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Evaluation of the Netherlands' financial assistance for humanitarian demining activities in 1996-2006: Cambodia

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Abbreviations

ALS	Asia Landmine Solutions
CARE	Christian Action Research and Education
CBMRR	Community Based Mine Risk Reduction
CBURR	Community Based UXO Risk Reduction
CCBL	Cambodian Campaign to Ban Landmines
CDC	Commune Development Committee
CMAA	Cambodian Mine Action and Victim Assistance Authority
CMAC	Cambodian Mine Action Centre
CMMT	Community Mine Marking Team
CMVIS	Cambodia Mine Victim Information System
COM	Council of Ministers
CPP	Cambodian People's Party
CRC	Cambodian Red Cross
CRS	Catholic Relief Services
DIW	District Integrated Workshop
DU	Demining Unit
ELS	European Landmine Solutions
EOCKL	Explosive Ordnance Disposal Command Netherlands Army
EOD	Explosive Ordnance Disposal
ERW	Explosive Remnants of War
EU ASAC	European Union Assistance on Curbing Small Arms in Cambodia
HALO	Hazardous Area Life-support Organisation
HI-B	Handicap International Belgium
HKI	Hellen Keller International
HMA	Humanitarian Mine Action
HQ	Head Quarter
ICRC	International Committee of the Red Cross
IDP	Internally Displaced People
IMAS	International Mine Action Standards
KPMG	Klynveld – Peat – Marwick – Goerdeler
L1S	Level One Survey
LAMAA	Land Administration in Mine Affected Areas
LUPU	Land Use Planning Unit
LWS	Lutheran World Service
MACC	Mine Action Coordinating Committee
MAG	Mines Advisory Group
MAPU	Mine Action Planning Unit
MAT	Mine Awareness Teams
MAWG	Mine Awareness Working Group
MCTU	Mine Clearing Training Unit
MLMUPC	Ministry of Land Management, Urban Planning and Construction
MND	Ministry of National Defense
MoEYS	Ministry of Education Youth and Sport
MoI	Ministry of Interior
MoSALV	Ministry of Social Affairs, Labor and Veterans
MRE	Mine Risk Education
MRT	Mine Risk Reduction Team
MUC	Mine/UXO Committee
NGO	Non Governmental Organisation
NPA	Norwegian Peoples Aid
OEB	Operation Enfant Battambang (French)
PDIP	Provincial Development Investment Program

PLMUPC	Provincial department of Land Management, Urban Planning and Construction
PMAC	Provincial Mine Action Committee
PRA	Participatory Rural Appraisal
RCAF	Royal Cambodian Armed Forces
RGC	Royal Government of Cambodia
SNV	Stichting Nederlandse Vrijwilligers (‘Foundation Netherlands Volunteers’)
STA	Senior Technical Advisor
TMF	Thematic Co-Financing
UN	United Nations
UNAMIC	United Nations Advance Mission in Cambodia
UNDP	United Nations Development Programme
UNICEF	United Nations Children’s Fund
UNMAS	the United Mine Action Service
UNTAC	United Nations Transitional Authority in Cambodia
UXO	Unexploded Ordnance
VDC	Village Development Committee
VMUC	Village Mine/UXO Committee
WB	World Bank
WVC	World Vision Cambodia
ZOA	Zuid Oost Azië (‘South East Asia’)

Executive Summary

In Cambodia, the scope of the landmine problem is still enormous. Almost all mines stem from the period between mid-1960s and late 1990s. Estimates of their total number vary from 2 to 6 million mines, most of them concentrated in the northern, eastern and western parts of the country. Despite the signing of the Paris Agreements of 1991 by the various warring parties, it was not until 1998 that each faction abandoned armed struggle and access to mine-affected areas has long remained difficult. Nonetheless, mine operators could extend their activities throughout the country over time, as the situation stabilised.

The Netherlands has been a key player in mine action in Cambodia since the early 1990s. Over the period 1996-2004 the Netherlands has been the third largest donor to mine action in Cambodia, with a share of 9% of the total international funding for mine action in Cambodia. Netherlands funding for the period 1996-2006 totalled 16.1 million EUR.

This report presents the findings of the evaluation mission conducted from 19 June – 10 July 2007. Meetings were held with key stakeholders and field visits were made throughout Cambodia.

Findings

The Netherlands had no specific humanitarian demining policy with respect to Cambodia, but the funded humanitarian demining activities reflected the overall Netherlands demining policy-frameworks. The evaluation team did not find any coordinated integration between Netherlands funded humanitarian demining activities and Netherlands' development assistance. While termination of the development partnership in 1998 led to an exit-strategy for development assistance from 2004 to 2006, this did not affect the funding for demining activities. Because of the demining activities were broad in scope, they also reflected the policy priorities of the Cambodian government: to link mine clearance efforts with socio-economic development activities while at the same time targeting the worst contaminated mine areas in order to reduce casualties. In fact, this allowed the Cambodian authorities to incorporate the different approaches advocated by the various donors and INGOs.

Since 1996, and especially since 2002, there have been major improvements in the process of priority setting and task selection for humanitarian demining in a decentralised, bottom-up manner. Over the period 1996-2006, Netherlands funded humanitarian demining activities thus increasingly took place in accordance with the priorities, needs and wishes of the affected communities. Netherlands' funds were not used to support the development of this process.

Likewise, Dutch funded demining activities played no significant role in national capacity building after direct funding to the Cambodian Mine Action Centre (CMAC) was terminated in 1999 due to financial mismanagement. The Netherlands decided to re-allocate its funding to two organisations with a more operational focus. Consequently, in more recent years, Netherlands funding contributed to clearance for immediate casualty reduction (HALO Trust) as well as clearance targeting at socio-economic development (CMAC through NPA).

Despite progress in recent years, the national mine action authority is not yet working effectively. After 2000, the Cambodian Government put in place a national regulation body, the so-called Cambodian Mine Action and Victim Assistance Authority (CMAA). CMAA had limited funding from the start, wich slowed its progress considerably. CMAA lacks the necessary resources – human as well as technological – to fulfill this role without external assistance. At the same time, all operators in the field clearly indicated their willingness to cooperate with CMAA and emphasised the benefits of CMAA being capable of running a nationwide database on contaminated and cleared land. This would facilitate a more efficient data-exchange between the operators and eventually remove the need for the operators to dispatch surveying teams of their own. The Netherlands, however, has not provided funding for the development of CMAA, nor to the development of the decentralised, bottom-up process of priority setting and task selection for mine clearance.

With regard to the efficiency of Netherlands funded humanitarian demining activities, both CMAC and HALO Trust provide value for money. Mine clearance is conducted in a responsible manner following standard operating procedures. HALO Trust's monitoring and focus on productivity is particularly tight. The evaluation team was not able to confirm the value added of NPA as an intermediary for the funding provided to CMAC. Whereas NPA was chosen for its integration of mine action and development activities, the Netherlands did not stop its support to NPA when it decided to abandon its involvement in development activities in 2003.

Netherlands monitoring activities decreased over time and became very limited after 2003. Prior, the Netherlands closely monitored the progress of the demining carried out by organisations funded by the Netherlands. In the post 2003 period, monitoring of the progress of HMA was merely done on the basis of desk-review of the reports sent in by the demining organisations.

The Dutch funded humanitarian demining activities have had a positive impact on land use in general. The cleared areas that the evaluators visited were intensively used for housing, gardens, agricultural crop production and for infrastructure. In most cases, the reclaimed lands have contributed to the socio-economic development of the affected communities. As regards casualty rates, Netherlands' funding contributed to the decrease in the casualty rate, from 2,293 in 1997 to 189 in 2006.

Currently, the majority of the mine-related accidents occur in the highly contaminated K5-belt. The sustained efforts of the national government and the international community continue to show results and there is a general feeling that eventually a mine-impact free status can be achieved in Cambodia. This notwithstanding, a large number of people continue to live in minefields driven by socio-economic motivations, as a substantial number of plots of land remain uncleared. In some cases this is a deliberate risk taking strategy through which people hope to get ownership of the land after mine clearance. Disputes about ownership have been reported, partly due to the fact that the Cambodian government has so far not provided the legal framework to guarantee proper documentation for land rights.

Conclusions

- The Netherlands' decision to concentrate its funding on two demining operators in Cambodia has had positive outcomes. However, rather than the result of a strategy on the part of the Netherlands, these positive results should be ascribed to the progress made in terms of demining practices within the Cambodian demining community.

- In supporting the humanitarian demining effort in Cambodia, the Netherlands government faced the question whether and how much to contribute to the building of national institutional capacity, and how much to mine clearance. The Netherlands initially opted for the creation of national capacity by funding the national operator CMAC, but confronted with a lack of transparency and financial inconsistencies in 1999, it shifted course. Since 1999, only a small portion of Netherlands' funding has contributed to capacity-building other than at the operational level. Netherlands' funding has not contributed to the creation of today's MAPU/PMAC structure nor to the national authority CMAA, both of which the evaluation team deems essential to sustain the results of demining activities in Cambodia.

- There is an ongoing debate in Cambodia about whether and how to integrate demining with broader development goals. However, the immediate gains of mine clearance in terms of humanitarian assistance should not be underestimated. In particular, HALO Trust's narrow focus on mine clearance in the highest contaminated areas has significantly increased the number of mines lifted and it can be assumed to have made an efficient and tangible contribution to the decrease in casualty rates in Cambodia. Although HALO's activities in the highest contaminated areas largely took place outside an integrated approach, they contributed to the decrease in casualty rates while no valuable demining capacity was wasted clearing land with only little contamination. For future HMA efforts however, better coordination is needed if socio-economic improvements in the long run are to be guaranteed.

  On a more conceptual level, it is useful to capture these findings in a simple graph. For this purpose, figure 1 combines the four chapters on relevance, effectiveness, efficiency and sustainability, dividing them into a short- and a long-term overview (left for short-term, right for long-term), and features an indicator for the qualitative 'score' on relevance (triangle below). In both upper quadrants, score indicators are given by a green cross (for mine clearance) and a blue octagon (for capacity-building). These scores show to what extent short-term goals (effectiveness and efficiency) and long-term goals (effectiveness and sustainability) have been achieved in the period under consideration (indicated as high versus low). In the graph below, a purple circle inside the triangle stands for the relevance of the evaluated activities for either donor policies, national or local interests. Even though this presentation falls short of reflecting the underlying dynamics and the unique details of this case study, it allows for a more aggregate view on the way Dutch HMA activities have turned out over the years. It also allows for a comparative analysis between different countries (see synthesis report).

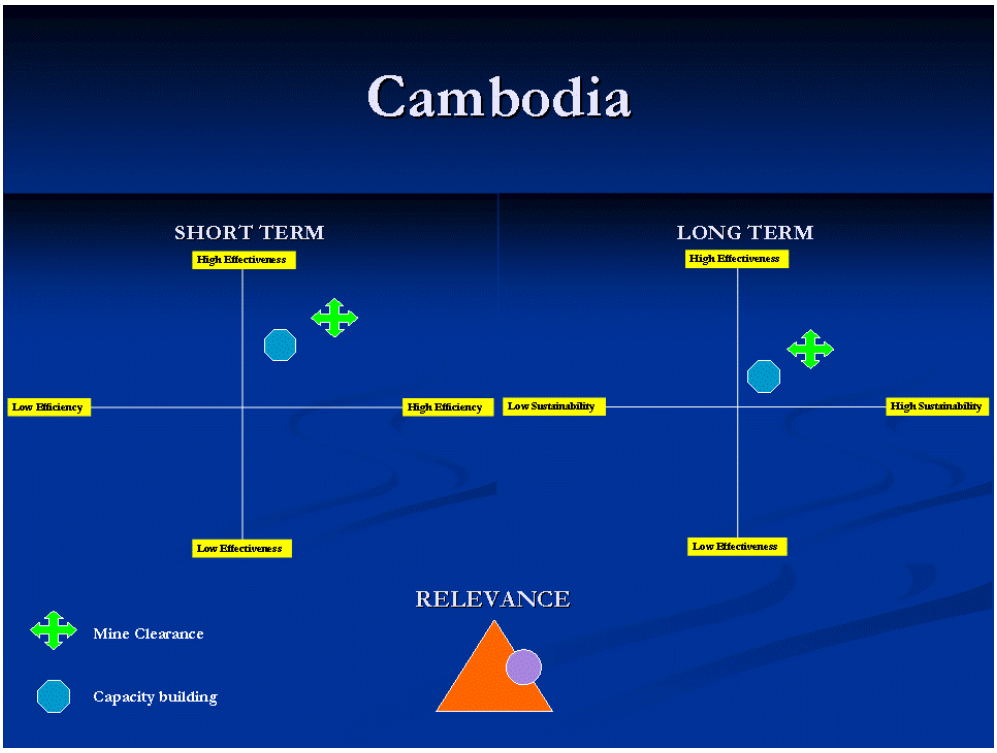

Figure 1 Visualisation of findings.

Recommendations

Cambodia's mine contamination remains severe, despite the fact that mine-related accidents have diminished over recent years. The sustained efforts of the Cambodian Government and the international community continue to show results and there is a general feeling that a mine impact free status can be achieved. For the Netherlands to make its donor efforts towards the Cambodian HMA sector sustainable, the following policy options should be considered:

- Prioritise casualty reduction in the K5-belt through actual mine clearance and other assistance. Although the drop in casualties is very good news, a number of 450 casualties (189 of which are mine-related) accidents in 2006 supports the view that humanitarian demining in the K5-belt should still remain a priority.

- Provide support to the CMAA in order to strengthen its capacity to coordinate the demining effort and manage a national database.

- Support the establishment of registries for land ownership in order to help avoid and resolve conflicts over land. Such assistance would fit in an integrated approach and the OECD's good governance agenda.

- Refrain from using desk reviews as the sole means of monitoring. Desk review of reports and evaluations cannot substitute for insight gained by on-site inspections. The evaluation team recommends that demining policy should be based on a clear understanding of the situation on the ground. This can be also be achieved through joint monitoring efforts by like-minded donors.

I Aims, Objectives and Scope of Evaluation

The aim of this evaluation is to examine and evaluate Dutch financial assistance for humanitarian demining activities in the period 1996-2006. This evaluation is the second part of a larger policy evaluation of Dutch efforts to control landmines and explosive remnants of war which examines two types of policy instruments, political and financial. The first part, carried out separately by the Policy and Evaluations Department (IOB) of the Netherlands Ministry of Foreign Affairs (MFA), examines the political and diplomatic efforts undertaken by the Netherlands to expand, tighten and enforce existing international legal instruments in the area of conventional arms control. The present evaluation assesses the instrument of financial assistance for humanitarian demining in the context of humanitarian aid and post-conflict reconstruction.

The present evaluation has three related objectives (see Annex 1A,ToR):
1 to understand how Dutch policy on humanitarian demining was formulated in the period 1996-2006;
2 to assess the way in which mine-affected countries and humanitarian demining programs eligible for financial assistance were selected;
3 to assess the effectiveness of Dutch financing efforts in this area.[1]

The criteria for the evaluation were presented in the Terms of Reference (ToR) as relevance, effectiveness and efficiency. Although IOB did not refer to sustainability, this criterion was added after subsequent discussions with IOB in which the aims and objectives of the evaluation were clarified. Together, these four criteria are commonly used to evaluate development assistance. For this evaluation the following principles were used[2]:

– Relevance
  The extent to which the humanitarian demining activity was suited to the priorities and policies of the target group, recipient and donor.

– Effectiveness
  A measure of the extent to which an aid activity attains its objectives.

– Efficiency
  Efficiency measures the outputs -- qualitative and quantitative -- in relation to the inputs. It is an economic term which signifies that the aid uses the least costly resources possible in order to achieve the desired results.

– Sustainability
  Sustainability is concerned with measuring whether the benefits of an activity are likely to continue after donor funding has been withdrawn. Projects need to be environmentally as well as financially sustainable.

Based on its three-fold objective, IOB posed three clusters of questions related to the three objectives. The specific questions are listed in the Terms of Reference.

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[1] In this section, the term “effectiveness” is used as an overarching concept and refers to all other sub-aspects addressed in this report (relevance, effectiveness, efficiency, and sustainability).
[2] *DAC Criteria for Evaluating Development Assistance,* OECD, Paris, 1991.

For purposes of the present evaluation, relevance of Dutch demining policy examines how the demining activities fit within the policy priorities of the donor country, policy and planning priorities of the host country and the priorities, needs and wishes of the affected communities. Effectiveness relates to whether the original objectives and goals have been achieved. Efficiency relates to cost-efficiency and timeliness of the demining activities while sustainability looks at factors that influence the durability of the humanitarian demining activities undertaken, such as capacity-building, mine-risk education and gender.

The evaluation comprised both desk-based and field components. In the first phase of the evaluation Dutch demining policy was analysed to determine the principles on which Dutch demining policy was based, how demining policy was integrated into broader policies on post-conflict reconstruction and how countries eligible for financial assistance and programmes were selected. This analysis was carried out by IOB, mainly through desk-based research. Subsequently, field teams examined the impact and effectiveness of Dutch-supported humanitarian demining activities in Angola, Bosnia-Herzegovina and Cambodia. The selection of these countries was made by IOB according to the selection criteria set out in the ToR.

II Introduction

1.1 Country context

In 1975, amidst Cold War tensions and after the US withdrawal from Vietnam, the Khmer Rouge took power in Cambodia. In a massive resettlement programme, the Khmer Rouge forced urban people to live in the countryside to work in various forms of agriculture. Intellectuals and religious persons, in addition to those who were believed to be against the regime, were murdered on a wide scale. Estimates of the number of dead range from 1 to 3 million, out of a 1975 population estimated at 7.3 million. The CIA estimates that 50,000-100,000 Cambodians were executed and a total of 1.2 million people died.[3]

In 1979, a Vietnamese force of over 100,000 troops accompanied by Cambodian Communist rebels invaded Cambodia and occupied Phnom Penh. The Khmer Rouge forces fled to the Thai-Cambodian border, where they were given asylum by the Thai government. The Vietnamese established the People's Republic of Kampuchea regime in Cambodia which included members of the Khmer Rouge as well as Cambodians who had fled to Vietnam before 1975. Meanwhile, the UN continued to recognise the Democratic Kampuchea-government in exile. During these years, over half a million Cambodians resettled in other countries. In 1982, different factions, among which the Khmer Rouge, formed a coalition led by Prince Sihanouk to fight the Government of the People's Republic of Kampuchea.[4]

International support for the opposing camps reflected the ideological divide of the Cold War-era. The People's Republic of Kampuchea regime was backed by the USSR and fielded approximately 50.000 troops. The coalition led by Prince Sihanouk received support from, among others, the United States of America, China and the Association of South-East Asian Nations (ASEAN). The coalition's combined forces, estimated to number between 50.000 and 60.000, operated from Thailand and north-western Cambodia.[5]

In December 1987, Prince Sihanouk and Mr. Hun Sen, Prime Minister of the Phnom Penh Government, met for the first time in France. Following the initiation of this dialogue, the Secretary General of the United Nations (UN) put forward proposals for a comprehensive scheme leading to an independent Cambodian State. This process began to gather momentum when the four Cambodian Factions had their first face-to-face talks in July 1988 at the Jakarta Informal Meeting. A second Informal Meeting was hosted by Indonesia in February 1989. The following summer, at the initiative of the French Government, the Paris Conference on Cambodia was convened from 30 July to 30 August 1989. As a result of a stalemate over the participation of the PDK (Khmer Rouge) in an interim government, no international verification mechanism was in place when Vietnam announced its troop withdrawal from Cambodia between 21 and 26 September 1989. In January 1990, the Five Permanent Members of the Security

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[3] Davidson, Phillip B., *Vietnam at War: The History 1946-1975,* Presidio Press, Novato CA, 1991.

[4] In 1982, the United Front for an Independent, Neutral, Peaceful and Cooperative Cambodia (FUNCINPEC), the Khmer People's National Liberation Front (KPNLF) and the Party of Democratic Kampuchea (PDK, also known as Khmer Rouge) formed a coalition led by Prince Sihanouk against the Government of the Peoples Republic of Kampuchea.

[5] See http://www.acig.org/artman/publish/article_411.shtml.

Council began a series of high-level consultations in New York and Paris to discuss the situation.[6] At their sixth meeting on 27 and 28 August 1990, the Five announced a breakthrough: agreement on a settlement framework which included a principal role for the UN in supervising and controlling the activities of Cambodia's existing administrative structures during a transitional period.[7]

After a decade of diplomacy, the Paris Agreements were signed at the second session of the Paris Peace Conference on Cambodia, from 21 to 23 October 1991.[8] The Paris Agreements included the establishment of the United Nations Transitional Authority in Cambodia (UNTAC). UNTAC was tasked to create a neutral political environment in order to allow for free and fair elections to take place. The Elections Law was adopted by the Supreme National Council (SNC) on 5 August 1992 and elections were scheduled for May 1993. Addressing the SNC on 29 May 1993 the Special Representative of the Secretary General of the UN declared that the conduct of the elections had been free and fair.[9] UNTAC deployed 22,000 civilian, military and security personnel to Cambodia. Its budget was $ 1.6 billion.

Although initially a signatory to the Paris Peace Agreements, it did not take long before the Khmer Rouge withdrew from the peace process. After the UN sponsored elections, with a voter turnout of over ninety percent, the Cambodian People's Party (CPP), FUNCINPEC, and KPNLF agreed to set-up a single army on 10 June 1993 and Prince Sihanouk announced the formation of an Interim Joint Administration with Prince Ranariddh (FUNCINPEC) and Mr. Hun Sen (CPP) as Co-Chairmen of a Council of Ministers.[10] UNTAC left Cambodia in September 1993. The period 1993-1997 was characterised by low-scale guerilla warfare between the government and the Khmer Rouge forces. In July 1997, violent conflict erupted between FUNCINPEC and CPP upon which Prince Ranariddh fled the country, leaving the Government to Mr. Hun Sen, who became Prime Minister. In 1998 the remaining Khmer Rouge forces surrendered and were integrated into Cambodian society. Elections were held in July 1998 and July 2003 in which the CPP held on to power. The election observation team of the EU observed that "the 2003 Parliamentary Elections were well conducted" but there was "still some way to go to full democracy."[11] While the current political situation is stable and Cambodia has experienced continuous economic growth over the last four years,[12] Human Rights Watch observed that the Hun Sen-led government "has

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[6] Letter dated 16 January 1990 from China, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland and the United States of America transmitting summary of conclusions following a meeting of the five permanent members of the security council on the Cambodian problem; S/21087, 18 January 1990.

[7] Letter dated 30 August 1990 from China, France, the USSR, the United Kingdom and the United States transmitting statement and framework document adopted by their representatives at a meeting in New York, 27-28 August 1990, A/45/472-S/21689, 31 August 1990.

[8] Letter dated 16 January 1990 from China, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland and the United States of America transmitting summary of conclusions following a meeting of the five permanent members of the security council on the Cambodian problem, S/21087, 18 January 1990.

[9] Letter dated 2 June 1993 from the Secretary General transmitting statement made by the Special Representative of the Secretary General for Cambodia at Supreme National Council meeting on 29 May 1993. Endorses statement of the Special Representative that the conduct of the elections was free and fair, S/25879, 2 June 1993.

[10] Report of the Secretary General pursuant to paragraph 7 of resolution 840 (1993) on the possible role of the United Nations and its agencies after the end of UNTAC's mandate according to the Paris Agreements. S/26090, 16 June 1993.

[11] *Cambodia Members of the National Assembly Elections*: *EU election observation mission final report*, 27 July 2003.

[12] See http://devdata.worldbank.org.

failed to introduce basic aspects of the rule of law, independence of the judiciary, an impartial civil service, and rudimentary checks and balances."[13]

1.2 Scope of the mine problem

Landmines were laid in Cambodia from the mid-1960s until the late 1990s, with reports and allegations of mine use by the Royal Cambodian Armed Forces (RCAF) and the Khmer Rouge until 1998. It is estimated that in total between 4 and 10 million mines remained, mostly concentrated in the northern, eastern and western parts of the country.[14]

Landmines were first laid in Cambodia during the Vietnam War. North Vietnam, with Cambodian Government permission, established base camps in eastern Cambodia in 1967, which they protected with landmines. The so called US Menu Bombings[15] included air-scattered anti-personnel mines (AP-mines) and sub-munitions, especially the BLU-series which, when failing to detonate, act as AP-mines. Unexploded Ordnance (UXO) contamination results in large parts from US forces which dropped over 500.000 tons of bombs on Cambodia, mostly in the lightly inhabited northeastern provinces. Based on a conservative 10% failure rate, some 50.000 tons of unexploded bombs remained in those areas of Cambodia in addition to unexploded artillery shells, grenades and mortar rounds expended by other combatants.[16]

The use of landmines in Cambodia increased dramatically in 1979 after the Vietnamese invasion. As the Khmer Rouge were pushed over the Thai border, huge numbers of mines were used by the Vietnamese to secure their bases and forward posts. AP-mines were also used to control opposition movements and to separate opposition forces from civilian supporters. Finally, in 1984, the Vietnamese carried out a major offensive pushing more than 200,000 civilians and combatants over the border into Thailand. To secure the gains made in the fighting, the Vietnamese deployed the most extensive minefield in Cambodia – the K5-belt along the Cambodian-Thai border.[17] The K5-belt is a 600 km long minebelt that runs from the southwestern coast of Cambodia along the Thai border up to Laos. It is estimated that it contains between two to three million mines. A 1999 U.S. State Department report estimated the total number of mines in Cambodia at 4-6 million.[18]

Mines were also used extensively by the State of Cambodia (under the leadership of Prime Minister Hun Sen) after the Vietnamese withdrawal in 1989. All forces fighting until the signing of the Paris Peace Accords in 1991 used landmines to defend their forces and strategic positions, but also as offensive weapons to demoralise and impoverish communities that they could not control. Forces mined rice paddies, railroads, forests, roads, water sources and villages. Landmine use continued during the UNTAC period. In a large offensive carried out by the Khmer Rouge forces in May of 1994, much of the mine-surveying and demining work that had been carried out was thrown into doubt as it was unclear where and how many mines may have been deployed in previously mapped or cleared areas. According to the Cambodian Mine

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[13] *Briefing Chart,* FORUM-ASIA, Asian Human Rights Commission, Human Rights Watch, Global Witness and the International Federation for Human Rights, 2006.
[14] *Landmine Monitor Report for 2000: Cambodia,* ICBL, Geneva, 2001.
[15] Shawcross, William, *Sideshow,* Simon and Schuster, New York, 1997.
[16] Griffin, Robert and Keeley, Robert, *Joint Evaluation of Mine Action in Cambodia for the Donor Working Group on Mine Action*, Volume I, Phnom Penh, 4 December 2004, p. 3.
[17] *Landmine Monitor Report for 2000: Cambodia,* ICBL, Geneva, 2001.
[18] Ibid.

Action Centre, the provinces of Banteay Meanchey, Oddar Meanchey, Battambang, Siem Reap, Kampot, Kampong Thom and Preah Vihear were affected by renewed fighting in 1994 and early 1995.[19]

Cambodia has data on the contaminated areas based on a number of partial surveys, the Level One Survey (L1S) completed in 2002, and extensive technical surveying undertaken by various demining operators in the past 14 years.[20] However, there is widespread debate on the value of the data for the process of clearance prioritisation. The L1S was a joint project of the Cambodian Mine Action Centre (CMAC) and the Canadian International Development Agency (CIDA). The effort was part of the Global Landmine Survey initiative of the Survey Action Center. The Canadian firm, Geospatial International Inc. (GeoSpatial/GST), conducted the survey. All 13,900 villages were surveyed, representing an estimated population of 11.5 million people.[21] While a L1S does not measure the precise size of the affected areas, it does provide information on the socio-economic impact of the mine/UXO contamination on the local population; this information is used in the planning and prioritisation process.[22] The L1S issued in May 2002, reported that 6,422 villages in an area of 4,466 million square meters were affected;[23] mines or UXO may contaminate 2.5 percent of the country's surface area. The survey estimated that 5.1 million people were at risk. About 1,640 villages, approximately 12 percent of all villages, have a high contamination of landmines and UXO. 61 percent of the suspected areas are concentrated in the five provinces of Battambang, Banteay Meanchey, Oddar Meanchey, Preah Vihear, and the Pailin municipality, in the north and northwestern parts of the country. The L1S, however, has drawn criticism from operators for including land already cleared while excluding some contaminated areas.[24] Additionally, it "does not discriminate according to the intensity of the contamination."[25]

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[19] Chandler, David, A History of Cambodia, Third Edition, Westview Press, Oxford, 2000 and *Five Year Mine Action Plan 2003-2007*, CMAA, March 2003, p. 12.

[20] McCracken, Dave, *National Explosive Remnants of War Response Study, Cambodia*, (draft), NPA/CMAA, Phnom Penh, forthcoming, p. 18. Available data sources include an UNTAC *Mine Liaison Team Survey,* 1992-1993, the HALO Trust Survey of 1992-1993, a CMAC *Verification Survey,* 1996-1997, and the databases of CMAC, HALO Trust and MAG.

[21] *Article 7 Report Cambodia,* Form C, UNOG, 19 April 2002.

[22] *Landmine Monitor Report for 2001: Cambodia,* ICBL, Geneva, 2002.

[23] *Cambodian National Level One Survey Statistic Profile*, GeoSpatial, Phnom Penh, 2 May 2002.

[24] *Landmine Monitor Report for 2006: Cambodia,* ICBL, Geneva, 2005.

[25] *The need to document reclaimed land on the National Mine Area Database in Cambodia*, HALO Trust, Phnom Penh, 2005, p. 2.

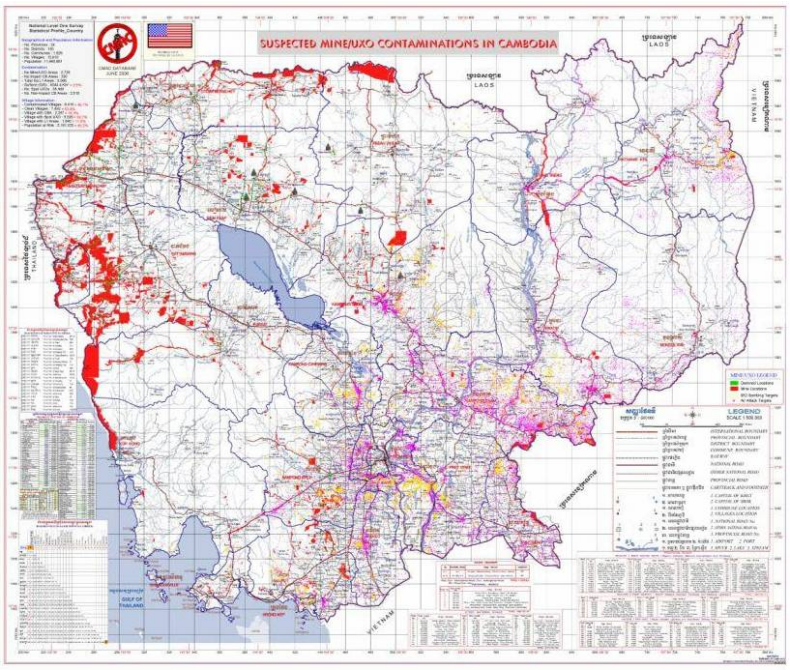

Figure 2 Mine and UXO contamination.

Cambodia has reported that it does not have any antipersonnel mine production facilities.[26] There have been no specific allegations of use, production or transfer of antipersonnel mines by government forces or any opposition forces since 1999. The Cambodian government is not known to have exported antipersonnel mines in the past. Allegations of private sales of mines have been constant from 1980 until present. The Royal Cambodian Armed Forces destroyed 71,991 stockpiled antipersonnel mines between 1994 and 1998, and in February 1999 the RCAF Deputy Commander in Chief formally stated that the RCAF no longer had stockpiles of antipersonnel landmines. In 2000, Cambodia reported a stockpile of 2,034 antipersonnel mines held by the National Police.[27] Cambodia subsequently declared that there have been no antipersonnel mine stockpiles in the country since 2001.[28] However, police and military units continue to find antipersonnel mines and other weapons in various locations and from various sources around the country.

1.3 Humanitarian demining and the national peacebuilding process

Humanitarian Mine Action (HMA) in Cambodia started in 1992 with the establishment of a Mine Clearing Training Unit (MCTU), which subsequently developed into CMAC, at a time when the conflict between Government and Khmer Rouge resistance forces was still ongoing. On January 2, 1992 the mandate of the United Nations Advanced Mission to Cambodia was expanded to include mine training and mine clearance.[29] Initial projections called for the training and deployment of 7,000 deminers. Upon its arrival, UNTAC established the Mine Clearance Training Unit (MCTU) to facilitate the training of indigenous deminers. MCTU ultimately consisted of 202 staff, which were comprised of military personnel from France, India, Pakistan, Bangladesh, New Zealand, the United Kingdom and the Netherlands**.** As UNTAC moved toward its

[26] *Landmine Monitor Report for 2006: Cambodia,* ICBL, Geneva, 2005.
[27] *Article 7 Report Cambodia*, Form B, UNOG, 26 June 2000.
[28] *Article 7 Report Cambodia,* Form F, UNOG, 30 April 2004.
[29] See http://www.un.org.

withdrawal from Cambodia it took steps for the "Cambodianisation" of mine clearance operations in the country. On 1 July 1993, the Mine Action Centre (the mine mapping and survey component of UNTAC) - and MCTU (the training and clearance component) were merged into one organisation, which became CMAC. After the departure of UNTAC by the end of November 1993, CMAC was on the verge of collapse. The UN ultimately worked out a mechanism whereby UNDP would serve as the UN agent for CMAC. By January 1994, CMAC reported that it was operating with a total of 1451 staff, divided over 36 demining platoons, 16 teams of mine surveyors and markers and 5 teams of explosive ordnance disposal technicians.

Besides CMAC a few international demining organisations have been active in HMA from the early beginning. Mine Advisory Group (MAG) Cambodia began its operations in October 1992 and Hazardous Area Life-support Organisation (HALO) Trust has been working in Cambodia since 1991. In addition to mine clearance activities, mine risk education (MRE) was also provided from the start.[30]

After Vietnamese forces withdrew from Cambodia in 1988, guerrilla groups infiltrated deep into Cambodia, north and south of the Tonlé Sap (Great Lake), and combatants on both sides laid scattered, ill-defined and unmapped nuisance minefields often for short-term defensive purposes. Initially, mine action concentrated on areas in these central part of the country which were under Government control. From 1998 onwards, mine action has extended to cover the entire country. Three main phases in mine action can be distinguished in Cambodia: emergency response, risk reduction/reconstruction and risk reduction/socio-economic development.

1992 – 1998: Mine action for emergency response

In the absence of a comprehensive plan and a national L1S – which would not be conducted until 2002 – mine action primarily took place in response to emergencies of local authorities during these early years. Mine clearance operations in Cambodia in this period were coordinated by CMAC. In addition to its own demining platoons, mine marking teams, Explosive Ordnance disposal (EOD) teams, and mobile mine awareness teams, CMAC coordinated other mine operators – i.e, Mines Advisory Group and HALO Trust.

The initial efforts focused on clearing roads and bridges to provide access and on providing safe places for settlement for the over 200,000 refugees returning from Thailand.[31]

1998 – 2000: Mine action for risk reduction and reconstruction

Since 1998 the demining efforts were extended to include the whole country. Returning refugees, demobilised soldiers, and Internally Displaced Persons (IDPs) were provided with a safe place to live in the Northwest of Cambodia. The first steps towards integration of demining and development were taken and villagers living on cleared land received follow-up development assistance.[32] The Land Use Planning Unit (LUPU) was established in May 1999 in response to a national workshop on Land Use

[30] *Cambodia at War*, HRW, New York, 1995, p. 100.
[31] See http://www.gichd.org.
[32] *Work Plan,* CMAA, Phnom Penh, December 2001.

Planning and Management held in Battambang on 23-24 June 1998.[33] CMAC and the mine clearance operators would set the priorities based on input from the LUPUs. MRE was offered throughout the country.

2000 – present: Mine action for risk reduction and socio-economic development

Since the year 2000 mine action in Cambodia has become a much more elaborate undertaking. First, national institutions were developed. With the creation of the Cambodian Mine Action and Victim Assistance (CMAA), supervision and policy have been separated from the actual demining work conducted by operators. Since inception, CMAA's main activity has been passing legislation establishing its primacy in the mine action sector.[34] In 2004 RGC passed a sub-decree on the Socio-Economic Management of Mine Clearance Operations. This decree empowers CMAA and provincial authorities to direct allocation of mine action resources, through the Mine Action Planning Units (MAPU) and Provincial Mine Action Committee (PMAC). In 2003, CMAA drew up a National Strategy and a Five-Year Mine Action Plan (2003-2007); among the goals were the strengthening of national mine action coordination and making mine action more responsive to socio-economic development plans.[35] The coordination at the national level is improving due to this process and an effective priority setting and task selection process is currently evolving in the five most affected provinces.

With respect to surveying, the first comprehensive L1S was completed in April 2002. Although the L1S should in principle be advantageous for the HMA operators, due to severe doubts about the accuracy of the L1S, mine operators continue to deploy their own marking and surveying teams.

1.4 The link to land use

Land use patterns after minefields have been cleared provide important information on the effectiveness and the impact of the demining activities. In Cambodia demined land is used for different purposes: to build or reopen roads that provide villages with access to the outside world, for houses and home gardens to provide people with a safe place to live, and to provide land to the communities for crop- or livestock production in order to support rural livelihoods.

In Cambodia there is an enormous demand for land clearance for each of these purposes. Waiting lists are up to three years long and land is generally intensively used after clearance. Lack of clear property rights and land titles are an important, yet unresolved issue in this respect (see also Annex 9).

1.5 Legal and institutional context

The Kingdom of Cambodia signed the Mine Ban Treaty on 3 December 1997, ratified on 28 July 1999, and the treaty entered into force on 1 January 2000. Domestic implementation legislation—the Law to Prohibit the Use of Anti-Personnel Mines—took effect on 28 May 1999.[36]

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[33] *Report to Landmine Monitor*, LUPU, 2000.
[34] *Article 13 Report,* CCW Amended Protocol II, 10 March 2002, p. 9.
[35] See *Landmine Monitor Report*, ICBL, 2004, p. 251.
[36] The Law bans the production, use, possession, transfer, trade, sale, import and export of antipersonnel mines. It provides for criminal penalties, including fines and imprisonment for offences committed by civilians or members of the police and the armed forces. It also provides for the destruction of mine stockpiles.

Since 2000 Cambodia has developed an institutional framework where policy, coordination, supervision, development of standards and licensing of operators is vested in CMAA. CMAA was created after CMAC suffered a crisis of confidence amongst the donor community in 1999 following reports of mismanagement and corruption. This crisis prompted reforms in the mine action sector, accelerating the formation of CMAA to take charge of all policy issues and turned CMAC into a purely operational mine action service provider.[37] CMAA is overseen by the Council of Ministers (COM) chaired by Prime Minister Hun Sen. The COM directly administers the Cambodian Mine Action and victim assistance Authority (CMAA) through a Secretary-General. Together with CMAC, MAG and HALO Trust undertake the actual demining tasks, in addition to the Royal Cambodian Armed Forces (RCAF) and a number of commercial operators. The organisations have developed fairly sophisticated patterns of competition and collaboration whereby the RCAF works exclusively for the government, primarily in infrastructure-projects.[38]

Villages and districts are increasingly involved in planning of demining activities in the provinces. A large number of NGOs are involved in supporting rural development, capacity development and victim assistance. Finally, stakeholders and beneficiaries at local and district level are involved through a bottom-up planning process in which Mine Action Planning Units (MAPU) and Provincial Mine Action Committee's (PMAC) fulfill a central role.

Cambodia in its policies and strategies has given high priority to mine clearance. It has added mine action as a ninth Millennium Development Goal, it is part of the national Socio-economic Development Plans and of the "Rectangular Strategy". The Prime Minister is the Chair of the CMAA and has declared achieving "mine impact free status" by 2012 a key policy objective.[39]

1.6 Dutch-supported humanitarian demining activities

Dutch support to mine action between 1996 and 2006 consisted of three main components.

- Support to CMAC through the UNDP trust fund (1996-2000).
- Support to HALO Trust (2000-2006).
- Support to CMAC through NPA (2001-2006).

1996-1999 CMAC through UNDP Trust Fund

The Netherlands funded the national mine operator CMAC, the successor of MCTU, through the UNDP Trust fund. CMAC received a total of USD 53.7 million through the UNDP Trust Fund during the period December 1993 to 10 April 2000 (not including in-kind donations or equipment).[40] The main objectives of the Netherlands funded programmes were the repatriation of Internally Displaced Persons (IDPs), national reconstruction and development, and maximisation of the socio-economic impact of demining. Initially, the Netherlands government was quite content with the performance

[37] *White Paper,* CMAC, December 1999, p.18.
[38] Address of Samdech Hun Sen, Prime Minister, Rottank Mundul, 24 February 2002.
[39] Secretary General CMAA Sam Sotha during interview in Phnom Penh, 9 July 2007.
[40] The major donors included: Australia ($10.45 million); Netherlands ($9.36 million); Sweden ($8.02 million); and Japan ($7.8 million). Figures provided by Mr Steve Munroe, Mine Action Officer UNDP, through email.

of CMAC.[41] This changed when in 1999, an independent investigation by the accountancy firm KPMG of CMAC showed mismanagement and financial inconsistencies.[42] Accusations about corruption, nepotism and poor financial management in many Cambodian organisations, including CMAC, received much publicity in the national and international media in 1999. The monitoring of UNDP was also subject to criticism. Under the rules of the UNDP Trust fund the Director General of CMAC had a UN Counterpart who had to countersign financial transactions and to monitor the spending of trust fund money by CMAC. All donors suspended funding and called for a proper audit of the entire funds received and demanded new accountability procedures for the use of funds. A fifty-point list of requirements before funding would be continued was presented to CMAC. The KPMG audit, though critical of management practices, indicated that the disbursement of funds could be accounted for except for a small proportion of the total funds. This small percentage was mainly related to funds allocated to CMAC by the Royal Government of Cambodia. At the time, the relation between the Netherlands Embassy in Bangkok and the leadership of CMAC also played a negative role in the appraisal of CMAC as a whole. As the Netherlands did not have an Embassy or Consulate in Cambodia the monitoring was carried out by the Netherlands Embassy in Bangkok through regular visits to the main actors in Cambodia. The KPMG report prompted the Netherlands government to stop its funding through UNDP in October 1999. Although a restructuring of CMAC's management took place in the following period, the Netherlands decided not to return to the UNDP Trust Fund.

After stepping down as the Secretary General of CMAC, HE Sam Sotha was almost directly offered a ministers-post in the government, before becoming Secretary General of the newly created CMAA. Drawing on internal communications memoranda, this was not appreciated by the Netherlands government and played a role in the decision to direct Netherlands funding to support the mine clearance efforts in Cambodia through international NGOs instead.

The following year CMAC had to lay off over 2000 of its demining personnel with the direct result that in the year 2000 mine clearance by CMAC virtually came to a halt. In order to find other ways through which to provide HMA funding to Cambodia, the Netherlands decided to fund HALO Trust, and CMAC's Demining Unit 1 (DU1) through the NGO Norwegian People's Aid (NPA).

2000-2006 HALO Trust

HALO Trust was chosen for its long commitment to the Cambodian land mine problem, the world wide important role it plays in the landmine problem and the fact that the Netherlands funded HALO Trust in other countries.[43]

The Netherlands funded programmes conducted by HALO Trust were primarily aimed at mine and UXO clearance for victim reduction and socio-economic development and operated with local employees. Survey – and marking activities, and MRE were funded

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[41] *Review Memorandum KH006801/contribution to demining/CMAC*, MFA, The Hague, 1996, pp. 9-10 and *Cambodia: Contribution Cat. VIa ad NLG 5.000.000 to the UNDP Trust Fund for the demining program in CMAC in Cambodia, (WW135108)*, MFA, The Hague, 1998, p. 7.

[42] *Cambodian Mine Action Centre, Management Audit Report for the Financial Years 1997 and 1998*, KPMG report, 27 September 1999.

[43] *Humanitarian demining HALO Trust (WW165532),* MFA, The Hague, 2000, pp. 4-5.

as well.[44] The main difference compared to the funding of HMA through the UNDP Trust fund, was that Netherlands funding no longer contributed to institutional capacity-building.

2001-2006 CMAC DU1 through NPA

After the KPMG investigation, the Netherlands choose NPA to function as a 'middle man' to ensure – in the words of the country manager of NPA Cambodia – that the Netherlands funding would be well spent.[45] Choosing NPA to monitor the Dutch funding, provided for an elegant solution. The Netherlands could signal its discontent to CMAC, while at the same time show continuing commitment to Cambodia. The Netherlands funding through NPA was used to support part of an existing CMAC de-mining unit (DU1) for the period 2001-2006.[46] After fourteen months, the Dutch government committed in 2002 to continue to fund the DU1 through NPA for the period of 2003-2007. The consideration underlying this decision was that funding DU1 through NPA prevented the waste of already-built CMAC capacity that was (partly) funded by the Netherlands in the past. NPA's involvement in the integration of demining and development activities was part of the decision to chose NPA.[47] In 2003, however, NPA decided to concentrate on human rights, and abandon its involvement on the development side. This was noted by the Netherlands Embassy in Bangkok but had no consequences for Dutch funding.[48]

CMAC DU1 activities were primarily aimed at mine and UXO clearance for victim reduction and socio-economic development and operated with local employees. (see figure 3) In cooperation with CMAC, relevant provincial authorities and development NGOs, sustainable development of new communities was set as a top priority. NPA also engaged in community development activities, which were not funded by the Netherlands, but those were phased out in 2003.[49] The Netherlands funded programmes were primarily targeted at mine clearance for the local population. NPA also supported mine clearance operations for development organisations.[50] Figure 3 provides a list of Netherlands funded HMA programmes.[51]

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44 *Humanitarian demining HALO Trust (WW165532)*, MFA, The Hague, 2000, p. 4.
45 Interview Luc Atkinson, Phnom Penh, 20 June, 2007.
46 In 2001-2004 the Netherlands funding supported 245 staff, and in 2005-2006 177 staff, of DU1. Presentation 27 June 2007 by Nou Sarom, CMAC.
47 *Cambodia: Demining and Development in North-West Cambodia, NPA, USD 945.654,* MFA, The Hague, 2000, pp. 2,4.
48 *Annual Report 2003 & Annual Plan 2004*, Embassy of the Kingdom of the Netherlands, Bangkok, 2004.
49 *Annual Report 2003 & Annual Plan 2004*, Embassy of the Kingdom of the Netherlands, Bangkok, 2004.
50 *Five-Year Strategic Plan (2003-2007),* CMAC, Phnom Penh, 2002 and *Demining and Development Projects - Completion Report,* NPA, Phnom Penh, 2002a.
51 *Database HMA activities and resources,* MFA, The Hague, 2007.

Activity number	Year	Expenses (in €)	Program description	Channel	Location
KH006801	1996	2,317,361	IDP-support and agricultural development through mine action	CMAC/UNDP	Banteay Meanchey, Battambang, Kampot, Kampong Speu, Pursat
KH009201	1997-1998	2,271,103	Annual contribution	CMAC/UNDP	Banteay Meanchey, Battambang, Kampot, Kampong Thom, Kampong Cham, Pursat, Svag Rieng, Siem Reap
WW135108	1998-1999	2,270,570	CMAC contribution through UNDP	CMAC/UNDP	Banteay Meanchey, Battambang, Kampot, Kampong Thom, Kampong Cham, Pursat, Svag Rieng, Siem Reap
WW152711	1999	292,688	Minefield clearance by CMAC	CMAC/UNDP	Banteay Meanchey, Siem Reap, Battambang, Kampong Speu, Kampot, Kampong Thom, Kampong Cham and Preah Vihear Province
WW165532	2000-2001	376,322	Demining Programme	HALO Trust	Kiri Vann (Koun Kriel commune, Sam Rong district), O'Preal (Bos Sbov, Sam Rong), Kok Khpos (Kok Khpos, Ampil)
WW165534	2001-2002	1,051,324	Demining and development programme 2000	Norwegian People's Aid	Snuol Tret, Banteay Thmei, Boeng Takuon villages (O'Beichoun commune, O'Chrov district, Banteay Meanchey province)
WW192401	2002-2004	1,919,366	Banteay Meanchey Province M.A. project NPA/CMAC	Norwegian People's Aid	O'Chrov, Malai, Svay Chek and Thmar Pouk district (Banteay Meanchey province)
WW192404	2002	1,189,980	HALO trust appeal 2002	HALO Trust	Banteay Meanchey, Oddar Meanchey, Siem Reap and Preah Vihear
WW207101	2003	675,489	Global Appeal HALO Trust 2003	HALO Trust	Preah Vihear, Siem Reap, Oddar Meanchey and Battambang
6607	2004-2007	565,435 (2004) 643,526 (2005) 750,913 (2006)	Multi year funding HALO Trust, contribution 2004	HALO Trust	technical survey: Siem Reap, Oddar Meanchey, Banteay Meanchey, Preah Vihear and Battambang Province clearance: NW-Cambodia
6608	2004-2007	600,000 (2004) 600,000 (2005) 630,000 (2006)	Multi year funding NPA, contribution 2004	Norwegian People's Aid	Banteay Meanchey

Figure 3 HMA activities funded by the Netherlands in Cambodia.

In 2003 the Netherlands decided to terminate its close monitoring of humanitarian demining activities. Between 2003 and 2006 it relied on external reports to monitor the progress of the funded organisations.

III Findings

1 Relevance

1.1 Introduction

This chapter describes the relevance of the Netherlands' funded humanitarian demining activities in Cambodia. It starts by providing an overview of how the HMA activities fit in with the overall policy priorities of the Netherlands while outlining the duration, scale and modus of the HMA assistance. Subsequently, it addresses how Netherlands funded HMA activities fit the policy and planning priorities of the Cambodian government. It continues to consider how the Netherlands funded HMA fit the priorities, needs and wishes of the affected communities.

1.2 How did humanitarian demining relate to Dutch overall policy?

The Netherlands has been a key player in mine action in Cambodia since the days of UNTAC and has continued its role to this day. Over the period 1996-2004 the Netherlands has been the third donor to mine action in Cambodia after Japan and the USA, with a share of over 9% of the total international funding for mine action according to the Mine Action Investment Database of the United Nations Mine Action Service (UNMAS) [52] (see figure 4). The total amount of Netherlands funding for the period 1996-2006 was 16.1 million EUR.

Country	Total 1996-2004[53] - US$	2005[54] - US$
Japan	51,9 million	4,5 million
United States	18,2 million	6,9 million
Netherlands	**13,9 million**	**1,5 million**
Finland	12,1 million	0,25 million
Canada	9,9 million	2,5 million
European Union	9,5 million	-
Australia	8,6 million	3,2 million
Germany	7,6 million	0,83 million
Norway	6,0 million	0,44 million
United Kingdom	5,4 million	1,2 million
Total (all countries)	**153,6 million**	**41,7 million**

Figure 4 Contribution of major donors for 1996-2005 to humanitarian demining (2006 figures not available for every country).

[52] Figures provided by Mr. Michiel van Bokhorst, IOB.
[53] *Mine Action Investments,* UNMAS, 2006.
[54] *Landmine Monitor Report for 2006*: *Cambodia*, ICBL, Geneva, 2005.

Netherlands Humanitarian Demining policy

There is no specific Netherlands demining policy for Cambodia. Objectives of the overall Netherlands humanitarian demining policy are the clearance of land mines and UXO, in order to decrease the number of victims of accidents with explosives and promote socio-economic development. In these efforts, the Netherlands strives for cost-effectiveness, and aims at national capacity-building at all levels for effective mine clearance operations.[55]

The Netherlands' support to humanitarian demining in Cambodia has generally focused on three key activities: mine clearance, mine awareness and training. Mine clearance is targeted both at casualty reduction and the promotion of socio-economic development, conducted by mine operators using national employees (see figure 2). This is in line with the overall priorities of the Netherlands policy.

The Netherlands humanitarian demining policy was not integrated within the overall Netherlands relationship with Cambodia. Before 1998, the Netherlands and Cambodia had a bilateral-development-partnership. The Netherlands priorities in the development partnership were poverty alleviation, democratisation, good governance and human rights. Other priorities since 1997 were gender and development, forestry activities and reproductive health care.[56] In 1998, the bilateral development partnership with Cambodia was terminated. The Netherlands continued to fund Cambodia within the program of good governance, human rights and peacebuilding but disbursed fewer funds from 1999 until 2006 (funds for 2000-2001 were about € 4 million, decreasing to about € 2 million for 2001-2003 and further decreasing in 2004-2006). Due to limited progress in relation to human rights and governance on the part of the Cambodian government, the Netherlands decided to execute an exit strategy between 2004-2006.[57] The HMA activities were not part of the exit strategy and funding continued in 2007. Central coordination and integration by the Netherlands Government of the HMA activities with other Netherlands programmes could not be found or verified by the mission, although there is anecdotal evidence of some integration. For example, Zuid Oost Azië (ZOA - Southeast Asian) Refugee Care, for example, has been working in Oddar Meanchey since the early 1990s. After demining operations are completed, ZOA follows up with small scale development and agricultural training with Netherlands funding.[58]

With respect to the monitoring of the progress in the field, between 1996 and 2003 the Netherlands Embassy in Bangkok dispatched field teams to conduct on site-inspections. While the Ministry of Foreign Affairs in The Hague decided upon requests by the mine operators for funding, they relied on the reports from Bangkok.[59] The First Secretary of the Netherlands Embassy in Bangkok visited Cambodia on a regular basis to participate in donor discussions, meetings with CMAA and the demining operators. Field evaluation reports were based on his observations. The Netherlands Embassy in Bangkok only briefly mentioned demining in Cambodia in its yearly progress and planning reports of 1999, 2002, 2003 and 2005. In 2003 the Netherlands government

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[55] *Policy Framework Humanitarian Demining,* MFA, The Hague, 1999. *Thematic Policy Framework Humanitarian Demining*, MFA, The Hague, 2001. *Policy Framework Humanitarian Demining 2004*. MFA, The Hague, 2001.

[56] *Annual Plan 1998,* Embassy of the Kingdom of the Netherlands, Bangkok, 1997, p. 36.

[57] See http://www.minbuza.nl/ at the country page of Cambodia, under the header "OS Activities".

[58] Annex 10 provides an overview of the Netherlands funded programmes outside HMA.

[59] Internal communication memos Royal Netherlands Embassy Bangkok - Netherlands Ministry of Foreign Affairs, the Hague.

decided to terminate its close monitoring of HMA activities due to limited resources. Between 2003-2006 the Netherlands government relied on external reports of funded organisations.

1.3 Did the activities fit the priorities of national and local authorities?

Since the mid 1990s the Cambodian government has given high priority to humanitarian demining and mine action. In the document "Clearing the Path Ahead" – Five Year Strategy May 1996 to December 2000", CMAC listed as its main four priorities: land for resettlement of IDPs or settled land with casualty rates; land for agriculture; land for humanitarian community development; and land for reconstruction and infrastructural development.[60] The prioritisation in this period was done by CMAC in cooperation with the Governing Council for CMAC and the mine clearance operators. In 2002 Prime Minister Hun Sen formulated the strategic objective of achieving for Cambodia "mine impact free" status by 2012.[61] This, according to CMAA's Secretary General Sam Sotha led to a round of consultations and new plans targeting interventions in a more effective manner. In 2003, CMAA drew up a National Strategy and a Five-Year Mine Action Plan (2003-2007); among the goals were the strengthening of national mine action coordination and making mine action more responsive to socio-economic development plans.[62] In later years, the Cambodian Government issued the so-called Rectangular Strategy 2004-2008 and the National Strategic Development Plan 2006-2010.[63] In a speech at the opening of the new headquarters of CMAC on 27th June 2005 Prime Minister Hun Sen stated that Cambodia has added achieving zero impact from landmines and UXO as a ninth goal to the eight Millennium Development Goals.[64] In the same speech he announced increases in contributions as counterpart funding for mine clearing in a number projects.

The Institutional Set-up of Mine Action in Cambodia

The institutional set-up of mine action in Cambodia currently consists of three basic pillars: governance, mine clearance organisations, and broader mine action organisations, involved in, e.g., victim assistance.

Governance

The overall steering and coordination of mine action and victim assistance related activities rests with CMAA which reports through the Secretary General to the Chairman of the Council of Ministers. CMAA develops policy guidelines and regulations, and prepares strategic medium and long-term visions for HMA. It monitors the activities of HMA operators to see whether these are in keeping with the strategic plans of the Government. CMAA issues accreditation to national and international NGOs to conduct demining activities in Cambodia and it manages a database of all HMA activities. CMAA operates a number of Committees and Working Groups, including the Mine Action Government – Donors Technical Working Group (TWG) and the Technical Advisory Board which reviews the Cambodian Mine Action Standards. In addition, the Mine Action Coordination Committee comprises the relevant

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[60] "*Clearing the Path Ahead" - Five Year Strategy,* CMAC May 1996 to December 2000.
[61] "Mine free" implies that there are no more mines while "mine impact free" indicates that the consequences of mines are under control.
[62] *Landmine Monitor Report for 2004: Cambodia*, ICBL, Geneva, 2005.
[63] *National Strategic Development Plan 2006-2010,* Government of Cambodia, 2005.
[64] See http://www.car.gov.kh.

Ministries, Mine Action Operators and a wider range of donors and NGO partners. In the working groups, development of policies with stakeholders takes place. CMAA is a small organisation with a limited capacity of 30 staff to cover a wide variety of functions. After its formal establishment in 2000, it took a number of years before government funding became available for CMAA, while donor funding has been limited. Given the small size of CMAA and the strength of the mine operators, CMAA has found it difficult to establish itself as a governance body. In the words of its Secretary-General it cannot impose its will on the actors in the system, but instead, needs to "provide leeway" to the demining operators and to rely on a consultative style of governance. After a difficult start, this strategy is beginning to pay off. In recent years, operators such as HALO Trust find CMAA increasingly relevant as a platform for discussion on policies, standards, data exchange, etc. .[65] The accreditation and licensing process is actually working as an instrument of quality assurance: two requests for licenses have been rejected by CMAA and another operator has been given a provisional license for six months.

National and International Demining Organisations

The four main humanitarian demining organisations in Cambodia are CMAC, HALO Trust, MAG and the Royal Cambodian Armed Forces Engineer Battalion.[66] In addition, at the local level informal operators (individuals with a metal detector) provide low-cost and not very effective demining services at the request of individuals or communities. There is no record of the amount of land cleared by the informal operators and the results of their activities are not verified or recorded by the CMAA. The main tasks of the operators are demining and UXO disposal, MRE and Community Based Mine Risk Reduction (CBMRR). All operators work under the coordinating guidelines of CMAA (with the exception of the informal operators) as laid down in the role and responsibilities of CMAA.

Priorities are arrived at through the bottom-up MAPU–PMAC process, the results of which are presented by CMAA to the Council of Ministers.

Actors and Stakeholders at Local, District and Provincial Level

Villagers can formulate a request for an area to be cleared (sometimes in consultation with an operator). The request is sent to the MAPU at the district level, which coordinates the input from the communes and villages in their respective areas.[67] The PMAC under the provincial Governor coordinates the inputs from the MAPUs and takes decisions in consultation with the key stakeholders and provides this information to CMAA for further processing by the Government. The Government formulated priorities are discussed in the Mine Action Government – Donors Technical Working Group (TWG) and the Mine Action Coordination Committee. Based on these discussions the demining operators and INGOs are consulted and a final demining year plan is approved, with the exception of the informal operators and RCAF. In addition, INGOs have a monthly informal meeting at the office of CMAA to discuss current affairs which are then taken into account in the approval-process of the year plan. Finally, in addition to the coordination of humanitarian demining and mine action at the

[65] Tim Porter, Country Manager HALO Trust, Interview Siem Reap, 2 July 2007.
[66] In addition a number of private contractors (both international and national) are or have been operating in the country. They include Bactec, Qasia, Phoenix Clearance Ltd and Cofras/Cidey.
[67] Commune refers to a number of villages that together form an administrative unit.

national level, CMAA plays an important oversight role in the local level bottom-up planning process, which will be discussed in the next section.[68]

The evaluation team observed that CMAA is increasingly playing the role of a platform where the essential policy debates take place, where information is exchanged, and where the activities of the different stakeholders are coordinated. CMAA was restructured in 2005; a royal decree issued in June 2005 appointed a senior government minister, Prak Sokhonn, as second CMAA Vice President to lead the dialogue with donors.[69] His appointment to this post and as chair of a technical working group on mine action was welcomed by donors as strengthening national management of the sector and providing them with a high-level point of contact within the government. The CMAA "has shown increased and more proactive interest in its coordination with operators and donors through more regular coordination meetings, the Technical Working Group and the Mine Action Forum."[70] Nevertheless, faced with powerful operators CMAA remains relatively weak, as witnessed by the fact that it was unable to conduct an independent investigation of a serious accident in early 2007 in which seven CMAC deminers died. The NGOs, on the other hand, still play a key role in influencing policy positions of the Government. Dependent as it is on donor funding, the Government's position is often a compromise which seeks to accommodate the different approaches.

The team observed two different approaches to demining in Cambodia which are exemplified by the positions of two different organisations: HALO Trust and the CARE Integrated Demining and Development Project (IDDP), funded by the development agency of the Australian government AusAid.

The approach of the IDDP is that demining should be regarded as an enabling activity that allows the safe conduct of the larger project. Demining for other reasons than to support larger objectives, such as casualty reduction or infrastructure development; is a waste of a valuable and increasingly finite resource.[71]

By contrast, HALO Trust is involved in a single activity: clearance of landmines and other small ordnances. Its motto is "Getting mines out of the ground now." It insists on a single-minded, concentrated effort on those areas where mines make the largest number of victims. "Its policy is to avoid all unnecessary distractions that so often clutter charitable operations – such as public relations, advertising, symposiums and conferences and bumbling bureaucracies".[72] HALO is seen as a "demonstrably efficient mine-clearance organisation",[73] but its work is isolated from broader development goals. To the IDDP position that demining should be instrumental to development, HALO would answer that mine clearing in the context of development projects is often an expression of risk avoidance by these projects, which leads to very expensive demining resources being spent on land with very low presence (or even total absence) of landmines.

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[68] Other Ministries as well as a large number of development and humanitarian assistance NGOs operate in Cambodia, for example: The Ministry of Education Youth and Sport for MRE, World Vision for MRE, The Cambodian Red Cross for MRE, The Cambodian Mine Victim Information System for MRE. Spirit of Soccer for MRE, ZOA Refugee care, CARE, Handicap International. These organisations (and their number is literally in the hundreds) provide a wide variety of support activities to individuals, communities and authorities.

[69] Royal decree, NS/RKT/0605/296, 29 June 2005.

[70] *Contribution to the NGO Statement to the Consultative Group Meeting on Cambodia,* NPA, March 2006.

[71] Chrigwin, C.G., *Evaluation CARE INTERNATIONAL Integrated Demining and Development Project,* 2006.

[72] Thompson and King, *An Evaluation of the HALO Trust,* 2006–2007.

[73] Ibid.

CMAA's Sub-decree no. 70 (Oct 2004) on Socio-Economic Management of Mine-clearance Operations clearly shows how the Government's position is a compromise between these two approaches. Sub-decree no.70 states as key objectives to link mine clearance efforts with socio-economic development activities and target the "worst contaminated" mined areas in order to reduce casualties. Netherlands funded HMA activities were subject to these dual objectives.

1.4 Did the activities reflect the needs of affected communities?

From 1993-1997, the main operators CMAC, HALO and MAG (which was not funded by the Netherlands) mainly responded to emergency requests of local authorities and development agencies.[74] The clearance tasks were concentrated on resettlement of refugees and displaced persons. The planning process was top-down and beneficiaries and land allocation issues were not adequately addressed. This resulted in unfertile land being handed over to people in the urge to provide safe land for people on which to build their house. These were early days when a major learning process was taking place.

Following a multi-stakeholder land use workshop in mid-1998 in Battambang, participants decided that a special mechanism was required to (i) set clearance priorities based on requests from the villages, communes, and districts, and (ii) issue land titles to confirm ownership by the target beneficiaries in order to prevent land grabbing by the rich and powerful**.** Accordingly, Land Use Planning Units (LUPU) were created in 1999 to play a key role in the overall mechanism, obtaining and investigation clearance requests from District Working Groups (and directly from commune and villages) and feeding recommendations to a Provincial Sub-Committee (PSC – a sub-committee of the Provincial Rural Development Committee). In 2003 the LUPU changed to MAPU and PSC changed to PMAC.

A MAPU is made up of staff seconded on a full-time basis from various provincial departments (land management, rural development, planning) and from the governor's office. MAPU staff cooperates with officials from different levels of government and NGOs. Their principal tasks are to identify contaminated land that people would like to be cleared, confirm ownership rights and intended beneficiaries, and propose priorities for clearance for adoption by the appropriate provincial authorities. Workplans are finalised under the authority of PMACs. PMACs are non-permanent bodies which meet under the chairpersonship of provincial vice-governors. They are responsible for the integration of mine action plans with national and provincial development priorities.

The MAPU mechanism is playing an important role in the process of establishing priorities for mine action; particularly bottom-up priorities emerging from village and other local government levels and from community development NGOs. Most stakeholders also credit the mechanism with enhancing the likelihood that land goes to the intended beneficiaries for the intended purposes after clearance. The following criteria are used for selecting beneficiaries, including poverty, landlessness, amputee families and family size.

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[74] The fourth main operator, RCAF, operated independently and currently operates largely outside the direct control of CMAA. Demining contracts are awarded to the RCAF Engineer Unit for Government initiated infrastructure projects.

While the LUPU/MAPU mechanism provided effective support to mine action planning, it did not have a legal basis for mine action, which was provided in 2004.[75]

The current planning cycle for mine action begins January with a community meeting, at which Village Chiefs present their priorities of suspected mined areas needing clearance. MAPU staff and Village Chiefs review village site sketches made by the village chiefs and complete necessary forms (such as village information and suspected mine area information forms). The L1S remains the basic planning reference tool used by MAPUs. In April-May, during the District Workshop, Commune Chiefs present their priorities for clearance. In May-October, MAPU staff then conduct investigations to ensure that each area selected for mine clearance complies with certain criteria (intended land use, beneficiary selection, land ownership, and so on), resulting in an updated list of minefields targeted for clearance. The L1S remains the basic planning reference tool used by MAPUs. MAPU staff then prepares a proposed annual work plan for mine clearance, presenting this to the PMAC, which also hears the views of the mine operators on the various priorities. It approves some of the priority areas recommended by MAPU and may add some tasks based on provincial priorities emerging from the annual update of the Provincial Development Investment Program (PDIP). The Governor (as Head of PMAC) then signs the Provincial De-mining Plan (sending a copy to CMAA). INGOs do not play a direct role in this process at the village and commune level. During the PMAC process input from INGOs is integrated in the annual input from the PDIP.

As the Netherlands supported the operators HALO Trust and CMAC DU-1 through NPA, there was indirect input in this process. Netherlands funded development agencies were not directly involved in the decision making process within MAPU.

Australian Volunteers International (AVI) reviewed the performance of MAPUs in early 2006, after their first full year of operations in consultation with MAPU staff. The review identified the need for improvements in coordination between demining operators and MAPUs.[76] Operators still play a major role in the process of task selection due to their greater technical expertise and by direct donor funding of specific projects.[77]

1.5 Conclusion

The Netherlands supported demining programmes fit well into overall Netherlands humanitarian demining policy.[78] The main focus of the programmes was on mine clearance, mine awareness and training and capacity building at the operational level. Clearance activities were undertaken to contribute to casualty reduction as well as to socio-economic development. The evaluation team did not find any integration between Netherlands funded HMA activities and other Netherlands funded development assistance. The termination of the bilateral development partnership in 1998 and the exit-strategy between 2004 and 2006 did not affect the HMA activities.

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[75] Sub-decree 70, dated 20 October 2004 on Socio-Economic Management of Mine Clearance Operations. CMAA/Guideline on Mine Clearance Operation Management for Socio-Economic Development dated December 2006.

[76] *Review and Recommendations from MAPU Planning Process 2005, Discussion Paper,* AVI, February 2006, p. 1.

[77] Interviews with Richard Boulter, HALO, and Rupert Leighton, Country Manager, MAG, Phnom Penh, 20-23 March 2006 and *Review and Recommendations from MAPU Planning Process 2005, Discussion Paper,* AVI, February 2006, p. 29.

The Cambodian Government has given high priority to humanitarian demining and mine action since the beginning. In the period 1996-2006 the Cambodian Government issued several policy documents, outlining strategies how to tackle the mine problem and to promote socio-economic development. Netherlands funded HMA activities fitted well with the policy priorities of the Cambodian Government as these were broadly defined, aiming to link mine clearance efforts with socio-economic development activities as well as to target the worst contaminated mined areas in order to reduce casualties. INGOs played an important role in policy debates and hence influenced the formulation of national policy priorities in the field of HMA. After 1999, the Netherlands funded HMA activities played no significant role in national capacity building, when funding of CMAC was terminated. As a result, Netherlands funding contributed to clearance targeted at casualty reduction and clearance more explicitly targeted at socio-economic development.

Since 1996, and especially since 2002, there have been major improvements in the process of priority setting and task selection for humanitarian demining in a decentralised, bottom-up manner through the MAPU/PMAC-process. Over the period 1996-2006, Netherlands funded HMA-activities thus increasingly took place in accordance with the priorities, needs and wishes of the affected communities. After 2000, the Cambodian Government put in place the national regulatory body CMAA. CMAA has had limited funding and this has slowed its progress considerably. The need for a stronger role of CMAA was obvious, especially with regards to the creation and subsequent management of a national database.

The Netherlands' funding, however, did not contribute to the development of CMAA, nor to the MAPU/PMAC process. The evaluation team considers this a missed opportunity, as CMAC, CMAA and MAPU/PMAC, in principle, are elements of an effective national framework, which could serve and indeed serves as a model for other countries in humanitarian demining and mine action.[79]

[79] Bosnia and Herzegovina Mine Action centre (BHMAC) is an example of the "CMAC"-model.

2 Effectiveness

2.1 Introduction

This chapter starts with examining if the Dutch-supported humanitarian demining programs reached their objectives. Subsequently, it looks into factors that contributed to reaching these objectives and if there were any more effective alternatives. It concludes with the outcomes of Dutch-supported demining activities, which are divided in short term (casualty reduction, return and resettlement) and long term (peacebuilding and reconciliation process, land use and economic development) outcomes.

2.2 Did Dutch-supported humanitarian demining reach its objectives?

Effectiveness relates to the selection of objectives and their achievement. The general objectives for Netherlands' support in various documents emphasised mine action as an integral part of humanitarian aid, highlighting the importance of actual mine clearance to achieve the reduction of casualties, and capacity building as a corrollary objective. Two additional policy objectives became important at the turn of the century, first, the contribution of humanitarian demining to post-conflict reconstruction and second, the contribution of demining to socio-economic development.[80] Four policy-objectives can thus be distinguished: casualty reduction, post-conflict reconstruction, socio-economic development and capacity-building. This chapter will consider the first three policy-objectives, while chapter 4 will look at capacity building.

Netherlands funding for humanitarian demining in Cambodia in the period 1996-2006 was allocated on the basis of funding requests by demining organisations. From 1996-1999, CMAC submitted yearly requests to the Netherlands. Afterwards HALO Trust and NPA submitted (multi)year requests until 2004, when they applied for the multi-year Thematic Co-Financing (TMF) programme. Figure 5 presents an overview of the nature and objectives of the HMA activities.[81]

[80] *Policy Framework Humanitarian Demining,* MFA, The Hague, 1999. *Thematic Policy Framework Humanitarian Demining*, MFA, The Hague, 2001. *Policy Framework Humanitarian Demining,* MFA, The Hague, 2003.

[81] Figures provided by Michiel van Bokhorst, IOB.

Activity number	Year	Channel	Official MFA objective	Type of HMA activities undertaken
KH006801	1996	CMAC/UNDP	Contribution to the demining programme of CMAC via the UNDP Trust fund	clearance, verification, training
KH009201	1997-1998	CMAC/UNDP	Contribution to the demining programme of CMAC via the UNDP Trust fund	clearance, training
WW135108	1998-1999	CMAC/UNDP	Contribution to the demining programme of CMAC via the UNDP Trust fund	clearance, training
WW152711	1999	CMAC/UNDP	Consolidation of developed activities by CMAC through the UNDP Trust Fund.	clearance, training
WW165532	2000-2001	HALO Trust	Demining in Cambodia in order to advance the safety of the population and the facilitation of the return and resettlement of IDPs including the provision of land for agriculture	clearance, surveying, marking
WW165534	2001-2002	Norwegian People's Aid	Mine clearance aimed at the resettlement of IDPs and citizens without land, access to land for agriculture, rehabilitation of infrastructure (a.o. schools).	clearance
WW192404	2002	HALO Trust	Mine clearance to allow remote communities to live and grow in safety and to provide access for development agencies.	clearance
WW192401	2002-2004	Norwegian People's Aid	Mine clearance and removal of UXO, mine awareness in province Banteay Meanchey.	clearance, MRE
WW207101	2003	HALO Trust	Global Appeal HALO Trust 2003	clearance, MRE
6607	2004-2007	HALO Trust	TMF subsidy for the HALO Trust for the years 2004-2007.	clearance, MRE
6608	2004-2007	Norwegian People's Aid	TMF subsidy 2004-2007.	clearance, capacity building

Figure 5 Netherlands funded HMA-programmes: objectives & activities.

Within the Netherlands funded programs, the organizations conducted various activities, ranging from mine clearance to capacity building. For the sake of clarity, the following section will briefly look at the separate organizations and the objectives and the nature of the activities conducted within the Netherlands funded programs. Chapter 3 discusses in more detail the outputs of the individual programs and related efficiency questions.

CMAC / UNDP: 1996-1999

Between 1996-1999 the Netherlands government supported CMAC through the UNDP Trust Fund. With total contributions of US$ 9.36 million, the Netherlands was the third largest contributor to the Trust Fund, following the USA and Sweden. Due to the way in which the Trust Fund disbursed its contributions, it is not possible to assess whether objectives for mine clearance with Netherlands' funding were, in fact, achieved. The four priorities of CMAC between 1996 and 2000 were to clear land for resettlement of IDPs or already settled land with high casualty rates; land for agriculture; land for humanitarian community development; and land for reconstruction and infrastructural

development.[82] A complete picture of the planned and actual mine clearance achievements for the period 1996-1999 could not be formed on the basis of the data provided by CMAC and UNDP.

HALO Trust: 2000-2006

In 2000 and 2001, the Netherlands Government funded HALO Trust within the program WW165532 "to provide the capacity to clear land in Cambodia to save lives and prevent injuries and to return demined land to local communities in order to raise the standard of living of very poor populations in mine-affected and isolated areas." This included "the clearance of village sites for people living in mined areas, for further resettlement and for community infrastructure (for example, school, health centre etc.)" in Oddar Meanchey Province.[83] In addition to mine clearance operations, HALO Trust conducted technical surveys of the identified minefields and, in cooperation with LUPUs, socio-economic surveys of the technically surveyed minefields. In 2002, within the program WW192404, HALO Trust's stated aims were to render "ground safe for the most marginalized members of society", to "allow remote communities to live and grow in safety" and to "develop safe access to the remote communities" for development agencies in Bantaey Meanchey, Oddar Meanchey, North Preah Vinear & Siem Reap provinces.[84] Starting from 2003, the objectives of the Dutch-supported programs (WW207101 and 6607) by HALO Trust were to return mine contaminated land to its former use by providing emergency mine clearance, to reduce mine and UXO accidents, to provide an emergency EOD service and to assist with the development and reconstruction of north western Cambodia by providing mine clearance for development and infrastructure projects. In these efforts, HALO used small sections of deminers to reach very remote area's. HALO Trust has always been very independent minded in its approach to mine clearance. Already in 2002 it started to query the results of the L1S, stating that there was a "startling lack of consistency" between dangerous areas as reported in the L1S and the casualty patterns reported in the CMVIS database.[85] While CMAA initially stood by the L1S results, it is now generally accepted that the L1S information is not accurate enough to form a sound basis for planning and priority setting. In 2003, HALO Trust changed its strategy "…from concentrating on providing immediate support to development agencies to the deliberate targeting of heavily mined areas in order to reduce risk levels and prevent accidents", based on analysis of the CMVIS casualty data which showed that the majority of casualties occur because of transit and foraging in the K5 Belt.[86] Between 2000 and 2006 HALO Trust cleared a total of 480 ha. A review of HALO annual and final project reports indicates that HALO in each year has met or exceeded its planned targets.

CMAC DU1/NPA: 2001-2006

Following withdrawal from the UNDP Trust Fund, the Netherlands has continued to support the CMAC demining work through a number contracts in which NPA acted as an intermediary organization in charge of administration and monitoring. Support to

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[82] *"Clearing the Path Ahead" - Five Year Strategy,* CMAC May 1996 to December 2000.

[83] F*inal Report*, (WW165532), Mineclearance Programme, The HALO Trust, 1 Dec 2000-31 dec 2001, Pnom Penh, 2002.

[84] F*inal Report*, (WW192404), Manual Mineclearance project, The HALO Trust, 1 Jan – 31 Dec 2002, Pnom Penh, 2003.

[85] *Cambodia Integrated Mineclearance Project*, 1 Jan-31 Dec 2003, (WW207101), The HALO Trust Cambodia, Pnom Penh 2004.

[86] Ibid.

CMAC via NPA took place under three contracts: a pilot project (WW165534) for a period of 14 months from 2001-2002, the Integrated Mine Action and Development project Phase 2 (WW192401), and a third phase from 2004 – 2007[87]. These projects aimed to support specifically the work of CMAC Demining Unit 1 in its mine clearance and MRE activities, as well as to support CMAC capacity.

The objectives for the Phase 1 pilot project were 1) to clear land for resettlement, agriculture, and infrastructure, mainly for internally displaced and landless people in Banteay Meanchey Province (O'Chrov District) 2) to develop cooperation between CMAC and development agencies, and 3) to support CMAC capacity development in mine action in the DU1. Phase 2 of the project included mine clearance and mine risk education in O'Chrov and Malai district and support to CMAC in the form of capacity building as the main objectives. Phase 3 of the project (2004-2007) had as core objectives the reduction of risks from mine and UXO contamination, work with local communities on land distribution issues, strengthen CMAC capacity, and improve mine risk awareness. The number of m^2 cleared under these different projects varied from 1 million in 2003 to 1.7 million in 2006, with the exception of 2004 when only 560,000 m^2 was cleared as the funded project covered only part of the year.

In addition, NPA took a number of measures to improve quality control. Specifically it commissioned a number of reviews of DMU 1, notably an external technical assessment in 2005. It monitored CMAC progress of implementation of the recommendations throughout 2005 and 2006, and concluded that almost all the shortcomings observed in the technical survey had been addressed by 2006. The evaluation team visited a number of ongoing DU 1 demining operations and observed that equipment was in order and that standard operating procedures were being followed.

2.3 What factors contributed to reaching the objectives?

A number of factors have influenced the achievement of the objectives over time.

First, Cambodia has seen a sustained and concerted effort of the national government and of the international community to address the mine problem. The government gives high priority to achieving mine impact free status and has put in place the institutional framework facilitating effective mine action. Donors and NGOs have provided and continue to provide structural support to the actual tasks of demining and to other mine action activities.[88] In earlier years, in the absence of the institutional framework, the largest national mine operator experienced difficulties in terms of transparency and accountability of its operations. When this resulted in the loss of international donor confidence and the withdrawal of funding, mine clearance slowed down considerably in 2000.

Second, through a process of learning by doing, since 2000 there have been significant improvements in the national level governance and coordination of mine action, leading to improved policies and practices. CMAA now provides a platform to discuss key policy issues and to exchange information on best practices, quality improvements (certification of operators) etc.. Key issues addressed in recent years have been the

[87] The project for the 2004-2007 phase is referred to as number 6608 by the Netherlands Ministry of Foreign Affairs, and as the old number WW192401 in NPA reports.

[88] Ayrine Uk and Pascal Simon, *Assessment of Norwegian People's Aid Technical Assistance to CMAC, Final Assessment Report*, March 2004; *Evaluation Report of NPA's Mine Clearance Project in Cambodia*, Coopers & Lybrand, February 1996.

focusing of MRE on those at high risk, area reduction, and the relationship between demining and development.[89]

Third, there have been major improvements in the establishment of a decentralised, bottom-up planning process through the MAPU and PMAC, resulting in more coherent annual plans and more targeted clearing efforts of high priority minefields. As noted, no Dutch funding was involved in the creation of the MAPU/PMAC process.[90]

2.4 Were there more effective alternatives?

The evaluation mission made a detailed investigation of land use as an indicator of the effectiveness of demining. The team visited 18 minefields in different parts of the country that had been cleared between 1996 and 2006. The mission's findings confirm that land use indeed provides important information on the effectiveness of mine clearance programs. Based on interviews with stakeholders and on site visits, the evaluation team observed that in Cambodia cleared land is generally used in a productive and intensive manner. The mission therefore concludes that with regard to handing over minefields to local communities, and returning them to productive use, the Netherlands funded demining activities in Cambodia have been effective.

The evaluators observed that there may be a trade-off between the different objectives of reducing the number of victims and the contribution to socio-economic development. Demining in support of socio-economic development may lead to scarce resources being allocated to land that is not very heavily mined. These resources cannot then be allocated to mine clearing in those areas where the number of victims is highest. CMAA reported that 68% of all mine victims fall in just 15 communities almost all of which are located in the K5-belt.[91] The Netherlands has supported both mine clearance specifically aimed at casualty reduction as well as mine clearance aimed at the promotion of socio-economic development.

With regards to NPA, as mentioned before, the motivation behind the Netherlands' decision to choose for NPA was NPA's involvement in the integration of demining and development activities. It is difficult to assess whether there were any viable alternatives at the time when the first contract was awarded to NPA, but as NPA has been getting out of the development business in 2003, and plans to get out of demining altogether, the question arises whether the second contract (2004-2007) should have been awarded to NPA, especially given the fact that there were by then a number of other NGOs involved in demining and development.

The question may be asked whether the Netherlands' emphasis on direct support to mine clearance and related capacity-building was the most effective way to achieve its objectives. In this respect it is interesting to note that the Netherlands has not participated directly in the processes of institutional development at the national level (strengthening CMAA) and at local and regional levels through the MAPU-PMAC process.[92] Both processes started out as relatively small initiatives, but are now making a major contribution to the effectiveness and the impact of humanitarian demining.

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89 See the *Landmine Monitor Reports,* ICBL, 1999-2006.
90 *Mine Action Achievements Report 2006 and Work Plan 2007,* CMAA, 6 March 2007.
91 *Annual Achievements Report,* CMAA, Phnom Penh, 2006.
92 Durocher, Marcel, Hoti, Agim, Tonh, Mok, Vuthy, Keo, *Evaluation Report on ECHO Funded Humanitarian Mine Action Pilot Projects in Cambodia*, NPA, October 2003 and Thompson and King, *An Evaluation of the HALO Trust,* 2006–2007.

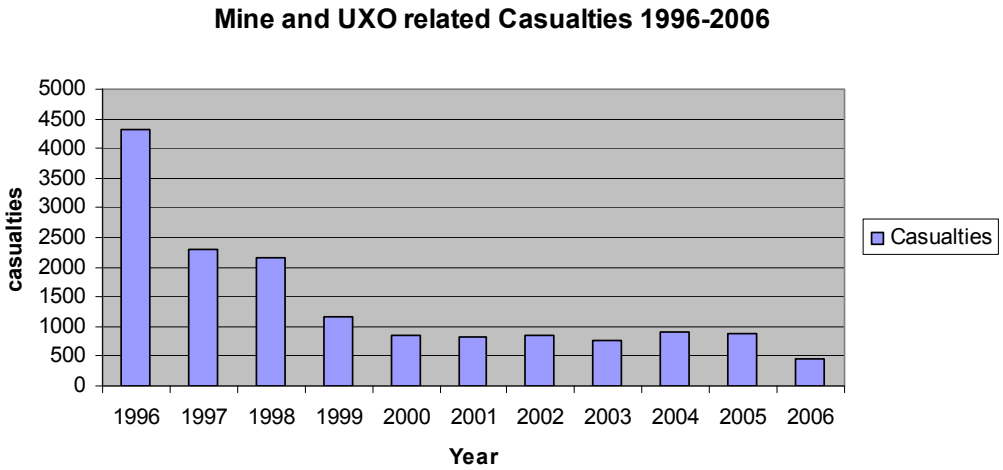
Be that as it may, the evaluation mission concludes that the Netherlands' decision as a key donor to concentrate the bulk of its efforts on actual demining work has made a positive contribution. These institutional development processes were supported by other donor countries while Netherlands funding was used to support actual mine clearance and the building of operational capacity. From the very beginning, the Netherlands has been involved in operational capacity building of MCTU and CMAC which resulted directly in more demining capacity in areas for re-settlement and re-integration. Capacity built in CMAC is sustainable and, through its EOD capacity, CMAC is prepared for the future. On the whole, Netherlands funding directly used for mine clearance has made a substantial contribution to casualty reduction and the productive use of land in Cambodia.

2.5 2.5 Outcomes of Dutch-supported humanitarian demining

The following sections review the outcomes of Dutch-supported demining activities, which are divided in short term (casualty reduction and return and resettlement) and long term (land use and economic development and peacebuilding and reconciliation process) outcomes. In the absence of reliable quantitative data of the precise contribution of Dutch-supported demining activities to these outcomes, the following sections will both consider data at the aggregate level and rely on anecdotal evidence gathered during the field visits.

Casualty Reduction

Saving lives and legs has been the core objective of supporting humanitarian demining activities in the context of humanitarian aid. On a per capita basis the number of victims in Cambodia has remained the highest in the world for many years.[93] Fourteen years after humanitarian demining started in Cambodia, and despite MRE and other risk reduction measures, casualties averaged over 800 people each year between 2000 to 2005. (see figure 6)



[93] According to the Cambodia Mine Victims Information System (CMVIS) database which is maintained by Handicap International (HI) in collaboration with the Cambodian Red Cross, the total number of victims in Cambodia until the end of 2006 amounted to 62,600.

Figure 6 Mine and UXO related Casualties.[94]

This may be explained by the increase in population and a large-scale internal migration towards the Northwest of the country, as a result of the scarcity of land in the centre of Cambodia, which exposed more people to the immediate danger of landmines.[95] As HALO Trust explained to the evaluation team: "We simply cannot keep up with the spontaneous development and land clearing activities undertaken by the local population."[96] Surprisingly, in 2006 the number of casualties dropped by almost 50% to 440. CMAA commissioned a study to look into the causes of this unexpected development which presented a number of explanations: [97]

- More focused MRE activities concentrating on those at high-risk rather than on the population at large.
- Agricultural growth and good weather conditions in 2006 have reduced the need for many people to open up new land or to supplement their income through forest products.
- The number of UXO victims has dropped to about half because of a ban on the import in Thailand of ammunition scrap metal. People used to sell the scrap metal after disassembling the UXO they found in the woods themselves, with all dangers this entailed. Police has also cracked down on the ammunition scrap metal trade.
- Due to ageing, a certain number of mine types are thought to be degrading and no longer functional. The evaluation team has discussed with several organisations whether the 2006 drop in casualties is likely to be a one-off phenomenon or whether it is likely to continue. The CMVIS figures available for the first five months of 2007 suggest that the number victims is likely to fall further.[98]

The profile of mine/UXO casualties, however, has changed significantly in recent years. In central Cambodia there have been few casualties in the past three years; nearly all mine/UXO casualties now occur along the K5-belt and in the border provinces of Battambang and Banteay Meanchey, reflecting the demand for land and mostly as a result of foraging for wood or forest resources. Another change in the casualty profile is that although demining resources are concentrated mainly on clearance of mines, most reported casualties in the last two years (61 percent) have resulted from UXO.[99]

Netherlands funded mine clearance has taken place in those areas with high but decreasing casualty rates. In Malai district, for instance, the casualty rate slightly dropped to 6 during the first quarter, down from 9 casualties in the same quarter of last year while in O'Chrov district the casualty rate remarkably dropped from 17 in 2005 to just 2 in 2006 during the first quarter. (see figures 7 and 8) HMA activities have been directly supported by Netherlands funding in Malai district through CMAC in 2006. In earlier years, Netherlands funded HMA activities have taken place in O'Chrov district.

No mine-related casualties have occurred in cleared land after mine clearance, in the villages visited. In most villages, people reported that they feel much safer. They currently work their land without being afraid of stepping on a mine. But in some places

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[94] Figures provided by Mr Jean Francois Michel, Handicap International Belgium/CMVIS, through email.
[95] Griffin, Robert and Keeley, Robert, *Joint Evaluation of Mine Action in Cambodia for the Donor Working Group on Mine Action,* Volume I, CMAA, Phnom Penh, 4 December 2004.
[96] Tim Porter, Country Manager HALO Trust, Interview Siem Reap, 2 July 2007.
[97] *A Study on the Dramatic Decrease of Mine/UXO Casualties in 2006,* CMVIS, Handicap International Belgium, NPA, UNICEF, 2006.
[98] See http://www.mine-ex.ch.
[99] *Annual Achievements Report,*CMAA, Phnom Penh, 2007.

large plots of land bordering the cleared areas, remain contaminated – or suspected of being contaminated and the villagers in these areas mentioned that they worry for the safety of their children and cattle. At a minefield located 50 m behind a school in the village Neang Lem in Battambang Province, for example, two cows recently died when they stepped on a mine. Many of the minefields are no longer marked, because people have removed the marking signs to use them, among other things, as cooking-utensils.

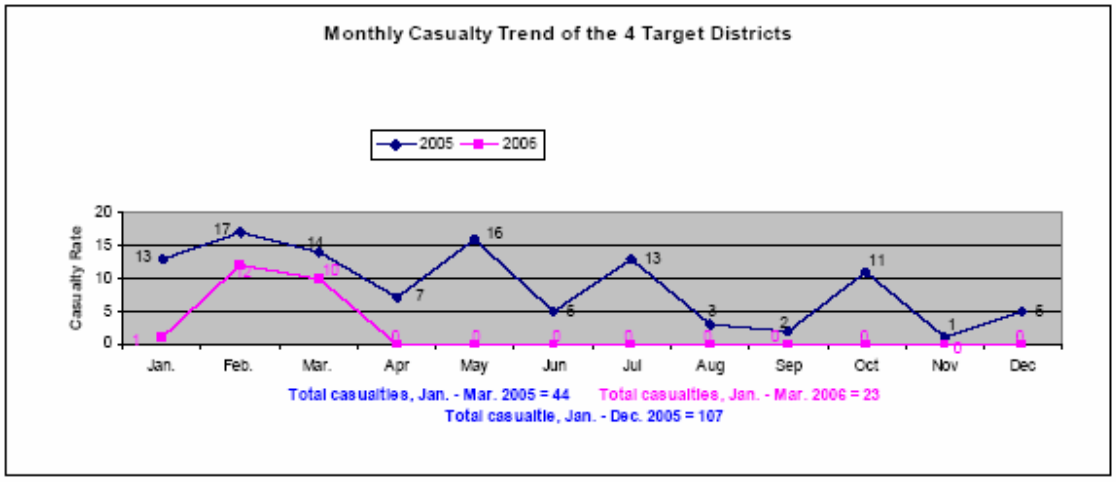

Chart 1.b. Casualty trend 2005-06 in the four target districts of Malai, O'Chrov, Thmar Pourk and Svay Chek. (Sources: CMAC DU1 CBMRR monthly reports)

Figure 7 Monthly casualty rates 2005-2006 in four districts.

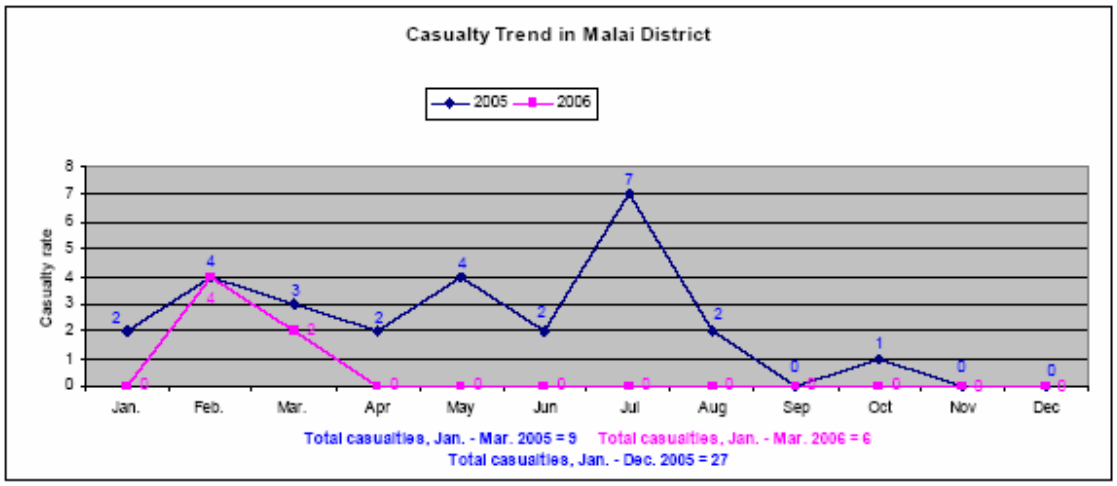

Chart 1.c. Casualty trend 2005-06 in the Malai target districts (Sources: CMAC DU1 CBMRR monthly reports)

Figure 8 Monthly casualty rates 2005-2006 in Malai district.

If villagers find a mine on land that has not yet been cleared, they usually call a mine operator. CMAC has several small rapid reaction units that will come and defuse the mine – normally within 24 hours. Otherwise, the villagers wait until a demining operator passes by. This was experienced by two members of the evaluation team who were handed a mine by an ex-soldier in the forests in Oddar Meanchey Province in the

K5-belt at the Thai border. It turned out that the ex-soldier had already defused the mine himself. This renders clear how mines remain part of everyday life in Cambodia.

In the assessment of the evaluation team, the concerted and sustained efforts of the national government of Cambodia and the international donor and NGO community are starting to have a major impact on casualty rates.[100] The Netherlands, through its sustained support to the demining activities of CMAC, CMAC DU1 and HALO Trust, as well as through its support of other mine action activities, has made a major contribution to this achievement.

While the drop in casualties is good news, a number of over 400 casualties (that is mines and UXO; mines only 189) per year remains unacceptably high and indicates that achieving the Cambodian government's objective of being a "mine-impact free" country by 2012 will need a continued strong effort of national and international organisations. The evaluation team believes that a concentrated effort focusing on clearing the high impact K5-belt is the most promising way to further reduce the number of landmine victims in a significant manner.

Reducing the number of UXO casualties requires a different approach. Most UXO casualties are the result of tampering with ammunition. Accidents often take place after ammunition has been transported to people's homes or workshops. The UXO problem is more widely spread over a larger number of communes. It is also a problem that cannot be solved in the next decade but it is one that will continue to exist for many decades to come.

While there is general agreement on the priority of humanitarian demining in Cambodia there is disagreement (or in the words of one interviewee: "healthy debate") on a series of issues, including the role of L1S and "spontaneous village demining" in relation to area reduction.[101]

The L1S listed mine affected areas that were disputed from the start. The CMAA has stated that while the L1S provided valuable information on the socio-economic impact of mine/UXO contamination – and would thus be useful in the planning and prioritisation process – the the L1S could not measure the precise size of the affected areas or the scope of the contamination.[102] HALO Trust estimated that the L1S could overstate the problem by as much as 90 percent.[103] Moreover, the UN Development Programme reported that the lack of clear information on earlier clearance work has caused some concerns that areas recorded as "suspect minefields" may have already been cleared.[104] In the absence of accurate information on the actual size of contaminated area, the CMAA has used as a planning figure 10 percent of the total L1S estimates, an estimated 425.17 million m^2 of land.

Village based demining has taken place in Cambodia for decades. With no professional training, villagers have been clearing land for land use and access to resources. Until recently, discussions evolved around the question whether to prohibit local clearance activities or whether to provide informal deminers with professional training. At

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[100] *Mine Action Achievements Report 2006,* CMAA*,* 6 March 2007.
[101] Fleisher, Michael L., *Informal Village Demining in Cambodia An Operational Study*, Handicap International Belgium, AusAID and Norwegian People's Aid, Phnom Phen, 2005.
[102] *Draft National Mine Action Strategy*, CMAA, 9 January 2003, p. 6.
[103] *Five Year Mine Action Plan 2003-2007,* CMAA, March 2003, p. 12.
[104] *Support to Mine Action Programmes in Cambodia: Project Progress Report for 2002,* UNDP, January 2003.

present, there is no official recognition of land that has been cleared by informal deminers. Informal demining, however, has contributed to the release of large plots of formerly contaminated or suspect land, which is now occupied and put to agricultural use.[105] The L1S recorded villages where village deminers were working, but did not record the land that had been cleared by these deminers. The CMAA does not include land cleared by the informal sector as it does not comply with demining standards. If the informal clearing would be recognised and the lands cleared by the informal sector taken into account, the estimated amount of hectares to be cleared would decrease considerably. But as time progresses, there is a growing acceptance of the contribution of informal demining to the overall mine clearance effort. After long debates in CMAA between donors, policy makers, demining operators and INGOs a policy was adopted in 2006 that land, being cultivated for three years or more should no longer be considered a priority area. Instead, the land will be considered "suspect" but will no longer be a priority for demining.[106]

Return and resettlement

Mine clearance has had a major impact on the return and the resettlement of refugees and IDPs. During the 1980s, many people fled the country and before the Paris Peace Accords, the total number of refugees and IDPs was estimated at 520,000.[107] In addition, Khmer Rouge forces and their families also needed safe, cleared land, after they abandoned armed struggle in 1998. A substantial amount of mine clearance has taken place for resettlement, allowing people to resettle around the country, not necessarily in areas they used to live in before (with the exception of people returning to their ancestral villages). Since the various Dutch-supported mine operators could not provide data on the number of m^2 of land cleared for resettlement nor on the precise number of resettled families for the entire period under evaluation, it is impossible to quantify the exact contribution of the Netherlands funding. The evaluation team did observe, however, that many of the former minefields settled in the Northwest of the country – in the Battambang, Banteay Meanchey and Oddar Meanchey Provinces – have a mixed population of original residents of the area, demobilised soldiers, refugees and IDPs from a number of different political factions. The villagers of Kandaol (93) in Banteay Meanchey Province, for instance, originated from, a.o., Kampong Thom, Siem Reap, Battambang and Kampot, and this was rather the rule than the exception in a majority of the villages.

The evaluation team did encounter several villages which were practically non-existent before mine clearance, but which have grown into communities of 50 to 200 families. People either resettled at these villages as part of a government plan or were drawn to these villages by the prospects of a functioning community, which was for instance the case in the village of Banteay Thmey in Banteay Meanchey Province, cleared by CMAC in 2002.

In some cases, people returned to the locations of their ancestral villages regardless of whether they were mined or not. HALO Trust, specifically, has been and is still active in clearing lands at these remote locations. People living at these remote locations are often not (yet) involved in the MAPU-process, such as for instance in the village of

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[105] Bottomley, Ruth (NPA), Provost, Christian (HI-B) and Boulter, Richard (HALO) in *Landmine Action Campaign*, Issue 11, 2005.
[106] *Area Reduction Policy – letter to all interested organizations*, CMAA, Phnom Penh, 15 June 2006.
[107] Huguet, Jerrold W.,'The Demographic Situation in Cambodia', *Asia-Pacific Population Journal*, UNESCAP, New York, Vol. 6, No. 4, 1991.

Trapeang Tav Chas in Oddar Meanchey Province, which was cleared by HALO Trust in 2006 and 2007. The team observed in most cases that new villages had developed within a relatively short period of just a few years. An example is the village of Rum Check in Oddar Meanchey Province where several minefields were cleared by HALO Trust between 2002-2007, and which has since developed into a sizeable village of 77 families with a shop and a charging station for car-batteries that provide the households with light and TV.

Peacebuilding and reconciliation process

Although it is difficult to make a full assessment of the contribution of humanitarian demining to the post conflict reconstruction process at national level, the evaluation team has observed in the rural areas most affected by the mining problem that demining has been an important precondition for people to resume a normal life after a period of intense conflict. Villagers, when asked in various ways about the relationship between the resettled groups in the village, consistently answered that relationships were rather harmonious and that they were living side-by-side in peace. Khmer Rouge families had resumed normal life among their fellow Cambodians, as shown by the villagers in Sam Lot. They considered the biggest problem to be a general rise in crime, especially the theft of bicycles and motorbikes and indicated preference for a stronger police presence. Judging from several interviews with former soldiers and/or their families in, a.o., Tasanh in Battambang Province, in Nhoeng in Oddar Meanchey Province and Banteay Thmey in Banteay Meanchey Province, the clearance of land created the conditions necessary for them to be able to make the shift from fighting to farming. On the whole the different sections of the population are living in relative harmony in the villages. The evaluation team was told of one incident following the coup of 1997 where one faction of a village was forced to leave.

With regard to landownership, some villagers reported conflicts over land after mine clearance, including both conflict over boundaries as well as over actual ownership of the land. The land titling issue is a major problem with many residents not having any document at all.[108] Other residents are in possession of a provisional title issued at the district level, which is not, however, recognised at the national level. The situation is much complicated by the fact that cadastral records where destroyed in Khmer Rouge times and that communities have settled (or been resettled) on land of which the status and the ownership is unclear. The latter was the case in Trapeang Chrey in Kampot Province when villagers returned to their old lands, but after mine clearance did not receive their original plot of land – cadastral records – if there were any – having been destroyed in Khmer Rouge times. Normally the local village chief would act as mediator in solving these disputes. The villagers in Trapeang Chrey reported it to the district level and were still awaiting answer.

The evaluation team observed a big difference between recently cleared minefields and fields that were cleared earlier on. Residents of older settlements more often have some sort of a land title. However, the evaluation team also visited a number of older settlements where the land tenure and titling issue had not yet been solved, for example in Trapeang Chrey and Prech, both in Kampot Province, where land was cleared by CMAC in 1996-1997. Although contested plots of land usually do not make it through the MAPU process – and are therefore not likely to be cleared – conflicts may arise

[108] Adler, Daniel, Chhim, Kristina, Heang, Path, Hak, Sochanny, Sou, Ketya and Heng, Kimvan, *Justice for the Poor? An Exploratory Study of Collective Grievances Over Land and Local Governance in Cambodia,* October 2006.

after clearance, in the absence of a legal framework. The final solution can only be the provision of legal land title documents, a topic that has the attention of the World Bank and the Cambodian government.[109]

Despite uncertainty over ownership, the team observed that a limited amount of buying and selling of land has taken place post-clearance. The main reasons for buying and selling are first, families returning to their region of origin (having first been resettled in other provinces) and second, people selling the present land and moving on to clear a new piece of land (often in relation to debt problems). The evaluation team observed examples of both cases in La-ang in Kampot Province and in Chhnoul Treat in Banteay Meanchey Province, cleared by CMAC in 1999. The trade in land shows that despite the lack of formal titles, residents have enough confidence that the land is and will remain theirs.

Land grabbing in Cambodia has been described as a major problem and is well documented.[110] However, the team's observations in the field suggest that land grabbing in relation to demining is not a major problem, except in a few locations very close to the Thai border, which are commercially interesting for other purposes than agriculture.[111] Operators tend to avoid clearing land of which the status is unclear and where future problems may be expected.

The evaluation team also met with villagers who had continued to inhabit their village during the years of conflict. Generally, the minefields in these villages were small and – before mine clearance – were described as a nuisance and left unused. After clearance, day-to-day life resumed its normal course.

Landuse and economic development

The evaluation team visited a total 18 minefields that had been cleared with Netherlands funding (directly or as part of the UNDP Trust Fund) and observed that minefields after clearance were intensively used.[112] Whether for infrastructure, settlement or agriculture, in the large majority of the minefields visited, the land was used in a productive manner.

With regard to land use, the CMAA 2006 Annual Achievements Report presents the following types of post clearance land use types for the different organisations combined (no data for all years available). Figure 9 indicates that roughly the same priority is given to agriculture and to housing (alone or in combination with household gardens).[113]

[109] See www.worldbank.org/kh.
[110] *Managing Risk and Vulnerability in Cambodia: An Assessment and Strategy for Social Protection*, The World Bank, Phnom Penh, 2006.
[111] Daniel Adler, World Bank, interview Phnom Penh, 20 June 2007.
[112] Annex 4 discusses the site selection criteria and the sites visited.
[113] *Annual Achievements Report,* CMAA, Phnom Penh, 2006.

Land use type	%
Agriculture	31
Housing	14
Housing and agriculture combined	13
Roads	14
Other Infrastructure	12
Other	16

Figure 9 Land use post clearance in 2006.

In the majority of the villages visited by the evaluation team, the families received a small plot between 1000 and 2000 m^2 for a house and a garden and (depending on land availability) about one hectare of land for farming after clearance. The families grew rice, corn, cassava and peanuts at their farmland and vegetables and fruits like cashew and jackfruit in their gardens. The degree of success with which people farmed their land was primarily dependent on the quality of the land received, whether the people had been provided with follow-development assistance and whether they had any experience with farming.

Especially in the early years of mine clearance priority was given to providing communities with a safe place to live, exemplified by the La-ang village in Kampot Province, which was cleared by CMAC entirely for resettlement purposes in early 1996. Demining agricultural fields involves a much larger number of square meters, is very costly and has therefore received lower priority. In many communities, villages are now free of mines, but agriculture continues in minefields or in suspected areas. The evaluation team observed this in Tasanh village in Battambang Province, cleared by CMAC in 1999.

Over the last decade, people have been resettled across Cambodia, sometimes in agricultural environments that are unfamiliar to them.[114] Even with development assistance, it was only through a process of learning by doing that they were able to increase the productivity of their land. Time is an important factor: people who worked cleared land that they received in early 1996 were generally better at farming their land than people who have been resettled more recently. The people in the village La-ang in Kampot Province, for instance, were able to extract higher yields than they did ten years ago, so they confirmed in several focus group interviews.

In only a few cases land was fallow – such as for instance in the village Chhnoul Treat in Banteay Meanchey Province, cleared by CMAC in 1999 – but in these situations the community (usually resettled refugees) had been unlucky to receive a piece of very infertile (sandy) agricultural land. In the village Chhnoul Treat, the evaluation team observed subsistence farmers whose rice yield was 300-400kg, ten percent of some of their peers farming more fertile lands. Although the villagers of Chhnoul Treat had received development assistance by NPA and the Provincial Ministry of Rural Development following the mine clearance, the assistance did not suit their needs. It is worth noting that this is most common in minefields cleared in early years when capacity was limited and the planning process top down. In that period, the need to provide returning refugees with a safe place to live overrode all other considerations.

[114] The 2005 UNHCR Statistical Yearbook lists around 115,000 people between 1996-2001 who needed to be resettled. The UNCHR, however, only included refugees, asylum-seekers and IDPs and this number could be much higher.

In recent years the bottom-up MAPU planning process has significantly improved that situation. The village Chheu Teal in Banteay Meanchey Province, cleared by CMAC entirely for agricultural purposes in 2006 on the request of villagers, clearly shows how this has changed.

In general, it can be concluded that land which prior to the mine clearance was fallow, is now being used for living and agricultural purposes, housing, schools and roads. The economic impact of HMA has been substantial in almost all sites visited by the evaluation team, especially when people had received follow-up development assistance and had resettled in fertile areas. Villagers repeatedly reported that after the mine clearance they had substantially increased their food production. In other areas, for instance in the village Sala Visai in Kampot Province, villagers who had received cleared land for resettlement & agriculture still worked in nearby factories, to complement the yields they received from their lands. The villagers reported that they needed assistance and training as they only knew the traditional way of rice cultivation. On the other hand, when Netherlands supported mine clearance was followed by relevant development assistance and people were resettled in more fertile lands, the economic impact of HMA was considerable. In the village Prech in Kampot province, for instance, the people received development assistance, both from INGOs – funded by other international donors – and from the Provincial Ministry of Rural Development. They cultivated rice and other crops and were able to provide for their own food, while selling the small surplus at the market.

With respect to infrastructure, the clearing of access-roads, did have a significant impact on peoples' everyday lives. Cleared roads were and are in many cases highly relevant for the exchange of goods which can now be transported to markets in towns close by. Children can now travel safely to school again and sick or wounded persons have better access to the hospital. Roads for government initiated infra-structural development are cleared by RCAF. Local roads are cleared as part of the demining plan for the district. An example is a road near Kandaol (93) village in Banteay Meanchey Province where part of the road between Pailin and Malay was cleared, opening-up both market places for the local villagers to transport their products to. Although the road was very remote, the villagers emphasised the economic benefits of the clearing of the road.

At the same time, many people have lived, continue to live, or have recently taken up residence in minefields. For instance in Battambang province and in Oddar Meanchey Province in the K5-belt, the evaluation team observed many people living in the middle of minefields. In a number of cases people have moved into (suspected) minefield in order to stake a claim to the land and in the hope of receiving a land title post-clearance. These people show that while Netherlands funding has been effective to the extent that the land cleared is productively used, the overall mine problem is still far from solved.

2.6 Conclusion

The evaluation team concludes that the Netherlands has made a major contribution to the humanitarian demining effort in Cambodia.

Dutch-supported demining activities have contributed in a significant manner to the prevention and/or reduction of casualties by supporting CMAC, HALO Trust and NPA.

With regard to a general sense of security among beneficiaries of HMA, the decrease in casualties and the geographical concentration of casualties in the K5-belt, indicates that many Cambodian people can now feel more secure as they no longer have to be afraid to step on mines while farming their land. Nevertheless, many other people living on cleared lands bordering suspected minefields still fear for the safety of themselves and their children. MRE and long time exposure to the mine problem, however, have learned people how to deal with the danger of mines, while leading their everyday lives. As substantial plots of land remain uncleared, a large number of people still continue to live in minefields. While these people have been provided with MRE, socio-economic motivations drive them to occupy the land. In some cases they hope to receive ownership of the land after mine clearance.

The overall impact of the Dutch-supported demining activities on people's lives, livelihoods and security is positive. In the early years, the demining organisations in Cambodia primarily focused on mine clearance for resettlement purposes, while the fertility of the land took second place in the prioritisation of land. Mine clearance has played a key role in the resettlement process of over a half million Cambodians. The evaluation team encountered some examples, most notably in the village of Chhnoul Treat in Banteay Meanchey Province, of farmers who were not able to grow enough food to feed themselves and their families. Providing a safe place for housing was the overriding priority, and no attention had been given to possibilities for agricultural development.

In later years, socio-economic prospects of land received greater attention in the prioritisation process for mine clearance. This was the result of the fact that the bulk of people had been resettled and there was less immediate need for the provision of space for housing. Furthermore, the MAPU-process guaranteed that the wishes of the local stakeholders were increasingly taken into account, thus ensuring that land prioritised for clearance now benefits the people directly. Strengthened cooperation between mine operators and development NGOs also resulted in people being provided with relevant development assistance after land had been cleared.

Based on the observations made during 18 field visits, the evaluation team concludes that the majority of the beneficiaries of HMA are actually farming the cleared plots of land they have received. Cropping intensity and yields depend on soil quality and water availability. Netherlands funded demining activities have made a positive contribution to economic development. The MAPU-process, moreover, has strengthened the position of the villagers vis-à-vis the national government in the prioritisation of land. In the long run, this could have broader societal repercussions, for instance in terms of altering widespread practices of corruption. For now, it is clear that it makes a positive contribution to the ongoing process of democratisation in Cambodia.

Some villagers reported longstanding disputes about ownership of a plot of land. Many people do not have any document at all to show that they own a piece of land. The Cambodian government has so far not provided the legal framework to deal with these issues, which is an inhibitor of economic development and sometimes a driver of conflict.

Despite these unresolved issues, Netherlands funded HMA has been and continues to be an important precondition for many people to resume a normal life after a period of intense conflict.

3 Efficiency

3.1 Introduction

This chapter will look at the efficiency of the Dutch-supported organisations CMAC, HALO Trust and CMAC DMU1 through NPA. It considers whether the programmes were cost efficient and the objectives achieved in time and within budget. Additionally, it will ask whether the demining activities in Cambodia given the local situation and compared to potential alternatives were implemented in the most efficient way.

3.2 Have financial resources been used in an adequate manner?

The CMAC/UNDP problems in 1999 involving mismanagement, financial inconsistencies and accusations of corruption, prompted a drive towards greater transparency and accountability in the practices of the Cambodian mine community. The evaluation team reviewed in detail the performance of the three operators supported with Dutch funding: CMAC, NPA and HALO Trust. The team also looked at a number of recent (draft) evaluations of both CMAC DU1 and of HALO Trust.

As a government agency, CMAC is somewhat constrained in its prioritisation of minefields for clearance and its planning process is sometimes disrupted by ad hoc demands to clear recently settled minefields. When villagers build a house in a mined area, CMAC will dispatch a team to clear a path from the house to the road and to a water well. This affects the efficiency of CMAC as teams are transferred from their planned tasks to ensure the safety of the family living in the minefield.

The evaluation team visited a number of CMAC minefields where operations are currently ongoing and found that operations were undertaken in an efficient manner, that standard operating procedures were followed, that the proper equipment was used and that the equipment was in working order. Safety precautions were carried out as could be observed when approaching the demining operations. During an on-site inspection by the evaluation team of CMAC, DU1 staff was using the proper safety equipment, but the brand new condition of the equipment, prompted some doubts as to whether these had not been changed just prior to the visit of the evaluation team.

The evaluation team reviewed the role of NPA since 2001 in administering the Netherlands financial contribution to CMAC and monitoring its performance. The team was unable to confirm the value added of NPA taking this role. The efficiency of NPA's role as an intermediary between the Netherlands Government and CMAC was difficult to ascertain. From NPA documents it became apparent that regular meetings are held between DU1 and NPA representatives, of which minutes are produced. NPA had limited information on CMAC activities and information provided by NPA was not always consistent with information from CMAC. When questioned about discrepancies NPA referred to CMAC data as the main source. For its services, NPA charged ten percent of the total amount of the Netherlands financial contribution.[115]

[115] Based on figures prepared by Touch Sothavy, Finance Manager NPA Cambodia, Phnom Penh, 22 June, 2007.

The evaluation team acknowledges HALO Trust's single-minded determination to focus work on those areas of the K5-belt where most casualties occur. HALO runs a very tight ship with strong emphasis on productivity, monitoring and supervision. Implementation of operating procedures is outstanding. HALO is also a major contributor to the policy debate on mine action in Cambodia and the development of best practices, though it should be emphasised that progress is made by participation of all stakeholders.

Due to the nature of the problem, demining operations are both slow and costly. There is continuous debate on how to improve the efficiency of demining operations and the operators employ different methods. An example of specific method is the "one man one lane" versus "two man one lane" drill . In Cambodia CMAC operates a "two man one lane" drill with a lane width of 1.5 meter. In the "two man one lane" drill, deminers work in pairs. One deminer handles the metal detector, while the other digs ground, when the detector gives a signal. When a deminer is absent, the mine detector is used in a "one man one lane" operation. HALO Trust operates a "one man one lane" drill with a lane width of 1.0 meter. In the "one man one lane drill" the deminer handles both the metal detector and digs the ground by himself. When a deminer is absent, the mine detector is not used. The advantage of a "one man one lane" technique is that a double number of lanes can be operated with the same number of people. The disadvantage is that a double amount of detectors, prodders and protective clothing is needed – which requires more capital investment – and that a smaller lane width is used. Given the equipment available in both CMAC and HALO Trust, the evaluation team is of the opinion that the demining activities carried out by CMAC and HALO Trust were both cost efficient in a different way.

3.3 Did humanitarian demining achieve the envisaged objectives in time and within budget?

A review of the program reports by the operators shows that generally speaking they were successful in achieving the envisaged objectives in time and within budget.

CMAC/UNDP: 1996-1999

During the period that the Netherlands contributed to the UNDP Trust Fund, mine clearance was in a situation of mainly responding to emergencies. At the same time, CMAC was limited in the areas where it could work, as part of the country with the highest landmine prevalence was still under Khmer Rouge control. Considerations of efficiency did not play an important role at the time. It was only in the late 1990s, when the situation became more stable and demining a more structured activity that donors started to ask questions about efficiency and proper use of funding. The Netherlands decision to withdraw from the UNDP Trust Fund is directly related to this.

HALO Trust: 2000-2006

In 2000 and 2001, the Netherlands Government funded HALO Trust within the program WW165532.[116] A total of 105,700 m^2 at 6 mine-sites in 4 villages was cleared. The mine clearance conducted by 3 demining sections enabled 32 families to resettle, provided 39 families with more agricultural land and allowed for safe transportation

[116] F*inal Report*, (WW165532), Mineclearance Programme, The HALO Trust, 1 Dec 2000-31 dec 2001, Pnom Penh, 2002.

between 2 villages. Furthermore, 302 villagers were trained to work as deminers. In 2002, within the program WW192404,[117] 15 Dutch-supported demining sections cleared a total of 506,091 m^2, providing safe land to 158 resettling families and 106 families already living at contaminated land. 47 families received a plot of cleared land for agriculture and land was cleared for 2 health centres, 6 schools, 1 pagoda and 1 community centre. Starting from 2003, HALO Trust refocused its strategy on the K5. HALO reports that it doubled the number of mines cleared from 4609 in 2002 to 8679 in 2003. In 2003, 819,069 m^2 of land was cleared, providing agricultural plots for 154 families and safe land for the resettlement of 127 families. In addition, land was cleared for 17 road construction projects, benefiting over 13,000 families and 2 school buildings and 1 health post. MRE was provided to 25,928 villagers. After 2003, HALO Trust no longer lists the number of beneficiaries in its final reports. In 2004, 2005 and 2006, 1,222,9777 m^2, 1,207,745 m^2 and 942.400 m^2 were cleared respectively, with MRE being provided to 23,915 residents and 26,715 residents in 2004 and 2005. Each year, Netherlands funding supported more sections of deminers (starting with 3 sections in 2000 to 19 sections in 2005). Over the entire period, HALO Trust met the envisaged objectives while each year clearing a higher number of hectares.[118] (see figure 10) While HALO reports a very low cost of $0,66/m2 cleared land, and $0,63/m2 for 2005, these figures are difficult to compare across different situations. A small plot of heavily contaminated land sometimes takes much longer to clear than a large plot of not-so-heavily contaminated land. In turn, a large plot of land with little contamination which contains a lot of scattered debris, will take much longer to clear. The evaluation team is therefore unable to determine whether the programs could have been completed with a smaller budget or within a shorter timeframe.

CMAC DU1/NPA: 2001-2006

As mentioned, support to CMAC DU1 via NPA took place under three contracts: a pilot project (WW165534) for a period of 14 months from 2001-2002, the Integrated Mine Action and Development project Phase 2 (WW192401), and a third phase from 2004 – 2007[119]. The number of m^2 cleared under these different projects varied from 1 million in 2003 to 1.7 million in 2006, with the exception of 2004 when only 560,000 m^2 was cleared as the funded project covered only part of the year.

The objective of the Phase 1 pilot project was to clear 72 ha whereas at the end of the project 112 ha had been cleared (or 155% of the target). The number of actual beneficiary families also significantly exceeded the planned number (374 vs. 176). NPA reports that the imbalance was caused by the fact that this was the first project and targets were planned conservatively. The target at the beginning of Phase 2 was to clear 277.11 ha. At the end of the project an area of 249.39 ha had been cleared – thereby achieving 89% of the target. The number of direct beneficiary families (for resettlement and agriculture) amounted to 246 and indirect beneficiary families (clearing roads and canals) amounted to 303. In the same period 182 mine awareness presentations were given in which 28,631 people participated. In Phase 3 the mine

[117] F*inal Report*, (WW192404), Manual Mineclearance project, The HALO Trust, 1 Jan – 31 Dec 2002, Pnom Penh, 2003.

[118] *Ibid.*; *Cambodia Integrated Mineclearance Project*, 1 Jan-31 Dec 2004, (6607 – DMV0018273), The HALO Trust Cambodia, Pnom Penh, 2005. IOB did not have a copy of the final report for 2006. Information on the Dutch-supported activities in 2006 was gathered during an interview with Tim Porter, country manager HALO Trust Cambodia in Siem Reap, July 2, 2007.

[119] The project for the 2004-2007 phase is referred to as number 6608 by the Netherlands Ministry of Foreign Affairs, and as the old number WW192401 in NPA reports.

clearance target for 2005 was 91 ha and the actual output amounted to 154 ha, or 170% of target. In 2006 a total area of 160 ha was cleared, amounting to 171% of target. According to NPA's 2005 Annual Report to the donor the increase in productivity can be explained by more effective use of the planning toolbox, including better use of technical survey teams, use of mechanical clearance, mine detection dogs, and the deployment of new brush cutter machines from Japan.[120] It appears that NPA in its planning with CMAC has been setting very conservative targets, most likely to be on the safe side when output needed to be reported.

The total amount of land cleared in Cambodia between 1996 and 2006 with support from the Netherlands amounts to 22,447,703 m^2 or 2244 ha. Figure 10 presents the key output figures for the different operators.[121]

Operator	Year	Minefields	m^2	APM	ATM	UXO
CMAC/UNDP TF	1996	45	7,637,704	3,111	18	1,505
	1997	98	13,306,322	10,296	79	5,888
	1998	93	9,167,174	7,627	178	5,358
	1999	143	10,396,968	6,226	83	85,840
	subtotal	*379*	*40,508,168*	*27,260*	*358*	*98,591*
Netherlands share	18%	*68*	*7,291,470*	*4,907*	*64*	*17,746*
HALO Trust	2001	5	105,700	121	0	139
	2002	23	506,091	284	0	1,047
	2003	34	819,069	702	15	442
	2004	47	1,222,977	3.746	25	1,260
	2005	51	1,207,745	4.342	61	384
	2006	60	942,400	5.158	12	1.025
	subtotal	*220*	*4,803,982*	*14,353*	*113*	*4,297*
CMAC (NPA)	2001	13	1,254,915	286	41	420
	2002	15	1,614,432	1,249	39	309
	2003	11	1,051,433	2,229	6	17,367
	2004	16	559,928	809	240	437
	2005	19	1,364,888	2,970	54	422
	2006	27	1,726,004	6,185	102	562
	subtotal	*101*	*7,571,600*	*13,728*	*482*	*19,517*
	Total	**389**	**22,447,703**	**32,988**	**699**	**45,634**

Figure 10 Outputs Netherlands funded humanitarian demining activities 1996-2006, by operator.

[120] NPA Cambodia Integrated Mine action and Development Project, Phase II, Annual Report 2005.

[121] Information based on final reports mine operators and information received from CMAC, HALO, NPA and UNDP. Between 1996 and 2000 the Netherlands funding contributed to CMAC through the UNDP Trust Fund. The Netherlands contribution amounted to 18% of the total funds allocated by donor countries to the Trust Fund over this period.

3.4 Were there more efficient alternatives?

Following its withdrawal from the Trust Fund, the Netherlands considered that the only option to continue supporting mine clearance work and capacity building at the main national operator CMAC, was to channel Netherlands funding through an intermediary organisation. As noted, the efficiency of NPA's role as an intermediary between the Netherlands Government and CMAC was difficult to ascertain. The evaluation team noted that it was difficult to obtain consistent information from NPA on CMAC DU1 activities e.g. in relation to areas cleared. There are a number of other NGOs in Cambodia that could have fulfilled the monitoring role.

Over the ten year-period under evaluation, demining practices in Cambodia have continuously evolved. Currently, demining priorities are determined through a bottom-up process starting at village level and working its way up to the commune and district level and, sometimes, to the provincial level. The annual work plans have been drawn up by the MAPUs in consultation with operators after requests from village, commune and district authorities. As a result, the efficiency of demining operations has improved as land is cleared where the villagers most need it. The Netherlands funded mine agencies operated within this evolving context.

3.5 Conclusion

Given the earlier discussed limitations of the individual operators, actual Netherlands funded demining activities were conducted in a professional and efficient way. HALO Trust focused primarily at casualty reduction in the K5-belt while CMAC was more involved in demining for resettlement and agricultural use. Both CMAC and HALO met the targets they set out in the project proposals. The speed of mine clearance efforts has increased considerably as a result of new techniques used by the operators, more extensive technical surveying being undertaken and the recognition of reclamation of land which is in use. This development is observed across the board. Netherlands funding has thus contributed both to the decrease in casualties and the acceleration of mine clearance. The MAPU/PMAC process is a big step forward in addressing the needs of the local population in a more timely manner than before and should therefore be strengthened. While taking into account the practices of mismanagement at CMAC/UNDP and the weak performance of NPA in its monitoring role of CMAC DU1, the evaluation team concludes that overall Netherlands funded humanitarian demining over the period 1996-2006 in Cambodia has been cost-efficient.

4 Sustainability

4.1 Introduction

A distinction needs to be made between the sustainability of the Netherlands funded HMA activities through capacitybuilding and the sustainability of the outputs and the outcomes of these activities. This chapter considers both and will discuss the sustainability of the training and capacity-building and MRE. It subsequently addresses the factors that affect sustainability before discussing the overall sustainability of Dutch-supported demining activities.

4.2 Capacity-building

During the period 1993-2000, the Netherlands has contributed substantially to the early foundations of a national demining capacity, something that was repeatedly brought up by many leading figures in the Cambodian HMA community, among which the Secretary-General of CMAA, H.E. Sam Sotha. From the establishment of the MCTU – the predecessor of CMAC – in 1993 until 2000, the Netherlands has provided military technical advisors to train deminers within CMAC and, in later years, EOD personnel, financed by the Netherlands Ministry of Defence. Technical equipment was donated as part of this support. Furthermore, the Netherlands funded CMAC through the UNDP Trust fund in the period 1996-1999, which facilitated the building of a national demining capacity.

Despite there being a national capacity in place in Cambodia, the events of 1999/2000, show the dependency of the national capacity on external money to function. An independent KPMG investigation of CMAC showed mismanagement and financial inconsistencies, which prompted the Netherlands government to stop its funding through UNDP in October 1999.[122] Other donors followed with the result that the following year CMAC had to lay off over 2000 of its demining personnel. The direct result: in the year 2000 mine clearance through CMAC virtually came to a halt in Cambodia. Although the withdrawal of funding contributed to a major restructuring of CMAC's management, the evaluation team questions whether complete withdrawal from the Trust Fund was the only means by which to enforce the necessary changes. Afterwards, very little Netherlands funding has contributed to national capacity-building other than at the operational level. In subsequent years CMAC was able to restore the confidence of other international donors and attract new funding. It is currently the largest mine operator in the country with a staff of over 2700 people who are mostly Cambodian with a very limited number of foreign advisors, from field- to headquarter-level. CMAC has its own trainings-centre at Kampong Chhnang to train the deminers and Explosive Ordnance Disposal personnel as well as police reconnaissance agents, and is involved in R&D activities in its centre in Siem Reap.

In the period 2001-2006, after the Netherlands shifted its funding away from the UNDP Trust Fund, the Netherlands' support was primarily used to fund activities at the operational level, i.e mine clearance through CMAC DU1 and HALO Trust. Both

[122] *Cambodian Mine Action Centre, Management Audit Report for the Financial Years 1997 and 1998*, KPMG, 27 September 1999.

HALO-Trust and NPA also largely employ national staff, except for some key managerial positions. Indirectly, the Netherlands has supported the training of deminers, as HALO Trust trains locally recruited deminers for a period of six weeks, after which these deminers clear the land in their communes.

With regards to capacity-building, NPA provided technical support to the clearance capacity of CMAC DU1, writing several reports on how DU1 could improve procedures for safety, efficiency and cost effectiveness on the operational level and fulfilling a monitoring role of CMAC DU1 by writing weekly reports. Whether this has actually contributed to CMAC's performance is unclear. In 2003, the weekly reports from NPA list several shortcomings in the equipment of CMAC DU1 staff, but there is no indication that these shortcomings are addressed. In early 2006, NPA sponsored an evaluation of the data-management and technical survey operations within CMAC. The evaluation offered several recommendations, a.o., to eliminate parallel data reporting systems within CMAC and to further expand the CBMRR network.[123]

Although international mine operators still influence the policy priorities of the government the HMA-process is government-owned through the regulatory body CMAA, which has licensing and accreditation powers,[124] and is predominantly run by Cambodian nationals. The process of land-prioritisation for clearance has developed into a combination of a bottom-up/top-down approach, with extensive consultations with the stakeholders – the villagers – on the ground. The various mine operators share their data on suspected, confirmed and cleared minefields on a regular basis, while CMAA is setting up the capacity to create a national database. No Netherlands funding has supported the development of the institutional capacity of CMAA. Except for some of the evaluations undertaken at the initiative of NPA, Netherlands funding after 1999, has thus predominantly been used for direct mine clearance.

4.3 Mine Risk Education

The evaluation team observes that MRE-programmes have been quite successful and their benefits continue. CMAC, HALO and NPA through CMAC DU1 were involved in MRE as part of Netherlands funded programmes. During the field visits, nearly every single person the evaluation team spoke with, had received some form of MRE and was aware of the dangers posed by mines. This is partly the result of several CMAC-initiated, nation-wide campaigns that featured billboards in the villages and advertisements on television and in the papers explaining the risks of mines in the period 1996-2000. In the period 2001-2006, CMAC DU1 and HALO Trust have conducted Netherlands funded MRE. MRE teams of the operators travelled the country organising MRE meetings in villages and distributing materiel for teachers to work with. School-children still receive MRE twice a year. Netherlands funded MRE has thus been succesful to the extent that it has reached a large audience and that it is currently part of the school curriculum. At the national level, about 4.2 million people attended MRE sessions over the period 1999 to 2005.[125] Poverty and livelihood needs force people to take otherwise unacceptable risks.[126] However, according to the Cambodian Mine Victim Information Service (CMVIS), over 80 percent of mine/UXO casualties

[123] Morete, Hemi, *Evaluation Report of Technical Survey Operations within the Cambodian Mine Action Centre*, February 2006.
[124] Royal decree, NS/RKT/0605/296, 29 June 2005.
[125] *Summary of 2005 Annual Mine Risk Education Report*, CMAA, Phnom Penh, 2006. p. 2. There are no figures available for the entire period 1996-2006.
[126] *Reported mine/UXO casualties for the period of: January 2002 to December 2005,* CMVIS, 2005.

have received MRE prior to the incident. The evaluation team is not in the position to draw any conclusions on the relationship between MRE and a reduction in the number of casualties.[127] Cambodia's national mine action strategy (updated in March 2005) aimed to strengthen MRE in order to substantially reduce the number of casualties by the end of 2006.[128] In 2006, CMVIS joined the NGO-group of MRE providers in order to assist in reducing casualties.[129] Cambodia's MRE strategy was revised in the first quarter of 2006.[130] The new MRE strategy for 2006-2012 aims to reduce casualties by empowering affected communities to identify appropriate and effective risk education/reduction approaches, and by integrating these efforts with broader humanitarian and development activities. Cambodian mine action standards for MRE will be developed in 2007.[131]

Without underestimating the relevance of MRE, it must be clear that the most important contributing factor to mine awareness are actual accidents. But despite MRE, there is still a substantial number of people that continues to live in minefields. The reason is often that the socio-economic situation they find themselves in, forces them to do so. Some are also taking a calculated risk to occupy land in the hope that it will eventually become theirs after mine clearance.[132]

4.4 What factors contributed to sustainability?

The major factor influencing the sustainability of the demining activities themselves is the continuation of donor support and integration of HMA with development activities. Over half of the Cambodian government's annual budget is still funded by international donors and if donor-countries lose their interest in the mine problem, the rate of mine clearance in Cambodia will slow down considerably.

The integration of demining with development is a key factor in the sustainability of the results of the demining activities. In the first few years of the period under evaluation, mine clearance primarily took place for humanitarian reasons, i.e. to reduce casualties and to provide resettling refugees with cleared land. The socio-economic prospects of the cleared land was of minor importance. This has changed in recent years. Cooperation between mine clearance operators and NGOs has improved as a result of regular coordination / planning meetings within CMAA, in which both CMAC and HALO Trust participate. Although the focus of HALO Trust is very much on the clearance of landmines, follow-up development assistance had been provided in the villages on land cleared by HALO. Netherlands funding has thus contributed to an evolving process. With some exceptions in the first few years, Netherlands funding has produced results which are sustainable. Overall, the land cleared with Netherlands funding is put to agricultural use and the occupants of the land continue to reap the benefits of the mine clearance. It should be noted, however, that this is not the result of a conscious decision on the part of the Netherlands MFA, but rather the result of the evolving practices in the Cambodian HMA community. As mentioned in Chapter 1, Netherlands HMA funding was not consciously integrated with other (development) assistance outside of HMA. While sustainability is part of the general Netherlands

[127] See also Horwood, C.; Crossland, A., *2000 CBD: UNICEF External Evaluation of Supported Mine Action Projects*, UNICEF, New York, 2000.
[128] *2006 Portfolio of Mine Action Projects,* UN, 2006, p. 91.
[129] *Summary of 2005 Annual Mine Risk Education Report,* CMAA, Phnom Penh, 2006, p. 3.
[130] *Mine Risk Education Strategic Plan, First Edition 2006,* CMAA, Phnom Penh, April 2006, p. 1.
[131] Ibid, p. 6.
[132] See also *External Evaluation of the Pilot Project of Community Based Mine Risk Reduction*, EVL/03.06.02/ CBD 2002/019, CBMRR, 2002.

HMA policy, it was only in the period 1996-1999 that Netherlands funding has directly contributed to the creation of national capacity other than at the operational level, as it predominantly did in the period 2000-2006. Netherlands funding has not contributed to the creation of the MAPU/PMAC structure nor to the national authority CMAA, both of which the evaluation team deems essential to sustainable practice and outcomes of HMA in Cambodia.

4.5 Conclusion

There is need for further support to CMAA, in addition to continuing support for mine clearance, in order to safeguard sustainable outcomes.

On the positive side, a national mine action administrative body – the CMAA – is in place, the MAPU/PMAC process functions quite well, and the largest mine operator on the ground is a national agency that runs its own training-courses.

MRE has led to Mine Risk Awareness among the Cambodian people and school children still receive MRE twice a year. Generally speaking, land that has been cleared is now put to agricultural use and villagers repeatedly reported that they feel safe and worry less after mine clearance had taken place. The evaluation team concludes that there are continuing benefits of the Netherlands funded HMA activities as people live in peace on cleared land and are able to support their families.

Nevertheless, some reservations are in order. The mine problem in Cambodia still remains severe and adjacent to cleared areas, many people still live in 'mine suspect' land. Casualty-rates due to mine related accidents, although decreasing, remain high, especially in the K5-belt. Although Cambodia has experienced sustained economic growth over the last decade,[133] it still holds position number 8 on the UN List of the 50 least developed countries.[134] If donors will withdraw funding, the mine problem will continue to affect Cambodia for decades to come.

With regards to CMAA, although an institutional framework is in place, its capacity to coordinate the national demining effort is still limited. CMAA lacks the necessary resources – human as well as technological – to fulfill this role without external assistance. The secretary-general of CMAA, H.E. Sam Sotha, contended that in addition to the drying up of funding, the availability of human capital was one of his main worries. During an on-site inspection of the CMAA office, the computers were not working due to electricity problems. All operators in the field, however, indicated a willingness to cooperate with CMAA and emphasised the benefits of CMAA being capable of running a nationwide database on contaminated and cleared land. This would contribute to a more efficient data-exchange between the operators and eventually perhaps remove the need for the operators to dispatch surveying teams of their own. While strengthening the institutional capacity of CMAA is thus of the utmost importance, the results of the demining activities that were in fact supported by the Netherlands continue to have sustainable benefits. However, to achieve the maximum possible from Netherlands donor funding, the provision of funding should be extended by another four to five years, to deal with the outstanding humanitarian casualty problems in the border area with Thailand.

[133] Naron, Hang Chuon., *Cambodia's macroeconomic developments in 2006*, at http://www.mef.gov.kh.
[134] See http://www.un.org/special-rep/ohrlls/ldc/list.htm.

IV Conclusions

While Cambodia's mine problem is far from solved, much has been achieved over the period 1996-2006. A substantial amount of plots have been cleared, mine-related casualty rates are starting to come down and the majority of the Cambodian people are well aware of the dangers posed by mines. In addition, a national institutional coordination body is in place and the bottom-up MAPU/PMAC process has considerably improved the transparency of the process of planning and land prioritisation.

Even though the evaluation team did not find any coordinated effort to ensure integration between Netherlands funded HMA activities and other Netherlands funded programmes the relevance for the needs of the beneficiaries planning and selection process for priority areas has improved over the years. This is due to the bottom-up MAPU process, especially since 2002. As local level inputs to the priority setting process have increased, Netherlands funded HMA-activities over the period 1996-2006 were able to address the priorities, needs and wishes of the affected communities.

Overall, the effectiveness of Netherlands funded HMA in terms of land use after mine clearance has been quite high. Land cleared with Netherlands funding continues to be used in a productive and intensive manner for housing, gardens, agricultural crop production and for infrastructure. In the majority of post-clearance settlements, indicators of socio-economic development could be observed. However, there has been no on-site monitoring by the Dutch government since 2003 to check on the consequences of its HMA donorship. This was primarily done by desk-reviews of reports submitted to the Ministry by the demining organisations. The team asserts that mine clearance in Cambodia is generally conducted in a responsible manner following standard operating procedures. HALO Trust's monitoring and focus on productivity is particularly tight. In contrast, the evaluation team was not able to confirm the value added of NPA as an intermediary for the funding provided to CMAC DU1.

Whereas there is an ongoing debate in Cambodia about whether or not to integrate demining more with broader development goals, short-term gains of mine clearance should not be underestimated. In particular, HALO Trust's narrow focus on mine clearance in the highest contaminated areas made a highly efficient and tangible contribution to the decrease in casualty rates in Cambodia. However, more structural issues must be considered in the long-term: for example, economic problems and legal uncertainties affect people's livelihoods in today's Cambodia and need to be addressed. This concerns conflicts over land boundaries and ownership, due to the absence of a legal framework at the national level. Also, many people still try to make a living in 'mine suspect' land adjacent to cleared areas in the need for agricultural land – taking unacceptable risks by doing so. For future humanitarian demining efforts better coordination between demining organisations and developmental agencies (national and international) is needed if socio-economic development in the long run is to be guaranteed.

In this context, the Netherlands had to decide whether and how much to contribute to the building of national institutional capacity, and how much to direct support to the demining effort. The Netherlands initially opted for the creation of national capacity by funding the national operator CMAC through the UNDP Trust Fund, but shifted course

after 1999. The decision to halt Netherlands funding contributed to necessary changes in CMAC's management practices, but also impacted dramatically on the rate of mine clearance in the year 2000. The evaluation team questions whether complete withdrawal from the UNDP Trust Fund was the only means by which to bring about change. Afterwards very little Netherlands funding has contributed to national capacity-building other than at the operational level. As a consequence, the Netherlands has not contributed to the creation of the MAPU/PMAC structure nor to the CMAA, both of which the evaluation team deems critical to a sustainable HMA effort in Cambodia.

V Recommendations

Although Cambodia's mine contamination remains severe, the sustained efforts of the Cambodian Government and the international community continue to show results and there is a general feeling that a mine-impact free status can be achieved. This provides an opportunity for donors to contribute to solving a major humanitarian problem which may also serve as an example for other countries. For the Netherlands to make its donor efforts towards the Cambodian HMA sector sustainable, the following policy options should be considered:

- Prioritise casualty reduction in the K5-belt. Although the drop in casualties is very good news, a number of 450 casualties (189 of which are mine-related) accidents in 2006 supports the view that humanitarian demining in the K5-belt should still remain a priority.

- Establish support to the CMAA. The still relatively weak CMAA needs more support in order to strengthen its capacity to coordinate the HMA effort and manage a national database.

- The establishment of central and provincial registries for land ownership could contribute to solving conflicts over land. Such assistance would fit in an integrated approach and the OECD's good governance agenda, in which HMA and development-activities complement each other.

- Refrain from using desk reviews as a means of monitoring. Desk review of evaluations cannot substitute for insight gained by on-site inspections.
  The evaluation team recommends that Dutch officials involved in HMA-policy making should have a clear understanding of the situation on the ground. This can be done by on-site inspections by Embassy personnel or by a joint effort by like-minded donors (and technical experts) to monitor progress in-country.

VI Methodology

Evaluation Approach and Methodology

The evaluation of Dutch financial assistance in the area of humanitarian demining involved three stages: (1) a preparation stage to collect relevant documents and make practical arrangements for the field visits; (2) field visits and (3) report writing. The schedule followed is given in figure 12.

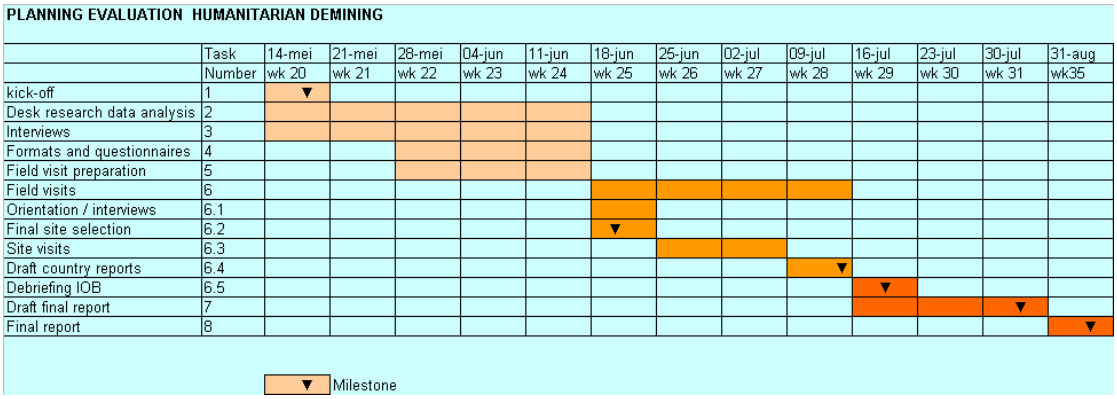

Figure 11 Time Schedule.

The preparatory stage involved two separate processes: desk-based research by the IOB consultant into Dutch demining policy and the collection of relevant written source material, including evaluation reports, landmine impact surveys and country-specific information. The second stage involved field-research in three countries: Angola, Bosnia-Herzegovina and Cambodia. In the third stage three country reports and a synthesis report were drafted and submitted to the IOB.

In Angola, remote sensing techniques were used to enhance the field-analysis.

The Evaluation Team

The evaluation team consisted of three field teams and a project leader. Each field team composed of a team leader and two team members. Each team as well as the overall team was multi-disciplinary in that it combined technical, military, developmental, political as well as country-specific expertise. In addition, the field teams hired local expertise in country. Detailed requirements as to the team's expertise and composition were given in the ToR. The profiles of the evaluation team are attached in Annex 1B.

The TNO field teams were supported and backstopped by a "home team". The home team participated in desk research, data analysis, organizing field trips, acted as sounding board for the field teams, ensured consistency between the approaches taken in Angola, Bosnia, and Cambodia, and participated in drafting the reports (see figure 13).

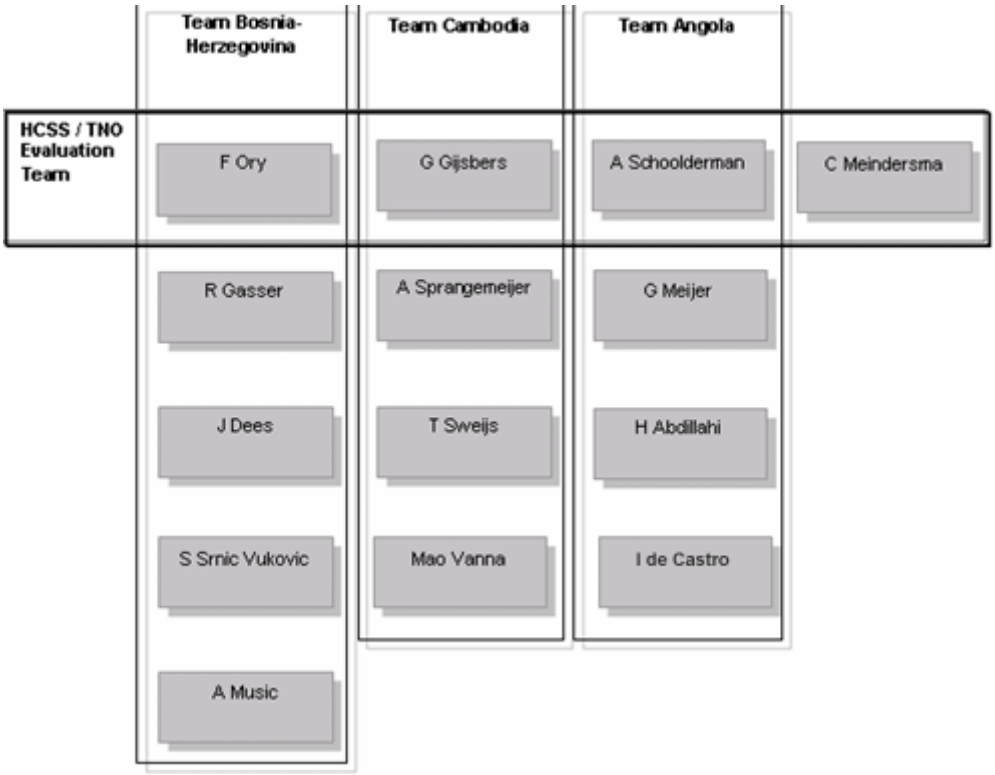

Figure 12 Team composition.

Stage 1

The preparatory stage involved two separate processes: desk-based research by the IOB consultant into Dutch demining policy and the collection of relevant written source material, including evaluation reports, landmine impact surveys and country-specific information.

The questions for the IOB-led analysis of Dutch demining policy were set out in the ToR and concerned primarily the underlying principles of Dutch demining policy, criteria for selection of countries and programmes eligible for financial assistance and coordination with other policies and donors. The IOB research was intended to clarify how Dutch policy on humanitarian demining was formulated and the manner in which mine-affected countries eligible for financial assistance were selected. Its findings would form the basis for the field evaluation and form a chapter of the overall evaluation report. Unfortunately, though the evaluation teams received some policy documentation from the IOB, the research was not completed before the teams proceeded to the field or before the write-up of the final reports.[135] This hampered the evaluation by the field teams. In fact, in stage 3, the teams collected and analysed many of the available policy-documents themselves to complete their reports.

Simultaneously, the evaluation teams collected and analysed relevant documentary information resulting in site-selection for field-visits and an agreed outline for the final reports. In addition, this stage involved substantial logistical preparation to get the teams on the ground, establish contact with demining organisations to facilitate the team's visit and hire qualified local expertise as required by the ToR.

[135] See email exchange MFA - HCSS, 30-07-2007. Document will be provided separately from this report.

Stage 2

The field visits to Angola, Bosnia-Herzegovina and Cambodia took place between 15 June and 15 July. The amount of time spent in each country varied according to the circumstances. These countries had been selected by IOB based on 10 criteria listed in the ToR. The ToR stated that field analysis should focus primarily on the use of demined land. Through discussions with IOB, it was clarified that the evaluation should be non-technical, that the use of land should be interpreted broadly and that the teams should in fact examine as much as feasible the impact of Dutch-financial assistance in humanitarian demining on the ground. Given the short timeframe, this was done through a selection of, at a minimum, 4 sites per country. The criteria used for site selection are listed in annex 4. A Matrix was developed to represent a systematic approach to examining the findings according to the five evaluation criteria (efficiency, effectiveness, relevance, impact, sustainability), along with Questionnaires for Focus group Discussions. (see Annex 3 and 5)

The field analysis involved visits to selected demining sites, interviews with relevant national, regional and local authorities, demining organisations supported by the Netherlands, national coordinating bodies, other relevant organisations and diplomatic representations, documentary research at Royal Netherlands' Embassies and focusgroup discussions with key stakeholders and communities. This resulted in Summary Field Notes and Notes of Focus group Discussions. A list of people interviewed and sites visited is included in Annex 2 and 4.

Focusgroup discussions were conducted using the DANIDA method, which was especially recommended in the ToR for the evaluation (DANIDA, 2003). Focus group discussions were conducted by a local facilitator, involving not more than 7-10 persons at the time representing a cross-section of members of a particular community. Participants in focus group discussions were selected based on the following criteria: participants live or work in a community affected by landmines; are resettled because of mines; have had family members injured or killed by landmines; or live in a community where mine action was undertaken.

An additional characteristic of the DANIDA evaluation is that it viewed mine action from the broader perspective of international development co-operation and humanitarian assistance. Consequently, following the DANIDA approach, the present evaluation included an emphasis on the institutional factors that have contributed to the success or failure of humanitarian demining programs.

Interviews with key interlocutors were conducted broadly following the CIIP approach. Thus the evaluation reviewed not only immediate outputs generated but attempted to assess the longer-term results (impact), the processes through which these results were produced and the post-conflict context in which the humanitarian demining activities took place.

In Angola, in addition to methodology explained above, remote sensing imagery was used to obtain additional information on the actual use of demined land. The use of satellite data served to corroborate through scientific data gathered in the field and to extend the local observations to larger areas that were not visited.

In Angola and Bosnia-Herzegovina, the Embassy was briefed on the preliminary findings of the team before departure. In Cambodia, the Netherlands does not have an Embassy. In both cases, the opportunity to have a frank discussion about the impact and effectiveness of Dutch financial assistance for humanitarian demining was highly appreciated.

Stage 3

Drafting of the country reports took place following the return of the field teams. Field findings were analysed and correlated with the outcome of documentary research. Where necessary, additional documentary research was undertaken. This was particularly necessary because the A number of internal consultations were undertaken. An external TNO-staff read the draft reports as an independent quality assurance.

The findings in the country reports are presented following the outline agreed with IOB in advance. The findings, conclusions and recommendations provided in the report are objective, verifiable and based on the field observations of the evaluation teams. Given the policy focus of the evaluation, the absence of quantitative baseline data and the requirement to use the DANIDA methodology, the findings presented in the country reports are largely qualitative. Where the findings are subjective, this is clearly stated in the report and supported by arguments.

Limitations of the Methods Used

The main limitations on the evaluation were time constraints and the non-availability of the preliminary policy research.

1 **Timelines**

The timelines set for this evaluation were extremely tight. Moreover, the evaluation had to be conducted over the summer period. This posed a number of serious challenges. The timeframe allowed very little time to select and hire qualified consultants and make the requisite logistical arrangements for the teams to travel to Angola, Bosnia-Herzegovina and Cambodia (visa, vaccinations, travel arrangements). Contacting the relevant organisations in the three countries, making a site selection and practical arrangements to visit these sites posed a real challenge in this short timeframe, particularly given the fact that these are countries that have recently emerged from violent conflict. Making the necessary practical and logistical arrangements in time for the field visits to proceed according to the schedule set by IOB left little time for documentary research and analysis preceding the field visits. Time constraints also meant that not all sites where Dutch-supported humanitarian mine action had taken place could be visited in the countries selected. Therefore, the evaluation results are not based on a comprehensive analysis of the impact of Dutch-funded activities in the 1996-2006 period but on a sampling.

Given the short timeframe, and the requirement that each team be composed of a team leader and two team members, in practice nine persons were engaged to conduct the evaluations in three countries at the same time. It would possibly been more effective to have one core team, consisting of 2 persons of complementary skills and expertise, complemented with country-specific and local expertise, evaluate the countries consecutively. This would have enhanced consistency of approach and analysis and facilitated report writing and synthesis.

2 IOB research

The methodology of the field visits was based on the assumption that the research into the priorities of Dutch humanitarian demining policy and eligibility of organisations and programmes would be available to the teams before proceeding to the field. In fact, a rudimentary draft was provided to the team. However, this draft proved to be incomplete, lacking analysis and containing mistakes. The policy documents were provided to the team but these proved not to be complete. Therefore, the field teams did not have a clear picture of priorities in Dutch demining policy before proceeding to evaluate the effectiveness of the use of Dutch financial assistance in the field. In the field, and also in the report-writing stage, the evaluation team spent much time and effort trying to complete and verify the accuracy of the findings of the preliminary IOB policy research. Finally, the evaluation team itself wrote this part of the evaluation report, which is included in the introduction and the chapter on relevance. This required extra time and effort and was contrary to the stated phasing and division of work agreed in the ToR.

3 Use of satellite imagery (Angola only)

Remote sensing imagery is commonly used for applications in cartography, forestry and agriculture. Images are obtained by radar or camera systems at several wavelengths, from both satellites and airborne platforms such as helicopters and fixed-wing planes. In the past ten years, the application of remote sensing imagery has increasingly been researched in the context of humanitarian demining. These projects focused mainly on the possibility to detect mine fields and individual mines (directly or by the presence of minefield indicators) from remote sensing images by the application of hyperspectral techniques, both in the visual and infra-red spectrum. For the purpose of this evaluation, TNO had proposed to use remote sensing images as a method to obtain additional information on the post-clearance use of demined land, complementary to documentary research, interviews with stakeholders, focus group discussions and field visits. For this evaluation, no new techniques were developed; the remote sensing images were available from existing archives.

The team adopted a two-folded approach. First, individual images of the existing archives would be interpreted and compared with the facts on the ground. Second, changes that occurred over time would be detected by the evaluators, and would then trigger more accurate inspections of the area in question, by either using satellite images with a higher resolution or by field visits.

The major impediment for the team to analyse this kind of data in Angola stemmed from the erratic national data. In the provinces of Bié, Huambo and Moxico, the evaluation team intended to compare the actual situation at the location of the demining tasks with the information from the remote sensing images. During preparatory discussions with demining organisations however, it became clear that the site selection had been based on in correct data from CNIDAH, the national organisation that maintains the IMSMA demining database; these did not match the site information of the demining organisations. Especially the mismatch between the task IDs and the coordinates affected the use of the image maps, since the actual locations of these tasks were not covered by the image maps. Further enquiries led to the conclusion that this mismatch was not due to a systematic error. Rather, it might have occurred through the mixing up of task IDs and GPS coordinates in the CNIDAH data base.

Minor issues concerned the limited amount of data that was available for the remote regions under evaluation. One limiting factor was cloud cover, which is a common problem in tropical regions. Angola is only sparsely covered by high resolution satellite 'cloud free' (less than 20% cloud cover) data. A number of 'cloud free' images were available from the Ikonos, Quickbird and EROS satellites, in addition to multispectral data (including information on vegetation) for Ikonos and Quickbird. A second issue concerns the period from 1996 onwards: even though the number of available images has been increasing since 2002, there are only low resolution images of African countries available for the period before 2002 (due to the lack of ground stations). The exact developments between 1996 and 2002 could therefore not be confirmed by remote sensing for this report.

Despite the incorrect data, one image map did in fact contain (apart from the task with the incorrect ID as provided by CNIDAH) the location of the task the evaluation team had selected: task BE277 in the province of Bié. This task was performed by HALO Trust and funded by the Netherlands. Also, the image maps of 2 June 2002 and 27 April 2005 contained the locations of a demining task in the province of Huambo (HU194 - task ID according to CNIDAH), also performed by HALO Trust. The findings from the visits to both of these sites are included in chapter 4.

In all, the use of remote sensing images still contributed to the findings of this report, despite the erratic data archives. Although the evaluation team was not able to perform this investigation in the way it was intended, it was possible to demonstrate changes over time, and satellite data also served as a confirmation to findings from the field visits in two of the inspected sites. As presented in this report, the use of remote sensing imagery can lead to additional insights, given that a sufficient amount of correct data is available. Coupled with the appropriate interpretation, satellite images do provide valuable information on land use and socio-economic developments in a specific area.

VII Photographs

1 Cleared minefield M2500 CMAC in in Prasat Balang district in Battambang province.

2 M2500. School on cleared land in Battambang province.

3 M2500. Interview with village chief and victim in Battambang province.

4 CMAC operation in Sam Lout district in Battambang province.

5 Focusgroup Sam Lout district in Battambang province.

6 House in minefield - Battambang province.

7 Land use after demining - Chheu Teal village - Banteay Meanchey Province.

8 Village Chief of 93 village, Malai district, Banteay Meanchey Province.

9 Briefing by CMAC staff on M4130, O'Chrov District in Banteay Meanchey Province.

10 Cleared minefield Rum Check. HALO Trust in Oddar Meanchey Province.

11 House on cleared land - Rum Check in Oddar Meanchey Province.

12 Focusgroup interview Rum Check in Oddar Meanchey Province.

13 Former soldier in K5-belt hands over mine in Oddar Meanchey Province.

14 Two young Beneficiaries in Oddar Meanchey Province.

15 Briefing by HALO Trust in Oddar Meanchey Province.

16 Focus group interview Prasat Balang District Kampong Thom Province.

17 Beneficiaries in Kampot Province.

18 Daily life in Cambodia.

19 Cambodian Landscape.

20 Cleared road near Kandaol (93) village in Banteay Meanchey province.

21 CMAC staff.

22 Villagers in Sam Lout in Battambang province.

23 Land use after demining in Banteay Meanchey Province.

24 Children in in Oddar Meanchey Province.

25 Housing on cleared land Kampot Province.

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VIII Annexes (delivered separately)

Annex 1A	Terms of Reference
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