with designated technical advisors. This is an important and necessary function that ensures quality and consistency in the work of the Khmer managers as well as transfer of demining knowledge. However, even though this arrangement seems to function well, it is depending heavily on the individual qualities of the technical advisors (TA) as they do not have specific directives for training managers. Training and supervision of Khmer managers are today being carried out by technical advisors from a number of different countries. One of the most important tasks that the TAs perform is to see that operational directives and procedures are followed. However, there are no directives and procedures for their own assignments, making the measurement of achievements difficult.

Within the constraints of the above mentioned matters, NPA's contribution to CMAC should be viewed and measured in terms of the role, responsibility and influence NPA has within CMAC and to what extent these are in accordance with CMAC goals and Norwegian humanitarian aid policies.

All TAs should have clear directives from the chief technical advisor (CTA) to ensure that the development of CMAC continues at the regional levels with a high degree of uniformity between regions and towards the common goals of CMAC. This is also a precondition for being able to measure success and make meaningful comparisons between regions, which can be a very useful tool for benchmarking and improving performance.

2.3 CMAC's goals and objectives

CMAC's mandate is to co-ordinate all demining activities in Cambodia. The stated goal is: «**To achieve a state within Cambodia, where people can go about their lives free from the threat of mines and reconstruction and development activities can take place in a safe environment.**» In order to achieve this goal, CMAC has developed four major objectives:

Mine Awareness – «To create an awareness of the mine problem that exists within Cambodia, of solutions and measures that can be taken to make life safer, and the levels of support that is necessary to develop a program that can remove the menace.»

Mine Information/Minefield Marking – «To identify, record and mark mined areas in such a way that all Cambodians have usable access to all known information on minefields and also provide a marking system which will prevent people unknowingly entering a minefield.»

Mine Clearance – «To eliminate the danger of mines by clearing and assisting others to safely clear mines, mined areas and minefields.»

Training – «To provide individuals and groups with the knowledge and skills necessary to perform their function within systematic and non-systematic demining programs in Cambodia.»

2.3 Evaluation methodology

The evaluation project has been conducted in three main stages:

Phase 1 – Preparation. This stage consisted of detailed project planning, before visiting the areas of concern. The mission had discussions with MFA, NPA and consulted the project files in order to gather relevant information about the project. Similarly, the mission

wanted to make sure that agreement with MFA, on the main objectives of the evaluation and key criteria for evaluating the project, was in place.

Phase 2 – Fieldwork.In this phase of the project, the mission visited Cambodia and carried out in-depth interviews with key people knowledgeable of the project and of demining in general within the regions concerned. The mission visited Phnom Penh and Battam-

bang, as well as one of the minefields currently operated by CMAC. A list of persons consulted is enclosed in annex 2.

Phase 3 – Analysis and recommendations. The third and final phase of the project was carried out in Oslo and consisted of analysis, report writing and preparation of recommendations for continuation and a phasing out plan for the expatriate assistance.

3. Assessment of achievements

3.1 Project history

Norwegian People's Aid has been involved in demining work in Cambodia since the summer of 1992. NPA's objectives at inception of the project were to assist Cambodian authorities through the United Nations Transitional Authority in Cambodia (UNTAC), by training Cambodian deminers and mine clearance instructors. However, at the time of commencement, the need for training of deminers and instructors had already been covered by the UN. There was, however, an urgent need for mine clearance experts, able to manage, control and supervise operations in the field as well as conducting survey, mapping and planning work.

For this reason the Office for Project Services of the United Nations Development Programme (UNDP/OPS) asked NPA for assistance to manage and control local demining teams and for work related to mapping and planning. NPA responded to the request by taking the responsibility for management, control and supervision of one demining platoon from August 1992. By January 1993, the project was expanded with one more platoon under NPA management. The objective of assisting Cambodian authorities was met by means of managing field operations rather than training deminers.

- *NPA operations from September 1992 until December 1993 included clearance of 459.057 m², destruction of 1.069 anti-personnel mines, 16 anti-tank mines and 586 UXOs (Unexploded ordnance).*

In October 1993, NPA received a request from the Cambodian Mine Action Centre (CMAC) to take responsibility for the management of the CMAC Regional Office in Sisophon. NPA decided to accept this responsibility and thereby made a decision to continue its demining work within the greater organisational context of CMAC. The NPA demining units (three at the time) were integrated into the CMAC structure which came to involve a total of 734 people, including 11 expatriate staff from NPA.

- *CMAC/NPA operations in the Banteay Meanchey province cleared a total of 1.662.801 m² in the period from January to March 1994, which was 80% of the total mine Clearance in Cambodia at the time.*

In April 1994, due to heavy fighting in the region between the Khmer Rouge and Government forces, NPA decided to evacuate all expatriate staff. NPA received heavy criticism from CMAC for its handling of the evacuation and for not following CMAC directives. Expatriate staff was evacuated without prior notice to CMAC headquarters, while Cambodian staff remained in the region. National fieldworkers were later transferred to Phnom Penh for retraining while the NPA expatriate staff, based in Thailand, planned for transportation of staff and equipment to a new area of operation. Differences between NPA and CMAC were later sorted out in a series of meetings. The Regional Office of Sisophon was relocated to the Kampong Cham province following a reduction of the demining workforce from 750 to 600.

In November 1994, all priority minefields in the Kampong Cham province had been cleared. At the same time the security situation was improving in Banteay Meanchey and worsening in Battambang. Following this change in the security situation, movements were made of Battambang troops to Banteay Meanchey, leaving an opening in Battambang for the NPA assisted regional office to fill. NPA disagreed with CMAC's choice of deployment but were not heard, largely, according to NPA, because of the lack of NPA presence at CMAC HQ. The operations of NPA were completed in Kampong Cham December 1. and the unit was moved to Battambang. NPA resumed management of 15 demining platoons, two explosive ordnance disposal (EOD) teams and two mine marking teams, a total workforce of 550 persons.

- *Achievements involving NPA in 1994, included clearance of 4.165.457 m², destruction of 3.080 anti-personnel mines, 19 anti-tank mines and 14.662 UXOs.*

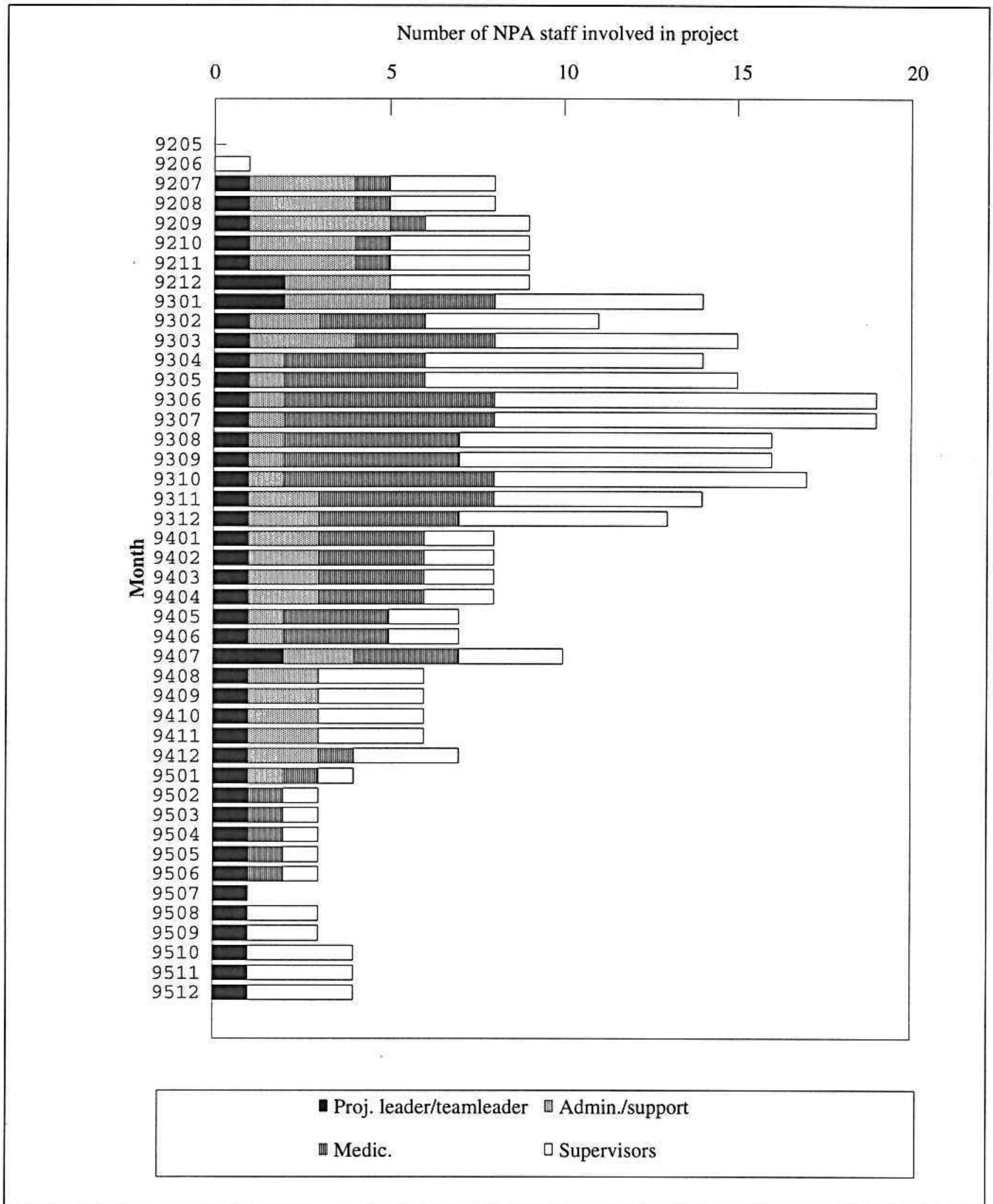
The radical increase in clearance was not all due to increased efficiency, but also largely due to the differences in nature of the minefields in Banteay Meanchey and Kampong Cham.

A reduction of the Norwegian TA component by 50% from January through August (from 16 to 8 TAs), without noticeable consequences for the operations, indicates that 1994 was a successful year with regard to transfer of competence.

Since 1995, following a request by CMAC for assistance at the headquarters, one NPA representative has been based in Phnom Penh. The role of NPA's representative in Phnom Penh has yet to be clearly articulated. The remaining TAs have, since

NPA moved, been based at the regional headquarters in Battambang. Management of the region has been taken over by Khmer managers but the regional management is still heavily dependent upon the advisory function provided by NPA.

Diagram 1. Deployment of NPA staff over project period



The diagram illustrates the deployment of NPA staff over the project period, describing both the number and type of personell (project/team leader, administrative/support personell, medical personell and supervisors) involved in the project from June 1992 until December 1995.

3.2 Project relevance

Demining is a top priority issue in Cambodia even after years of large scale demining operations. The task will continue to have top priority for years to come in order to achieve a state within Cambodia, where people can go about their lives free from the threat of mines and reconstruction and development activities can take place in a safe environment, to obtain successful resettlement and reutilisation of abandoned and currently dangerous land areas.

Demining is still of vital importance to the Cambodian society and continues to be a necessary precondition for achieving a successful rehabilitation of the country. NPA has made a substantial contribution to this task, by supporting CMAC with qualified personnel in accordance with the developing needs of the organisation over the project period. The value of NPA's work is recognized, both by domestic and international authorities, as well as by local citizens. The achievements of NPA are highly relevant both with regard to local and national priorities.

3.3 Efficiency

Considering the staff deployment chart on the previous page, it is evident that the majority of resources was employed in 1993 in terms of field supervisors and medical personnel. At this stage, CMAC was in the process of starting up and there was a considerable need for mine clearance experts to manage, control and supervise operations in the field. Furthermore, there was insufficient competence among Khmer staff in terms of medical support and hence a need for support also in this area. NPA was, with financial support of MFA, able to quickly provide the needed assistance in accordance with the needs of CMAC. In 1994, CMAC became increasingly self sufficient in terms of operations and medical staff, and NPA could reduce the number of staff intended for this purpose. Finally, In 1995, CMAC was becoming self-sufficient in terms of the activities and operational routines in the field and the local Khmer staff was fully trained in conducting the required medical support for the demining platoons. The current needs are for managerial and administrative support.

The use of expatriate participation in a project like this must be carefully weighted against the outputs achieved. The use of Norwegian expatriates is expensive, and calls for a high level of impact to justify the costs. For time consuming field operations, it is not

cost-efficient to use expatriate workforce if less expensive resources are available. The expatriate staff must be directed towards assignments where the effects of their efforts are maximised, which is in the field of advisory and transfer of competence. Operations are most efficiently carried out by inexpensive local or foreign human resources. In Cambodia, a number of unemployed soldiers were available and well suited and motivated for becoming deminers. Similar resources could of course also be recruited from other countries.

NPA reduced their commitment with regard to number of staff from about 15 in 1993 to about 5 in 1995. NPA has proportioned their commitment according to the developing needs of CMAC. Once transfer of knowledge is complete, and Khmer staff can manage on their own in the field, NPA have scaled down, which is in line with the overriding objective of creating a self sustained organisation.

The project management has managed to improve the level of efficiency during the course of the project. The local resources have gradually taken over assignments and responsibilities as they have become able to do so. Expatriate involvement has shifted from operations at an early stage, towards advisory and transfer of competence. For transfer of competence, the use of NPA expatriate staff proves to be efficient, as the higher costs are justified by the fact that otherwise unavailable competence is being distributed to a large number of people and making them able to perform in the field themselves.

The total cost of the project was approximately NOK 10 million in 1993 with close to 15 staff, while it was about NOK 5 million in 1995 with 5 staff. This might appear to be disproportionate, however, it must be kept in mind that the type of staff working for NPA today is of a different calibre and market value than in 1993. Supervisors for management training are more expensive than field supervisors and medical personnel.

Considering the entire history of NPA's mine clearance project in Cambodia, and taking into account the deployment of staff over the period, NPA has managed to balance the type and amount of staff in accordance with the developing needs of CMAC in an efficient manner. In general the mission finds that NPA has achieved its project outputs through an efficient use of the financial, human and material resources that have been available in the project.

Keeping in mind the above, it must be recognised that there is still room for improvements in the CMAC mine clearance programme, especially concerning the application of more advanced, innovative and cost efficient methods and technology of demining.

3.4 Effectiveness

The goals and objectives of the project have not been clearly specified over the project period, making it difficult to establish clear and quantifiable indicators of achievement. For this reason, and the fact that NPA operates within CMAC, we have in the following sections viewed NPA's contribution in relation to CMAC and evaluated NPA's effectiveness in contributing towards CMAC's goals and objectives.

3.4.1 Mine awareness

CMAC achievements within mine awareness include an annual national mine awareness day, a national mine awareness curriculum, a draft national strategy for mine awareness, and mine awareness campaigns using written, radio and TV media. The Five Year Strategy recognises that the current CMAC program for mine awareness has several weaknesses, and that this area needs to be given more attention in the future, making it a possible area for future NPA assistance.

During the project period from 1992 to 1995, NPA has not been directly involved in mine awareness activities in Cambodia.

3.4.2 Mine information/Minefield marking

CMAC has built up a database containing information on all minefields in Cambodia. The database is based on grid references and groups mined areas into four categories:

- A) Reported minefields
- B) Verified minefields
- C) Marked minefields (ready for clearance)
- D) Cleared minefields

The priorities of the minefields, according to CMAC's four prioritising criteria (resettlement, agriculture, community development and infrastructure), are contained in the database making it a critical resource and a powerful tool for selection of minefields to be cleared.

An important issue with regard to the database is that it should ideally include a set of socio-economic indicators. This would enable a complete follow up on the minefields all the way from it is reported until it is cleared and resettled, giving opportunities for measurement of socio-economic impact and comparison against the information given in the initial request for demining. This is an improvement that the mission sees as absolutely critical.

The database currently contains information about a total reported mined area of 2.138 km², 323 km² of verified area, 25 km² of marked area and 18 km² of cleared area.

NPA has not been directly involved in mine information/minefield marking activities in Cambodia. However, TA assistance will be needed to work with the socio-economic dimension of the mine information. This could be an interesting opportunity for NPA contribution in the future, also taking into account the NPA's growing commitment to projects related to community development.

3.4.3 Mine clearance

As of January 1996 CMAC has cleared a total area of 18 km² and destroyed 53.666 anti-personnel mines, 346 anti-tank mines and 352.536 unexploded ordnance. The area cleared is large enough to resettle a total of 13.000 families of internally displaced persons (IDPs) or to provide an annual production of 2.000 tonnes of rice. However, no reliable indicators exist as for the success of actual resettlement in the areas cleared and the actual agricultural output of cleared areas. A further elaboration on recommended measures to develop indicators, in order to improve the socio-economic impact of the demining operations, can be found in chapter 5.

As of December 1994, NPA had cleared 4,62 km² of land and destroyed 4.149 anti-personnel mines, 35 anti-tank mines and 15.248 UXOs, all in the provinces of Banteay Meanchey, Battambang and Kampong Cham.

During the later part of NPA's presence in Cambodia the work has to an increasing extent consisted of on the job supervision of Khmer deminers and managers, making it less meaningful to measure the achievements in direct terms of areas and mines cleared.

3.4.4 Training

As of January 1996, the CMAC training centre has trained and certified a total of 1.666 deminers, 221 mine markers and 31 explosive ordnance disposal (EOD) personnel. In addition, on the job training has been given to platoon commanders, site officers and demining unit HQ staff in the skills of planning and conducting operations. Training has also been given, both on the job and at the training centre, to regional managers, CMAC HQ branch chiefs and other key personnel. Focus has been on the skills of conducting operations, including support functions such as finance, logistics, personnel and administration. Guidelines have been developed to provide policy and procedural direction for the functional areas of corporate management, personnel and administration, information, operations, logistics, training and finance.

In the early period with CMAC, NPA contributed with on the job training of deminers and medical personnel. More recently contributions have consisted mainly of on the job training of regional managers and site managers within the fields of planning and conducting operations. Considerable achievements have been accomplished in the province of Battambang with regard to developing and implementing well functioning procedures both in general management and planning, as well as in finance, logistics and administration. Khmer staff are now being trained in how to operate the systems on a day-to-day basis, and it is considered likely that they will be self sufficient in this area within 1–2 years.

3.4.5 Capacity building

NPA has played an important role in setting the standards for capacity building in CMAC. The Khmer managers argue that most NPA staff have a more long term commitment than other TAs. Most other expatriates are in the regions for only half a year, while NPA staff tend to stay for longer periods. Contracts of six months can be long enough with regard to direct field operations, but they can be too short for learning to know Khmer people and gaining the necessary trust for conducting successful advisory work. Furthermore, it is stated specifically that NPA staff are more patient in trying to understand and working together with Khmer staff.

Khmer staff argue strongly that they are allowed to take decisions, while NPA staff only provide guidance whilst necessary. CMAC staff at headquarters have also recognised the skills of NPA in capacity building. They

also point out that it is an advantage for NPA to be perceived as a civilian organisation at the same time as NPA staff are uniformed and usually in possession of military experience.

NPA's mine clearance project has been effective in terms of capacity building at the operational level of mine clearance. These operations now run on a day-to-day basis under full control of Khmer staff. However, there is significant room for improvement in the way the job training of regional management is conducted. There does not exist clear terms of reference for this job and there is no formalised training programme for coaching and advising management at different levels. Furthermore, NPA have not implemented reporting procedures to evaluate progress of the managers they are training. The mission have made some recommendations for how this could be improved in annex 11.

3.5 Impacts

The ultimate impacts of NPA's demining work in Cambodia are as easy or difficult to assess as the impacts of demining in itself. The question of finding suitable indicators and measuring the impact of demining have become a major issue in the international development community in Cambodia. The issue consists mainly of establishing a set of indicators such as the number of IDPs resettled, the amount of rice produced, the number of families that are self-sufficient and so on. NPA has contributed to an increased impact on these measures, but as of today there is no agency, governmental body or other instance that has the means or resources to collect data or measure these impacts.

3.5.1 Measuring results

Outputs of CMAC's demining operations have until now been measured in terms of the number of mines identified, the number of square metres of land cleared etc. However, with the extent of the mine problem in Cambodia, these measures do not provide enough information about actual progress.

With 42 platoons of 30 deminers each, CMAC is currently demining an area of ten square kilometres per year. This is also the area that CMAC is planning to clear per year over the next five years. When taking into account that 2.700 km² of Cambodian territory is esti-

mated to be covered with landmines the need for better measures become increasingly obvious.

3.5.2 Different indicators are needed

At present, no one knows the socio-economic cost for a nation of having the land infested by mines. Likewise, the socio-economic benefit of clearance is unclear.

CMAC has an excellent opportunity to develop tools for solving this problem, by expanding on an already well functioning database system. **Recommendations on how to perform this task are presented in the cost/benefit chapter of this report (Chapter 5).**

With these issues yet to be solved, the impacts of NPA's work can best be measured in terms of the clearance

data of the demining units where NPA are involved, combined with the level of NPA involvement. Even though these measures have limited meaning, it is an interesting matter in such respect that NPA's demining units at a time of high reduction of expatriate staff conducted the major part of Cambodian demining without reduction in its productivity.

As of January 1996, CMAC has cleared a total area of 18 km² and destroyed 53.666 anti-personnel mines, 346 anti-tank mines and 352.536 unexploded ordnance. According to UN figures the area cleared is large enough to resettle a total of 13.000 families of internally displaced persons (IDP) or to provide an annual production of 2.000 tonnes of rice.

	Area cleared m ²	Possible resettlement No. of IDP families	Possible agricultural output Tons of rice
CMAC total	18.000.000	13.000	2.000
NPA	4.620.000	3.337	513

In view of the UN figures, we have calculated that the NPA clearance of 4.620.000 m² is sufficient to resettle 3.337 IDP families and an annual agricultural output of 513 tonnes of rice. No reliable indicators exist, however, as for the actual success of resettlement in the areas cleared and the actual agricultural output of cleared areas. A further elaboration on this issue can be found in chapter 5.

The main impact of NPA's contribution is that operations in the field can now be considered self sufficient. However, to improve impact in the future, NPA should take on a more proactive role in promoting new innovative methods and focusing on research and development as well as using experience from other regions where they are involved in demining. Furthermore, NPA should actively take part in developing the socio-economic aspect of demining. This will have a considerable effect on the ultimate impacts of the de-mining process and will make it easier to measure the real results of de-mining to the Cambodian society.

3.6 Sustainability

CMAC can not as yet be considered as fully self sufficient in all aspects of de-mining. However, in the operational field, NPA has managed to transfer the responsibility for day to day operations to local resources with a high degree of success. Monitoring and direct involvement in the field is no longer necessary on a daily basis. Furthermore, medical support is fully developed and operated by Khmer staff.

Despite a desire for an autonomous national capacity, it is clear that this remains a longer term objective than first perceived. International technical support will still be needed for years to come.

To date, considerable success has been achieved on capacity building at the operational level of marking and clearance. The capacity to provide section, platoon and site commanders exist. It is largely in the management field of administration, procurement, logistics, planning, socio-economic planning, fund raising and effective public relations and communications, that assistance is required in the future. This change of focus is critical to register and requires a shift of personnel from military to civilians.

Self sustained:	Not self sustained:
<ul style="list-style-type: none"> • Field operations • Medical support 	<ul style="list-style-type: none"> • Management • Planning • Administrative routines • Mine awareness • Socio-economic follow up • Public relations and fundraising • Research & development

3.6.1 Factors affecting sustainability

- a) **Political priorities:** The Cambodian government has shown a growing political will and commitment to demining. The government has increased the contribution to CMAC from USD 400.000 in 1995 to USD 1.000.000 in 1996. Even though this is only a small part of the necessary funds needed to run CMAC, the increase constitutes an important signal of commitment both towards donor countries and towards CMAC itself. The international community, represented by the UNDP and international NGOs, also maintain a consistent commitment towards the demining project in Cambodia. There are no indications that priorities will change over the next 2–3 year period. However, due to the composition of the coalition government, the general political climate in the country, and the uncertainties related to Khmer Rouge activities, the situation in Cambodia can not yet be considered stable, making long term planning a somewhat risk related task
- b) **Economic factors:** Although measures have been taken to improve the long term planning for the demining operations in Cambodia, funding remains a major barrier as most donors can only guarantee funding for one year at a time. However, the initiative to make a five year plan may change the attitudes among donors in a favourable direction.
- c) **Technological factors:** Although CMAC is highly proficient in operations, demining is a very time-consuming process using today's techniques. More resources should be directed towards searching for, and evaluating, new technologies for identifying

and destroying mines. CMAC would benefit from an active search for R&D organisations that have capabilities and who are willing to cooperate with CMAC. A technical solution, especially for identifying mines, could prove revolutionary for the demining process.

- d) **Institutional factors:** CMAC is in the process of becoming a strong national body which is suitable and responsible for carrying out the tasks related to demining in Cambodia. The responsibilities of CMAC in co-ordinating demining activities will most likely grow in the future because of increased cooperation with independent NGOs, and a growing recognition by all parties involved that CMAC is the natural co-ordinating body.

Due to the size and role that CMAC has, and will continue to have, in the demining process in the future, there is no doubt that the most effective way to contribute to the cause of demining in Cambodia is through a continued strengthening the CMAC organisation.

NPA's efforts with regard to creating a self sustained organisation within the fields of demining and medical personnel have succeeded. For the near future, the challenge lies in developing the management of CMAC. Thus the area with the greatest need for continued expatriate assistance is that of supporting management at various levels. For this reason, a clear focus should be kept on creating managerial sustainability and influencing CMAC towards developing a more integrated approach to the demining process from verification of mined areas to reutilisation of cleared areas (as described in chapter 5).

In order to continue and sustain the positive effects created by the efforts of NPA and other organisations, it is an absolutely crucial success factor to strengthen the ability of local resources to manage the large and relatively complex organisation that CMAC has become.

4. Use of funds

4.1 Introduction

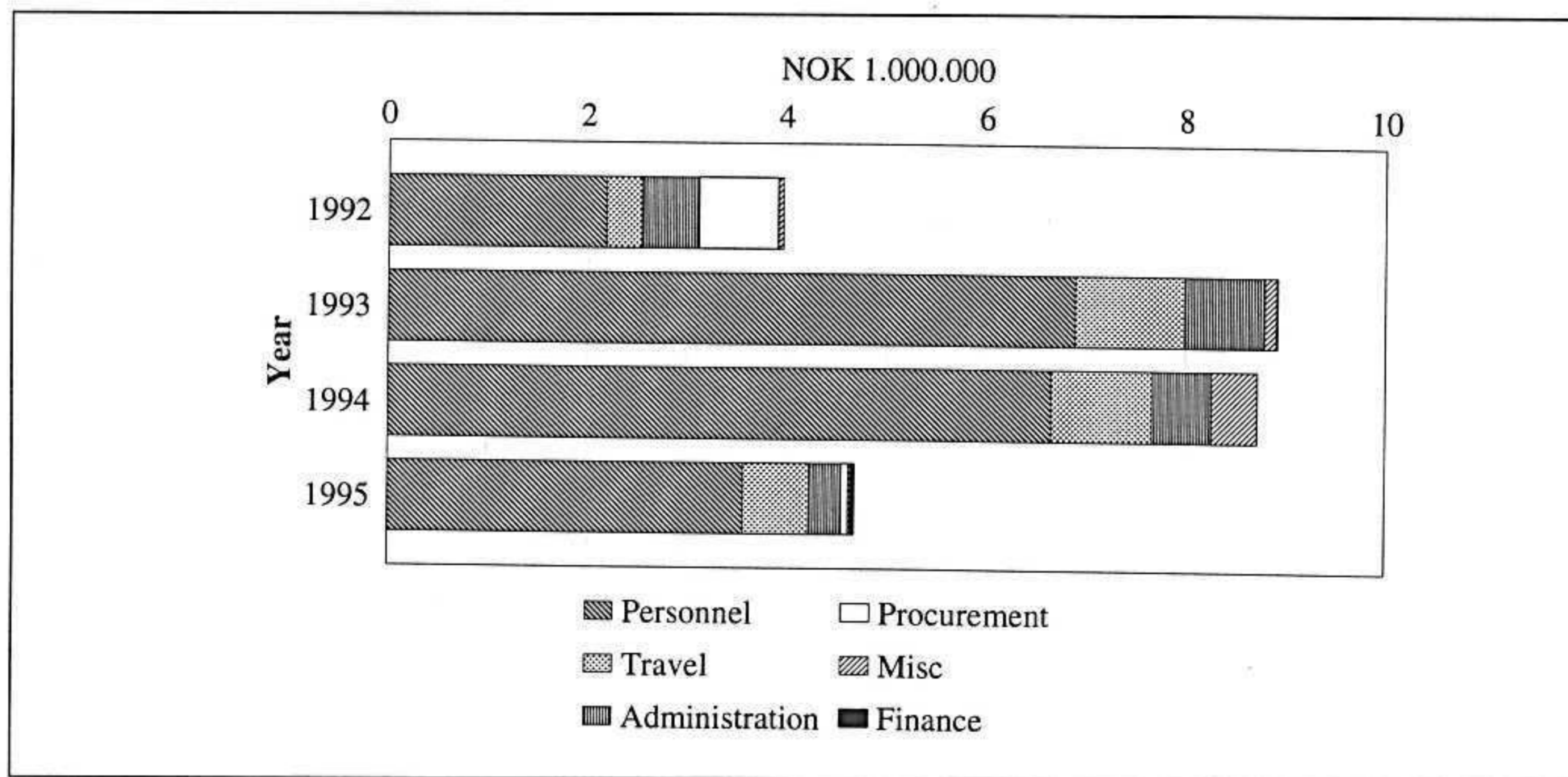
On the basis of project documentation available in the offices of MFA and NPA, the mission has assessed the use of funds over the project period. Basis of the assessment has been an audit of the project files, statements on the use of funds, activity reports from project managers, budgets and final annual accounts. Accounts have been approved by certified auditor for all years except 1995, which was not yet completed at the time of completion of this report.

According to our findings, the funds of MFA were properly used for the project in accordance with the agreement between MFA and NPA.

4.2 Inconsistency in reporting

There is a lack of consistency in NPA's way of presenting the accounts from one year to the other. Different cost categories have been used, making a year by year comparison difficult. The mission has set up six main groups of costs and placed NPA's different costs into these groups, so as to facilitate a complete overview of the project period and a comparison of total costs as well as the distribution of costs year by year. The MFA has contributed a total of 29 million NOK to finance NPA's work in Cambodia. The distribution of the costs is shown in the diagram below.

Diagram 2. Distribution of costs over the project period



4.3 Comments on actual costs

In general the use of funds has been in accordance with the budgets. Negative discrepancies have occurred in 1993 and 1994 mainly related to personnel and travel expenses. In 1993, NPA staff charged full government tariff allowances when travelling, creating exceptionally high travel expenses. This practice has now changed, bringing travel expenses back to a more normal level.

In 1994, major discrepancies occurred largely as a consequence of the unforeseen move out from the Banteay Meanchey province, due to an unacceptable security situation at the time.

The table below gives an overview of the total spending over the project period, compared to budget and with annual discrepancies. A further detailed overview can be found in annex 6.

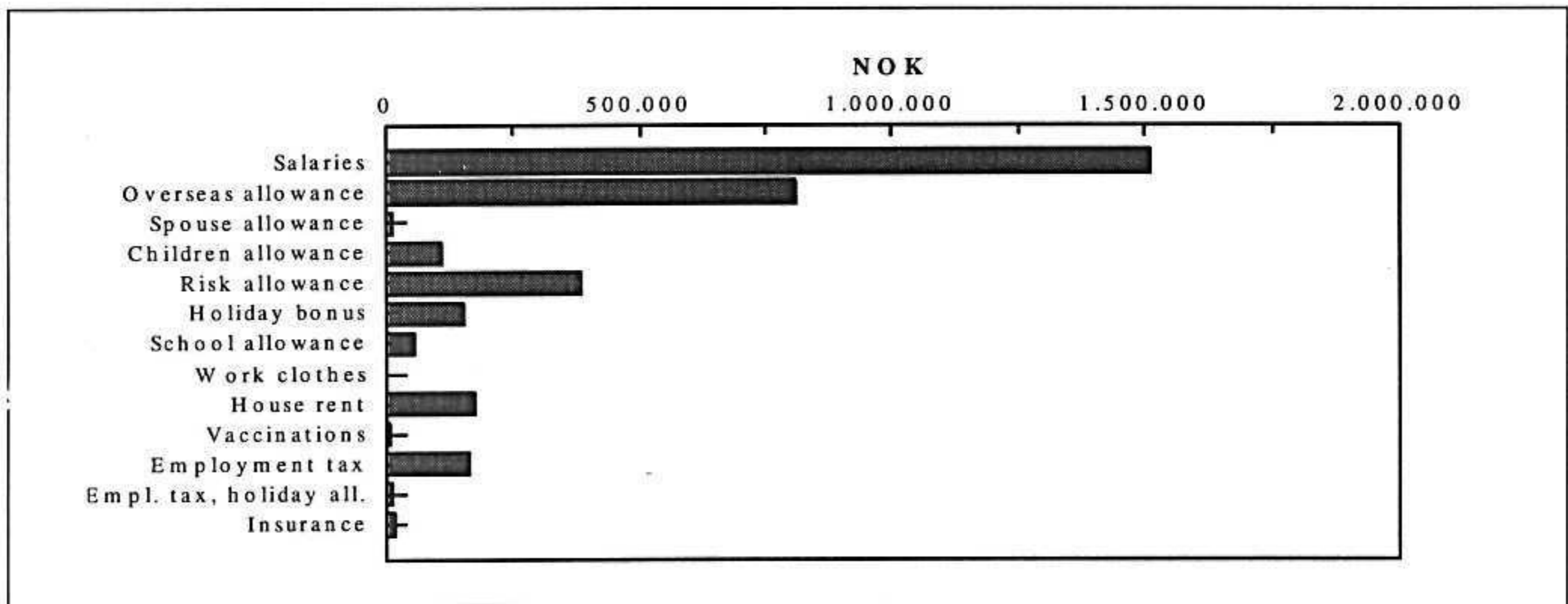
Budget vs. actual costs over the project period (all figures in NOK)

	1992			1993			1994			1995			Sum	
	Budget	Actual	Discrep.	Budget	Actual	Discrep.	Budget	Actual	Discrep.	Budget	Actual	Discrep.	Budget	Actual
Funding														
MFA - Grant	6,142,500	6,142,500	0	8,932,500	9,102,500	170,000	9,000,000	9,000,000	0	4,956,240	4,956,240	0	29,201,240	29,201,240
Other	0	163,558	163,558	500,000	500,000	0	0	(569,024)	(569,024)	85,000	836,156	751,156	930,690	930,690
Total funding	6,142,500	6,306,058	163,558	9,432,500	9,602,500	170,000	9,000,000	9,000,000	(569,024)	5,041,240	5,792,396	751,156	30,131,930	30,131,930
Costs														
Personnel	2,288,000	2,182,685	105,315	6,672,000	6,885,396	(213,396)	5,882,100	6,643,433	(761,333)	3,511,000	3,572,530	(61,530)	19,284,044	19,284,044
Travel	355,000	350,326	4,674	750,000	1,096,015	(346,015)	778,000	1,021,268	(243,268)	605,000	665,094	(60,094)	3,132,703	3,132,703
Operation	1,268,823	1,330,558	(61,735)	1,083,000	1,252,535	(169,535)	968,000	857,753	110,247	463,000	224,684	238,316	3,665,530	3,665,530
Administration	835,000	588,000	247,000	857,500	812,045	45,455	800,000	600,000	200,000	330,190	321,450	8,740	2,321,495	2,321,495
Procurement	791,177	791,177	0	70,000	0	70,000	0	0	0	68,000	66,586	1,414	857,763	857,763
Misc	53,000	50,856	2,144	0	121,224	(121,224)	269,900	458,288	(188,388)	70,000	28,588	41,412	658,956	658,956
Finance	0	(43,796)	43,796	0	4,309	(4,309)	0	0	0	0	34,667	(34,667)	(4,820)	(4,820)
Total costs	5,591,000	5,249,806	341,194	9,432,500	10,171,524	(739,024)	8,698,000	9,580,742	(882,742)	5,047,190	4,913,599	133,591	29,915,671	29,915,671
Total income	6,142,500	6,306,058	163,558	9,432,500	9,602,500	170,000	9,000,000	8,430,976	(569,024)	5,041,240	5,792,396	751,156	30,131,930	30,131,930
Total costs	5,591,000	5,249,806	341,194	9,432,500	10,171,524	(739,024)	8,698,000	9,580,742	(882,742)	5,047,190	4,913,599	133,591	29,915,671	29,915,671
Balance	551,500	1,056,252	504,752	0	(569,024)	(569,024)	302,000	(1,149,766)	(1,451,766)	(5,950)	878,797	884,747	216,259	216,259

It is of high principal importance that Norwegian funds dedicated to humanitarian aid are fully utilised for the purposes that they are intended for. We have not entered into a detailed comparison of NPA salaries against those of other NGOs. However, we find the relationship between basic salary and allowances shown below to be disproportionate and it should be subject to scrutiny. As a rule of thumb it is recommended that the salary and

allowance structure for the NPA expatriate staff should be at the same level as for other Norwegian NGOs present in Cambodia, such as Redd Barna. However, market value and availability of required human resources will vary, and adjustments must be possible in order to ensure that high quality personnel are recruited to the positions in question.

Diagram 3. The cost structure in 1995 for employment of NPA's expatriate staff



4.4 Central vs decentral funding

This missions mandate has been to evaluate NPA's project in Cambodia. We have not entered into an evaluation of the Norwegian funds contributed directly into the UNDP trust fund for the operations of CMAC. Norway enjoys an acknowledgement for it's engagement in Cambodia both in terms of the financial contributions to the trust fund, and in terms of the in-kind contributions of NPA staff to CMAC.

For the mission, it has been a relevant question during the course of the evaluation project whether Norwegian

aid intended for demining in Cambodia is best utilised by a contribution directly to the trust fund or as in-kind contribution by providing CMAC with NPA staff. Our answer to the question is that, for the time being, the impact of Norwegian humanitarian aid resources for demining in Cambodia is optimised by a continued contribution of a limited number of highly qualified advisors. However we consider the recent policy, of also making contributions directly into the trust fund, as important with regard to showing commitment to CMAC and trust in the progress of the organisation.

5. Cost/benefit – the socio-economic impact

5.1 Introduction

As recognised in the five year strategy document, there is a need for CMAC to widen its institutional scope by integrating the social and economic perspective in its operations. Social and economic considerations are linked to demining in four specific ways:

1. In respect of casualty rates and the physical rehabilitation of people disabled by mine accidents.
2. The way in which priority areas are selected for demining.
3. Making sure IDPs are actually moving back to the areas cleared.
4. Measures taken to ensure that IDPs resettling on land cleared of mines receive outside support in rebuilding their livelihood and their communities.

This section of the report focuses on how CMAC currently operates in respect to these criteria and how procedures may be improved.

5.2 Current site selection procedures

The mission has assessed the systems for planning the areas to be cleared. The areas are rated according to a priority oriented time schedule established on the basis of the following criteria:

1. Land use for resettlement/IDPs or settled land with high civilian casualty rates.
2. Land use for agriculture.
3. Community development purposes (humanitarian)
4. Reconstruction and infrastructure

The plan is demonstrated by a zone mapping of priority areas based on information contained in CMAC's minefield database, with four categories of minefields; reported, verified, marked and cleared. The planning system also considers which minefields that can only be demined during the dry season.

The system for selection of demining sites is good, but the critical issues are the quality of information given by local authorities at the time of request for demining, and the follow up after demining. Today there is very limited control of whether the areas have actually been used for the intended purposes.

5.3 Current measurement of results

Outputs of CMAC's demining operations have until now been measured in terms of the number of mines identified, the number of square metres of land cleared etc. With the enormous extent of the mine problem in Cambodia, it becomes obvious that these measures give little meaning as to the question of to what extent the problem has been solved.

It will be difficult to raise funds from donors in the future if other indicators, showing the effect of demining on the quality of life for the Cambodian citizens, are not implemented.

5.4 The need for socio-economic indicators

At present, no one knows the socio-economic cost for a nation of having the land infested by mines. Likewise, the socio-economic benefit of clearance is unclear. To measure the real impact of humanitarian demining it is necessary to find indicators for each of the priority criteria. Possible indicators could be the number of IDPs resettled, the amount of rice produced in cleared areas, number of families self sufficient after demining etc. One could also measure quality of life in terms of access to schools, hospitals and work-programmes.

The UNDP in depth evaluation mission has stated that it is today virtually impossible to evaluate the social and economic impact of demining after an area has been cleared, due to the lack of a standard set of base-line data. The mission calls for the staffing of a separate branch at the CMAC headquarters to deal with, and implement the necessary reorientation with regard to the social and economic impact of demining.

The need for new and better measures on the impact of the demining operations is currently being addressed by CMAC, and measures are likely to be taken in the near future with regard to establishing a unit at the CMAC

headquarters. The first likely step to be taken is the appointment of a technical advisor who will work with creating the foundation for such a unit.

5.5 Ways to improve

The mission sees a great scope for improvement in the way CMAC carries out their work by implementing an integrated information system supporting the whole process of humanitarian demining. Ideas and inputs for such a potential system are provided in the model on the following page.

The following steps are seen as crucial to improve the socio-economic impact of the work carried out by CMAC, and are essential steps in the demining process and therefore also the model:

- a) **Minefield information/markings.** The process of gathering and registration of information on minefields in Cambodia is currently highly advanced. Minefield marking is also an operation that functions well.
- b) **Selection.** An important area for improvement is to establish a set of socio-economic indicators that should be collected and put into the database. The data must not be complicated, but rather simple indicators which provide useful input to the selection process. Possible indicators, which could be relatively easy to obtain are the number of IDPs, the potential for rice production and agriculture, access to water, ownership of land, etc. Such input could greatly assist the planning and selection process.

Active cooperation with international agencies and NGOs working in the province should be sought in advance of the selection of minefields to be cleared, with the view to ensuring relevant and more effective follow-up assistance to resettling communities. If other agencies see the relevant region as a priority region for building schools or hospitals, developing food for work programmes etc, this would clearly influence the selection process.

Closer liaison with local authorities and improved relations to ministries and governors are also critical in order to improve the linkages between selection and actual use, and to ensure that actual resettlement and use of cleared areas are in accordance with the initial request.

It is important to appoint a person with authority in the region to be responsible for the plan for how to optimise the resettlement process at this early stage. This person should be responsible for developing a plan to make sure that the area will be used to maximum effect.

- c) **Mine clearance.** Once the site has been selected, based on the above defined criteria, the field is ready for being cleared. As the work progresses, it is important to continuously monitor the progress. Progress reports should be fed directly into the data-system, making it easier to detect any problems which may arise and to act accordingly. **Being able to obtain information quickly as to the progress of operations will make it easier to conduct effective planning.**
- d) **Hand-over of cleared land.** During clearance, CMAC should continuously liaise with local authorities and development agencies in the region, to assure that they are acting according to mutually agreed plans. It is necessary to put continuous pressure on partners to make sure that maximum impact will take place.

The local person responsible for the development plan must submit his plan ahead of time before the area is cleared for approval. The intentions of the local Governor must also be reconfirmed. Once the development plan is accepted, the hand-over of the area will take place.

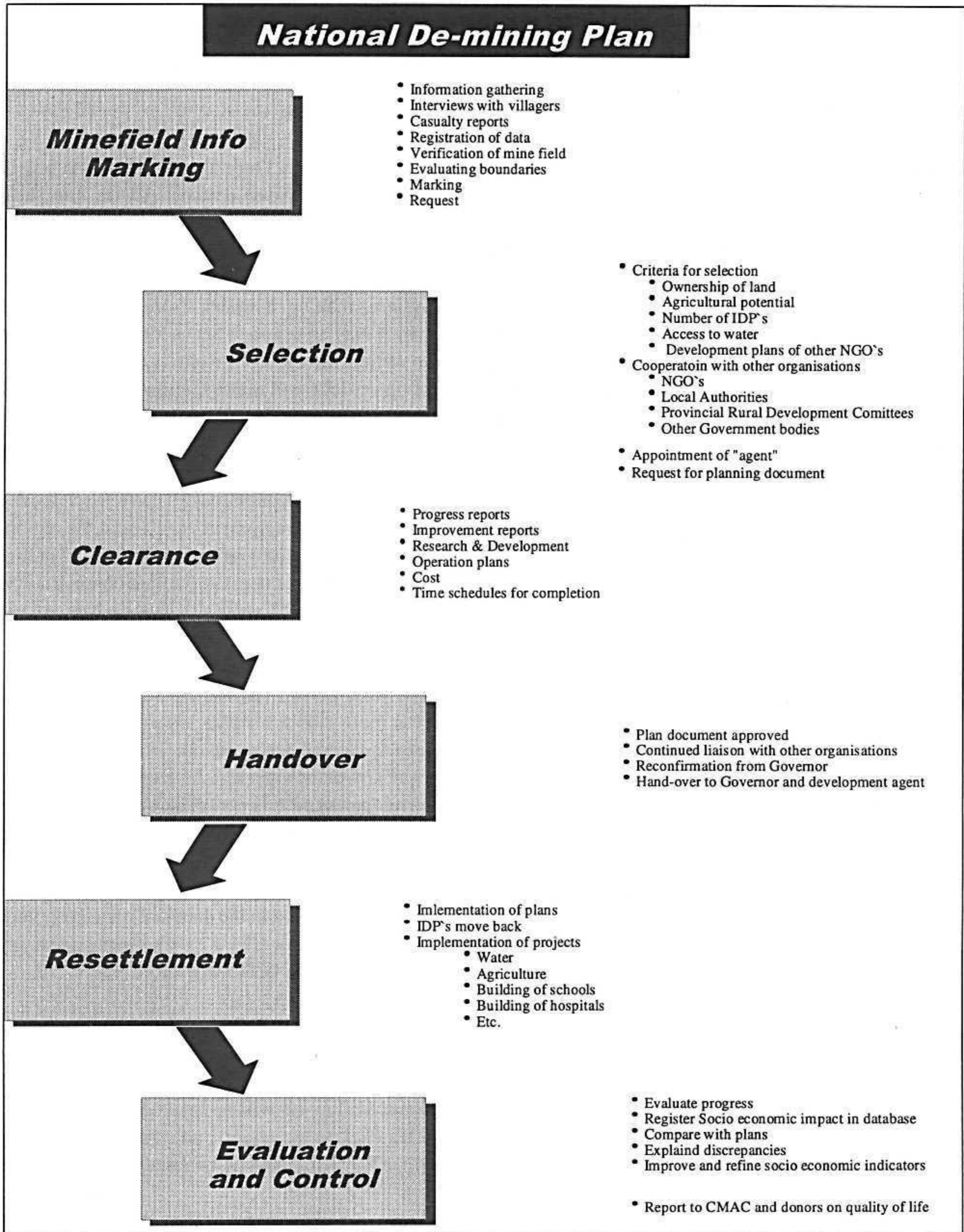
It is important that all the above mentioned activities are registered in the database, thereby producing a checklist for CMAC staff. Once an activity is completed it can be «ticked off».

- e) **Resettlement.** Once the land has been handed over, it is important to follow up and register whether the resettlement is progressing in accordance with plans. Follow-up will be made on initiatives to get IDPs back to the region and whether the necessary projects are initiated and carried out.

Again, it will be useful to feed into the database the progress, in order to monitor the socio-economic impact of the project.

- f) **Evaluation and control.** Once the resettlement project is maturing it is important to monitor the

Diagram 4. Suggestion for an improved demining process.



The diagram shows the mission's suggestion for an improved demining process supported by an integrated information system. The aim of this process is to increase the socio-economic impact of the work carried out by CMAC. The process, containing well defined activities, with corresponding flows of information, is commented on the following page.

effect of the project. One must at this stage register the socio-economic impact according to the indicators defined at the outset of the project. If there are discrepancies with regard to the plan these must be explained, and the socio-economic indicators will be continuously refined.

g) **The impact of the integrated information system.**

The outcome of the completed process will be a report stating the socio-economic impact of the project in terms of the quality of life established in the region. This information will prove very valuable in determining the value of the demining work in Cambodia. This kind of information will prove more meaningful than simply counting the number of mines cleared or number of square meters cleared. Furthermore, it is likely that donor organisations

will be much more encouraged by such information in the long term.

The system will force CMAC to ensure that the necessary activities are carried out in order to maximise the impact of having land cleared for resettlement. The system will act as a checklist of activities to be undertaken, and management can at any time check which activities have actually been carried out in time and which have not.

Gathering information throughout the entire process, will greatly improve the planning capability of CMAC. Planning is seen as a key improvement area for the organisation, and utilising the full potential of available information is a key to becoming better at planning.

6. Important Factors influencing NPA's Future

In this final chapter of the report, we will describe the key challenges, strengths and opportunities to build on and the main threats that are likely to be influencing the specific role of NPA in future work in Cambodia.

6.1 Key challenges

a) **Long term planning.** Since the beginning of its operations in 1993, CMAC has focused virtually all its attention on the day to day demining operations. Strategic and long term planning have not been a priority. This has influenced NPA's opportunities for planning their own operations. Measures have now been taken to improve CMAC's performance this area and the Five years strategy plan provides a good platform for taking the organisation in the right direction.

It provides a challenge for NPA to obtain a position within CMAC, in which the organisation can have actual influence on the implementation of the five year plan.

b) **Rotation of staff.** Technical advisors, from a wide range of countries rotate on short term schedules and most TA's in CMAC serve for six month only. The mission believes that this is too short time and that it makes planning and co-ordination difficult. It also creates problems with regard to the co-ordination between CMAC and other NGOs. It is a challenge for NPA to, through their experience with 1-2 year contracts, influence the rotation policy for expatriates.

c) **Horizontal communication.** Communication between branch managers in CMAC must improve. Focus has been on developing operational procedures and structure of the different units rather than interaction between them. This has in some cases led to poor co-ordination between groups and units within CMAC. There has also been problems related to the communication problem between military and civilian staff. The important work of co-ordinating units could be a role for a roving TA, which could be a possible and influential position for NPA at CMAC HQ.

d) **Terms of reference for TAs.** The lack of terms of reference for the TAs working in CMAC represents a risk of different practices being adopted within CMAC as a consequence of too much «freedom» for the TAs to apply own standards to those of CMAC. With a large number of TAs working in CMAC, coming from different countries and working on rotation, there is a need for articulating clear terms of reference and clear directives based on the objectives for their work. Simple and effective reporting structures related to terms of reference should be adapted. A suggested standard form for reporting is contained in this report's annex.

e) **Lack of managerial skills in CMAC.** A national, rather than CMAC specific problem, is that of finding qualified managers to fill the increasing number of managerial positions in a growing organisation. Hence, there is a need for management training and planning for considerable time to come.

It is important for NPA to recognise that the skills that will be needed from NPA staff in the future are somewhat different from those that were required in the past. The shift is from operations to management and a move from military to civilian background. This will have effect on the recruitment process and the type of people selected.

f) **Regional autonomy.** Measures have been taken to put more of the decision making responsibility out to the regional offices of CMAC. However HQ does not always give the regions enough time for decision making. With a position at CMAC HQ, NPA could influence this process.

g) **Procurement and logistics.** CMAC must improve procurement and logistics. Good routines and procedures have been implemented in parts of CMAC, such as the Battambang region, but remain to be uniformly introduced to the CMAC organisation. CMAC would benefit from implementing an internal control system, and this could be an important task for the roving TA team.

h) **Operational progress.** With the extent of the landmine problem in Cambodia, there is an obvious need for more efficient operations. It has proven

difficult to change the Standard Operating Procedures (SOP) in Operation, even when suggestions based on experience from demining elsewhere shows potential for efficiency improvement. NPA has experienced problems with CMAC's openness to learn from others experience. Furthermore, CMAC has not been proactive in the search for new technology.

With a position at HQ, it is believed that NPA would have a greater impact when suggesting new ideas and experiences the organisation have gained from other regions where they operate. If NPA only operates in the regions, it is difficult to influence decision-making. New technology could provide a revolutionary progress in the demining process, and NPA could actively influence the search for new technology.

- i) **Public information and mine awareness.** Public information and mine awareness have been weak areas in CMAC. A possible future challenge for NPA will be to contribute with mine awareness experience towards CMAC.

6.2 Key strengths to build on

- a) **Highly motivated personnel.** CMAC is an organisation with highly motivated personnel that take pride in their work. CMAC is seen by many as a model organisation for other Cambodian institutions to emulate. Furthermore, given the five year plan, the organisation could easily be a model for other regions in the world to learn from.

NPA could greatly benefit from taking part in the development of CMAC over the next years. Not only does CMAC benefit from NPA's contribution, but NPA is also likely to gain competence which can be transferred to other regions of the world.

- b) **Military and civilian competence.** With the mixture of military and civilian personnel that is present in CMAC, it has been an advantage for NPA to be perceived as a civilian NGO with competence in military fields. NPA has a good approach to capacity building and valuable experience from other countries.

6.3 Key Opportunities to build on

- a) **Strategic plan.** The five year strategic plan is well perceived and provides an important basis for development and continued support from donors.
- b) **Strong organisation.** CMAC has managed to build a strong and highly proficient organisation by Cambodian standards.
- c) **Growing commitment and political will.** The Cambodian government has shown a growing political will and commitment to demining. The government has increased the contribution to CMAC from USD 400.000 in 1995 to USD 1.000.000 in 1996. Even though this is only a small part of the necessary funds needed to run CMAC, the increase constitutes an important signal of commitment both towards donor countries and towards CMAC itself.

6.4 Key threats to watch out for

- a) **Short term funding.** Although measures have been taken to improve the long term planning for the demining operations in Cambodia, funding remains a major barrier as most donors can only guarantee funding for one year at a time. However, the initiative to make a five year plan may change the attitudes among donors in a favourable direction.
- b) **Safety vs efficiency.** CMAC has high attention on safety for the deminers. It has been suggested that some procedures in the field can be simplified without reducing the safety of the deminers, such as increasing the distance between marking sticks etc. Such measures, however, are difficult to implement as there is a strong resistance towards risking to compromise with safety.
- c) **Lack of middle managers.** The lack of people with managerial experience constitutes a barrier for the progress of CMAC in the short to medium term. To a certain extent middle managers in CMAC have to gain the experience necessary for the managerial position after acquiring the position. This fact makes it important to follow up managers with the assistance of technical advisors.
- d) **Corruption.** CMAC has a tradition of being a «clean» organisation, and allegations of individuals being corrupt are taken very seriously and acted upon promptly. Corruption has not constituted a

major problem so far, but as the organisation grows, and taking into account the problems described above, of lack of communication, poor planning and need for better internal control, a failure to improve CMAC on these areas may also involve an increased risk of corruption. It is important that CMAC handles allegations of corruption in a professional manner. This includes being able to distinguish between issues really concerning corruption and issues where allegations of corruption are really referring to cases of poor judgement, mismanagement or worse; allegations driven by individual career moves with intentions of casting doubt on colleagues.

6.5 Responsibilities of Cambodian authorities

CMAC was originally established as an NGO and it is by many still perceived as such, even though it has been

reorganised under the Royal Decree as a public organisation. CMAC's institutional profile is becoming sharper and, as pointed out by the UNDP evaluation mission, the attributes that come with leadership must be exercised increasingly, not only at the level of the Governing Council, but by the Director and Assistant Director both in their contacts with other government departments and in taking a lead role in the NGO co-ordination forum.

The steering committee for the UNDP trust fund, where Norway is also represented, remains a major vehicle for decision making and continues to be the main contact point between CMAC and the donor countries, even though the ultimate responsibility for CMAC and its operations formally rests with the Cambodian authorities represented by the Supreme National Council (SNC).

7. Annexes

Annex 1: Terms of reference

EVALUATION OF NORWEGIAN PEOPLE'S AID'S MINE CLEARANCE PROJECT IN CAMBODIA

1. Introduction

Norwegian People's Aid (NPA), has in cooperation with Cambodian Mine Action Centre (CMAC), been engaged in mine clearance in Cambodia since 1992. The project is part of a mine clearance programme, originally managed by UNTAC (UN's Transitional Authority in Cambodia), as part of the peace process. With the end of UNTAC mandate CMAC continues to demine under UNDP auspices.

The project objective is to clear mines in Bantey Meanchey and Battambang Provinces. Through a training programme transfer of competence to local personnell provides a basis for the Cambodian authorities to take over the responsibilities and manage the project themselves.

The project components comprise financing of a training programme, led by Norwegian mine clearance experts, medical personnell and other technical advisers, as well as purchase of project equipment for the implementation of the activities.

Mine clearance is a precondition for a successful rehabilitation of the country, and is the reason why the Ministry of Foreign Affairs (MFA) has funded the project. Total allocation to the project from 1992-1996 is NOK 25 mill.

UN has assessed the status for mine clearance in Cambodia and concluded that the activity will have to continue for years ahead. NPA's initial plan was to phase out the project within 1994, but is now changed to 1996.

2. Objectives of the evaluation

The main purpose of the evaluation is to provide basis for the MFA decision on the possible continuation of the project.

3. Scope of work

3.1 The evaluation shall consider the results achieved, based on the project objective that is transfer of competence to local personnell and transfer of project responsibility to Cambodian authorities. Assessment of the training programme and the project's institutional base shall be given special attention, including management and administration of the project.

3.2 Distribution of project costs and resources shall be identified and an analysis of cost-efficiency and goal achievements shall be undertaken, including an assessment of the quantitative achievements regarding number of mines destroyed and the extension of demined areas.

3.3 An assessment of national, local, political, institutional and economic conditions important for the implementation of the project shall be included in the evaluation.

3.4 Recommendations for continuation, including adjustments and changes of the project shall be included in the assessment, with emphasis on a plan for phasing out the expatriate assistance.

4. Methods

Identification and assessment of the abovementioned conditions requires collection of data and field visit in Cambodia. Information shall be collected from Cambodian authorities, UN, CMAC and NPA. Based on interviews, assessment of the institution in Cambodia and existing project documents, a report in English shall be presented MFA.

5. Qualifications

The evaluation shall be implemented by a team consisting of two persons with international competence in the following disciplines :

- social science
- economy/social science
- training programmes/mine clearance

6. Timetable and resources

The timetable for the evaluation is estimated to 3 month works.

The financial frame for the exercise has been set to NOK 300.000.

Annex 2: List of persons consulted

Judith Carl	Assistant Area Representative	UNDP
Heinz Schnitzer	Program Coordinator	UNDP
Dr Lao Mong Hay	Director Former Director	Khmer Institute of Democracy CMAC
Ieng Mouly	Minister of Information Chairman	Government of Cambodia CMAC
Sam Sotha	Director	CMAC
Niem Chouleng	Assistant Director	CMAC
Pann Sothy	Deputy Assistant Director	CMAC
Jim Prudhomme	Chief Technical Advisor	CMAC
Mao Vanna	Chief of Information	CMAC
Michael Sheinkman	Technical Advisor, Info.	CMAC
Jean-Gabriel Masson	Technical Advisor, Management (Roving TA)	CMAC
Nou Sarom	Regional Manager, CMAC Region A	Banteay Meanchey Province
Som Vireak	Regional Manager	CMAC Region B Battambang Province
Noun Saou	Deputy Regional Manager	CMAC Region B Battambang Province
Mam Neang	Regional Manager	CMAC Region C Kampot and Kampong Speu Provinces
Tim Porter	Head of Mission	The HALO Trust
Julien Temple	Program Coordinator	Handicap International
Chris Horwood	S.E. Asia Regional Director	MAG, Mines Advisory Group
Trond Kaalsas	Project Leader	NPA Demining Team Cambodia
Hans Bachlund	Senior Technical Advisor	NPA Demining Team Cambodia, CMAC Region B, Battambang Province
Egil Fuglehaug	Technical Advisor	NPA Demining Team Cambodia, CMAC Region B, Battambang Province
Ståle Tveitane	Technical Advisor	NPA Demining Team Cambodia, CMAC Region A, Banteay Meanchey CMAC Region B, Battambang Province
Willy Fredriksen	Ambassador of Norway	Royal Norwegian Embassy, Bangkok

The mission attended the following meetings as observers:

- 26.01.96 Technical Advisor Working Group Meeting
- 27.01.96 CMAC Working Group Meeting
- 27.01.96 NGO Working Group Meeting

Annex 3: Abbreviations and acronyms

CARERE	Cambodia Resettlement and Reintegration
CMAC	Cambodian Mine Action Centre
COFRAS	Compagnie Francaise d'Assistance Specialisée
CPP	Cambodian People's Party
CTA	Chief Technical Advisor
EOD	Explosive Ordnance Disposal
HALO	The HALO Trust – Hazardous Areas Life Support Organisation
HI	Handicap International
IDP	Internally Displaced Person
MAG	Mines Advisory Group
MCTU	Mine Clearance Training Unit
MFA	Ministry of Foreign Affairs
NGO	Non governmental organisation
NPA	Norwegian People's Aid
SNC	Supreme National Council
SOP	Standard Operating Procedures
STA	Senior Technical Advisor
TA	Technical Advisor
UN	United Nations
UNAMIC	United Nations Advanced Mission in Cambodia
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
UNOPS	United Nations Office for Project Services
UNTAC	United Nations Transitional Authority in Cambodia
USAID	The bi-lateral aid agency of the United States Government
UXO	Unexploded ordnance
WFP	World Food Programme
WHO	World Health Organisation
WVI	World Vision International

Annex 4: List of references

1. UNDP in-depth Evaluation of the Project CMB/93/A07- 16. December 1995
2. Clearing the Path Ahead- Five Year Strategy: May 1996 to December 2000
3. Cambodian Mine Action Centre – Annual Report – 1. November 1993 – 31 October 1994
4. NPA End of mission report, 31. December 1994, NPA file ref. 93/95–42-KAM-245–201
5. Cambodian Mine Action Centre – Work Plan – 1. October 1995 to 30. April 1996
6. Cambodian Mine Action Centre – Mine Marking Team – Standard Operating Procedures
7. Cambodian Mine Action Centre – Forward Planning Estimate – 28. August 1995
8. Cambodian Mine Action Centre – Mine Awareness Teachers Notes – January 1994
9. Cambodian Mine Action Centre – Quarterly Bulletin
10. CMAC History, Structure and Achievements – History of CMAC – Information sheet No. 1
11. Annual reports and project status documents from NPA and MFA archives

Annex 5: CMAC achievements and sustainability

CMAC's stated goal is "To achieve a state within Cambodia, where people can go about their lives free from the threat of mines and reconstruction and development activities can take place in a safe environment". In order to achieve this goal CMAC has developed four major objectives:

Objective	Indicator	Output	NPA Involvement	Sustainability
Mine Awareness "To create an awareness of the mine problem that exists within Cambodia, of solutions and measures that can be taken to make life safer, and the levels of support that is necessary to develop a program that can remove the menace."	National mine awareness day	1	No	This has been a weak area for CMAC. More emphasis and higher priority will be give to this area in the future. Need of TA assistance
	National mine awareness curriculum	1		
	Mine awareness presentations	487		
	Audience attended	63.800		
	Draft national strategy for mine awareness	1		
	Mine awareness information - billboards, written	Several		
	Mine awareness campaign - radio	Several		
Mine awareness campaign - TV	1			
Mine Info./ Minefield Marking "To identify, record and mark mined areas in such a way that all Cambodians have usable access to all known information on minefields and also provide a marking system which will prevent people unknowingly entering a minefield."	<i>Suspected areas</i>	2.138 km2	No	Well functioning database system but lack of indicators after clearance. Need for socio-economic indicators
	<i>Confirmed areas</i>	348 km2		
	Total reported areas	2.486 km2		
	Verified areas	323 km2		
	Marked areas	25 km2		
Mine Clearance "To eliminate the danger of mines by clearing and assisting others to safely clear mines, mined areas and minefields."	Area cleared	18 km2	Management, control and on the job training	Self sustained in operations but lack of experienced management Need for continued TA assistance for regional management
	Minefields cleared			
	Anti-personnel mines destroyed	53.666		
	Anti-tank mines destroyed	346		
	UXOs destroyed	352.535		
	Cost per square meter cleared (UNDP estimate)	USD 0,75		
Training "To provide individuals and groups with the knowledge and skills necessary to perform their function within systematic and non-systematic demining programs in Cambodia."	Mine awareness instructors trained	NA	On the job training	On the job training functions well but there is great scope for improvement by implementing reporting and evaluation procedures. Need for continued support within on the job training of managers. (CMAC's training centre has not been inspected by this mission)
	Mine markers trained	221		
	Deminers trained	1.666		
	Instructors fully trained			
	EOD personnel trained	31		
	Khmer team members' job performance	Good		
	Khmer team members' job motivation	High		

Annex 6: Use of funds

	1992			1993			1994			1995			Sum	
	Budget	Actual	Discrep.	Budget	Actual	Discrep.	Budget	Actual	Discrep.	Budget	Actual	Discrep.	Actual	Actual
Funding														
MFA - Grant	6.142.500	6.142.500	0	8.932.500	9.102.500	170.000	9.000.000	9.000.000	0	4.956.240	4.956.240	0	29.201.240	
Other	0	163.558	163.558	500.000	500.000	0	0	(569.024)	(569.024)	85.000	836.156	751.156	930.690	
Total funding	6.142.500	6.306.058	163.558	9.432.500	9.602.500	170.000	9.000.000	8.430.976	(569.024)	5.041.240	5.792.396	751.156	30.131.930	
Costs														
Personnel	2.288.000	2.182.685	105.315	6.672.000	6.885.396	(213.396)	5.882.100	6.643.433	(761.333)	3.511.000	3.572.530	(61.530)	19.284.044	
Travel	355.000	350.326	4.674	750.000	1.096.015	(346.015)	778.000	1.021.268	(243.268)	605.000	665.094	(60.094)	3.132.703	
Operation	1.268.823	1.330.558	(61.735)	1.083.000	1.252.535	(169.535)	968.000	857.753	110.247	463.000	224.684	238.316	3.665.530	
Administration	835.000	588.000	247.000	857.500	812.045	45.455	800.000	600.000	200.000	330.190	321.450	8.740	2.321.495	
Procurement	791.177	791.177	0	70.000	0	70.000	0	0	0	68.000	66.586	1.414	857.763	
Misc	53.000	50.856	2.144	0	121.224	(121.224)	269.900	458.288	(188.388)	70.000	28.588	41.412	658.956	
Finance	0	(43.796)	43.796	0	4.309	(4.309)	0	0	0	0	34.667	(34.667)	(4.820)	
Total costs	5.591.000	5.249.806	341.194	9.432.500	10.171.524	(739.024)	8.698.000	9.580.742	(882.742)	5.047.190	4.913.599	133.591	29.915.671	
Total income	6.142.500	6.306.058	163.558	9.432.500	9.602.500	170.000	9.000.000	8.430.976	(569.024)	5.041.240	5.792.396	751.156	30.131.930	
Total costs	5.591.000	5.249.806	341.194	9.432.500	10.171.524	(739.024)	8.698.000	9.580.742	(882.742)	5.047.190	4.913.599	133.591	29.915.671	
Balance	551.500	1.056.252	504.752	0	(569.024)	(569.024)	302.000	(1.149.766)	(1.451.766)	(5.950)	878.797	884.747	216.259	

Actual costs over project period

Actual	1992	1993	1994	1995	SUM
Funding					
MFA - Grant	6.142.500	9.102.500	9.000.000	4.956.240	29.201.240
Other	163.558	500.000	(569.024)	836.156	930.690
Total funding	6.306.058	9.602.500	8.430.976	5.792.396	30.131.930
Costs					
Personnel	2.182.685	6.885.396	6.643.433	3.572.530	19.284.044
Travel	350.326	1.096.015	1.021.268	665.094	3.132.703
Operation	1.330.558	1.252.535	857.753	224.684	3.665.530
Administration	588.000	812.045	600.000	321.450	2.321.495
Procurement	791.177	0	0	66.586	857.763
Misc	50.856	121.224	458.288	28.588	658.956
Finance	(43.796)	4.309	0	34.667	(4.820)
Total costs	5.249.806	10.171.524	9.580.742	4.913.599	29.915.671
Total income	6.306.058	9.602.500	8.430.976	5.792.396	30.131.930
Total costs	5.249.806	10.171.524	9.580.742	4.913.599	29.915.671
Balance	1.056.252	(569.024)	(1.149.766)	878.797	216.259

Budget vs actual costs - 1992

Funding	Budget	Actual	Discrepancies
MFA - Grant	6.142.500	6.142.500	0
Additional MFA grant for negotiating delegation		163.558	163.558
Total funding	6.142.500	6.306.058	163.558
Expenditures			
Personnel	2.288.000	2.182.685	105.315
Travel	355.000	350.326	4.674
Operation	1.268.823	1.330.558	(61.735)
Administration	835.000	588.000	247.000
Procurement	791.177	791.177	0
Misc	53.000	50.856	2.144
Finance		(43.796)	43.796
Total costs	5.591.000	5.249.806	341.194
Total income	6.142.500	6.306.058	163.558
Total costs	5.591.000	5.249.806	341.194
Balance	551.500	1.056.252	504.752

Comments:

Accounts are approved by certified auditor.

Budget vs actual costs - 1993

Funding	Budget	Actual	Discrepancies
MFA - Grant	8.932.500	9.102.500	170.000
Other; from 1992	500.000	500.000	0
Total funding	9.432.500	9.602.500	170.000
Expenditures			
Personnel	6.672.000	6.885.396	(213.396)
Travel	750.000	1.096.015	(346.015)
Operation	1.083.000	1.252.535	(169.535)
Administration	857.500	812.045	45.455
Procurement	70.000	70.000	70.000
Misc		121.224	(121.224)
Finance		4.309	(4.309)
Total costs	9.432.500	10.171.524	(739.024)
Total income	9.432.500	9.602.500	170.000
Total costs	9.432.500	10.171.524	(739.024)
Balance	0	(569.024)	(569.024)

Comments:

Accounts are approved by certified auditor.

Budget vs actual costs - 1994

<i>Funding</i>	Budget	Actual	Discrepancies
MFA - Grant	9.000.000	9.000.000	0
Other		(569.024)	(569.024)
Total funding	9.000.000	8.430.976	(569.024)
<i>Expenditures</i>			
Personnel	5.882.100	6.643.433	(761.333)
Travel	778.000	1.021.268	(243.268)
Operation	968.000	857.753	110.247
Administration	800.000	600.000	200.000
Procurement		0	0
Misc	269.900	458.288	(188.388)
Finance		0	0
Total costs	8.698.000	9.580.742	(882.742)
Total income	9.000.000	8.430.976	(569.024)
Total costs	8.698.000	9.580.742	(882.742)
Balance	302.000	(1.149.766)	(1.451.766)

Comments:

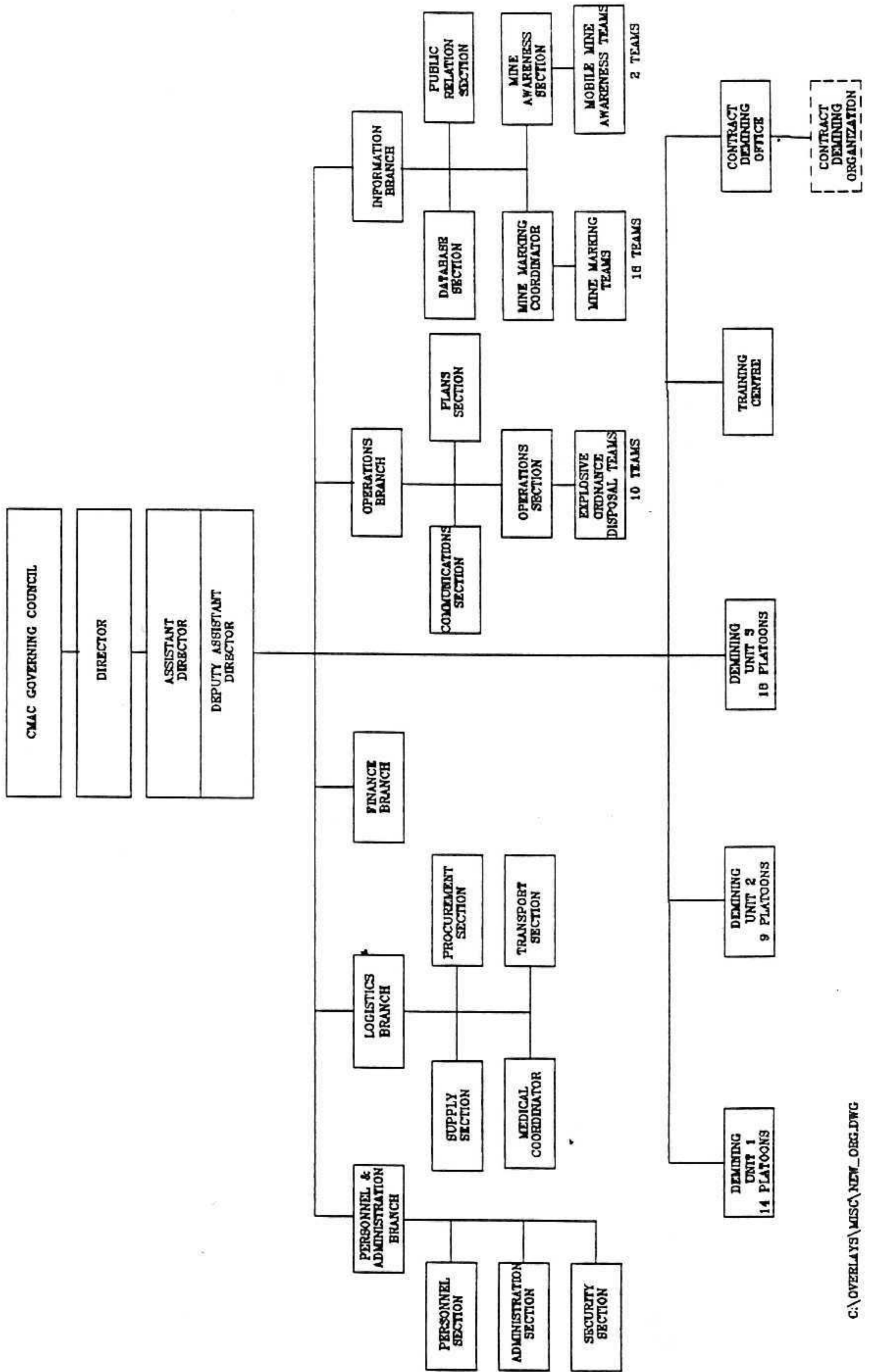
Accounts are approved by certified auditor.

Budget vs actual costs - 1995

Funding	Budget	Actual	Discrepancies
MFA - Grant	4.956.240	4.956.240	0
Other; Budget:refund UNDP, Actual: additional MFA gra	85.000	836.156	751.156
Total funding	5.041.240	5.792.396	751.156
Expenditures			
Personnel	3.511.000	3.572.530	(61.530)
Travel	605.000	665.094	(60.094)
Operation	463.000	224.684	238.316
Administration	330.190	321.450	8.740
Procurement	68.000	66.586	1.414
Misc	70.000	28.588	41.412
Finance		34.667	(34.667)
Total costs	5.047.190	4.913.599	133.591
Total income	5.041.240	5.792.396	751.156
Total costs	5.047.190	4.913.599	133.591
Balance	(5.950)	878.797	884.747

Comments:

CAMBODIAN MINE ACTION CENTRE ORGANIZATION CHART



Annex 8: CMAC deployment

CAMBODIAN MINE ACTION CENTRE

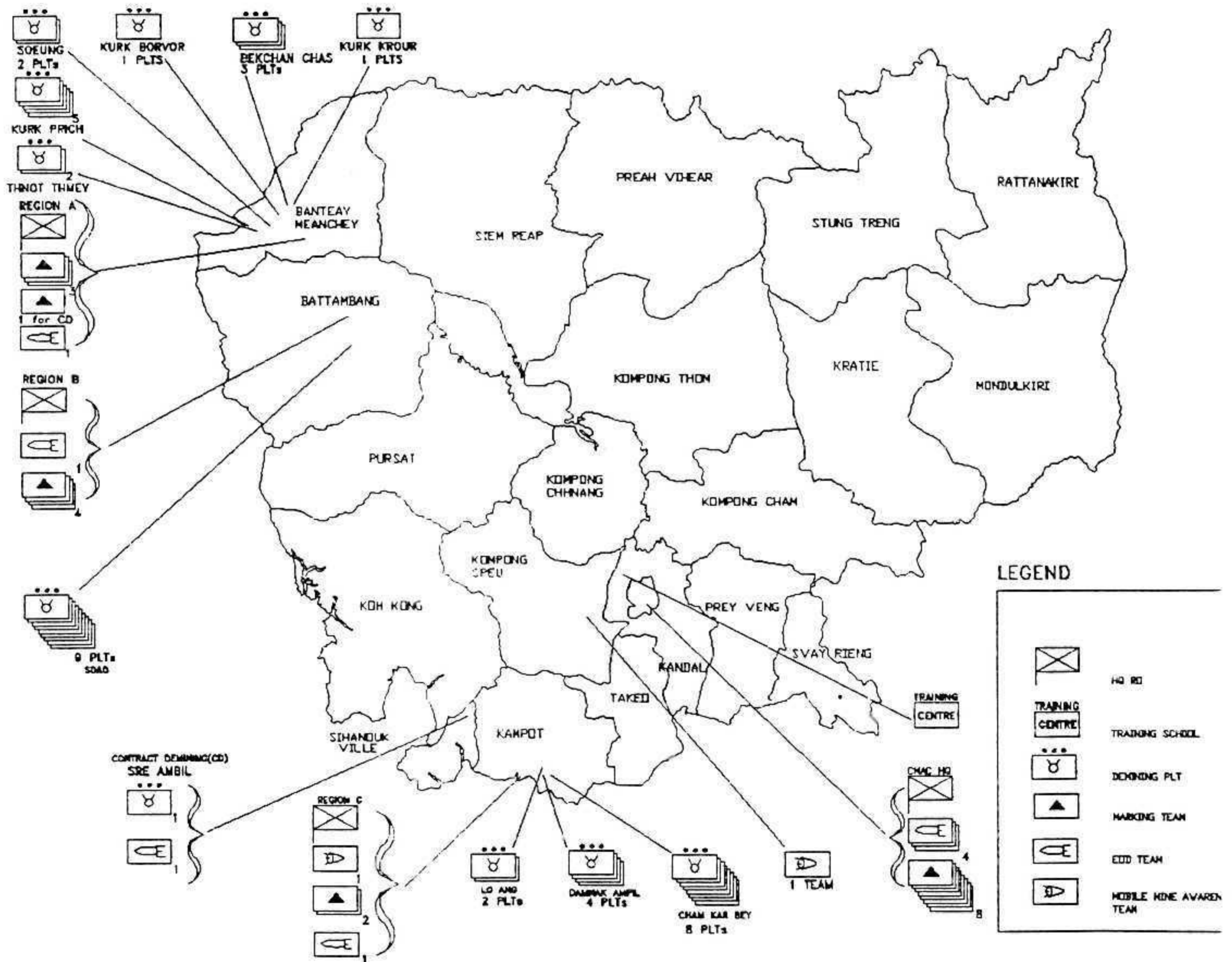


ប្រជុំបណ្តុះបណ្តាល សកម្មភាព
កំចាត់មីន កម្ពុជា

INFORMATION SHEET No.3

As Jan-96

CMAC DEPLOYMENT



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Building No. 22, Road 122, Quarter Meattapheap, District 7 January, Phnom Penh, Cambodia. P.O. Box 116, Tel : 855 - 23 - 50083 / 4 Fax : 855 - 23 - 60096

ផ្ទះលេខ ២២ ផ្លូវ ១២២ សង្កាត់ មិញ្ចាព ខណ្ឌ ៧ មករា ភ្នំពេញ កម្ពុជា
ប្រអប់សំបុត្រ : ១១៦ ទូរស័ព្ទ : ៨៥៥ ២៣ ៥០០៨៣/៤ ទូរសារ : ៨៥៥ ២៣ ៦០០៩៦

CMAC deployment

CMAC Deployment	CMAC HQ	Region A	Region B	Region C	Total
Location	Phnom Penh	Banteay Meanchey Province	Battambang Province	Kampot and Kompong Speu Provinces	
No. of sites	1	3	1	4	9
Platoons	1	14	9	18	42
Mine Marking Teams (MMT)	9	3	4	2	18
EOD Teams	4	1	1	1	7
Mobile Mine Awareness Teams (MMAT)					2

Annex 9: CMAC facts and figures

**CAMBODIAN MINE
ACTION CENTRE**



**បន្ទីរកម្មសកម្មភាព
កំចាត់មីន កម្ពុជា**

INFORMATION SHEET No.2

As Jan-96

CMAC FACTS AND FIGURES

ROLE: To create a state within Cambodia where Cambodians can go about their lives free from the threat of mine.

ORGANIZATION: Headquarters in Phnom Penh

- 1,600 Cambodian deminers
- 42 Platoons, each platoon 30 persons
- 18 Mine Marking Teams (MMT) , each team 4 persons
- 8 Explosive Ordnance Disposal Teams (EOD-T) , each team 2 persons
- 2 Mobile Mine Awareness Teams (MMAT) , each team 4 persons

OPERATION : Deployment of CMAC Headquarters and regional personnel

1. CMAC H.Q : One site along road No 4 under command of CMAC HQ;
 - 1 Platoon
 - 9 MMTs (8 MMTs for USAID/HI project, , 1 for CARERE project)
 - 4 EOD-Ts (3 EOD-Ts under command of OPs/HQ, 1 EOD-T for road No. 4)
 - 2 MMATs
2. Region A : Three sites located within Banteay Meanchey Province
 - 14 Platoons
 - 3 MMTs
 - 1 EOD-T
3. Region B : One site located within Battambang Province
 - 9 Platoons
 - 4 MMTs
 - 1 EOD-T
4. Region C : Four sites located within Kampot and Kompong Speu Provinces
 - 18 Platoons
 - 2MMTs
 - 1 EOD-T

RATE: Each platoon clears approx 500-1000m²/day

MINE DATA STATISTICS : Estimated

8-10 million mines in Cambodia

- | | |
|---|--------------------------|
| - Suspected mined area : | 2.105,36 km ² |
| - Suspected mined area reduced by verification : | 385.85 km ² |
| - Confirmed mined area : | 387.54 km ² |
| - Confirmed mined area cleared by CMAC demining (from Nov 93) : | 17.98 km ² |
|
 | |
| - Anti-personnel mines found : | 53.666 mines |
| - Anti-tank mines found : | 346 mines |
| - Unexploded ordnances (UXOs) | 352.535 UXOs |

Annex 10: Situation of the UNDP Trust Fund

**CAMBODIAN MINE
ACTION CENTRE**



**មជ្ឈមណ្ឌល សកម្មភាព
កំចាត់មីន កម្ពុជា**

INFORMATION SHEET No.4

As Jan-96

SITUATION OF THE UNDP TRUST FUND

CONTRIBUTIONS TO THE TRUST FUND AS OF 19.12.95		\$16,242,121
Australia	\$2,865,666	17.64%
Canada	\$1,635,835	10.07%
Denmark	\$1,051,367	6.47%
Holy See	\$5,000	0.03%
Japan	\$2,500,000	15.39%
Netherlands	\$1,041,667	6.41%
New Zeland	\$224,535	1.38%
Norway	\$1,353,152	8.33%
Sweden	\$1,377,410	8.48%
United Kingdom	\$3,277,300	20.18%
United States	\$910,189	5.60%
 ADDITIONNAL PLEDGES		 \$1,596,348
Sweden	\$977,410	
Norway	\$618,938	
 TOTAL MADE AVAILABLE FOR CMAC OPERATIONS		 \$15,213,837
(estimates)		
From actual contributions	\$13,721,252	
From additionnal pledges	\$1,492,585	

Annex 11: Suggested standard reporting form

TA's monthly report

The following form provides a suggestion for how NPA could improve their reporting routines in a simple and effective manner. A similar form could be used for regular reporting to NPA headquarter in Norway.

Name:		TA position:		Report period:		Khmer counterpart:	
Description of security situation:							
Item	Assessment					Problem areas/ barriers	Actions taken
	1	2	3	4	5		
Planning							
Routines							
Other items from TA's Terms of Reference							
Special issues this month:							
Date:				Signature:			

TA's monthly report

The following form provides a suggested structure for TA's monthly report. The form is designed to be used for regular reporting to NPA management and effective owners. A similar form could be used for reporting to other stakeholders.

Name: _____ TA position: _____ Report period: _____ Annual report year: _____

Description of security situation:

Item	Assessment					Action taken
	1	2	3	4	5	
Planning						
Response						
Other identified by TA team or Response						

Special issues this month:

Date: _____
 Signature: _____

EVALUATION REPORTS

- 2.86 Mali - matforsyning og katastrofebistand
3.86 Multi-bilateral Programme under UNESCO
4.86 Mbegani Fisheries Development Centre, Tanzania
5.86 Four Norwegian Consultancy Funds, Central America
6.86 Virkninger for kvinner av norske bistandstiltak
7.86 Commodity Assistance and Import Support to Bangladesh
- 1.87 The Water Supply Programme in Western Province, Zambia
2.87 Sosio-kulturelle forhold i bistanden
3.87 Summary Findings of 23 Evaluation Reports
4.87 NORAD's Provisions for Investment Support
5.87 Multilateral bistand gjennom FN-systemet
6.87 Promoting Imports from Developing Countries
- 1.88 UNIFEM - United Nations Development Fund for Women
2.88 The Norwegian Multi-Bilateral Programme under UNFPA
3.88 Rural Roads Maintenance, Mbeya and Tanga Regions, Tanzania
4.88 Import Support, Tanzania
5.88 Nordic Technical Assistance Personnel to Eastern Africa
6.88 Good Aid for Women?
7.88 Soil Science Fellowship Course in Norway
- 1.89 Parallel Financing and Mixed Credits
2.89 The Women's Grant. Desk Study Review
3.89 The Norwegian Volunteer Service
4.89 Fisheries Research Vessel - "Dr. Fridtjof Nansen"
5.89 Institute of Development Management, Tanzania
6.89 DUHs forskningsprogrammer
7.89 Rural Water Supply, Zimbabwe
8.89 Commodity Import Programme, Zimbabwe
9.89 Dairy Sector Support, Zimbabwe
- 1.90 Mini-Hydropower Plants, Lesotho
2.90 Operation and Maintenance in Development Assistance
3.90 Telecommunications in SADCC Countries
4.90 Energy support in SADCC Countries
5.90 International Research and Training Institute for Advancement of Women (INSTRAW)
6.90 Socio-cultural Conditions in Development Assistance
7.90 Non-Project Financial Assistance to Mozambique
- 1.91 Hjelp til selvhjelp og levedyktig utvikling
2.91 Diploma Courses at the Norwegian Institute of Technology
3.91 The Women's Grant in Bilateral Assistance
4.91 Hambantota Integrated Rural Development Programme, Sri Lanka
5.91 The Special Grant for Environment and Development
- 1.92 NGOs as partners in health care, Zambia
2.92 The Sahel-Sudan-Ethiopia Programme
3.92 De private organisasjonene som kanal for norsk bistand, Fasel
- 1.93 Internal learning from evaluation and reviews
2.93 Macroeconomic impacts of import support to Tanzania
3.93 Garantiordning for investeringer i og eksport til utviklingsland
4.93 Capacity-Building in Development Cooperation Towards integration and recipient responsibility
- 1.94 Evaluation of World Food Programme
2.94 Evaluation of the Norwegian Junior Expert Programme with UN Organisations
- 1.95 Technical Cooperation in Transition
2.95 Evaluering av FN-sambandet i Norge
3.95 NGOs as a channel in development aid
3A.95 Rapport fra presentasjonsmøte av "Evalueringen av de frivillige organisasjoner"
4.95 Rural Development and Local Government in Tanzania
5.95 Integration of Environmental Concerns into Norwegian Bilateral Development Assistance: Policies and Performance
- 1.96 NORAD's Support of the Remote Area Development Programme (RADP) in Botswana
2.96 Norwegian Development Aid Experiences. A Review of Evaluation Studies 1986-92
3.96 The Norwegian People's Aid Mine Clearance Project in Cambodia

