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CAMBODIAN MINE ACTION CENTRE

Annual Report 2009



Saving Lives and Supporting Development for Cambodia

CMAC Dedications

CMAC would like to dedicate this report to our brave deminers, past and present, who continuously go above and beyond the call of duty to once more make Cambodia a safe and prosperous nation.

We pay tribute to the deminers who have courageously given their lives or lost their health for such a noble and important cause. Their courage and sacrifice for the safety of others will be eternally remembered.

We especially honor the victims of landmines in Cambodia and across the world, by promising to continue our demining operations until the threat of landmines has been removed and our people are once again able to live safely and freely.

Foreword

Looking back, 2009 was a year of many challenges. From a global financial crisis and donor fatigue, to border tensions and environmental issues, this has been a year that has tested CMAC's mettle and pushed us to be increasingly more innovative and resourceful.

Driven by these substantial challenges, 2009 was also a highly successful year for CMAC. Firstly, and most importantly, CMAC exceeded expectations in mine action targets, releasing 420, 247, 716 m² of land throughout they year. This is more than double the 2008 total of 227, 368, 336 m², proving yet again that CMAC is the leader in mine action in Cambodia.

In 2009 CMAC was instrumental in the Royal Government of Cambodia's successful request for a 10 year extension of Article 5 of the Anti Personnel Mine Ban Convention. This extension not only acknowledges the considerable amount of work that still needs to be done in Cambodia, but reinforces to the people of Cambodia that the international sector remains committed to this critical undertaking.



2009 also saw CMAC's Training, Research and Development program expand rapidly, moving towards the goal of becoming an international centre of excellence for mine action. Partnerships have been forged and expertise has been showcased at a global level, as CMAC shifts to not only focus on internal mine action but to share its experience with the international mine action sector.

Most importantly, 2009 taught us that Cambodia is still along way from being free of landmine and UXO contamination. We are at a critical juncture in the history of landmine eradication and addressing the remaining mine problem in Cambodia will require more commitment and more action by all stakeholders. CMAC stands ready for the challenges of the coming 10 years and will continue to play a key role in the mine eradication process, by working with communities in Cambodia and by advocating for mine action at both the national and international level.

As always CMAC would like to thank the international community, our partners, PMAC/MAPU, local communities and authorities and the Royal Government of Cambodia for their support, dedication and tireless enthusiasm for this important work. Their passion and innovation keeps us inspired, particularly at this critical time. To our donors, we would especially like to say thank you for your commitment to CMAC and our efforts to build a safe and peaceful Cambodia – without your generous and much needed support CMAC would not be able to carry out its ever important mission of "Saving lives and supporting development for Cambodia".

H.E. Heng Ratana
Advisor to the Prime Minister
Director General, CMAC

About CMAC

The **Cambodian Mine Action Centre (CMAC)** is Cambodia's leading demining organization, working in the key areas of Survey and Land Release, Mine and UXO Clearance, Mine and UXO Risk Education and Training, Research and Development. CMAC currently has 2300 staff across Cambodia, including a national office in Phnom Penh, six provincial demining units and a Training Centre in Kampong Chhnang, working towards the mission of 'Saving lives and Supporting Development in Cambodia'

CMAC was established during the United Nations Transitional Authority in Cambodia (UNTAC) in 1993, in order to assist the safe return of thousands of refugees to their homelands across the country. Recognizing that the large number of landmines and UXO across Cambodia was a significant threat to post conflict reconstruction and continuing development, CMAC became an autonomous national organization in 2000 and developed a series of programs including landmine awareness, landmine field information, landmine and UXO clearance and training in landmine clearance to achieve the safe transition to peace and security for the people of Cambodia.

Name: Cambodian Mine Action Centre (CMAC)

Established: 1992

HQ: Phnom Penh

Training Centre and Central Warehouse: Kampong Chhnang

Demining Units: Banteay Meanchey, Battambang, Pailin/Preah Vihear, Siem Reap (including Kampong Thom & Preah Vihear), Kampong Cham and Siem Reap (including Oddar Meanchey & Preah Vihear)

Central Workshop: Battambang

Number of staff: 2300

Area cleared to date: 275, 052, 922 Sqm

Number of landmines cleared to date: 428, 113

Number of UXO cleared to date: 1, 534, 938



LIST OF ABBREVIATIONS AND ACRONYMS

AECI	Agence Espagnole de Coopération Internationale
ALIS	Advanced Landmine Imaging System
APMBC	Anti Personnel Mine Ban Convention (Ottawa Convention)
AP Mine	Anti Personnel Mine
AT Mine	Anti Tank Mine
AusAID	The Australian Agency for International Development
BAC/BAT	Battle Area Clearance Team
BAV	Battle Area Clearance by village
BC	Brush Cutters and other clearance machines
BLS	Baseline Survey
BTB	Battambang
CBD	Community Based Demining
CBMRR	Community Based Mine Risk Reduction
CBURR	Community Based UXO Risk Reduction
CC	Commune Council
CMAA	Cambodian Mine Action and Victim Assistance Authority
CMAS	Cambodian Mine Action Standard
CMC	Community Mine Clearance Teams
CMVIS	Cambodian Mine Victim Information System
CRC	Cambodian Red Cross
DFP	District Focal Point
DM	Demining Machine
DU	CMAC De-mining Units
EC	European Commission
ECOSORN	Economic and Social Re-launch of Northwest Provinces
EDD	Explosive Detection Dog
EOD	Explosive Ordinance Disposal
EPTF	ECOSORN Project Task Force
ERC	Explosive Remnants of War Clearance Teams
ERW	Explosive Remnants of War (UXO)
GICHD	Geneva International Centre for Humanitarian Demining
GEJ	Good Earth Japan
HI-B	Handicap International – Belgium
HSTAMIDS	Handheld Standoff Mine Detection System
IED	Improvised Explosive Device
IMAS	International Mine Action Standards
ITEP	International Test and Evaluation Program for Humanitarian Demining
JICA	Japan International Corporation Agency

JMAS	Japan Mine Action Service
LIS	National Landmine Impact Survey
LLD	Long Leash Dog
LR	Land Release
MAPU	Mine Action Planning Unit
MDD	Mine Detection Dog/Short Leash Dog
MRE	Mine Risk Education – Mine Risk Reduction & Education team
MUC	Mine and UXO Committee
NGO	Non-Governmental-Organization
NPA	Norwegian People’s Aid
NTS	Non Technical Survey
PAICMA	Programa Presidencial para la Accion Integral contra Minas Antipersonal
PMAC	Provincial Mine Action Committee
QA	Quality Assurance
QC	Quality Control
RCAF	Royal Cambodian Armed Forces
RGC	Royal Government of Cambodia
SLD	Short Leash Mine Detection Dog or see MDD/SLD
SOP	Standards of Operating
TMAC	Thailand Mine Action Centre
TS	Technical Survey
TSC	Technical Survey Team
TST	Technical Survey team
TC	Training Centre
UN	United Nations
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
US WRA	United States Office of Weapons Removal and Abatement
UXO	Unexploded Ordnance

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1. EXECUTIVE SUMMARY

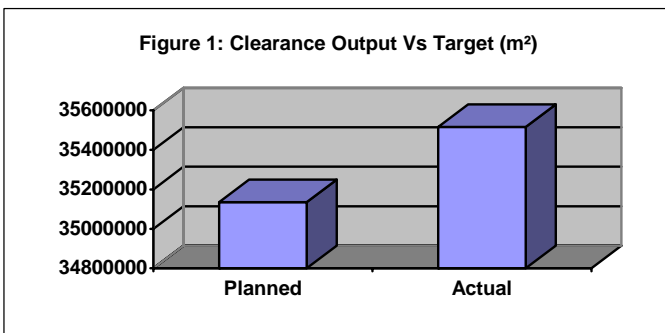
Mine/Explosive Remnants of War (ERW) contamination in Cambodia remains widespread after nearly two decades of mine action intervention. They continue to maim and kill indiscriminately and spread adverse psycho-social and socio-economic impacts to affected communities. They require years of clearance works to come.

The Cambodian Mine Action Centre (CMAC) was established as a national institution to address this issue, with the mission of "Saving Lives and Supporting Development for Cambodia". It carries out this mission through implementing four core activities¹. As a national institution, CMAC's activities spread across the country clearing contaminated land to support community development and address humanitarian and emergency needs for mine and Unexploded Ordinance (UXO) clearance.

CMAC's 2009 Work Plan aimed to clear 35,135,500 m² of area prioritised through the Provincial Mine Action Committee/Mine Action Planning Unit (PMAC/MAPU) process. Of this projected clearance, 27,179,500 m² was to target mine contaminated area and 7,956,000 m² targeted UXO contaminated area. It also envisaged a response to 10,000 Explosive Ordinance Disposal (EOD) calls requested by the communities.



In 2009, CMAC faced several funding and environmental challenges. Due to the conclusion of several key bilateral projects to only partially substitute new projects, CMAC had to implement severe cost-saving measures to maintain its operational capacity. Despite these best efforts, however, some of the operational teams had to be temporarily suspended at some point throughout the year to cope with the shortfall of over USD1 million. This financial difficulty had a visible impact on the United Nations Development Program (UNDP) Clearing for Results resources, as the project tried to absorb the extra capacity which was not covered by bilateral projects and which would otherwise be suspended.



Despite the financial difficulties causing temporary suspensions of some teams, coupled with great environmental challenges during the rainy season and border tensions, CMAC was close to fully achieving its projected clearance target by clearing a total of 33,523,653 m² of landmine and ERW contaminated areas (24,247,976 m² of landmine contaminated area and 9,275,677 m² of battlefield area), compared to 35,135,500 m² planned for the year. This represents around 96% of the total clearance. However, when

¹Mine/UXO Awareness; Mine/UXO Information and Survey; Mine/UXO Clearance; Training in Mine Action

other clearance areas including spot checks and safety checks are added up, global productivity reached 35,516,812 m², a slight over-performance compared to the target. In addition, CMAC managed to respond to 11,559 EOD calls; this significant achievement was made possible through an increase in community participation.

In terms of total land release, full clearance is not the only method. CMAC also employs the methods of Non-Technical Survey (NTS) (including Baseline Survey) and Technical Survey (TS) with the integration of demining tools. In 2009, CMAC started a Baseline Survey (BLS) along with two other accredited operators in Cambodia, and with coordination from the Cambodian Mine Action and Victim Assistance Authority (CMAA), to re-assess the remaining problem of landmine contamination in



Cambodia and to provide more accurate and reliable information for mine clearance planning. It is also a risk assessment approach to ascertain the remaining mine/UXO contamination levels in the country in an effort to support Cambodia's Anti Personnel Mine Ban Convention (APMBC) Article 5 extension request and to support clearance prioritization. Starting from August 2009, CMAC deployed 13 BLS teams in the 13 highest priority districts along the Thai-Cambodian borders allocated to CMAC by CMAA. By the end of the 2009, CMAC completed BLS in 267 villages (out of 595 villages to be surveyed, or close to 50%), produced 1,414 minefield maps and covered over 72 km² of surface area. Complementing the release through full clearance, CMAC conducted technical surveys using integrated tools and identified a further 38,473 ha for release. In addition to these outputs, a range of other achievements, including Mine Risk Education (MRE) and training, were also produced in the reporting year.

The following is a summary of CMAC's overall achievements for 2009:

- 35,516,812 m² of area released through full clearance
- 1,993,159 m² cleared for other purposes
- 384,730,904 m² released through Technical Survey (and with integrated demining tools)
- 18,711 Anti Personnel (AP) mines destroyed
- 547 Anti Tank mines (AT) destroyed

- 133,164 Unexploded Ordinance (UXO) destroyed
- 253 Improvised Explosive Device (IED) destroyed
- 13,963,836 Fragmentation removed
- 20,370 Direct beneficiaries (Families)



Preparing for neutralization and carrying for destruction after neutralization, operational activities in Preah Vihear area

- 83, 549 Indirect beneficiaries (Families)
- 15, 424 Beneficiaries (Students)

To achieve the above outputs, CMAC deployed the following demining tools:

- 28 Demining Platoons
- 3 Community-Based Demining Platoons (CBD)
- 10 Short leash Mine Detection Dog teams (MDD - SLD)
- 4 Long leash Mine Detection Dog teams (MDD-LLD)
- 4 Explosive (UXO) Detection Dog teams (EDD)
- 4 Heavy Demining Machines (DM)
- 23 Mechanical Clearance Machines and Brush Cutter teams (BC)
- 26 Explosive Ordnance Disposal Teams (EOD)
- 10 Community Mine Clearance Teams (CMC)
- 2 Battle Area Clearance Teams (BAC/BAT)
- 7 Explosive Remnants of Wars Clearance Teams (ERC)
- 1 Battle Area Clearance by Village (BAV) Teams
- 15 Technical Survey for Clearance Teams (TSC)
- 6 Mine Risk Reduction and Education teams (MRE)
- 13 Baseline Survey Teams (BLS)
- 36 Community Based Mine Risk Reduction (CBMRR)
- 40 Community Based UXO Risk Reduction (CBURR)

These teams were deployed in six regional Demining Units (DU). DU1 is located and responsible for demining activities in Banteay Meanchey. DU2 is based in Battambang and covers Battambang, Pursat and Pailin Provinces. DU3, previously responsible for mine clearance in Pailin, was moved to Preah Vihear at the end of 2009 to carry out landmine and battle area clearance in response to the growing threats from landmines and ERW. This growing threat is the result of the booming resettlement, tourism and economic activities in the areas. The assigned location of DU4 is Siem Reap, however it is in charge of related demining activities in Kampong Thom and Preah Vihear. DU5 is physically located in Kampong Cham and is mainly responsible for ERW clearance in the eastern provinces. DU6 is based in Siem Reap, and covers Siem Reap, Oddar Meanchey and Preah Vihear provinces. The CMAC headquarters in Phnom Penh is also responsible for the care of the operational teams deployed to other provinces and municipalities surrounding the capital city.



High productivity has been made possible in part by the great effort and commitment of the operational staff and deminers on the ground to make the best use of experiences, skills, toolbox integration, time



management and other critical resources. In addition to human resources, other factors such as the employment of mechanical clearance systems, training, improved Standard of Operations (SOPs), and effective field management also played key roles. The supervision, guidance and leadership provided by CMAC's HQ in Phnom Penh was also critical in terms of the monitoring and evaluation of field performance, the introduction of new concepts of operation, sharing best practices, logistics and human resources support. This back-stopping support ensures that demining activities are conducted safely, efficiently and productively and that demining operations do respond to the changing environments and community and national needs.

Research and training continue to play an important role in bringing the latest innovative technology and methodology to support CMAC's operations. During 2009, critical research and training activities took place, such as trials and evaluations of dual sensor detectors and other detecting technologies as well as other cost saving initiatives. Moreover, multi-skill and refresher training and technical skill enhancement workshops were organized at the CMAC Training Centre (TC). A number of EOD training courses were conducted at the Training Centre, involving a significant contribution from the United States Office of Weapons Removal and Abatement (US WRA). These courses were offered to participants from other organizations such as the Royal Cambodian Armed Forces (RCAF), Police, Body Guard Unit, the Special Counter-Terrorism Unit, other operators and external organizations. Staff were also sent to participate in training overseas such as in Georgia, Vietnam, Laos and Jordan to further improve their technical and mine action management skills.



Training Activities by US Armed Forces at CMAC Training Centre, Kampong Chhnang

In addition to these, CMAC also hosted several exchange and international cooperation programs. A number of visitors and delegations from several countries, including Colombia (Programa Presidencial para la Accion Integral contra Minas Antipersonal- PAICMA), Sri Lanka and Thailand (Thailand Mine Action Centre - TMAC) visited CMAC to observe demining operations, listen to lessons learned in mine action management and field operations, and exchange necessary information related to the mine action sector. An exceptionally important international cooperation milestone in 2009 was the visit by Colombia's PAICMA, with the assistance and arrangement by Japan International Cooperation Agency (JICA), to CMAC to discuss and plan CMAC's training of PAICMA staff starting in 2010. Preparations are now underway to deliver two training courses, supported by JICA, to PAICMA staff in middle and late 2010 and a third one in 2011. Discussions are also underway with partners for the potential expansion of CMAC's training and operation services in the region and international arena.

In 2009, CMAC's projected budget was USD 13,802,187. Until the end of the year the total contribution received was USD 12,763,260; creating a short fall of USD 1,038,927. The shortfall resulted in several difficulties and temporary suspension of the operation teams. From 1993 to 2009, CMAC has received financial contribution to the amount of USD 127,958,059 and USD 43,943,762 of in-kind contribution.

Sustainable funding was made possible due to proactive engagement by CMAC senior executives, through their communication, marketing and fundraising activities. Besides funding issues, the senior executive team, through international cooperation, also engaged in transforming CMAC's image on the international stage and opening up windows of opportunity to showcase CMAC's expertise globally.

2. 2009 REPORT

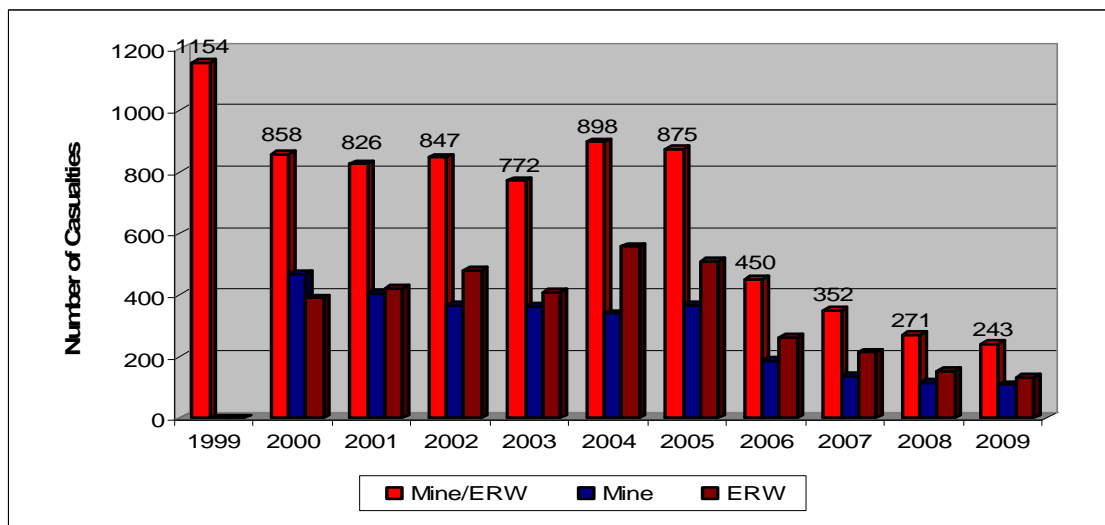
2.1. MINE ACTION ENVIRONMENT

2.1.1. Context

As a legacy of the conflicts, lasting more than three decades up to 1998, Cambodia became one of the most landmine and UXO affected countries in the world. According to an impact survey, 4,544Km² of land² is suspected to be contaminated. If this figure is taken at face value, the mine action problem could last decades. Poverty, landlessness and lack of land for cultivation, poor living conditions, economic pressures and rapid population growth (2.5%) often force people to live and work in minefields and/or undertake at-risk activities. For years CMVIS statistics have shown that of the casualties that occur to civilians, many were pursuing livelihood activities to support their families. Today, this fact remains unchanged.

After nearly two decades of landmine and UXO clearance operations in Cambodia, only a small fraction of the whole suspected area has been cleared. CMAC has cleared over 285 km² of contaminated area and found and destroyed over 1.9 million items of landmines and UXO. However, the number of casualties still continues to be around 250 per year and Cambodia remains one of the world's most affected countries.

Figure 2: Mine/ERW Casualty statistics



It is agreed by all operators and experts that a redefinition of contamination is necessary to better define Cambodia's remaining problem. Efforts by CMAA and key operators were initiated in 2008-2009 to quantify more accurately what remains to be done, which will give

² Level One Survey conducted by CMAC and GeoSpatial International; and funded by the Canadian Government. Source: CMAA Database.

Cambodia and the international community a better picture of the remaining landmine and UXO problem in the country. Accordingly CMAC has now projected that 648.8 square kilometres of land still requires full clearance. However, a substantial area, projected to total to around 1,839 km², would need to be released through means other than full clearance, such as through the BLS, which is expected to be completed in 2012, and through non-technical and technical survey means with integrated toolboxes. Until the Baseline final result is made available, a more precise mine action strategy is still not possible. Hence, the problem associated with contaminated land remains perceivably high.

Landmines and UXO, beyond the threats they present to human life by killing or maiming around 250 people annually, cause serious obstacles to sustainable development and human security. Indeed, they affect a broad variety of development sectors, including agriculture, health, education, water, infrastructure, industrial and commercial areas. Domestic and foreign investment are also affected as the presence or the suspected presence of landmines and UXO prevents the productive use of land and impedes access to economically important areas, condemning regions to remain underdeveloped and in poverty.



Moreover, Cambodia is a State Party to the Anti Personnel Mine Ban Convention. It has an obligation under this treaty to clear all known mined area within ten years of becoming a party. The ten year timeframe has expired, but more work remains to be done; Cambodia requested, and in 2009 was granted, a 10 year extension under Article 5.



2.1.2. Institutional set up

In 2009 CMAC managed its operations out of its headquarters in Phnom Penh, six regional headquarters (Battambang, Banteay Mean Chey, Siem Reap, Oddar Meanchey and Kompong Cham), and a training centre in Kompong Chhnang. Its overall activities are managed by the CMAC senior executives (Director General and Deputy Director General), supported by four departments (Operations and Planning; Training and Research and Development; Support and Human Resource; and Finance), along with a Quality Assurance and a Secretariat section. CMAC employs a total workforce of 2,120, of which 150 personnel are female.

After its establishment in 1992, CMAC grew rapidly from a small group of local deminers and a few international experts in 1993, to a large national organization that employed 3,000 personnel by June 1998.

The CMAC mission statement is “saving lives and supporting development for Cambodia”; its core values are safety, cost effectiveness, honesty and integrity, and appropriate technology and expertise. True to its values, CMAC continues to be innovative in its mine action

intervention in clearing both landmine and UXO fields to rapidly release land for productive use, to reduce casualties, to create a conducive environment for most affected communities and national development programs, and at the same time meet international obligations. It strives continuously to improve all aspects of its operations, human resource and support management, and financial accountability. CMAC's overall operations are overseen by the CMAC Governing Council.



Pen Savoeun is 56 years old. She is right leg disabled and has a severely injured left leg because of stepping on mine in 1998

2.2. ACTIVITIES AND OUTPUTS IN 2009

CMAC is mandated to address mine/UXO problems in four core areas: Mine Awareness (Mine Risk Education), Mine Verification (Survey and information), Mine/UXO Clearance, and Training (in the Mine Action field).

All of these activities were implemented in 2009 and their outputs were measured in terms of the following:

1. Mine/ERW clearance in square meter cleared
2. The number of responses to EOD calls
3. Land release through technical and non-technical survey in square meter released
4. The number of activities related to mine risk reduction and education
5. The number of mine/UXO found and destroyed
6. The number of beneficiaries of the demining activities.

2.2.1. OVERALL ACHIEVEMENTS

In general terms, the outputs of the Work Plan implementation in 2009 are acceptable: the full clearance output is reasonably close to the target and the technical survey output is slightly lower than target. Due to training and team transformation, the number of EOD responses exceeded the planned target, and the number of mines and UXO found and destroyed is remarkably high (the number of UXO found and destroyed is higher than planned). In addition, a number of other milestones in corporate management, survey, training, international cooperation and research and development were also achieved.

Based on the 2009 Work Plan, CMAC aimed to clear 35,135,500 m² of area prioritised through the PMAC/MAPU process. Of this projected clearance, 27,179,500 m² was to target mine contaminated area and 7,956,000 m² targeted UXO contaminated area. It also envisaged that CMAC would respond to 10,000 EOD calls requested by the communities.

As of the end of the reporting year, despite the financial difficulties causing temporary suspensions of some teams, coupled with great environmental challenges during the rainy season and border tensions, CMAC was close to fully achieving its projected clearance target by clearing a total of 33, 523,653 m² of landmine and ERW contaminated areas (24,247,976 m² of landmine contaminated area and 9,275,677 m² of battlefield area), compared to the

35,135,500 m² planned for the year. This represents around 96% of the total clearance. However, when other clearance areas including spot checks and safety checks are added up, the global productivity reached 35,516,812 m², a slight over-performance compared to the target. In addition, CMAC managed to respond to 11,559 EOD calls; this significant achievement was made possible through the increase in community participation.

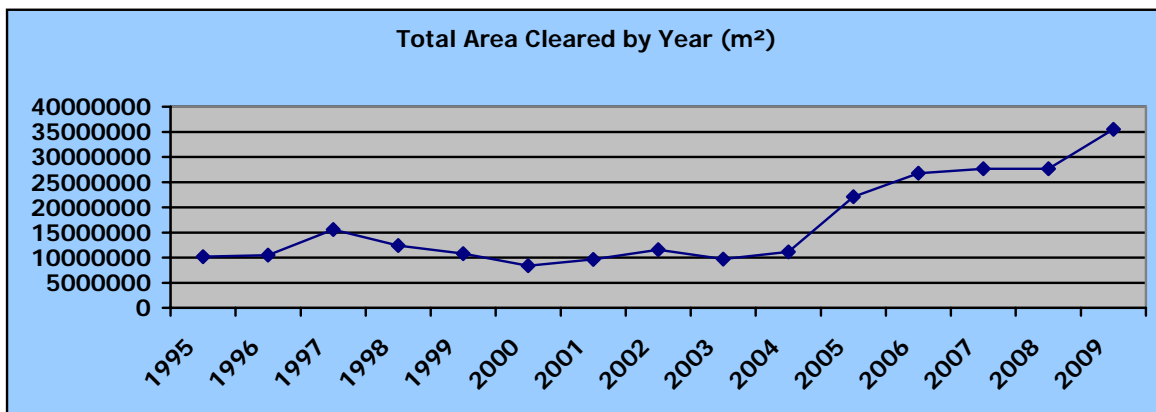


In terms of total land release, full clearance is not the only method that has been utilised. CMAC also employs methods such as NTS (including BLS) and TS, with the integration of demining tools. In 2009, in partnership with two other accredited operators in Cambodia and coordinated by CMAA, CMAC started the BLS to re-assess the remaining problem of landmine contamination in Cambodia and to provide more accurate and reliable information for mine clearance planning. It is also a risk assessment approach to ascertain the remaining mine/UXO contamination level in the country in an effort to support the Cambodia's APMBC's Article 5 extension request and to support clearance prioritization.



Starting from August 2009, CMAC deployed 13 BLS teams in 13 highest priority districts along the Thai-Cambodian borders that were allocated to CMAC by CMAA. By the end of the 2009, CMAC completed BLS survey in 267 villages (out of 595 villages to be surveyed, or close to 50%), produced 1,414 minefield maps and covered over 72 km² of surface area. Complementing the release through full clearance, CMAC conducted TS using integrated tools and identified a further 38,473 ha for release. This total output is just over 50% of the total survey output planned, due to the retraining and transformation of survey teams to be BLS teams. In addition to these outputs, a range of other achievements including MRE and training were also produced in the reporting year.

Figure 3: A comparison of annual clearance productivity documented since 1995



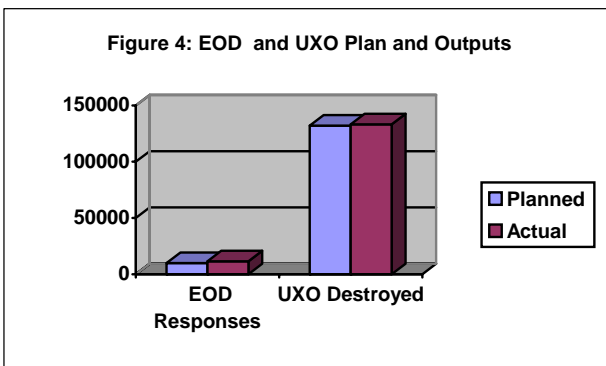
The 2009 slight underachievement was due to the following factors:

- Postponement of operations at DU1 and DU2 for two months due to financial difficulties
- Flooding in Siem Reap, Preah Vihear and Oddar Meanchey Provinces which led to the termination of some operational activities of mechanical clearance at DU4 and DU6
- Four platoons (one at DU1, one at DU2 and another two at DU3) were restructured to create smaller teams
- The conversion of the TSC teams into BLS
- Extensive training in BAC provided to demining staff



Combining all demining tools, CMAC found, removed and destroyed the following hazardous items:

- EOD responses: 11,559 (compared to 10,000 planned)
- AP mines: 18,711
- AT mines: 547
- UXO's: 133,164 (compared to 132,000 UXO planned)
- IED's: 253
- Fragments: 13,963,836



Compared to 2008, in 2009 CMAC made significant achievements in the overall release of land through full clearance and through responses to EOD requests. However, the release of land through survey was lower than in 2008 and also lower than the 2009 target; this was due to the re-training and conversion of the Technical Survey (TST-TSC) teams to BLS teams in mid-2009. Many activities were

undertaken to transform these survey teams to BLS teams.

Annex I provides a summary of CMAC's operational progress.

Table 1: 2008-2009 Productivity comparison

Items	Achievement 08	Achievement 09
Development Sites * ¹	798	653
Minefield clearance productivity (m ²) * ²	22,416,067	24,247,976
UXO field clearance productivity (m ²) * ³	3,162,352	9,275,677

Land released through survey and integrated tolls* ⁴	643,222,500	384,730,904
AP * ⁵	25,543	18,711
AT	497	547
UXO * ⁶	114,101	133,164
Fragments * ⁷	19,874,891	13,963,836
Tasks Responded by EOD & MRE * ⁸	9,478	11,559

Reasons for differences are attributed to the following:

- *¹: There were less development sites in 2009, but there were larger minefields per site.
- *²: There were more demining teams deployed in operation in 2009 than in 2008 because of the massive training undertaken in 2008.
- *³: There were more teams converted from mobile platoons to clear former battle areas in 2009; hence higher output achieved in clearing UXO fields.
- *⁴: There was less technical survey work done in 2009, because the TST were converted to undertake the Baseline survey.
- *⁵: There were less AP mines found because of less manual teams deployed to clear minefields. In 2009 two manual mine clearance teams were converted to BAT teams and BAV team and one Demining Machine moved away from mine/UXO clearance to deploy as an integrated tool for land release.
- *⁶: There were more teams conducting battle area clearance tasks in 2009, hence more UXOs were found and destroyed.
- *⁷: Similar reason as *⁶ as some team moved away from mine clearance to clear UXO field; this resulted in less fragmentation found.
- *⁸: There were more tasks generated by the work of the CBMRR and CBURR.

2.2.2. ACHIEVEMENTS BY ACTIVITY

CMAC is mandated by Royal Decree to carry out the following four core activities and has been successfully and effectively carrying out these activities for the past 18 years.

- Landmine/UXO clearance: the necessity to address humanitarian, emergency, and development needs
- Mine/UXO awareness and risk education: the necessity to provide mine/UXO risk education messages to communities, schools, business and development staff
- Verification (Information and survey): the necessity to support decision making about mine/ERW intervention, and for risk assessment
- Training (including research and development): the necessity to remain abreast of the latest technology and methodology to help speed up demining activities and increase safety and efficiency



2.2.2.1. Landmine and UXO clearance

Landmine/UXO clearance

Landmine/UXO clearance tasks were undertaken to respond to the community request for development support as well as for emergency and humanitarian purposes. More than 80 percent of clearance tasks were conducted in the areas prioritized through the MAPU/PMAC process and the 21 most affected districts³ identified by CMAA in collaboration with operators.

A number of tools were deployed to conduct landmine and UXO clearance, which concentrated on the western and north western parts of Cambodia, where a heavy concentration of landmines is still common. Toolbox integration is also a major factor which has contributed to increased productivity of demining, and has also helped demining in complicated terrain. While human efforts and commitments are essential, technology



and methodology also form fundamental elements in demining. Following years of experience, best practices and continued research and development, CMAC, with assistance and collaboration from partners and donors, has been able to improve many aspects of the technological know-how and demining techniques.

Notwithstanding the existence of improved technology and methodology, funding always plays a crucial and most frequently the decisive role in demining operations. Funding shortfall in 2009, which led to the suspension of some operational capacity on the ground due to project gaps, had some adverse impacts on the total clearance productivity. As a result of this shortfall and other emerging issues, the total landmine clearance output was slightly below the target. However, the output for UXO clearance was higher than expected due to the expansion of UXO clearance capacity. This was achieved by redeploying several demining platoons as BAC teams.



A number of different types of capable and well trained teams were deployed to carry out landmine and UXO clearance. Most of these teams, with extensive training, have multi-skills in both mine and UXO clearance. Some of the teams are also integrated in the

³ 21 Prioritized districts for Baseline Survey: Sala Krau, Malai, Ou Chrov, Thma Puok, Kamrieng, Samlout, Phnum Proek, Rotanak Mondol, Pailin, Veal Veang, Samraong, Svay Chek, Choam Khsant, Sampov Lun, Banteay Ampil, Trapeang Prasat, Bavel, Koas Krala, Banan, Anlong Veang, Moug Ruessei

minefields to increase the productivity. These mine/UXO clearance teams include mobile platoons, brush cutters and demining machines, community-based demining platoons, mine and UXO detection dogs, battle area clearance teams and multi-skilled community mine clearance teams. These teams are responsible for clearance of large and medium minefields which will subsequently be used for resettlement, agriculture and other development purposes.

Table 2: Clearance productivity

Activity	Planned	Achieved
Minefield clearance (m ²)	27,179,500	24,247,976
UXO field clearance (m ²)	7,956,000	9,275,677
Landmines collected and destroyed (AP and AT)		19,258
UXO collected and destroyed		133,164
IED's		253
Small calibers (kg)		16,175

Note: (1) Beside operational reasons (see 2.2.1), funding availability was the key attribute for lower clearance outputs.

Note: (2) CMAC also cleared 1,993,159 m² for other purposes which it is not required to register with site sketch (see 2.2.1).

EOD Interventions

To respond to emergency calls for EOD, CMAC deployed mobile EOD teams through out the country. Responses to calls were in part supported by the CBMRR and CBURR network. This network referral approach has been instrumental in the increase in the number of EOD calls and responses.

In 2009, CMAC delivered over 10,000 EOD interventions throughout the country. This is a significant number of EOD responses compared to the number of teams. Two types of teams are responsible for the EOD quick *response* deployment and operations, including spot checks in locations where UXO are collected: the EOD and MRE teams. In addition to UXO collection and destruction, the MRE teams also deliver mine/UXO risk education to the communities and vulnerable groups.

In total, the number of UXO collected and destroyed in operations accounted for most of the UXO collected and destroyed in CMAC in 2009.



Table 3: Number of EOD and ERI intervention productivity

Activity	Planned	Achieved
Number of EOD calls	10,000	11,559
Landmines collected and destroyed (AP and AT)		9,115
UXO collected and destroyed		104, 865
IED's		30
Small calibers (kg)		15,796

2.2.2.2 Mine Verification (Survey and information)

The current survey activities in Cambodia aim to achieve two primary objectives:

1. Capture the magnitude of the remaining mine/UXO contamination problem in Cambodia after nearly two decades of mine and UXO interventions through the use of the Baseline Survey
2. Release land more quickly and efficiently through the use of non-technical and technical surveys

To target mine clearance resources at the right place, minefield survey is a very important method to reliably identify the contaminated areas for mine clearance planning and capture an overall picture of the contamination problem. CMAC has strong experience and capacity in survey, both technical and non-technical, including the Baseline Survey endorsed by CMAA and currently being implemented by all accredited operators. In 2009, CMAC deployed 13 Baseline Survey teams and 4 technical survey teams (for the first six months before conversion into BLS teams) to conduct baseline and technical survey in high priority areas.

Survey activities are measured in terms of area released (in m²) through NTS and TS with integrated demining tools. Another output is measured in term of villages surveyed through the process of BLS. CMAC has been assigned by CMAA to conduct BLS in 13 target districts (out of 21 districts – see foot note) in Phase 1 of the BLS operations in Cambodia.



Land release through surveys

Land release methods included the use of non-technical surveys and technical surveys with the integration of the demining toolbox. CMAC initially deployed 4 TST from January to June 2009 to conduct technical surveys in the western provinces of Cambodia. These TST were eventually retrained and reformed into BLS teams from July and August to conduct BLS commissioned by CMAA and implemented by all accredited operators. Due to this team transformation, the actual output of the technical survey component did not reach the target planned for the year.



Table 4: Land release through survey productivity

Activity	Planned (m ²)	Achieved (m ²)
Land Release through surveys	70,000,000	384,730,904

Baseline Survey

Baseline survey activities started in August 2009 under the leadership and coordination of the CMAA. This survey is a district based survey activity. The overall number of target districts is 21, which are the most mine affected districts in the country. Of these, 13 districts were allocated to CMAC for BLS activities. Based on the current speed, it is expected that the survey for all 13 districts will be complete before the end of 2010.

The achievement of the BLS operations in 2009 was measured in term of number of villages surveyed in the target 13 districts.



Table 5: Baseline survey productivity

Activity	Planned (village)	Achieved (village)
Baseline Survey measured by village	595	267

2.2.2.3 Mine Awareness (Mine Risk Education)

There were many activities related to mine/UXO risk reduction. Through many years of experience and best practices, direct mine risk education has been minimized but in lieu of

that CMAC has adopted and strengthened a community-based approach to risk education and reduction. The affected community involvement through the CBMRR network and CBURR focal persons has become an increasingly effective approach. It has received national and international recognition as a more participatory, inclusive and effective method of risk education aiming to change risk taking behaviors among the mine/UXO affected population. At the same time, CMAC also continues to use media through various television and radio channels for risk education. Partnership with Government agencies and international organizations, in particular with the United Nations Children's Fund (UNICEF) and other Non-Governmental Organizations (NGOs), and the inclusion of risk education and reduction efforts into other CMAC's operational components have further advanced risk reduction capacity beyond the traditional one-way awareness method. All these activities have yielded the following outputs from two components of the mine risk reduction section (MRE Team and CBMRR/CBURR):



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Table 6: MRE and CBMRR productivity

Activity	Planned	Achieved
1. Number of MRE/CBMRR sessions (sessions)	300	3,334* ¹
2. Number of audience (persons)	28,000	175,478* ¹
3. Number of villages visited (villages)	1,152	799
4. Number high risk households visited (households)	7,200	32,869
5. Landmine victims receiving assistance (persons)	NA	427
6. Poor families receiving development services (families)	NA	62,463
7. Landmine spot checks (checks)	NA	46,603
8. Requests for spot checks (requests)	NA	199
9. Mines/ERW reported and destroyed (items)	NA	17, 589

Note: (1)*¹: More sessions were provided by the CBMRR network, which were not originally planned. This allowed the MRE-CBMRR to reach more audiences. (2) From the result of MRE and CBMRR activities, item 5-9 were made possible.

Table 7: CBURR productivity

Activity	Planned	Achieved
1. Number of CBURR sessions (sessions)	180	11,792
2. Number of audience (persons)	3,600	233,414
3. Number of villages visited (villages)	600	3,425
4. Number households visited (households)	360	30,189
5. Number of requests mine/UXO	360	6,498
6. Number of requests mine/ERW	NA	35,050

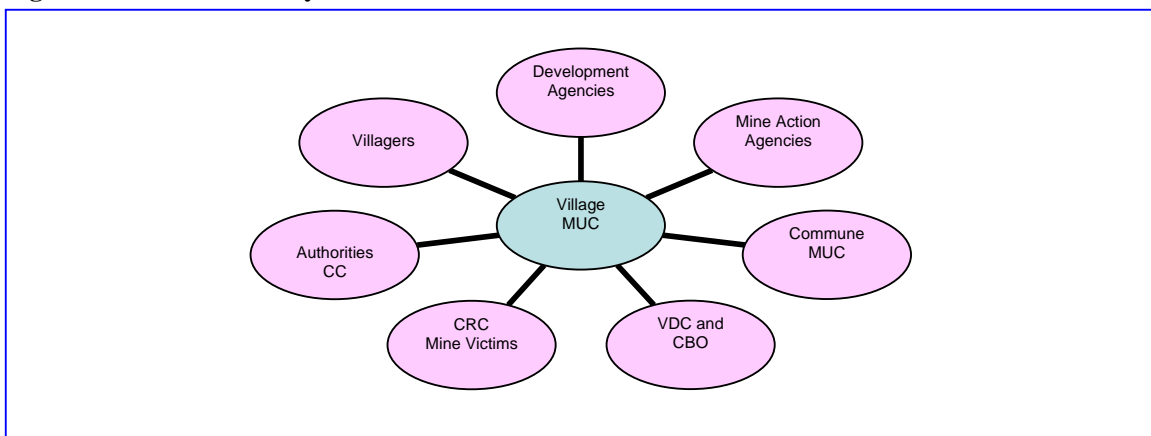
There are many augmented benefits generated from the work of CBMRR and CBURR. They holistically benefit the communities in the following ways:

- They raise mine/UXO awareness in the affected communities
- They facilitate access to mine action activities including victim assistant programs and community development responses
- They assist in mine and community information data collection to support the clearance planning process
- They maintain and improve public information campaigns to raise awareness among the affected communities
- They serve as a source of village information through village book developed by the CBMRR Mine/UXO Committee (MUC)
- They contribute to the integration of all development activities in affected communes through the Local Integration Platform (developed under the Economic and Social Relaunch of North West Provinces (ECOSORN) project)



Figure 5 illustrates the vital links of the CBMRR activities, for example in the mine/UXO affected village. The similar links occur at the commune and district level.

Figure 5: CBMRR activity links



2.2.2.4 Mine Action Training

The Department of Training, Research and Development was established in recent years in order to respond to the needs of CMAC operations. It has played a role as coordinator in developing human resources by providing curriculum for training and organizing training programs, in cooperation with other partners. It engages in intense research and technological development to bring up-to-date demining technology to Cambodia.



Training Centre

In 2009 the CMAC Training Centre (TC) underwent a significant physical facelift with financial support from the Governments of US, Japan and New Zealand. The existing facility was remodeled and provided with new equipment. However, it still falls short of international standards. CMAC aims to transform the training centre into a regional centre of excellence, a process which will require further improvements to all aspects of the training and training facilities.



Supported by the US, Japan and New Zealand, CMAC has received one technical expert from each country to review and improve current CMAC training programs as well as renovate and update the Training Centre's facilities.



Training

To ensure quality, sufficient quantity and high capacity of CMAC staff, the department organized a variety of training courses for trainees in order to provide CMAC staff with multi skill capacity and up to date technology. In 2009, CMAC conducted 59 training courses attended by 1,677 participants including participants from CMAC, RCAF, National Police, Bodyguard Unit, National Counter-Terrorism Unit, demining operators and other organizations.



EOD Training and Practice at CMAC Training Centre



Some of the training packages include Mine and UXO clearance, EOD (basic and advanced), Battle Area Clearance, Base line Survey, MDD, navigation, GIS, and many refresher courses. International training for CMAC staff also took place in 2009 in Georgia, Vietnam, Laos, and Jordan.

Research and development

Research and development is an essential activity for CMAC capacity building, to maintain and improve its competitive advantage within the mine action sector locally and internationally. A number of studies and trials occurred in 2009:



IED Training at CMAC Training Centre by US Armed Forces

Table: 8 Research performed in 2009

Project	Status
HSTAMIDS training (10 units at Siem Reap)	Continued from 2008
ALIS test and evaluation	2009 and 2010
Explosive Harvesting Program (CMAC-Golden West)	Continued from 2008
Test of re-chargeable battery	Continued from 2008
Update of EOD handbook	Continued from 2008
Trial of multi-tool shifter bucket (US tools)	Continued from 2008

International and technical cooperation

In 2009 CMAC worked with experts in the mine action sector from several countries in order to exchange experiences and skills to improve CMAC capacity with emphasis on operational areas. The following exchange programs were implemented:

- 5 officers attended an International Test and Evaluation Program for Humanitarian Demining (ITEP) research and training program in Germany
- 4 officers conducted training needs assessment in Colombia
- 5 officers visited Kenya’s training centre to look at the facilities and training programs

In addition to these, CMAC also hosted several exchange and international cooperation programs. A number of visitors and delegations from several countries, including Colombia (PAICMA), Sri Lanka and Thailand (TMAC) visited CMAC to observe demining operations, listen to lessons learned in mine action management and field operations, and exchange necessary information related to the mine action sector.

An exceptionally important international cooperation milestone in 2009 was the visit by Colombia’s PAICMA, with the assistance and arrangement by JICA, to CMAC to discuss and plan CMAC’s training of PAICMA staff starting from 2010. Preparations are now underway to organize two training courses,



Colombian PAICMA Delegation Team visited CMAC EOD Harvesting Program at CMAC Training Centre

supported by JICA, for PAICMA staff in mid and late 2010 and a third in 2011. Discussions are also underway with partners for the potential expansion of CMAC's training and operation services in the regional and international arena.

2.2.3 PROJECTS IMPLEMENTED

As mine action evolves, mine action projects are growing in complexity. CMAC has evolved from a "one program" approach into a "multiple-project" program with multilateral donors, bilateral donors, private and contractual funding arrangements, and partnerships with development agencies. Each arrangement requires specific implementation schemes, project management and reporting protocols.



In 2009 many of CMAC's funding and project requirements were more challenging. This put extra strains on project management staff to ensure appropriate project documentation and reporting. Complexity emerged because not all projects started and ended at the same time, and not all expected projects were approved or fully approved. There were gaps between projects during which operational teams were not covered by any projects and had to be suspended. The operational deployment plan had to be revised several times during the year to respond to the actual project management requirements and conditions. CMAC management and project management staff faced critical dilemmas and difficult challenges in trying to maintain capacity and deployment coherence to respond to the national, provincial and community work plans. Some of the planned tasks had to be dropped in order to adapt to the financial situation.



There were 32 projects of various scales and purposes implemented in 2009. These projects were classified into different types: 22 Mine/UXO Clearance, Mine/UXO Risk Education, and Survey projects, 2 Demining and Development projects, 3 Research and Development related projects; and 5 projects related to the provision of equipment and technical assistance.

Annex II: List of projects implemented in 2009.

2.2.4 DEPLOYMENT OF DEMINING ASSETS

Throughout 2009, some demining assets were changed or transformed to meet the field and task requirements as well as to respond to the external environment and other developments. The following assets remained functional as of December 2009:



- 28 Demining Platoons
- 3 Community-Based Demining Platoons (CBD)
- 10 Short leash Mine Detection Dog teams (MDD - SLD)
- 4 Long leash Mine Detection Dog teams (MDD-LLD)
- 4 Explosive (UXO) Detection Dog teams (EDD)
- 4 Heavy Demining Machines (DM)
- 23 Mechanical Clearance Machines and Brush Cutter teams (BC)
- 26 Explosive Ordnance Disposal Teams (EOD)
- 10 Community Mine Clearance Teams (CMC)
- 2 Battle Area Clearance Teams (BAC/BAT)
- 7 Explosive Remnants of Wars Clearance Teams (ERC)
- 1 Battle Area Clearance by Village (BAV) Teams
- 15 Technical Survey for Clearance Teams (TSC)
- 6 Mine Risk Reduction and Education teams (MRE)
- 13 Baseline Survey Teams (BLS)
- 36 Community Based Mine Risk Reduction (CBMRR)
- 40 Community Based UXO Risk Reduction (CBURR)

New demining assets, particularly small and multi-skilled teams, allow CMAC to operate with more flexibility and to have a faster response time to community needs, because communities still require a quick response to risk reduction and small scale immediate development within their communities.

Annex III provides a brief description of the CMAC toolbox.

2.2.5. LOCATIONS OF OPERATIONS

Due to the nature of contamination, the number of casualties and the types of hazardous items polluting different areas of the country, CMAC's demining assets were deployed to respond to each unique situation. CMAC's demining assets were also deployed based on requests from communities through the MAPU/PMAC process and from provincial approval mechanisms where PMAC/MAPU does not exist.



Accordingly, CMAC continued to concentrate the majority of its demining assets in the western and north-western provinces of Battambang, Banteay Meanchey, Oddar Meanchey, Kampong Thom, Siem Reap, Pailin and Pursat. At the same time, due to growing threats posed by UXO and cluster munitions, CMAC expanded its ERW clearance assets and deployed more EOD intervention and BAC teams into the north and north-east region. Due to increasing threats and impact, CMAC also moved DU3 from Pailin to Preah Vihear province. CMAC additionally trained and converted many mine clearance assets into BAC teams and new concepts of proactive ERW BAV were introduced, with successful integration and positive response from the communities.

These mine and ERW clearance assets were deployed in six regional units (Demining Unit or DU):

- DU1 in Banteay Meanchey covering Banteay Meanchey province
- DU2 in Battambang covering Battambang, Pursat and Pailin province
- DU3 in Preah Vihear covering Preah Vihear province(located in and covering Pailin before moving to Preah Vihear)
- DU4 in Siem Reap covering Kampong Thom and Preah Vihear provinces
- DU5 in Kampong Cham covering eastern provinces
- DU6 in Siem Reap covering Siem Reap, Oddar Meanchey and Preah Vihear provinces
- Training Centre in Kampong Chhnang supporting the whole CMAC organization

There were also several teams attached to CMAC headquarters deploying to other provinces not covered by the DU's.

Each Demining Unit was staffed and equipped with the capacity to plan and manage clearance operations, provide logistical and financial support to the operational teams and to represent CMAC in the region.

Annex III provides an overview of the CMAC Deployment map as of December 2009.

2.3. MAIN HIGHLIGHTS IN 2009

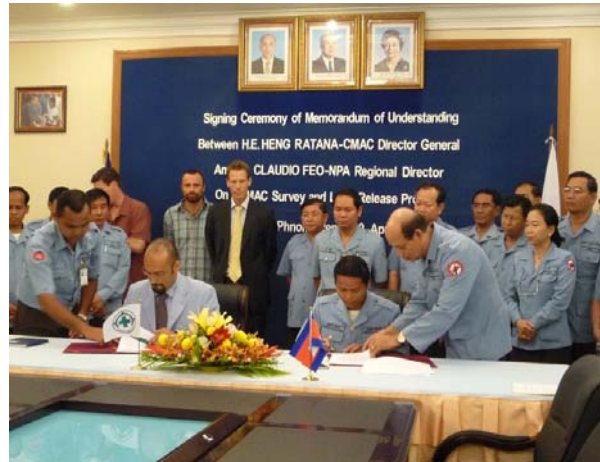
2.3.1 Technical Survey and Land Release Project

Full clearance alone cannot solve Cambodia's landmine and UXO problems. Land Release (LR) performed by the TST is a promising technique that will increase the rate of land release in Cambodia. This approach is earning increasingly more attention as the shift in the demining strategy continues.

CMAC has been progressively using this technique and has a strong commitment to improving its best practices by revisiting and enhancing the SOP in line with the organizational strategy and a culture of continuous improvement, which distinguishes CMAC as a leader in the mine action sector.



In 2009, CMAC and Norwegian People’s Aid (NPA) worked together on a technical survey and land release project to assist Cambodia to better quantify the actual landmine and UXO problems in high priority and high impact areas, and accelerate area reduction. The Land Release project has been successfully implemented on three sites in three separate provinces (Battambang, Siem Reap and Banteay Meanchey), by integrating a number of demining tools. Its success has provided valuable lessons and experiences, increased confidence in the Land Release process, and instrumentally contributed to the development of the CMAC Land Release SOP.



Signing Ceremony between CMAC and NPA on the CMAC Survey and Land Release Project enhancement on 29 May 2009 at CMAC Headquarters, Phnom Penh

Moreover, in close collaboration with the CMAA, CMAC carried out baseline surveys in 13 of the 21 most highly affected districts in the country from August 2009; it is expected that the baseline survey of these 13 districts will be completed in 2010.

2.3.2. Transition of Demining Unit 3

CMAC began deploying resources to Pailin (DU3 area of operations) with the support of the United States Government in 2001. This support was later extended to cover Samlot District of Battambang Province. Before moving to Preah Vihear, the funding support mainly covered a humanitarian mine action program, focusing on clearing landmines, delivering landmine/UXO risk education, conducting technical survey and landmine marking as well as providing technical, field management and leadership training to improve the management of demining activities in DU 3.

Although landmine casualties are decreasing, the number of casualties caused by UXO still persistently fluctuates and is expectedly on the rise. Accordingly CMAC and its DU3 donor expect to see an increased UXO intervention in the current coverage areas and other parts of the country. To realize this commitment, the United States Government has allocated substantial amount of funding and resources to train CMAC deminers in new skills to deal with EOD and BAC tasks.



Chales A. Stonecipher – Program Manager, Bureau of Political and Military Affairs, US Department of State

A transition plan was developed and put in place to achieve the training objectives, the formation of BAC⁴, team deployment, and the eventual transition of DU3 from sole mine clearance to dual mine and UXO clearance. This evolution was a gradual transition which has been carried out since September 2008. DU3 was finally relocated from Pailin to Preah Vihear, where the socio-economic development plan of the Royal Government of Cambodia has been implemented to establish new villages along the Cambodia-Thai border. Pailin is now under the responsibility of DU2, to deliver its humanitarian mine action program in the area.

2.3.4. HSTAMIDS Training and Accreditation

The Handheld Standoff Mine Detection System (HSTAMIDS) is an American made dual sensor landmine detector that first detects metallic objects using a metal detector in its search head and then analyzes the suspected metallic object by using its sensor. Testing of HSTAMIDS was performed jointly between the CMAC research team and its American counterpart in Siem Reap (performance and SOP training at newly constructed test lanes within DU4 compound) and Battambang. The test began in June 2008 and continued into 2009. At the end of November 2009, 17 CMAC staff completed the added training Phase II. These staff members have been deployed in the field with HSTAMIDS detectors; however, they will need to be re-accredited periodically to ensure the appropriate skill level is maintained.



HSTAMID Testing at CMAC field Test in Siem Reap

CMAC is still collecting and analysing more data to evaluate the performance of this detector, and to develop appropriate SOPs to utilize the detector in field operations. It is expected that HSTAMIDS will contribute greatly to a rapid increase in landmine clearance in Cambodia.



2.3.5. Risk Management

There are many risk-associated challenges faced by CMAC's deminers on the ground that require strict adherence to SOPs, high concentration of effort and environmental

⁴ BAC operations involve the location and disposal of ERW, including UXO and Abandoned Explosive Ordnance (AXO), over specific areas, which may include battlefields, defensive positions and sites where air delivered or artillery munitions have been fired or dropped. Depending on the humanitarian priorities and required land use, BAC may involve surface and sub-surface clearance. The requirement for BAC can be in both urban and rural environments.

consciousness. These challenges include booby traps, challenging terrain and environment, sensitivity of old and damaged mines and 72 different types of complicated AP mines.

CMAC's deminers have managed these challenges very well in 2008 and 2009, with zero accidents occurring in 2008 and only one landmine accident taking place during a demining operation in 2009. This incident took place on 31 July 2009.

2.3.6. Innovative operational concepts and methodology

Apart from planning and managing demining operations, the CMAC Operations and Planning Department, strongly guided and supported by the senior management, endeavors in operational innovations to introduce trial activities and implement new concepts. In 2009, BAV was trialed successfully in Battambang. This concept calls for a proactive ERW clearance moving from village to village, rather than reactively responding to a request for EOD action. This successful methodology has led CMAC to gain funding support from the Agence Espagnole de Cooperation Internationale (AECI) for a new project in the Eastern region, to be implemented from December 2009, partnership with Handicap International-Belgium (HI-B). Another methodology was formulated to combine manual clearance platoons and survey assets to form a new type of mobile platoon. This will be implemented in 2010. These initiatives require effort and time, in addition to routine operational management tasks.



CMAC deminer got accident during the operations in minefield, Battambang on 31 July 2009

2.3.7. Peace Building Project

The Royal Government of Cambodia signed an Exchange of Notes on 25 November 2009 to receive Grant Aid from the Government of Japan to carry out integrated mine clearance and landmine victim assistance for a period of three years (2010-2012) with a budget of over USD10 million to procure demining machines, agriculture and demining equipment as well as to support demining and community development activities for three years. This project is the first and model Peace Building project supporting demining activities to be implemented in the world, and it will be implemented by CMAC starting from 2010.



This project will procure five demining machines, demining and agriculture related equipment and support mine clearance and community development. The community development will include rural roads, water sources and agricultural training to enable the villagers to make a decent income from agriculture and other farming activities in post-clearance areas.

2.3.8. Funding

2009 was marked with some financial difficulty due to several gaps in project funding. This financial difficulty led to the suspension of some teams on the ground, as well as a reduced clearance output. However, additional support from three new projects and the approval

from the Government of Japan for a grassroots project in DU2 partly saved CMAC from a considerable staff lay off.

2.4 SOCIO-ECONOMIC BENEFITS

CMAC mine action activities contribute significantly to the rate of mine/UXO casualty reduction countrywide. They also contribute to the enhancement of livelihood, socio-economic and infrastructure development within the affected communities post-clearance.



Similar to previous years, socio-economic benefits gained in 2009 were significant. In total, landmine and ERW clearance in 2009 benefited 20,370 families directly (direct beneficiaries), 83,549 families indirectly (indirect beneficiaries) as well as approximately 15,424 students.

A large portion of the land cleared is used to support development activities, and a smaller portion goes to humanitarian and emergency purposes. There are 11 categories of land use after land clearance in 2009, and the cleared land allocation in square meters and percentage by category is shown in Figure 3.

Figure 6: Socio-Economic land use output 2009

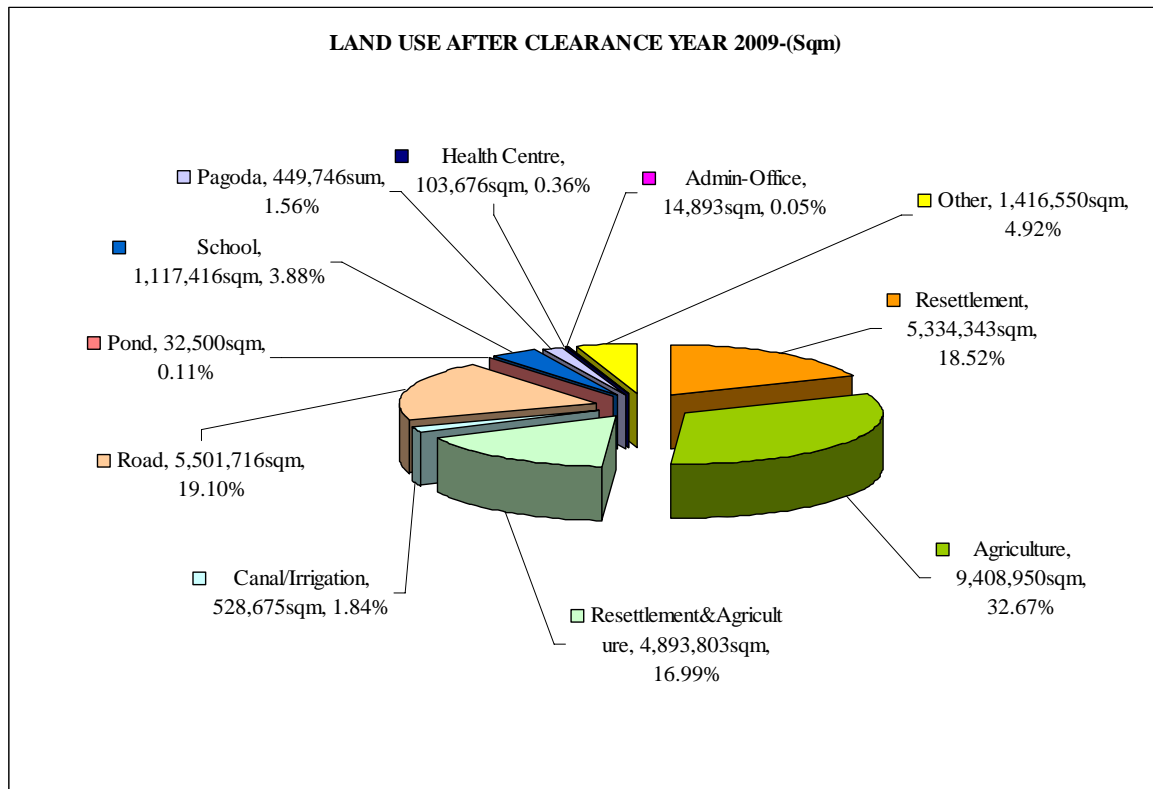
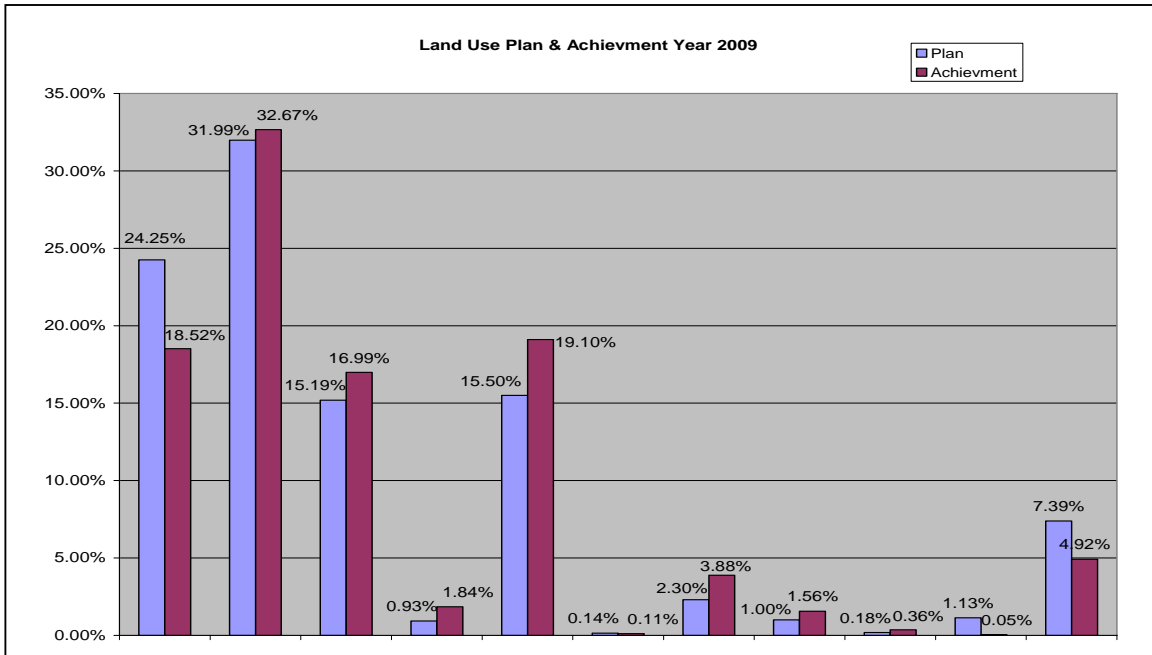


Figure 7: Comparison of planned and actual SE Land use output



2.5 DEMINING AND DEVELOPMENT

2.5.1 Integrating Demining and Development

Mine action in Cambodia is changing. No longer is singular Landmine/UXO clearance action the most beneficial way to support community members affected by landmine/UXO contamination. Modern day mine action in Cambodia uses a combination of mine survey, clearance and release methodologies to clear and release land back to the community. This land can then be used in a productive way to ensure socio-economic growth, highlighting the important link between demining and development.



In 2009, CMAC landmine/UXO clearance operations continued to successfully integrate community development initiatives into its work plan, generating socio-economic growth for the population of Cambodia, particularly rural communities. The majority of the land released has been used for agriculture and resettlements (68.18%) and the construction of roads (19.10%). Furthermore, CMAC's implementation of community development projects in 2009 exceeded the expectations forecasted last year, demonstrating how released land can be

used to provide villagers with access to the necessary infrastructures that help to increase their living conditions and their ability to engage in income producing activities.

Figure 8: Land use after clearance for the year 2009

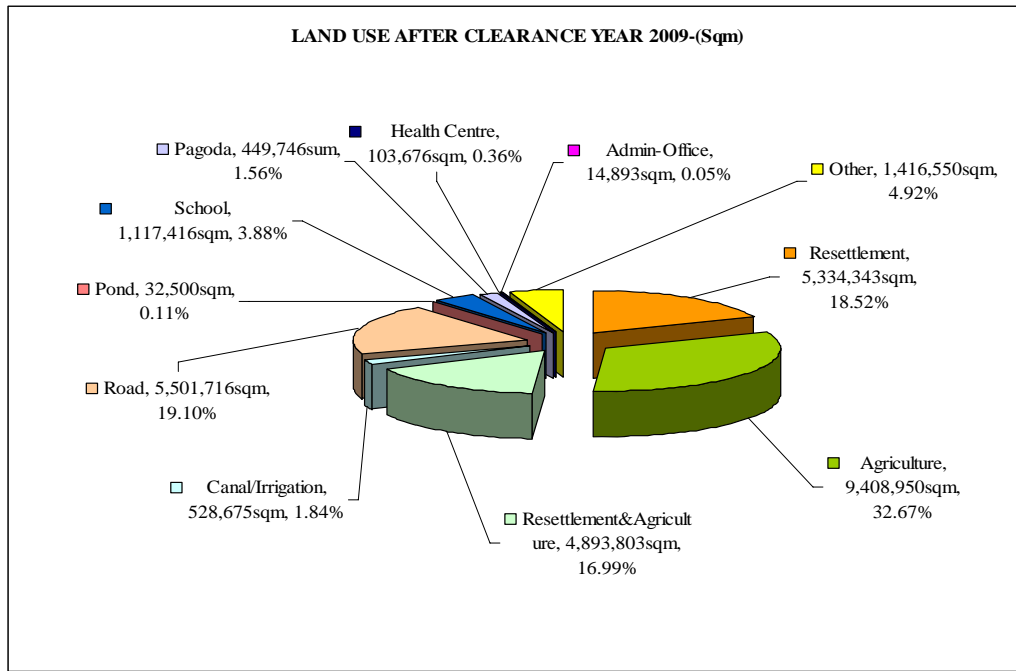
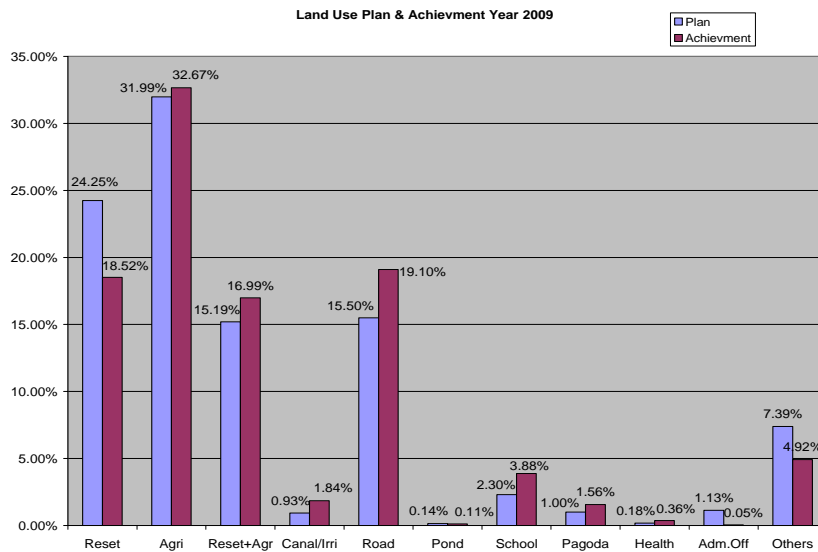


Figure 9: Land use plan and achievement for 2009



Throughout 2009 CMAC implemented three projects that integrated demining operations and social and economic development. Partners for these combined mine/UXO clearance and development projects include Good Earth Japan (GEJ), Japan Mine Action Services (JMAS) and the European Committee.

In cooperation with GEJ and sponsored by Yamanashi Hitachi Construction Machinery Co. Ltd, CMAC undertook a project of demining and development in O Slappang Village, Takream Commune, Banan District of Battambang. Released land was used to construct agricultural systems for farming, as well as a school, road and bridge. Furthermore, agricultural training was also provided. As a result, villagers in these areas now have increased agricultural capacity and have access to facilities that provide them with both improved living conditions and resources to ensure a sustainable livelihood.



H.E Heng Ratana - CMAC Director General and Personal Advisor to the **Prime Minister** with the presence of **H.E Soun Heng** – Deputy Governor of Battambang Province and **Mr. Katsutoshi Arita**, Chairman of GEJ in Japan cutting the ribbon in the handover ceremony of Road, Bridge, Concrete Pipes and other Agricultural Products on 10 March 2009

The second project was carried out in partnership with JMAS, and supported by Komatsu Co Ltd. This project took place in Treng Commune, Ratanak Mondul District, Battambang Province and encompassed the construction of roads, schools and ponds. The project constructed pipe converts to reduce flood incidents in the area and rehabilitated existing infrastructure such as canals for agricultural purposes.



The third CMAC project was a contractual service of demining operations to the European Community (EC), as part of the Economic and Social Re-launch of Northwest Provinces in Cambodia (ECOSORN) program. The Demining for Development project used land released by CMAC to construct roads, ponds, schools and provided land title to villagers in three major provinces of Cambodia, Siem Reap, Kompong Thom and Banteay Mean Chey.

While land cleared from landmine/UXO contamination is considered a valuable resource, development in Cambodia can only take place when this resource is used efficiently and with proper planning that addresses cross cutting issues such as poverty, disability, gender and children. CMAC's mission encompasses more than the mere eradication of explosives from the land. For the next 10 years, CMAC is committed to addressing Article 5 of the APMBC, of which Cambodia is a State Party. The APMBC requires that all landmine areas must be identified and cleared within 10 years. However, once this objective is achieved, CMAC, with assistance from development partners, donors and other agencies, will continue to increase mine/UXO risk education, victim assistance and post-clearance development, to achieve the ever important mission of *'Saving lives and supporting development for Cambodia'*.

2.6. SUPPORTING ACTIVITIES

2.6.1. Support and Human Resources

Demining, similar to military operations, requires effective and extensive logistics and human resource support and backstopping. To ensure smooth demining operations, an organization the size of CMAC requires a very strong and professional support team.

In 2009 the CMAC Department of Support and Human Resources worked hard to meet field requirements and ensure that operational activities proceeded without serious implications by coordinating with each level within CMAC, from the supply of demining equipment and materials to maintenance and repair of equipment and vehicles; from the supply of drinking water to fuel consumption; and from the acquisition to the distribution of explosives used for demining purposes.



CMAC employed over 2,200 staff in 2009. It was also equally important to maintain and manage a very dynamic and mobile human resource pool deployed in a vast area throughout the country. Any issues from pay roll to resignation, sick leave to disciplines, training to promotion, motivation to recruitment, all needed to be attended to and effectively managed.

Adding to the challenges faced by the Department of Support and Human Resources, the project gaps and financial difficulty in 2009 also put additional pressure on the staff responsible for managing and coordinating logistics, supplies and project personnel. However, CMAC's support and human resources staff performed their duties with due diligence, enthusiasm, and high professionalism, considering the pressure they had faced during the year.

The following list outlines the key equipment under the management and responsibility of the Department of Support and Human Resources:

- 336 vehicles of various classifications
- 27 brush cutting machines (excavator type)
- 2 bulldozers
- 3 heavy demining machines
- 90 motorbikes
- 3,247 various mine detectors and deep search

In addition, the department provides technical assistance and backstopping support to one Central Maintenance and Repair Workshop located in Battambang and seven first level regional maintenance and repair facilities and a central warehouse.



Equally as important was the good human resource management. In 2009 the Department of Support and Human Resources worked to ensure that:

- Headquarters and field staff were well trained and qualified for their tasks they were assigned to
- Human Resource policy and procedures were well followed – including compensation and benefits
- All vacant positions were filled with qualified staff
- Staff movements were timely and effectively managed and coordinated
- Recruitment processes, internal and external were transparently managed
- Staff performance appraisals and training needs assessments were conducted

2.6.2. Finance

Notwithstanding the existence of improved technology and methodology, funding always plays a crucial and, most frequently, decisive role in demining operations. In 2009, CMAC faced several funding and environmental challenges. Due to the conclusion of several key bilateral projects and with few alternative sources of funding available as a substitute, CMAC had to implement severe cost-saving measures to maintain its operational capacity.

Despite these best efforts, however, some of the operational teams had to be temporarily suspended at some point in the year to cope with the shortfall of over USD1 million. This financial difficulty had a visible impact on the UNDP Clearing for Results resources, as the Project tried to absorb the extra capacity which was not covered by bilateral projects and which would otherwise be suspended.

Funding shortfall in 2009, which led to the suspension of some operational capacity on the ground, also had some adverse impact on the total clearance productivity.

Despite the financial difficulties faced in 2009, field operations were carried out reasonably smoothly. Thanks to the continued support and commitment from donors and partners and two new sources of funding, CMAC managed to sustain a reasonable level of operations in the reporting year. There were two main factors which partly addressed the financial concerns throughout the year:

1. Additional funding support from the following:

- A project funded by the Royal Government of Cambodia to support demining in Preah Vihear
- Funding support through the Cambodia-Japan Counterpart Fund

- The Japanese Grassroots Project in Battambang and Banteay Meanchey Provinces in DU2 in Battambang and Banteay Meanchey provinces
- The US Government’s support of CMAC’s ERW activities in eastern provinces with an additional budget of USD 200,000. These new projects were essential to partly cover the outgoing projects and helped CMAC sustain the majority of staff on the payroll throughout the year

2. CMAC's commitment to cost-efficiency:

- Measures were taken to ensure that increased productivity was achieved without the need of increasing resources used. Efforts were made to implement immediate cost-saving measures.

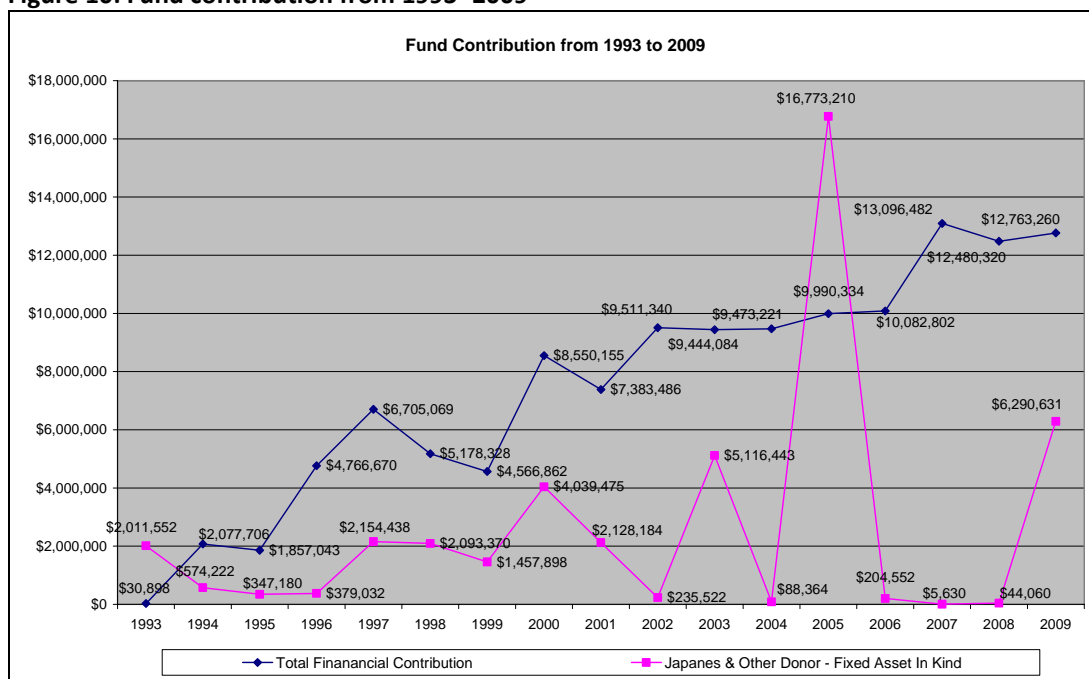
Effective management of resources, especially financial management coupled with safe and productive operations have helped CMAC to sustain donor confidence and funding. In the past eight years CMAC received average annual cash and in kind contributions of USD10.8 million and USD3.6 million respectively.

In 2009, the projected operational budget was USD 13,802,187. The actual funding received was USD 12,763,260. This left CMAC with a shortfall of USD 1,038,927. In kind contribution amounted to USD 6,290,631. They were in the form of Japan’s Equipment Grant Aid, Research and Development project, Technical Assistance, and the provision of an international volunteer (from AusAID).

Table 9: Funding contributions for supporting CMAC operations

Budget 2009	Amount
Funding Expectation (Operational budget)	USD 13,802,187
Funding Received (Operational budget)	USD 12,763,260
Funding Shortfall (Operational budget)	USD 1,038,927
In-Kind Contribution Received	USD 6,290,631

Figure 10: Fund contribution from 1993 -2009



The Finance Department was actively involved in project management as this related directly to financial management. The financial difficulty faced in the reporting year placed noticeable constraints on financial management and Finance Department's staff as they worked hard to ensure that financial management responded timely and effectively to the emerging issues and constraints.

2.6.3. Corporate management

Strategic initiative

In 2009, to meet the new challenges in releasing more land and to assist CMAC in meeting the international obligations under the Ottawa Convention, which approved Cambodia's Article 5 Year Extension Request giving Cambodia another 10 years (2010-2019) to clear landmines, CMAC developed a Five-Year Strategic Plan (2010-2014) which provides a new road map for CMAC demining



activities in the next five years. This Strategic Plan was developed through a wide range of consultation and communication with staff and stakeholders in order to receive acceptance and support. This is a very important document which will also be used as a tool to communicate to donors and partners and to raise fund to support CMAC's operations in the coming years.

The plan consists of 17 specific goals and 78 objectives, setting the stage to sustain CMAC as a respectable mine action agency. It is worth recalling that it took CMAC more than a year (the process started in second half of 2008) to develop this Strategic Plan.

Quality Assurance (QA) and Internal Audit

CMAC recognizes the importance of checks and balance in its operations where safety and accountability are of utmost importance. A number of activities took place in 2009 by the office of Internal Audit.

- 133 QA and internal audit missions
- 537 non-conformity cases found
- 484 corrective actions taken
- 53 corrections in progress
- Participation in investigation and provision of training on subject of internal audit and QA and many other important internal control related tasks

Quality Management

CMAC has been certified as ISO 9001-2000, issued by BM TRADA, since February 2004 and has maintained it ever since, with a successful renewal in 2008. CMAC is also in a process of preparing for the next renewal, upgrading it to a new version of ISO 9001-2008.

Staff Motivation

Efforts were made by the CMAC management team to sustain staff motivation through direct communication and enhanced employment benefits such as the new established provision fund. A draft Decree has been prepared to include CMAC's staff who die or receive a permanent disability whilst carrying out CMAC operations into the Government's welfare system under the Ministry of Social Affairs, Veterans and Youth. Efforts have also been made to seek Government's land allocation for CMAC's poor and landless deminers, and the first group of landless deminers have already received land concessions from the Government.

A monthly meeting in the form of a Technical Working Group was held to address operational concerns, discuss organizational and operational issues and to communicate (two-way traffic) strategic and operational intent and problems.

International Relations

In 2009, a number of international relations activities took place, relating to the following areas:

- International cooperation, such as the CMAC – PAICMA tripartite training cooperation (exchange visiting and training needs assessment), visit from the Thailand Mine Action Centre (TMAC), Sri Lanka visit, CMAC visit to Kenya
- Anti-personal Mine Band Convention activities: participation in the APMBC Second Review Conference in Cartagena, Colombia and in the preparation for Cambodia's Article 5 extension request in Geneva
- Fundraising activities organized in-



ISO 9001:2008 Training at CMAC Headquarters



H.E. NAKASONE-HIROFUMI on the handover of Demining Machines for the Research and Development



Japanese Navy visited CMAC Headquarters on 03 March 2009

- country and during overseas trips undertaken by the CMAC Senior Directors
- Technical cooperation with the Geneva International Centre for Humanitarian Demining (GICHD), NPA and other agencies

2.7. CONCLUSION

Although CMAC did not meet its planned clearance target set for 2009, outputs achieved by all activities can be considered reasonable given the level of funding that was available. Efforts made by CMAC's management, staff and its donors have made it possible for CMAC to attain annual funding at a level closer to the expectation during a period of global financial crisis. All CMAC functions worked to ensure effective mine action intervention, with efficient use of precious resources, a high degree of professionalism and an ongoing aim to remain a respected, leading demining organization worldwide.

3. ANNEXES

Annex I: CMAC 2009 operational progress report summary

Annex II: List of projects implemented in 2009

Annex III: A brief description of the CMAC Toolbox

Annex IV: Current deployment map – December 2009

ANNEX I: CMAC 2009 OPERATIONAL PROGRESS REPORT SUMMARY

CMAC SUMMARY OPERATIONAL PROGRESS REPORT
From January to December-2009

Month-Year	No of Platoons & Teams	Operational Achievement												Found & Destroyed								
		Full Clearance		Other Clearance Without Switch				Brush Cutters		Survey & Marking		Land Release		AP	AT	UXO	Imp Mines	Small Caliber (kg)	Fragments	EOD/MRE Tasks		
		In Minefield (m ²)	In UXO Fields (m ²)	Safety Site Preparation (m ²)	Areas of Spot check (m ²)	Surveyed into the minefield (m ²)	Target Inspection (m ²)	Random Inspection (m ²)	Cutting Grush by BC (m ²)	Excavated by BC (m ²)	Number of minefield marked	Marked liner meter (m)	Contaminated Area Found Outside L1S (m ²)	Non-Technical Survey (m ²)	Technical Survey (m ²)							
Jan-2009	157	1,945,462	406,607	22,062	99,064	76,341			639,481	29,578	97	216,367	3,942,000	182,112,500		1,683	33	9,748	11	1,541	1,691,203	915
Feb-2009	157	1,976,895	416,375	13,437	62,529	78,486			612,079	18,666	94	202,339	2,841,200	40,608,600		2,072	165	17,236	31	809	1,610,159	875
Mar-2009	199	2,647,030	626,996	19,869	88,549	93,689			854,472	1,708	104	721,213	4,737,800	16,647,300		2,497	73	11,393	13	667	1,486,618	1,044
Apr-2009	154	1,888,878	480,521	8,995	34,642	75,077			590,912	6,688	100	186,600		40,049,781		1,044	46	10,386	22	330	1,082,949	673
May-2009	153	1,849,598	456,261	10,624	46,380	42,803			570,661	13,916	93	163,517		57,986,912		1,312	54	12,280	21	8,242	975,391	813
Jun-2009	190	2,136,664	564,403	11,001	61,191	35,797			753,663	17,963	94	182,389		45,244,484		1,999	39	11,009	38	1,103	1,144,952	1,118
Jul-2009	180	2,024,713	625,172	22,572	117,431	65,168			1,270,361	6,233	209	237,734		6,790		2,044	20	11,524	9	314	1,023,286	1,046
Aug-2009	198	1,949,819	922,527	12,379	57,811	44,201			683,063	4,094	249	263,146				1,313	28	13,789	33	514	908,985	1,230
Sep-2009	136	1,222,887	688,623	5,558	81,047	62,663			346,531	6,748	270	282,994				869	11	6,962	12	499	806,333	721
Oct-2009	157	3,016,114	700,594	16,321	94,236	46,696			587,224	8,459	595	466,881				1,150	21	9,865	17	1,224	1,219,797	954
Nov-2009	198	1,598,565	1,388,031	14,547	105,965	35,696			564,661	7,201	282	377,341				1,367	16	8,455	24	239	805,532	845
Dec-2009	198	2,072,361	2,108,818	7,781	146,496	64,162			815,270	24,998	409	394,988		150,077		1,391	62	10,607	22	734	1,229,821	1,323
Total		24,247,916	9,276,617	164,126	985,351	713,540	34,698	95,444	8,248,238	145,631	2,596	3,663,232	11,521,000	382,761,734	1,968,170	18,711	547	133,154	253	16,175	13,963,836	11,559

ANNEX II: LIST OF PROJECTS IMPLEMENTED IN 2009

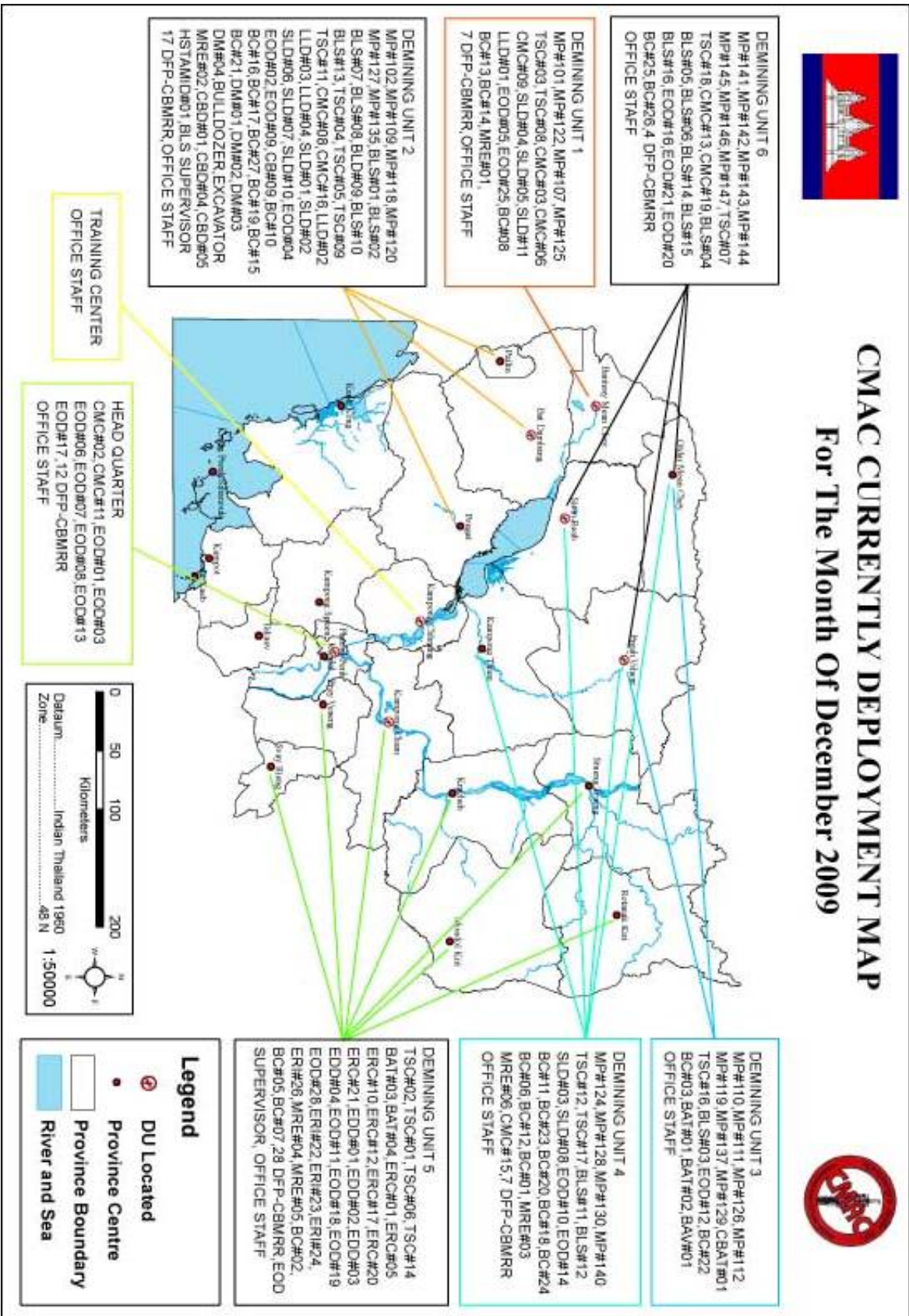
No	Project	Locations	Donor/Partner	Remarks
I. Mine and UXO Clearance, Survey and Mine/UXO Risk Education				
1	UNDP "Clearing for Results"	DU1, DU2, DU4, DU5	UNDP/Multi-donors*	Clearing for Results in Banteay Meanchey, Battambang, Preah Vihear, Kampong Thom and eastern provinces
2	NPA (Norway)	DU1, DU2	Norway	Project to support and enhance technical survey in Battambang and Siem Reap
3	Austcare	DU1	Australia	Integrated demining and development in Banteay Meanchey
4	Baseline Survey Project	DU1, 2, 3	UNDP/Multi-donors*	Baseline survey activities to support national landmine clearance
5	Japan-Grassroots	DU2	Japan	- Humanitarian demining in Battambang - Period: March 2008 – March 2009
6	Japan-Grassroots	DU2	Japan	- Humanitarian demining in Battambang and Banteay Meanchey Provinces - Period: October 2009 – April 2010
7	Japan-Grassroots	DU2	Cambodia-Japan Counterpart Fund	- Supports demining machines and manual teams - Officially ends in December 2009
8	Japan-JMAS	DU2	Japan	Community-based demining in Battambang
9	US-DU3	DU3	USA	Humanitarian demining in Pailin and Samlot and Preah Vihear Province
10	Japan-Grassroots	DU4	Japan	Humanitarian demining in Kampong Thom and Preah Vihear
11	Germany-DU6	DU6	Germany	Humanitarian demining in Siem Reap and Oddar Meanchey
12	ECOSORN	DU1, DU2, DU4	EC	Integrated demining and development in north-west provinces (ECOSORN Project)
13	Japan-JMAS	DU5, HQ	Japan	EOD, CBURR
14	Japan-ASEAN Integration Fund	DU5, DU1	Japan	- Humanitarian demining and UXO clearance - Officially ends in March 2009
15	US-CMAC for UXO Clearance	DU5	US	- ERW clearance operations in eastern provinces
16	BHP Billiton	CSU	BHP Billiton	Mineral Exploration in Mondul Kiri
17	TSO	CSU	TSO	Demining for Railway Rehabilitation
18	PGS	CSU	PGS	Mineral Exploration around Tonle Sap Lake
19	MAG (MDD)	DU2, DU3, DU4	MAG	Renting of CMAC's MDD teams for MAG operations
20	UNICEF	All DU's	UNICEF	MRE, CBMRR
21	Peaceboat	DU4	Peaceboat	Demining and Health Center Construction)
22	AA-C School clearance	DU1	Actionaid	Demining school yard and provide MRE
II. Demining and Development				
23	GEJ: Good Earth Japan	DU2	Hitachi	Post-clearance development
24	JMAS-CMAC CID	DU2	Komatsu	Safety Village Construction Project
III. Research and Development				
25	HSTAMIDS Training	DU2	NVESD	HSTAMIDS training and trial (GPR detector)
26	ALIS Training	TC	Tohoku University	ALIS training and trial (GPR detector)
27	Explosive Harvesting Program	HQ,TC	USA/Golden West	R&D in explosive harvesting
IV. Provision of Equipment and Technical Assistance				
28	GTC (MDD)	HQ, TC	Sweden	Provision of MDD and technical assistance
29	Technical Cooperation	HQ, CWS	Japan/JICA	Provision of technical advisors
30	Technical Cooperation	HQ, TC	New Zealand/QSI	Provision of technical advisors to TC
31	AYAD/VIDA	HQ, DU4	AusAID	Provision of volunteers
32	Grant Aid Phase V	All	Japan/JICA	Provision of equipment to support demining
Total Projects 2009:		32		

ANNEX III: PROVIDES A BRIEF DESCRIPTION OF EACH TOOL

- 28 Demining Platoons (mobile platoon).
26 personnel grouped into three sections. These teams can be mobile or fixed to a location. They are the CMAC work horse. They perform manual clearance.
- 3 Community-Based Demining Platoons (CBD).
33 personnel grouped into three sections. These teams are fixed to a location. Their members were recruited from the communities nearby the demining areas. They perform manual clearance.
- 10 Mine Detection Dog (MDD), short leash (SLD)
10 personnel and 4 mine detection dogs. They perform clearance, assisting land release, verification and spot checking.
- 4 Mine Detection Dog (MDD), long leash (LLD)
6 personnel and 2 mine detection dogs. They perform clearance, assisting land release, verification and spot checking.
- 4 Explosive (UXO) Detection Dog (EDD)
6 personnel and 2 UXO detection dogs. They perform UXO clearance, assisting land release, verification and spot checking.
- 4 Heavy Demining Machines (DM)
3 personnel and one machine. They perform clearance and integrate with other demining tools to support land release through technical survey
- 23 Mechanical Clearance Machines and Brush Cutters (BC)
8 personnel and one machine. They perform vegetation removal, clearance and integrate with other demining tools to support land release through technical survey. They can be used to support community development project in digging pound, canal and building rural road.
- 26 Explosive Ordnance Disposal Teams (EOD)
3 personnel and a vehicle. These teams are mobile. They perform UXO removal and disposal task and in some case small site UXO clearance. Some of these teams have been responding to IED calls.
- 8 Community Mine Clearance Teams (CMC)
7 personnel working on small tasks. These teams are mobile. They perform manual clearance; however, many teams can also perform battle area clearance (BAC).
- 4 Battle Area Clearance Teams (BAC/BAT)
16 personnel. These teams are mobile. They perform UXO clearance or battle field; however, they can switch to manual mine clearance when required.
- 9 Explosive Remnants of Wars Clearance Teams (ERC)
7 personnel. These teams are mobile. They perform UXO (ERW) clearance or battle field; however, they can switch to manual mine clearance when required. They are also deployed to support mineral exploration, and clearing power lines.
- 1 Battle Area Clearance by Village (BAV) Teams,
7 personnel. This team is mobile. It performs UXO (ERW) clearance moving from village to village by completely UXO clearing one village at a time; it provides sketches, develops village maps, communicates MRE message, and prepares the community for future intervention.
- 12 Technical Survey for Clearance Teams (TSC),
5 personnel. These teams undertake survey tasks to support clearance. They can also do small scale mine clearance. Many of these teams will be integrated

into the new mobile platoon concept to provide multi-functional capability to the platoon.

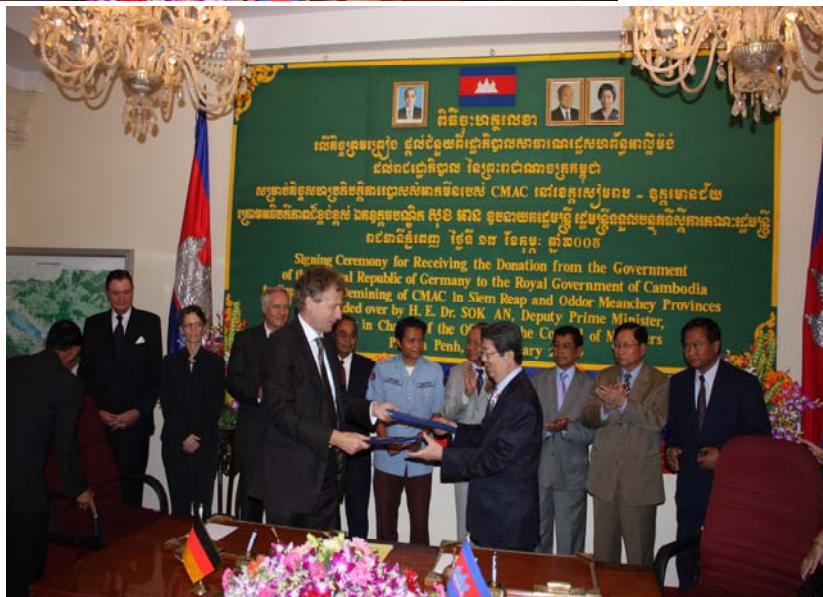
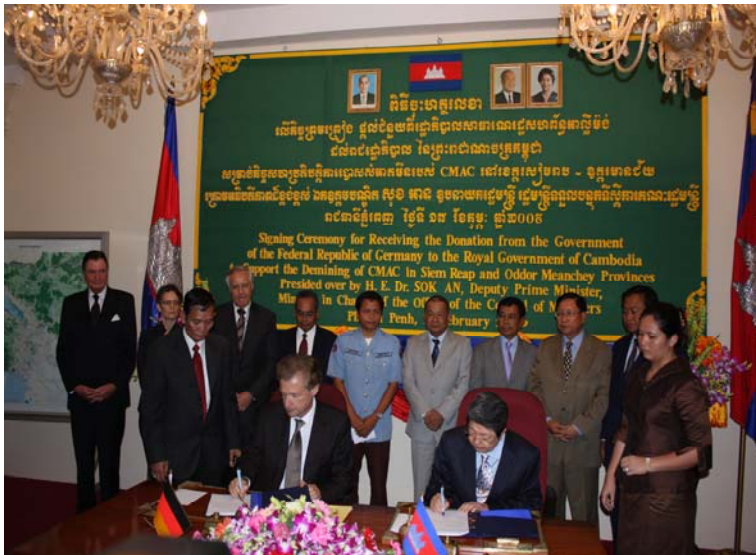
- 6 Mine Risk Reduction and Education teams (MRE)
5 personnel. These teams undertake MRE tasks; however, it has the capacity to remove and dispose UXO.
- 16 Technical Survey Teams (TST) converted to Baseline Survey Teams (BLS).
5 personnel. These teams undertake survey tasks arranged under the national BLS initiative. They also can undertake a survey to support deployment of team planning.
- 36 Community Based Mine Risk Reduction (CBMRR)
1 person team (District Focal Point - DFP), however, the DFP works closely with a network of Mine/UXO volunteers (MUC) at commune and village level to coordinate and support their mine/UXO risk reduction and education activities.
- 40 Community Based UXO Risk Reduction (CBURR)
1 person team (District Focal Point - DFP), however, the DFP works closely with local community leaders at commune and village level to coordinate and address UXO problems by providing MRE messages and assisting the community to complete the request for EOD intervention submitted to CMAC.



MAIN PUBLIC RELATION ACTIVITIES IN 2009



Japanese Foreign Minister – H.E Mr. NAKASONE-HIROFUMI and Cambodian Foreign Affair and International Cooperation Minister – H.E HOR NAMHONG : Handover Ceremony of Demining Machines and Equipment of the Research & Development Project Phase II, Phnom Penh Cambodia on 11 January 2009



Signing Ceremony of Agreement to receive a grant aid of USD 1,350,523 from the Government of Federal Republic of Germany to the Royal Government of Cambodia to Support CMAC Humanitarian Demining Activities in Siem Reap and Oddar Meanchey Provinces from 01 January to 31 December 2009



Signing Ceremony on Agreement to Support CMAC Humanitarian Demining Activities in Preah Vihear in amount of USD1,800,000 between H.E Prak Sokhonn, the Minister attached to the Prime Minister and the President of the Cambodian Mine Action and Victim Assistance (CMAA) and H.E Carol A. Rodley the Ambassador of the United States of America to the Kingdom of Cambodia at CMAC Headquarters On 02 October 2009





Signing Ceremony of Agreement between H.E Heng Ratana, Advisor to the Prime Minister and CMAC Director General and H.E SHINOHARA Katsuhiro, Extra-ordinary and Plenipotentiary Ambassador of the Japan to the Kingdom of Cambodia to receive a grant aid of USD 615,495 from the Government of Japan to Support CMAC Humanitarian Demining Activities in Kampong Thom, Oddar Meachey and Preah Vihear Provinces, Embassy of Japan on 12 January 2009





A group of 127 Japanese Navy came to visit CMAC Headquarters on 03 March 2009 to learn about mine action situation and demining activities in Cambodia, and the warm welcome by H.E Heng Ratana, Advisor to the Prime Minister and CMAC Director General





Inauguration Ceremony of Slab Pang – Hitachi Kenki Primary School on 28 May 2008



New Concrete Bridge on 10 March 2009

Old Wooden Bridge



H.E Heng Ratana visited the two concrete waterways on 10 March 2009



Handover Ceremony of Six Pump Wells at O Slab Pang Village on 19 March 2008

Inauguration and Handover Ceremony of Road, Bridge, Concrete Pipes and other Agricultural Products to the Local Villagers in O Slab Pang Village, Takream Commune, Banon District of Battambang Province

H.E Heng Ratana - CMAC Director General and Advisor to the Prime Minister with the presence of H.E Soun Heng – Deputy Governor of Battambang Province and Mr. Katsutoshi Arita, Chairman of GEJ in Japan cutting the ribbon in the inauguration ceremony on 10 March 2009



Handover Ceremony of land after clearance under Grass Root Project to local authority and community in Rattanak Mondul district Battambang Province witnessed by HE. SHINOHARA Katsuhiko, center, between H.E Oum Phumro- CMAC Deputy Director General and H.E Ouk Vong- Deputy Governor of Battambang on 06 March 2009



H.E Heng Ratana Advisor to the Prime Minister and CMAC Director General and H.E Kuroki Masafumi- new Extra-Ordinary and Plenipotentiary Ambassador of Japan to the Kingdom of Cambodia in the reception at CMAC Headquarters Phnom Penh on 02 October 2009



Workshop on Technical Survey and Land Release Methodology was conducted by CMAC and NPA and participated by other relevant mine action partners at CMAC Headquarters Phnom Penh on 19 February 2009



Mine Awareness Day: 10th year Anniversary of Mine Awareness Day 1999-2009 was celebrated everywhere in mine and UXO affected areas in Cambodia toward mine and UXO zero victim

CMAC participated this even both round table discussion in the Cambodian Television studio in Phnom Penh and other mine and UXO affected areas in the country on 24 February 2009





H.E Kuroki Masafumi- Extra-Ordinary and Plenipotentiary Ambassador of Japan to the Kingdom of Cambodia accompanied by H.E Oum Phumro- CMAC Deputy Director General visited minefield in Battambang, which has been supported by Japanese Government On 01 December 2009





A Group of red-cross members from 24 different counties in the world came to visit CMAC Demining Unit 4 in Siem Reap On 28 January 2009





A Group of Japanese Delegates from the Ministry of Foreign Affairs in Tokyo paid a courtesy meeting with H.E Heng Ratana Advisor to the Prime Minister and CMAC Director General at CMAC Headquarters in Phnom Penh on 29 June 2009





H.E Heng Ratana Advisor to the Prime Minister
 and CMAC Director General and Ms Diana
 Marisol Penalosa Mesa signed a minute of
 discussion on the Training Program for
 Colombia under tripartite Arrangement (Third
 Country Training) supported by JICA at CMAC
 Headquarters in Phnom Penh on 17 June 2009
 after one week visit to CMAC Headquarters,
 Training Centre, Demining Activities in
 Battambang from 10 June 2009



Mine and UXO Education Experts from Sri Lanka accompanied by UNICEF Sri Lanka and UNICEF Cambodia came to visit CMAC Headquarters to exchange view in learning mine and UXO education which conducted by CMAC in the Kingdom of Cambodia

CMAC Headquarters
On 19 October 2009





Chairman of Thai Mine Action Center (TMAC) and colleagues came to visit CMAC Headquarters and visited CMAC demining activities in Battambang and Siem Reap to learn and share experience in mine action with CMAC, on 28 September 2009



CMAC Annual Report 2009

1. Nonconformity Statement

Reported by (All staff)	Signed	Date

2. Action Planned

Planned by (DOP)	Signed	Date

3. Action Taken

Action taken by (Person in-charge)	Signed	Date

4. Results

Checked by (QM)	Signed	Date

Note:

- Any staff members can report nonconformity to the Quality Manager,
- When the action has been taken to solve the nonconformity successfully, the record is sent to Quality Manager for filing.



CMAC Annual Report 2009

The CMAC's Operations & Planning Department is implementing the ISO 9001:2000 Quality Management System (QMS). To fulfill the QMS requirements, we need to survey our customer satisfaction on our products/services.

Your feedback is valuable for the improvement of our quality management system. We appreciate very much if you could spend your time to complete and return this survey form to CMAC Chief of Secretariat. Please rate (circle) your satisfaction appropriately.

Please specify the report your comments refer to:

Title of Report: _____ Dated: _____

1. Report presentation

☹ Not satisfied			—————→				Very satisfied ☺		
1	2	3	4	5	6	7	8	9	10
Write any comment here:									

2. Do you find all the information you need?

☹ Not satisfied			—————→				Very satisfied ☺		
1	2	3	4	5	6	7	8	9	10
Write any comment here:									

3. Is the language clear and understandable?

☹ Not satisfied			—————→				Very satisfied ☺		
1	2	3	4	5	6	7	8	9	10
Write any comment here:									

4. Your general comments to improve our reports?

(Optional)

Name:

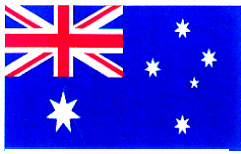
Position:

Organization:

Date:



7. SPECIAL THANKS TO THE FOLLOWING DONORS AND PARTNERS



Australia



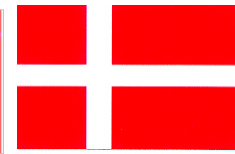
Belgium



Cambodia



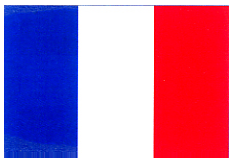
Canada



Denmark



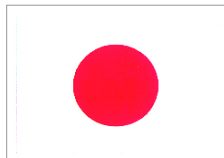
EU



France



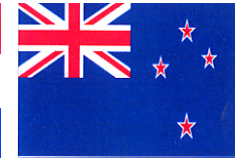
Germany



Japan



Netherlands



New Zealand



Norway



Spain



Sweden



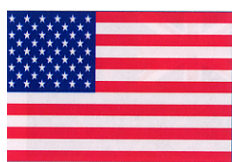
Switzerland



UK



UN



USA

- AUSTCARE
- CARE International
- CMAA
- ECHO
- HI (HIB)
- GICHD
- JICA
- JMAS
- Local Authorities
- Peace Boat
- NPA
- Rotary International District 2650
- Save the Children Norway
- UNDP
- UNHCR
- UNICEF
- UNMAS
- UNOPS
- NGOs
- Privates

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