



Kingdom of Cambodia

Nation Religion King



Cambodian Mine Action Centre

INTEGRATED WORK PLAN 2020



SAVING LIVES AND SUPPORTING DEVELOPMENT FOR CAMBODIA

REMOVING THREAT, RETURNING HOPE AND BUILDING A PROSPEROUS FUTURE

SPECIAL THANKS TO THE FOLLOWING DONORS AND DEVELOPMENT PARTNERS



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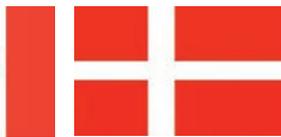
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FOREWORD



Though Cambodian Mine Action Centre (CMAC) has made a remarkable and significant progress over the past 27 years in contribution to tackling mines and explosive remnants of war (ERW) with supports from international donor countries and development partners, especially, the Royal Government of Cambodia (RGC), the presence of mine/ERW threat is still the main obstacle for citizens' living condition and national development.

However, on 29 November 2019, with the 164 States Parties to the Anti-Personnel Mine Ban Convention at the Fourth Review Conference in Oslo, Norway, we all expressed our firm commitment to end the suffering and casualties caused by anti-personnel mines with a strong commitment to strengthening our efforts in order to achieve our common goals of a mine-free world and the full and equal inclusion of survivors and victim. In response, our extension request has been fully supported, which enables us to continue our mission in combating against landmines until late 2025.

Meanwhile, in his letter on the 21st Anniversary of National Mine Awareness Day, **Samdech Techo Prime Minister Hun Sen** reaffirmed the RGC's 10 per cent contribution (counterpart fund) to all new projects for humanitarian demining in a bilateral or multilateral manner to enhance demining operations in accordance with the "Mine-Free Cambodia" strategic plan.

Building on the progress and achievements of the past and addressing the remaining problems and challenges, and based on CMAC's Strategic Plan 2018-2025 as a roadmap, CMAC has developed an Integrated Work Plan (IWP) 2020 as part of CMAC's efforts and contribution to achieving a vision toward a Mine Free Cambodia 2025. This work plan 2020 which was officially endorsed in the ordinary meeting of the CMAC Governing Council on 18 December 2019, also promotes CMAC staff social activities through community and post clearance developments.

Taking this opportunity, CMAC would like to express its profound appreciation and gratitude to the national and international communities, donors, development partners and individual mine action experts for their continued support for mine action in Cambodia. Such generosity, support and commitment enable CMAC to continue its important work to accomplish the mission in "Removing threats, Returning hopes and Building prosperous future for Cambodians."

Sincerely Yours
Heng Ratana
 Delegate of the Royal Government
 In charge as Director General of CMAC

ABBREVIATION

AECI	: Agence Espagnol De Cooperation Internationale
ALIS	: Advanced Landmine Imaging System
AP Mine	: Anti-Personnel Mine
APMBT	: Anti-Personnel Mine Ban Treaty
AT Mine	: Anti-Tank Mine
AusAID	: The Australian Agency for International Development
BAC	: Battle Area Clearance
BAT	: Battle Area Clearance Team
BAV	: Battle Area Clearance by Village Team (pro-active BAC)
BC	: Brush Cutter and other Clearance Machines
BLS	: Baseline Survey
CBD	: Community-Based Demining Platoon
CBMRR	: Community-Based Mine Risk Reduction
CBURR	: Community-Based UXO Risk Reduction
CC	: Commune Council
CHA	: Confirmed Hazard Area
CMAA	: Cambodian Mine Action and Victim Assistance Authority
CMAC	: Cambodian Mine Action Centre
CMAS	: Cambodian Mine Action Standards
CMC	: Community Mine Clearance
CMVIS	: Cambodian Mine Victim Information System
CRC	: Cambodian Red Cross
DFP	: District Focal Point
DM	: Demining Machine
DU	: CMAC Demining Unit
EC	: European Commission
ESD	: Explosive Security Dog
ECOSORN	: Economic and Social Re-launch of Northwest Provinces
EDD	: Explosive Detection Dog
EOD	: Explosive Ordnance Disposal
EPTF	: ECOSORN Project Task Force
ERC	: Explosive Remnants of War Clearance Teams
ERW	: Explosive Remnants of War
GEJ	: Good Earth Japan
GICHD	: Geneva International Centre for Humanitarian Demining
HI-B	: Handicap International-Belgium
HST-AMIDS	: Handheld Standoff Mine Detection System
IED	: Improvised Explosive Device

JICA	: Japan International Cooperation 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
MF	: Minefield
MRE	: Mine Risk Education
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 Antipersonel
PMAC	: Provincial Mine Action Committee
QA	: Quality Assurance
QC	: Quality Control
RCAF	: Royal Cambodian Armed Forces
RGC	: Royal Government of Cambodia
SHA	: Suspected Hazard Area
SLD	: Short Leah Mine Detection Dog or see MDD/SLD
SOP	: Standards Operating Procedures
SRI	: System Rice Intensification
TIMA	: Technical Institute of Mine Action
TS	: Technical Survey
TSD	: Technical Survey Dog
UN	: United Nations
UNDP	: United Nations Development Program
UNICEF	: United Nations Children's Fund
US WRA	: United Office of Weapons Removal and Abatement
UXO	: Unexploded Ordnance

EXECUTIVE SUMMARY



The year 2020 is the first year of implementing the approved second extension 2020-2025, which is obligated under Article 5 of the Anti-Personnel Mine Ban Convention, after Cambodia did not reach the deadline of the first ten-year extension by the end of 2019. This second six-year extension was approved at the Fourth Review Meeting of Anti-personnel Mine Ban Convention held in Oslo, Norway, on 29 November 2019. Cambodia, therefore, needs to develop a comprehensive strategy to meet the commitment of Mine-Free Cambodia 2025.

In response to the above obligation, CMAC, as a national and main demining operator of Cambodia, plays important role in contribution to achieving the national strategic plan by making its greater efforts in dealing with mine action issues to accomplish its mission and mandate through activities in accordance with four core functions including clearance & survey, landmine & ERW risk education, victim assistance & post-clearance development and training, research & development.

In this connection, the CMAC Strategic Plan 2018-2025 is a path forward to fulfill CMAC mission in accordance with its mandate. It takes consideration of the relevant national strategies and plans in mine action and related fields to ensure its contribution to overall national initiatives. It also reflects the prevailing global mine action environment. It serves as a roadmap to gauge CMAC activities and outlines specific Goals and Objectives to achieve during the strategic period.

In consistence with this roadmap, CMAC, with incorporation of all critical factors that arose in 2019, establishes an Integrated Work Plan (IWP) 2020 to guide and support its demining operations and activities in 2020. To understand the IWP2020, we take a swift look at the overview of CMAC activities in 2019.

In 2019, CMAC planned to release mine/ERW contaminated area in total of 92,904,000 m² including 47,880,000 m² of minefield and 45,024,000 m² of UXO field. However, the total actual achievement in release of mine/UXO fields in 2019 is 68,101,527 m² including 37,764,180 m² of mine contaminated areas, 28,710,347 m² of UXO contaminated areas and 1,627,000 m² of other clearance areas known as Survey and Spot Check for Safety, which represents 73.30% compared to annual target of IWP2019 and is lower 23.14% than the achievement in 2018 (as of 88,603,198 m²). During the operations, 38,708 items of mine and ERW (5,524 APMs, 77 ATMs, 15 Improvised Mines and 33,092 ERWs) are found in the affected landmine and UXO contamination areas and were destroyed safely. This achievement represents 77.42% of the annual target set in IWP 2019 (as of 50,000 items).

In addition, with support from development partners, CMAC conducted non-technical survey in the western part and baseline survey in the eastern part of the country. As a result of the surveys, new 643 mine/UXO-affected areas are found which equal to 98,370,363 m². Therefore, the proper plan could be made to respond to this problem.

In 2019, 633 landmine and ERW fields have been completely cleared and handed over to the local authorities and communities for productive purposes in accordance with the national procedures and requests. The landmine and ERW clearance has benefited 101,498 families of whom 41,325 families are direct beneficiaries and 60,173 families are indirect beneficiaries. The large portion of the cleared land is used to support agriculture activities, and a small portion goes to resettlement, humanitarian and emergency purpose.

Mine Risk Education still plays vital role in reducing casualties and removing threats provoked by mines and ERW. In 2019, CMAC teams in working together with CBMRR and CBURR/Police have conducted mine risk education activities throughout the country, especially, in the high risk areas. As a result, CMAC teams and MER network volunteers have conducted 12,386 MRE sessions for 80,454 households with 591,434 participants out of whom 37.09% was men and 35.61% was women, while the remaining 27.30% was children. To enhance MRE mainstreaming at localities to mitigate landmine and ERW risk exposure, CMAC provided MER training to 120 national polices and local authorities in four provinces (Pailin, Battambang, Pursat and Kampong Chhnang) to become CMAC network volunteers. As of December, 2019, CMAC has total 3,442 MRE network volunteers including 563 police officers and 19 monks. Moreover, as part of social security and MRE strengthening, CMAC revived 11,891 damaged rifles from the Department of Explosive Management under General Commiserate of National Police for destruction.



To further strengthen technical capacity, skill and knowledge in demining operations, 12 training and refresher training courses were conducted for 236 CMAC staff and five successful training courses for 328 military officers. In addition, CMAC also provided a training course on EOD Level I to 53 police officers, which was conducted at CMAC's TIMA in Kampong Chhnang province.





Technological innovation and effective demining methodology are very important factors for CMAC to implement mine action program in a more efficient manner. In 2019, CMAC in cooperation with Tohoku University continues doing research and conducts trial on dual sensors detector - the Advanced Landmine Imaging System (ALIS). Moreover, CMAC in working with Innovative Operations System (IOS), a Japanese company, has also conducted a research on capability of Demining Robot (DMR) in excavation of

anti-personnel landmine. To speed up survey operations, CMAC in cooperation with APOPO has conducted a trial of new detection dog searching system known as Technical Survey Dog (STD) equipped with camera, GPA and remote command system.

Besides playing a critical role in helping the landmine/UXO affected community, CMAC, with her extensive experience, has also contributed to the global mine action community in sharing experience and knowledge through the implementation of South-South Cooperation program supported by JICA. In 2019, six successful training courses related to mine action were provided to 115 participants from Iraq/Kurdistan Regional Government, Columbia and Lao PDR. Separately, another training course on Brush Cutter Operations and Maintenance was also provided to 8 Columbian participants with the support from JICS.

Although, CMAC has made remarkable and significant progress in tackling mines/ERW problem over the past 26 years, the presence of mines/ERW threat is still the main obstacle for development. According to the updated contamination data from the Baseline Survey shared by Cambodian Mine Action and Victim Assistance Authority (CMAA) as of November 2019, Cambodia still has approximately 2,084 km² of contaminated land throughout the country. Among this, approximately 866 km² is mine area and around 1,217 km² is ERW and cluster munitions area.

Based on yearly operational targets set in CMAC Strategic Plan 2018-2025, in 2020, under the current capacity including human resources and equipment, CMAC plans to carry out mine action operations to release 116,700,000 m² of landmine/ERW contaminated land and also conduct other risk reduction activities such as mine risk education to minimize number of landmine/ERW casualties, support poverty reduction, and contribute to economic development. However, due to the limited funding under the confirmed pledge and expected projects for the year 2020, CMAC expects to release approximately 80,405,949 m² of contaminated areas, among of which 44,804,055 m² is minefield and 35,601,894 m² is ERW field. Therefore, for another remaining 36,294,051 m² of contaminated areas, CMAC has to mobilize extra financial resources from other development partners and donors to achieve its goal. During the operations, 40,000 mines/UXOs are expected to be removed and destroyed. Besides land release activities, CMAC plans to

respond to 5,000 emergency requests. It is important to note that this work plan is established based on the capacity of CMAC to conduct land release with a strong emphasis on technical and non-technical survey.

Practically, operational work plan minefield is prioritized through the PMAC/MAPU process, to ensure the effectiveness of the utilization of funding which will benefit the most landmine/UXO affected communities. It is expected that 25,000 families in the

most impacted communities will be directly and indirectly benefited from demining operation in 2020. In terms of total number of population, 350,000 people will be benefited. In terms of land use purpose, CMAC expects roughly 75% of the total released land will be used for agriculture, indicating the increase in agricultural activities, whereas about 15% is used for both agriculture and resettlement while other 10% will be used for other development activities.



In 2020, CMAC plans to reduce 20% of last-year mine/ERW casualty rate of people living in affected areas. In this connection, CMAC teams and MRE network volunteers continue to play its important role in supporting affected communities to fully participate in determining mine-action priorities in their communities, providing ongoing risk education at a local level to civilians at high risk, and ensuring greater integration with victim-assistance services and community development projects that could assist with providing alternative income generation activities for groups at risk. In 2020, CMAC plans to provide 10,000 MRE sessions for 80,000 households with 700,000 participants. Meanwhile, MER training course will be conducted for 120 new participants who are CMAC staff, police officers and monks, and refresher training to 150 MRE network volunteers.

To achieve the IWP2020, CMAC sets four strategic goals together with 26 objectives and their respective strategies which will help achieving these goals and objectives. The four strategic goals are:

1. To effectively conduct land release and marking & survey activities in the landmine/UXO affected areas in response to the needs of the communities for poverty reduction, casualty prevention and economic development.
2. To provide victim assistance and community development for affected communities.
3. To provide and enhance quality training, capacity building and maintain an active research and development program.
4. To review and enhance institutional capacity, organizational structure and corporate management to ensure long-term sustainability, competitiveness and responsiveness to challenges.

OVERVIEW AND PERFORMANCE ANALYSIS IN 2019

1. Overall Operational Achievement Summary 2019

CMAC has established its mission to save lives and support development to transform Cambodia from a mine/ERW affected country to a country where people are free from the threat of mines and UXO and allow the reconstruction and development activities to take place in a safe environment. Adhering to this mission, CMAC has defined and executed four main programs in 2019: Mine/UXO Clearance, Survey, Mine Risk Education and Training & Research Development. Through the positive impact of implementation of these four main programs, CMAC is recognized by its clients, donors and all stakeholders as a specializing and pioneering institution in mine action sector.

CMAC's activities for 2019 were ranged from the delivery of large scale mine clearance, community development, grassroots community education activities, national and international training programs and cutting edge technological research. In 2019, CMAC has achieved significant operations which are described below:

▶ Total mine/UXO found and destroyed:	5,616 items
• APM:	5,524 items
• ATM:	77 items
• Improvised mine:	15 items
• ERW:	33,092 items
• Small arms:	1,401 Kg
• Fragment:	1,314,596 pieces
▶ Cutting grass:	7,275,727 m ²
▶ Liner of marking:	428,785 m
▶ Responded to EOD calls (requests):	3,251 tasks
▶ Total mine/UXO responded:	12,095 items
▶ Conducted MRE sessions to:	591,434 audiences
• Men:	210,641 persons
• Women:	219,359 persons
• In school children:	113,764 persons,
• Out-of school children:	47,670 persons
▶ Number of MRE session:	12,386 courses
▶ Number of household visited:	80,454 times
▶ Number of village visited:	6,510 villages

2. Achievement Analysis

2.1 Land Release Productivity Analysis

In revision of its IWP 2019, CMAC planned to release mine/ERW contaminated areas in total of 92,904,000 m² including 47,880,000 m² of minefields and 45,024,000 m² of UXO fields. However, the total actual achievement in release of mine/UXO fields in 2019 is 68,101,527 m² including 37,764,180 m² of landmine contaminated areas, 28,710,347 m² of UXO contaminated areas and 1,627,000 m² of other clearance areas known as Survey and Spot Check for Safety, which represents 73.30% compared to annual target of IWP 2019 as of 92,904,000 m². In 2019, some clearance teams were transformed to survey teams to meet genuine need during the operations. The achievement in land release of 68,101,527 m² in 2019 is lower 23.14% than the achievement in 2018 (as of 88,603,198 m²). During the field operations in 2019, CMAC had found and destroyed total 38,708 mines and UXOs, achieving 77.42% of the annual target set in IWP 2019 (as of 50,000 items).

Figure 1: Comparison between Planned and Actual Achievements and Items Found and Destroyed



2.2 Beneficiaries and Socio-economic Analysis

CMAC mine action activities contribute significantly to the country in terms not only of mine/UXO casualty reduction, but also of enhancement of livelihood, settlement, socio-economic and infrastructure activities for individual and for the affected community development so as to meet the National Strategy in poverty reduction. In 2019, 633 landmine and ERW fields have been completely cleared and handed over to the local authorities and communities for productive purposes in accordance with the national procedures and requests. The landmine and ERW clearance in 2019 has benefited 101,498 families of whom 41,325 families are direct beneficiaries and 60,173 families are indirect beneficiaries.

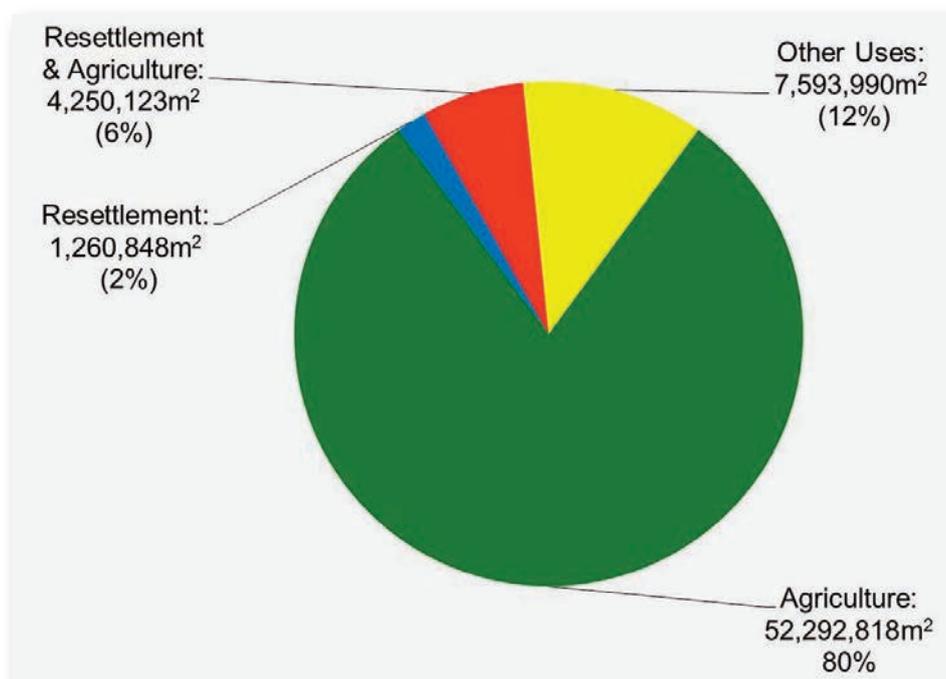
In this connection, socio-economic benefits from the cleared lands are gained in 2019, in which a large portion of the cleared land is used to support agriculture activities, and a small portion goes to resettlement, humanitarian and emergency purpose.

Table 1: Category of Land Use post Clearance

Development Category	Land
Agriculture	52,292,818 m ²
Resettlement plus Agriculture	4,250,123 m ²
Resettlement	1,260,848 m ²
Others Uses*	7,593,990 m ²
Total	65,397,779 m²

* Other uses such as for pagoda, temple vicinity, tourist resort, school, pond, health center and so forth.

Figure 2: Analysis of Land Use Beneficiary



3. Land Release Productivities

In 2019, the overall progress achievement was 86,101,527 m² in which 925,209 m² was released as C1, 13,205,184 m² was released as C2, 52,344,134 m² was released as C3, and 1,627,000 m² was released as area clearance called Survey and Spot Check for Safety without sketches.

During the operation, at least 38,708 items of mine and ERW (5,524 APMs, 77 ATMs, 15 Improvised Mines and 33,092 ERWs) were found in the affected landmine and UXO contamination area and were destroyed safely.

It should be noted that these figures (mine/UXO found and destroyed) as mentioned above are not included with the number of devices found and destroyed by EOD teams during the reporting period.



4. Non-Technical and Baseline Surveys

In 2019, with support from development partners, CMAC conducted non-technical survey in the western part and baseline survey in the eastern part of the country. Some clearance teams are transformed to survey teams to meet the need of this work. As a result of the surveys, new 643 mine/UXO-affected areas are found which equal to 98,370,363 m². Therefore, the proper plan could be made to respond to this problem.

5. Mine Risk Education

Mine Risk Education still plays vital role in reducing casualties and removing threats provoked by mines and ERW. In 2019, CMAC has conducted mine risk education activities throughout the country, especially, in the high risk areas. As a result, CMAC teams and MER network volunteers had conducted 12,386 MRE sessions for 80,454 households with 591,434 participants out of which adult participants was 37.09% female and 35.61% male, while the remaining 27.30% was children. In order to respond to the mine action environment, CMAC conducted internal training for her staff to strengthen certain specific skills set.



Table 2: MRE Achievements

Types of Progresses	Demining Teams	CBMRR	CBURR & Police	Total
Village visited	5,802	494	214	6,510
Course of MRE session	4,774	6,340	1,272	12,386
Household and field visited	16,927	24,864	38,663	80,454
Total audience group attended in MRE Course:	74,540	141,764	375,130	591,434
• Men	27,672	47,950	135,019	210,641
• Women	21,557	49,278	148,524	219,359
• Children in school	6,690	30,692	76,382	113,764
• Out of school children	18,621	13,844	15,205	47,670
Total number of response (Mine/UXO):	1,994	656	142	2,792
• AP & Improvised mines	562	641	16	1,219
• AT mines	26	21	4	51
• UXO	9,093	1,472	260	10,825

Table 3: MER Materials Used

Materials	CMAC	CBMRR	CBURR & Police	Total
Leaflet	6,309	1,900	4,912	13,121
Poster	2,448	1,005	2,045	5,498
Notebook	1,687	2,521	4,022	8,230
T-shirt	181	830	1,087	2,098

6. Strengthening Cooperation between CMAC and National Police on MRE



The cooperation between the national police and CMAC to focus on MRE and removing the immediate threats has been strengthened in depth. In 2019, CMAC provided MER training to 120 national polices and local authorities in four provinces (Pailin, Battambang, Pursat and Kampong Chhnang) to become CMAC network volunteers in MRE mainstreaming at localities to mitigate landmine and UXO risk exposure. Meanwhile, CMAC

has also identified 100 national polices in three provinces (Ratanakiri, Mondulokiri and Stungtreng) who will be trained to become MRE trainers. Currently, CMAC has 3,442 MRE network volunteers including 563 police officers and 19 monks.

As part of social security and MRE strengthening, the Department of Explosive Management under General Commiserate of National Police had handed over 11,891 damaged rifles to CMAC for destruction. However, most of the damaged rifles are used to build various statues for exhibition at CMAC Peace Museum, aimed at educating visitors on impact of guns used in fighting during the war.



7. Capacity Building (Trainings) and Knowledge Base Exchange

Since its inception, CMAC has been an institution valued and respected for the quality of its work as a result of standardized training system and adoption of best management practice in place. CMAC's value and potential to share its leanings and experience in implementing mine action program are globally and nationwide recognized by donors, partners and experts from other mine action institutions. In this connection, in December 2019, CMAC and JICA had signed a Record of Discussion on a four-year Project (February 2020 to February 2024) for Strengthening Organizational Functions of CMAC as the national institution in delivering specialized and pioneering mine action services on a global scale. The project is in line with one of CMAC's strategic goals to make CMAC's Training Centre (TC) a Centre of mine action excellent as Technical Institute of Mine Action (TIMA) for delivering mine action training for both national and international participants.

7.1 Internal Capacity Building: To further strengthen technical capacity, skill and knowledge in demining operations, 12 training and refresher training courses were conducted for 236 staff at TIMA in 2019. The training courses included EOD Level I & II, application of Vallon (VMH3CS, VMX10 and VMH4), Baseline Survey and Basic Dog Handling.

7.2 National Capacity Building: To strengthen cooperation between CMAC and Royal Cambodian Armed Forces (RCAF) in mine action of Cambodia, in 2019, five successful training courses were delivered to 328 military officers for their capacity development in demining operations. The training courses they revived included application of Vallon mine detector (VMH3CS), basic demining, bomb cutting and baseline survey, GPS and GIS. Meanwhile, CMAC also provided a training course on EOD Level I to 53 police officers, which was conducted at CMAC's TIMA in Kampong Chhnang province.

7.3 International Capacity Building and Knowledge Exchange: Assisted by JICA in the South-South cooperation scheme, CMAC would provide a training program by sharing its knowledge and learning experience in mine action with other mine/ERW-affected countries. It is undeniable that the South-South cooperation model has in some ways contributed new learning and enrichment of experiences. The following benefits as a result of the South-South cooperation scheme have generally agreed based on numerous participants who have been involved with the scheme:

- Serves as a forum for exchange of experience, skills and best practices, resulting in deeper understanding of issues and challenges faced by each participant country
- Facilitates reflection on strengths and weaknesses and looking for solutions for improvements
- Improves participants' motivation to perform their work and make changes after the training
- Improves organizational and employees' attitude and behaviors (through comparisons and lessons learned)
- Promotes positive impacts on organizational and operational management
- Promotes organizational and personal networking
- Provides an opportunity to build up personal relationship and cultural exchange



In 2019, supported by JICA, six successful training courses were implemented, involving a total of 115 participants of whom 75 participants were from Iraq/Kurdistan Regional Government, 33 participants - from Columbia, and 7 participants - from Lao PDR. The training courses included Mechanical Landmines Clearance Machine Operation, Battle Area Clearance, Land Release Application, Human Resource Development, EOD Level 3, and Mechanical Clearance System-Training of Trainers for a period ranging from 2 to 4

weeks. Separately, another training course on Brush Cutter Operations and Maintenance was also provided to 8 Colombian participants with the support from JICS.

8. Research and Development:

Technological innovation and effective demining methodology are very important factors for CMAC to implement mine action program in a more efficient manner. In 2019, CMAC in cooperation with Tohoku University continues doing research on dual sensors detector - the Advanced Landmine Imaging System (ALIS). The trial has been conducted at the minefields under management of DU1 and DU2. Moreover, CMAC in working with Innovative Operations System (IOS), a Japanese company, also conducted a research on capability of Demining Robot (DMR) in excavation of anti-personnel landmine. To speed up survey operations, CMAC in cooperation with APOPO has conducted new detection dog searching system known as Technical Survey Dog (STD) equipped with camera, GPA and remote command system. The TSD operational trial has been conducted in Preah Vihear province under management of DU6.

Besides research and innovation on demining technology and methodology, CMAC in cooperation with the University of Melbourne is doing a research on Tropical Canine Parasitosis and Vector-Borne Diseases, which is focused mainly on CMAC's and communities' dogs.

9. Post Clearance Development

Mine clearance contributes to the promotion of economic growth and poverty reduction through provision of safe land for agriculture and infrastructure development, such as schools, health centers, road, irrigation, hydropower, especially in areas mostly impacted by landmines and ERW. In this connection, CMAC focuses not only on demining activities, but also on holistic approach in community development post clearance with support from strategic partners such as international NGOs and private companies.

In 2019, working in partnership with Japanese International Cooperation System (JICS) CMAC constructed three lines of rural road with a total length of 8,600 meters and 18 places of water cross structures in implementation of Integrated Mine Clearance and Landmine Victim Assistance, Phase III (IMV III) project in Ratanak Mondul and Samlot districts, Battambang province. Moreover, with support from Good Earth Japan (GEJ), CMAC repaired three lines of rural road with a total length of 4,894 meters in and constructed five water ponds in Banan and Bavel districts, Battambang province. Meanwhile, another project was also implemented with Japanese Mine Action Service (JMAS) to construct a line of rural road with 2,300 meters in length in Malay district, Banteay Meanchey province, and repaired two lines of rural road with 6,000 meters in length in Banan district, Battambang province. In addition, 180 farmers were trained in agriculture skills with the support from JICS.

10. Quality Assurance and Internal Audit

In 2019, the Quality Assurance and Internal Audit Department achieved remarkable results in identifying critical non-compliance issues in a CMAC functions such operation, support and finance. Upon these critical findings the department also provided corrective actions for the responsible relevant department to prevent such non-compliances from reoccurrence. The department also worked with each section in CMAC to develop and implement measures to achieve safety and quality across organizational activities. This was done through regular visits to different sections and units within CMAC to conduct QA and QC audits.

11. Mine Action Challenges

Funding fluctuations and short-term projects have led to projects often opening and closing, resulting hundreds of staff standing down yearly. This puts a lot of pressure on personnel and human resource management, and has de-motivated many staff. Considering their long experience, unique skills and enormous contributions to CMAC and Cambodia, such treatment of staff is unacceptable, but inevitable.



Even though some donors commit their funding on a longer term basis, projects are often yearly based, and there is no guarantee that the donors will continue the following year, apart from a small number of donors, who provide clear information about their funding. Some projects are awarded through competitive bidding, therefore there is no automatic assumption that the projects will be rewarded again.

Some donors, even though strongly committed, have financial constraints in their ODA programs, due to either economic slow-down or too many competing sectors and priorities. Given the fact that assistance to demining has been around for over 25 years, donor fatigue is unavoidable. As a result, many donors are looking at some kind of exit strategy or sustainability plan and wish to hand-over the funding responsibility to the Royal Government and would like to see the Royal Government get more financially involved.

Another factor that has a lot of negative impacts on CMAC's funding is that many donors do not fund overhead and management costs. CMAC has had to manage this on its own, with limited overhead budget allowed by some donors and some funding from the Royal Government. It has been understood that humanitarian demining funding from the Royal Government has been limited.



INTEGRATED WORK PLAN 2020

1. Key Approaches towards IWP 2020

IWP 2020 is developed in compliance with CMAC Strategic Plan 2018-2025. It layouts all planned activities in accordance with CMAC's four core functions including clearance/survey, landmines/ERW risk education, victim assistance and training, research and development. The main sections of this IWP includes background and some analyses, summary of key objectives which CMAC aims to achieve in 2020, and detailed plans which will be implemented by each department in CMAC.

The IWP 2020 also takes consideration of the relevant national strategies and plans in mine action and related fields to ensure its contribution to overall national initiatives. It also reflects the prevailing global mine action environment, which serves as a roadmap to gauge CMAC activities and outlines specific Goals and Objectives to achieve during the strategic period. In consistence with the roadmap, CMAC's IWP 2020 is established based on the past-year progresses and achievements and the remaining problems and challenges.

Several other issues and factors are also relevant to the IWP 2020 which CMAC needs to look at and carefully analyze. Issues relevant to the IWP 2020 include:

1.1 National Mine Action Strategy (NMAS) 2018-2025

This is a guiding national strategy in mine action which all operators in Cambodia is required to make use of and refer to when designing their strategies and work plans. There are important goals and objectives in the NMAS which are directly relevant to operators and require operators to adopt and contribute to. CMAC will make efforts, through its strategy and work plans, to contribute as much as possible to achieving the NMAS, especially, in relation to Goal 1 and 2.

1.2 Status of Implementation of the Mine Ban Treaty

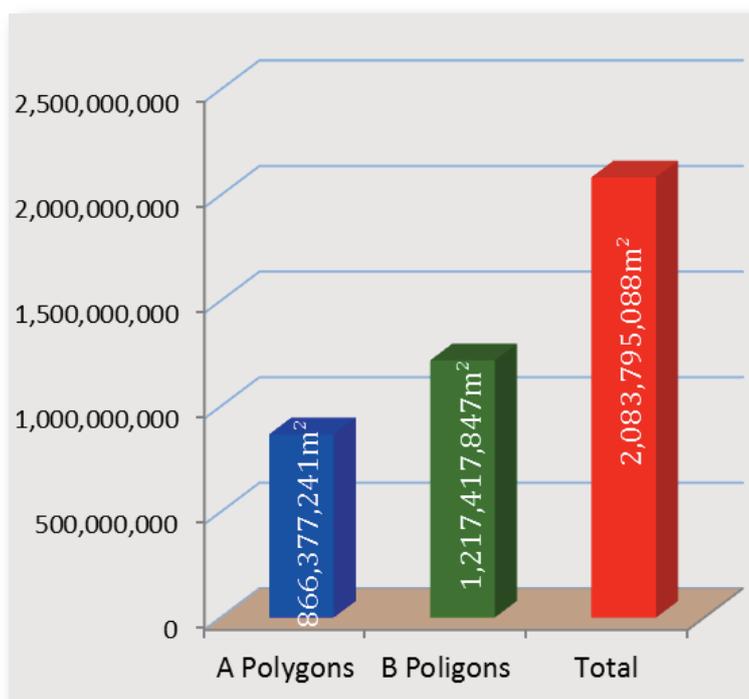
Taking consideration of current status of the implementation and the remaining problem, Cambodia could not meet the deadline of the Article 5 by the end of 2019. Cambodia therefore, requested for another six-year extension up to 2025. This second extension request was submitted and approved at the Fourth Review Meeting of Anti-Personnel Mine Convention held in Oslo, Norway, in November 2019. Cambodia, therefore, needs to develop a comprehensive strategy to meet the commitment of Anti-personnel Mine Free Cambodia 2025.

1.3 Cambodia’s Remaining Problem

Based on the updated contamination data from the Baseline Survey shared by Cambodian Mine Action and Victim Assistance Authority (CMAA) as of November 2019, Cambodia still has approximately 2,084 km² of contaminated land throughout the country. Among this, approximately 866 km² is mine area and around 1,217 km² is ERW and cluster munitions area.

Table 4: Classification of Contaminated Land (m2)

Land Classification	Contamination
A1	97,471,599
A2	26,986,964
A2-1	5,911,380
A2-2	197,214,903
A3	40,677,329
A4	480,586,941
B2	17,528,125
Total Mined Area	866,377,241
B1	26,936,947
B1-1	119,066,334
B1-2	722,065,106
B1-3	291,019,710
B1-4	15,411,206
B1-5	42,918,544
Total ERW Area	1,217,417,847
Grand Total	2,083,795,088



Apart from the internal conflicts and fighting among different warring groups, Cambodia also experienced one of the worst and most extensive aerial bombardments in both rural and populated areas during the Vietnam War. The still-incomplete database reveals that from 4 October 1965 to 15 August 1973, the United States expended 2,756,941 tons of bombs in Cambodia, dropping them in 230,516 sorties on 113,716 sites, mostly concentrating in eastern parts of the country. During this period, 26 million sub-munitions were also dispensed in which approximately 5.8 million sub-munitions are believed remain active.

In addition to landmine and ERW threats on and underground, Cambodia is also faced with serious threats from underwater ERW. Little is known how much of the river bed is contaminated and littered with sunken boats loaded with unexploded ammunitions. Based on information available, around 200 spots of sunken boats have been reported, but there is little means at this stage to assess and confirm these contaminated spots. In over, recently Cambodia has identified several locations contaminated with old containers with chemical remnants of wars in eastern provinces. This will pose further challenges to both identify and remove these dangerous substances.

1.4 Current Funding Challenges

Funding continues to be a challenge facing mine action sector as some countries donors shift their supports to other prioritized sectors by reducing or completely ending their funding support to mine action.

In this connection, CMAC has been facing considerable funding challenges in subsequent years. It is getting more challenging to secure consistent and continuous long term funding from donor governments. Many donors show a very clear and strong intention that the Royal Government of Cambodia (RGC) contributes more financially to the mine action sector and wish to see the RGC putting shared funding to demining in Cambodia.

However, some donors have maintained stable, even increasing, funding to CMAC, including Japan, China and the US.

1.5 CMAC's Strategic Plan 2018-2025

In an attempt to direct contribution to NMAS 2018-2025, whose Goal 1 and 2 are to release all known mined and cluster munitions area by 2025, CMAC has developed a parallel Strategic Plan 2018-2025 to provide a roadmap for CMAC in the eight subsequent years and assist the RGC to implement the NMAS.

CMAC's Strategic Plan 2018-2025 spells out four important goals and 21 objectives. Under Goal 1, Objective 1.1 sets a target to release up to 606.9 km² of mined area by 2025, and Objective 1.2 aims to release up to 309.7km²of cluster munitions and other ERW area by 2025.

IWP 2020 will set main goals, targets and objectives in consistency with the CMAC's Strategic Plan. It will also spell out other detailed objectives and action plans of each department to implement the main goals and objectives. Resource mobilization will be done to ensure that goals and objectives in the IWP will be successfully implemented.

1.6 Contributions by the Royal Government of Cambodia (RGC)

As international funding has gradually been declining, it is necessary that the RGC increases financial contributions to CMAC to maintain CMAC's full capacity and accelerate demining activities for risk reduction and support to development. Without the RGC's increasing contributions, CMAC will definitely face further reductions of manpower and shrinking of activities.

There are two different types of financial contributions by the RGC to CMAC: supporting humanitarian demining projects and supporting infrastructure development projects. While the latter funding has to some degree increased in recent years thanks to the increasing number of infrastructure development projects, funding increase to humanitarian development projects is yet to be realized, though the RGC has recently demonstrated a strong commitment to do so.

2. Clearance Work Plan 2020

Based on yearly operational targets set in CMAC Strategic Plan 2018-2025, in 2020, under the current capacity including human resources and equipment, CMAC plans to carry out mine action operations to release 116,700,000 m² including 78,840,000 m² of landmine area and 37,860,000 m² of ERW contaminated area, and also conduct other risk reduction activities such as mine risk education to minimize number of landmine/ERW casualties, support poverty reduction, and contribute to economic development. However, due to the limited funding under the confirmed pledge and expected projects for the year 2020, CMAC expects to release approximately 80,405,949 m² of contaminated areas, among of which 44,804,055 m² is minefield and 35,601,894 m² is ERW field. Therefore, for another remaining 36,294,051 m² of contaminated areas, CMAC has to mobilize extra financial resources from other development partners and donors to achieve its goal.

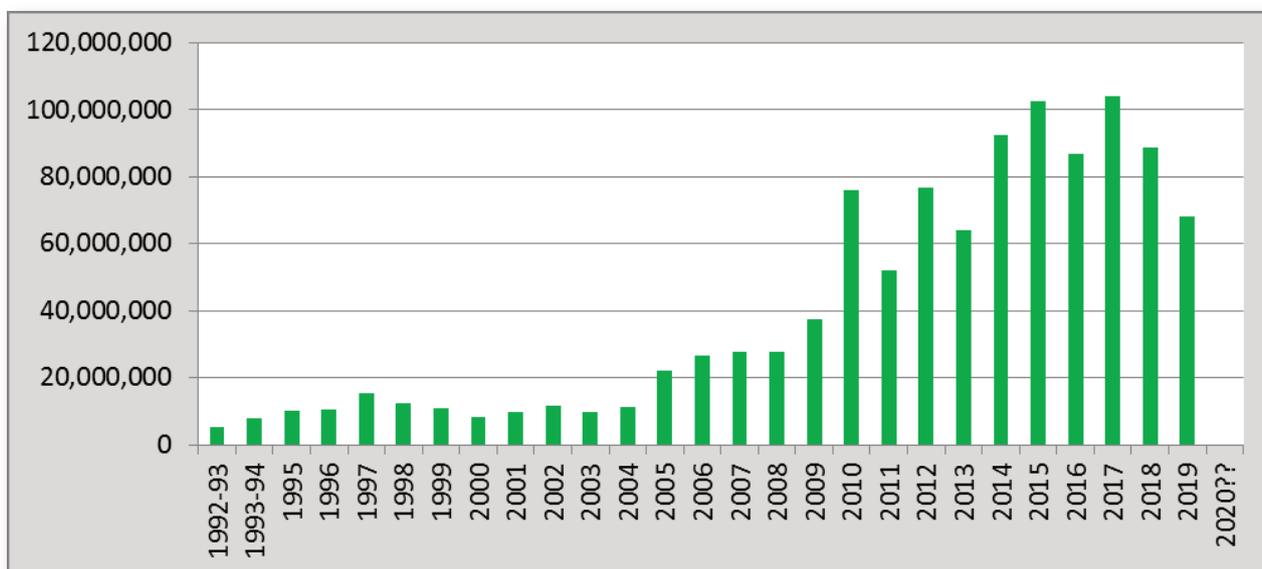


Besides land release activities, CMAC plans to respond to 5,000 emergency requests and 40,000 mines/UXOs are expected to be removed and destroyed. It is important to note that this work plan is established based on the capacity of CMAC to conduct land release with a strong emphasis on technical and non-technical survey.

3. Productivity Target Rational for 2020

According to the Strategic Plan 2018-2025, CMAC is required to release over 100 km² of contaminated land each year. CMAC, therefore, plans to increase its demining output over 30 km² from the last-year productivity to meet the requirement of 116.7 km² in 2020. Based on CMAC past experiences, recent trials and performance analysis, and application of new methodologies and technologies, CMAC will be able to increase its land release productivity.

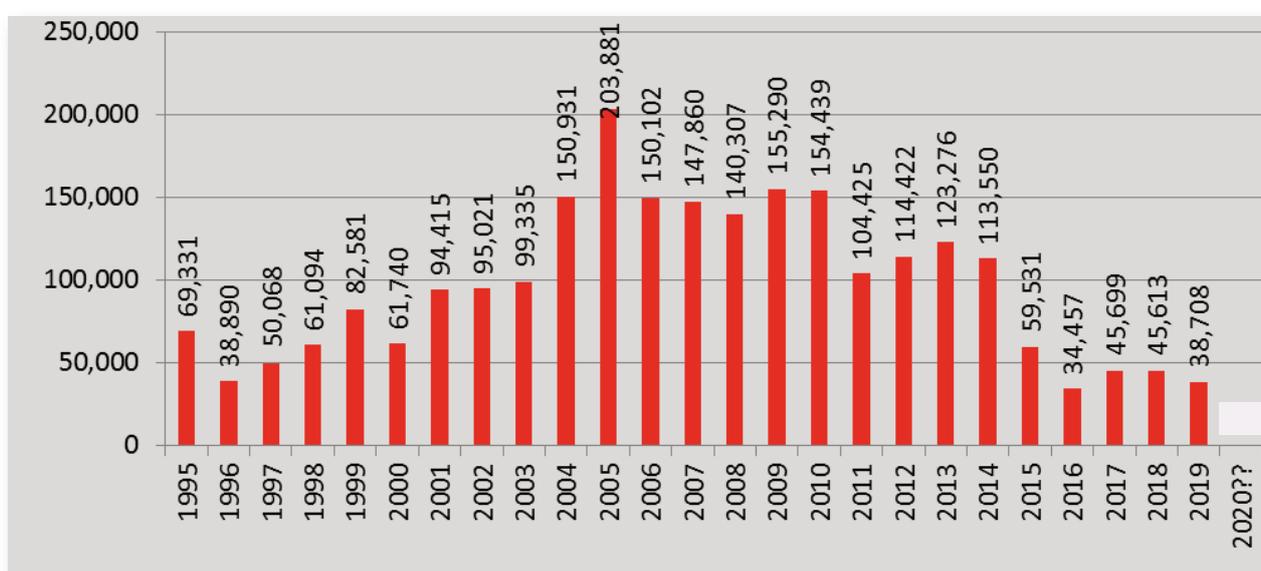
Figure 3: CMAC’s Clearance Statistics (m²)



Practical experiences, especially in 2009-2014 and 2015-2018, have offered CMAC a depth of knowledge and confidence that land release could be done very efficiently by employing various methods using new innovative demining toolboxes through team restructuring to reflect the actual condition of the nature of contamination.

With such extensive experiences, CMAC will use a more effective survey focused approach in integration with full clearance complemented with expert knowledge to release minefield in a more efficient manner. To facilitate such operation, CMAC will continue to accentuate multi-skill capacity development approach for all demining tool boxes so that each team will have the capacity to not just conduct land release but MRE, EOD, and survey as well. With this integrated approach, for the year 2020, CMAC is confident to be able to increase its operational productivity compare to the year 2019.

Figure 4: Mine and UXO Found and Destroyed Annually



The selection of tasks for every project is based on the minimum requirements of having tasks that fall under the MAPU process and are BLS polygons. To determine the best approach to implement the work plan, each task in the work plan is defined and categorized in accordance with their relevant BLS polygons. The BLS polygons are important in determining the team target productivity through pre-deployment assessment because different polygons present different terrain characteristics, degree of difficulty, or level of complications. Based on these polygons, the methods of land release can be defined, either through full clearance (minefield or BAC clearance), technical survey, or non-technical survey.

The methodology to release contaminated land is categorized into two techniques: surveying and full clearance. Full clearance will be used to clear and eliminate 100% of the suspected hazard area. All metallic fragments will be removed from the ground. This is a staggering slow process and time consuming. If the threat level is rather medium and the minefield is partially suspected of scattered contamination which is difficult to obtain information, the minefield will be released through technical survey where rapid assessment is used to detect the threat. If threat assessment indicator is extremely low and no physical evidence of hazard items or incidence within the proximity of the minefield, non-technical survey procedure will be used which involved collecting information from key-informant and systematically evaluated.

In other words, in addition to the evidence provided through past average productivities, the methods of land release and the BLS polygons play a key role in how CMAC has defined the teams' productivity. The productivity of each team will vary based on the types of tasks (BLS polygons SHA classification) and the methods of land release (either full clearance or technical and non-technical survey). This means that each team will be required, wherever appropriate, to conduct full clearance, technical or non-technical survey in the same minefield, and the team total monthly productivity will be the total area of land released through these two methods. To achieve the productivity target, CMAC will keep the current workforces to from new team in conformity with requirement of the operations.

Through our partnerships, we will take a stronger role in integrating knowledge and best practices to deliver innovative outcomes. We will continue to support and develop our staff and will seek to be a more efficient and effective organization. The strategy aims to support the future capability edge of mine action training and mine action risk awareness and socio-economic development while maintaining our clearance activities as our highest priority.

In developing strategies of the IWP 2020, CMAC reviewed its existing capacity and resources and analyzed all factors relating to situations in the future when this strategic plan is put into implementation. After careful considerations taking into account different options and scenarios, it was concluded that the option is considered the most suitable and realistic of all other options considering the inputs, outputs and trends

To be consistent with CMAC rolling strategic 5 year plan 2017-2022 and 2018-2025, the IWP has defined and will implement four specific and realistic goals for 2020. These goals are based on these above Strategies and grouped based on the sets of activity areas which will address and aim to achieve the intended end-results of the Vision and Mission



STRATEGIC GOALS AND OBJECTIVES

Overall Goal: To carry out mine action operations to release 116,700,000 m² of landmine/ERW contaminated land in 2020 and conduct mine risk education to minimize number of landmine/ERW casualties, support poverty reduction, and contribute to economic development. Therefore, this overall goal will contribute the vision of Removing threats, Returning Hopes and Building Prosperous Future for Cambodians.

Strategic Goal 1: To effectively conduct land release and marking & survey activities in the landmine/UXO affected areas in response to the needs of the communities for poverty reduction, casualty prevention and economic development.

Strategic Objective 1.1: To effectively release 116,700,000 m² of landmine/ERW contaminated areas of which 78,840,000 m² is landmine fields and 37,860,000 m² is UXO fields.

Activities:

1. Different land release methods, including non-technical survey, technical survey and full clearance will be applied to achieve the planned targets.
2. Despite the annual increase in productivity, it is foreseen that the staff and funding will be maintained at a minimal level, and annually reduced, to reflect the current funding situation.

Strategic Objective 1.2: To survey and mark 70,000,000 m² to 90,000,000 m² of contaminated areas aimed at releasing formerly suspected hazardous areas (SHA), classifying identified polygons into sectors for future technical survey and clearance, capturing contaminated areas formerly not recorded in the Baseline Survey, and marking confirmed hazardous areas (CHA) for future operations.

Activities:

1. Non-technical survey and technical survey will play a key role in the increased release of land for productive use.
2. Classifying a large polygon into different sectors to apply technical survey and full clearance and employ the most suitable and effective tools will be an important process of the land release. CMAC will take this process seriously to achieve this Strategic Goal.
3. Another important task of the survey program in 2020 is to determine and identify the extent of remaining threat of landmines and unexploded ordinance. In the process of survey, contaminated areas formerly not recorded in the Baseline Survey are likely to be identified. This will be recorded and marked for subsequent actions.

Strategic Objective 1.3: To organize, deploy, and where necessary, reform operational teams and management to effectively and efficiently implement the Strategic Goals.

Activities:

1. To organize and deploy operational teams to maximize outputs with efficiency, safety and competitive edge of CMAC's operations, and to boost productivity significantly as stated in the above two strategic objectives, CMAC will implement a number of reforms of the operational assets to ensure that their structures and roles will meet the challenges and actual field conditions as well as operational challenges.
2. In 2020, the Demining Machine teams will be reformed from its 21-member structure to 15 members equipped with adequate demining tools and multi-skills for more effective and efficient operations in smaller minefields.
3. Also in 2020, some Brush Cutter teams with its 9-member structure will be restructured to the Brush Cutter teams with its 15-member structure to clear mine/UXO fields by using full clearance and Technical Survey. The Brush Cutter will be also used as tools in vegetation clearance.
4. Teams such as Path Finding teams (PFT), Battle Area Clearance by Village (BAV) and Battle Area Clearance (BAT) teams will no longer exist as they will be completely reformed. Instead, teams like EOD-Diving and Explosive Harvesting will be established to carry out specialized tasks in explosive harvesting and underwater operations.

Strategic Objective 1.4: To strictly carry out and strengthen monitoring to conduct quality control and quality assurance of demining operations.

Activitie

1. Continue to implement a regular and surprise monitoring and QA/QC regime to ensure safety and adherence to SOP's by field operators.
2. Develop an effective and timely corrective and follow-up process.
3. Link the monitoring and QC/QA process and findings to training, research and development, and SOP development.

Strategic Objective 1.5: To develop and promote innovative humanitarian demining projects to reduce casualty, alleviate poverty and contribute to national obligation under the Ottawa Convention.

Activities:

1. Under this commitment CMAC will put significant afford to establish new innovative projects.
2. It is important to identify areas in which clearance projects will produce the maximum impacts on the Convention and people on the ground. Projects will be developed and promoted based on actual survey and needs assessment.

3. CMAC will promote these projects to donors and the Royal Government to seek their funding support.
4. To seek equipment support in addition to funding to improve CMAC's functions.

Strategic Objective 1.6: To support development-related projects aimed at improving public, agricultural, industrial and tourism infrastructure in order to contribute to the national economic development.

Activities:

1. Re-establish Demining Development Unit to facilitate public and private development activities.
2. Besides humanitarian demining, CMAC also supports infrastructure development as a platform for national construction and economic development. Most infrastructure development project that takes place in the mine/UXO affected community would require demining support to ensure safe implementation of the project.
3. Coordinate with the Royal Government of Cambodia, the donors and development partners, commercial companies and local authorities to determine the needs and establish work plan on how best to address these needs.
4. Establish annual work plans in term of resource mobilization including human and physical asset, and financial resource.

Strategic Objective 1.7: To continue to build up capacity and actively participate in domestic, regional and international bidding process for demining projects.

Activities:

1. Make necessary technical and resource preparations to participate in bidding process.
2. Continue to build up technical and management capacity to successfully bid for and implement competitive projects.
3. Regularly monitor and seek opportunities in domestic, regional and international bidding for demining projects, both humanitarian and development related.

Strategic Objective 1.8: To strengthen focused risk education activities through comprehensive community-based network program (CBMRR, CBURR) to build community capacity in dealing with mine/UXO and reduce casualty mine/UXO related.

Activities:

1. Over 3,500 CBMRR and CBURR focal points and volunteers will be trained and maintained in across provinces throughout 2020.
2. It is important to continue improving and introducing new initiatives to landmine/ERW risk education. A more effective and comprehensive risk monitoring and reduction program will be designed and implemented to accelerate casualty reduction, especially in high accident rate areas..

3. Local capacity building will be a major activity aimed at building up the capacity of and transferring skills to the local authorities and communities to continue the risk education and reduction programs beyond 2020.
4. Continue to develop a strong formal educational system in schools to educate children of the risk posed by landmines/ERW for long-term risk education impact.
5. Develop and mobilize an effective response mechanism to respond to reports and requests from the local communities and authorities.

Strategic Objective 1.9: To support and actively participate in the national and local planning in prioritization process to release contaminated land aims at risk reduction, poverty alleviation and maximizing socio-economic impacts.

Activities:

1. CMAC will continue to support the PMAC/MAPU Planning and Prioritization Process in adopting its annual Integrated Work Plans (IWP). However, where it is deemed possible and necessary, CMAC will provide recommendations, from an Operator's perspective, how the process can be improved to maximize risk and poverty reduction and socio-economic impacts from demining operations.
2. CMAC will also make every effort to re-assess the remaining problem which was not captured by the former Baseline Survey to ensure that a whole picture of the problem is identified and prioritization can be done on this basis.
3. CMAC will also respond to emergency risk reduction requests from the local communities and authorities even if the requested areas fall outside the BLS polygons if there is a real emergency threat posing risks to the population.

Strategic Objective 1.10: To continue to review, revise and develop Standard Operating Procedures (SOP's) in alignment with CMAS, international standards and best practices.

Activities:

1. Review existing and developing new SOP's to meet the operational challenges and apply new technologies and methods. Reviewing and improving the SOP's will be a key focus and priority task of the Department in its efforts to continue to ensure operational effectiveness, efficiency and competitiveness.
2. Key SOP's for detection dogs (mines, UXO, special, breeding), specialized EOD (underwater, chemical), ERW/Cluster survey and land release, deep search and mechanical application will receive exceptional attention in ensuring that CMAC's operations continue to be innovative and competitive.
3. Conduct field monitoring and evaluation on application of all SOP's in the field operations to ensure adherence and suitability and applicability.

Strategic Objective 1.11: To enhance operation database and information management to capture and analyze operational data to produce timely accurate reports for strategic planning, corporate management and publicity purposes.

Activities:

1. Operation database will be a crucial asset in capturing operational data for analysis and application for strategic and corporate management.
2. Strengthen database and information management to serve the operational, strategic and corporate needs to effectively manage its operations and organizational management.
3. CMAC will review its operation database system to ensure that it is virtually linked between the HQ and the Demining Units to ensure timely and effective data transfers and imports.
4. CMAC will also provide training for field database officers to enhance their skills and maximize their performance.
5. CMAC will also study and utilize latest IT applications and tools to support field operations and reporting. This will involve equipping the teams with reporting tools such computers, handheld devices and software.
6. CMAC will train team leaders and supervisors to apply new technology for reporting.

Strategic Objective 1.12: To maximize land release impacts to contribute to risk reduction, poverty reduction and socio-economic development of affected communities.

Activities:

1. The land release achievement for 2020 under the Strategic Goal 1 should benefit at least 25,000 families directly and indirectly.
2. Annual number of casualties is expected to be significantly reduced to around 100 in 2020.
3. More than 80,405,949 m² of mine/ERW contaminated land will be released and available for agriculture and other development purposes to ensure safe and prosperous communities in sustainable manner.
4. To support large infrastructure construction projects to ensure safe implemented which will result in accelerated economic development.

Key Performance Indicators:

1. Land release achieved according to targets.
2. Land release application through non-technical survey and technical survey optimized.
3. Number of Mine/ERW casualties reduced.
4. 400,000 of population reached with MRE.

Strategic Goal 2: To provide victim assistance and community development for affected communities.

Integration of Mine Action with community development is part of the poverty reduction policy of the Royal Government of Cambodia. This integration prioritizes the need to reinforce the role of local government and civil society in their involvement with Mine Action and community development.

CMAC's involvement in victim assistance and support to community development has been a landmark activity beside direct contribution to affected communities through clearance of contaminated land. CMAC in partnership with several donors and development partners has implemented post clearance development project to provide assistance for the affected community such as agriculture training, irrigation system, infrastructure and resettlement.

Strategic Objective 2.1: To develop and expand the program of victim assistance and community development services

Activities:

1. Conduct impact and need assessment to identify communities where victims and affected population most seriously need development support to improve their standard of living.
2. Develop innovative mechanism and programs to provide victim assistance and community development services to affected communities through needs assessment and better catering to the needs of the affected population.
3. Promote clearance to support development and innovative humanitarian projects, which will benefit local communities in terms of their income generation opportunities.
4. Ensure the alignment of victim assistance and community development activities with the Royal Government's poverty reduction policy aimed at significantly reducing poverty and providing better economic opportunities.
5. Strengthen the Department of MRE, Victim Assistance and Post-Clearance Development to carry out their roles and duties effectively.

Strategic Objective 2.2: Promote linkage and partnership with other organizations in providing victim assistance to support landmine/ERW victims in CMAC's operational areas.

Activities:

1. Identify potential partner organizations to implement an active link and support program for the landmines/ERW victim in CMAC's operational areas to cater for their health care needs, long-term support and social reintegration.
2. Develop an effective system of partnership and cooperation with the victim assistance organizations to ensure their timely and comprehensive support to victims.
3. Promote understanding and support for victims in CMAC's operational areas by organizing visit.

Strategic Objective 2.3: To promote and instigate new projects similar to the Integrated Demining and Community Development Project (Peace Building Project) for the three year period project 2020-2022.

Activities:

1. Recognizing the multi-tier impacts on the local communities as a result of the Integrated Demining and Community Development Project (the Peace Building Project) currently

implemented with the funding support from the Government of Japan, CMAC will seek to develop and implement similar projects in the future in other areas with support from Japan or other donors and development partners.

2. Taking lessons learned and experience from the implementation of the project, CMAC will identify suitable sites to develop project proposals to submit to donors.

Strategic Objective 2.4: To promote publicity and initiate fund raising to increase awareness and mobilize fund to support community development initiatives.

Activities:

1. Develop appropriate and attractive awareness and information package targeting charity organizations, companies and donors to attract their support to victim assistance and community development.
2. Conduct case study of the socio-economic impacts of the victim assistance and community development projects to highlight their far-reaching impacts on the recipients.
3. Organize study tours and visits to the project sites to showcase the achievements and impacts of the projects.

Key Performance Indicators:

1. Victim assistance and community development projects developed and implemented.
2. Affected communities developed.
3. Living standards of people/recipients improve.

Strategic Goal 3: To provide and enhance quality training, capacity building and maintain an active research and development program.

The challenges in mine action in Cambodia and worldwide require CMAC to maintain competitive advantages through improved technology and methodology. CMAC recognizes the importance of acquiring and maintaining a high quality capacity for demining through quality training and research and development activities, and therefore has set a strategic goal in this regard to be strictly implemented as a high priority in the next five years. Objectives under this Goal include:

Strategic Objective 3.1: To develop appropriate training programs and continue to provide and enhance internal training for staff on the capabilities and skills required to maximize their job performance. This including integrates retired staff into their community.

Activities:

1. Conduct annual training needs assessment to identify training needs and make improvements to training design.

2. Develop a capacity building program based on training needs, job performance requirements, and human resources development plan, taking into consideration the new challenges and changes in mine action environment, to ensure training will fit the operational requirements and challenges, and that CMAC will maintain competitive advantages. This should be achieved by the end of 2020.
3. Identify special training needs, such as training of EOD level 4, chemical training, etc. to further upgrade CMAC's capability to deal with challenging tasks. This may take multiple years, but some training should take place in 2020.
4. Focus on multiple skills in training design.
5. Review and re-design the certification process. This should be achieved by the middle 2020. Continue to cater for domestic training requirements, such as training armed forces,
6. national police and other organizations requiring training in landmine/ERW-related areas.
7. Deliver training courses to at least 1,000 trainees for 2020 to upgrade their skills.

Strategic Objective 3.2: To convert the current Training Centre to be an Institute of Mine Action to serve as a hub for internal, regional and international training.

Activities:

1. Coordinate and work with the Ministry of Education, Youth and Sports as well the Ministry of Defense to assess and develop an appropriate plan to upgrade the current Training Centre to be an Institute of Mine Action (IMA) for this Kingdom.
2. Upgrade the training facilities and equipment as well as the compound, including accommodation, to accommodate international and regional trainees.
3. Upgrade the instructors' capacity to meet the new institutional status by the end of 2022 and this 2020 to strengthen both tacit and explicit knowledge and documents.
4. Design and upgrade training curricula to fit training requirements under the new institutional status and to offer regional and international training by the end of 2020.
5. Enhance the training management and documentation to ensure long-term sustainability and capacity.
6. Create a link with international specialized training or mine action institutions to draw from their skills and experience in design of training courses and training delivery to fill in any technical gaps that may occur.

Strategic Objective 3.3: To deliver regional and international quality and specialized training to enhance regional/international cooperation in terms of skill exchange and sharing experience.

Activities:

1. Building up on the current South-South Cooperation program supported by JICA, prepare the IMA to deliver quality training to regional and international trainees who require demining-related training in Cambodia. CMAC should target at least one or two technical or management training courses in 2020.

2. Develop regional and international training package and be proactive to identify potential recipient organizations which require such training.
3. Expand on the current South-South Cooperation initiatives to include other interested countries.
4. Actively look for sponsors to host middle or senior management training to regional and international recipient organizations.
5. Develop advisory and consultancy capacity in specialized areas and provide such services whenever applicable. The timeframe target should be toward the final years of this Strategic Plan.

Strategic Objective 3.4: To strengthen research and development of innovative technologies and methodologies to respond to changing operational needs and requirements.

Activities:

1. Research and development of new technologies and methods will continue to be part of CMAC's overall corporate strategy to continue to build up the organization capacity to deal with challenges and maintain its competitiveness.
2. Focus research and development on detection (including deep search, underwater detection, animal detection and GPR systems) technologies, innovative land release methods, mine risk education tools, the application of IT tools to support field operations and reporting, specialized demining-related equipment, special detection dogs, improved application of demining machines, and innovative survey and mapping tools.
3. Maintain and upgrade the R&D facility to meet the real working conditions.

Key Performance Indicators:

1. At least 800 trainees receive training for 2020.
2. Training needs assessment conducted and training plans developed.
3. IMA established and functional.
4. Regional and international cooperation enhanced.
5. New innovative tools and technologies developed.

Strategic Goal 4: To review and enhance institutional capacity, organizational structure and corporate management to ensure long-term sustainability, competitiveness and responsiveness to challenges.

This Goal highlights the strategies needed to ensure that CMAC has the appropriate institutional capacity and corporate resources it needs to achieve its goals and objectives; and that its workforce is motivated and has the necessary capabilities. A key task of under this Goal will be to focus on the business development capabilities of the organization to ensure that donors and partners understand CMAC requirements and resources are secured. CMAC also recognize that it must be proactive in looking for opportunities to increase its income stream providing new and innovative services built on its existing expertise and know-how.

Workforce planning strategies need to be developed and implemented to meet the challenges over the next five years to ensure a motivated and skilled workforce with visible career paths. The corporate management processes and methods must also be improved. The next five years will see CMAC reviewing its corporate costs to ensure that it stays competitive.

Strategic Objective 4.1: To review CMAC’s institutional, legal and operational frameworks to ensure that CMAC will be able to carry out an effective mine action mandate in the changing mine action environments, especially relating to fund mobilization.

Activities:

1. Review CMAC’s institutional mandate, status and structure in response to the evolving mine action environment.
2. Review CMAC’s legal and operational framework to include overseas missions and diversification of resource mobilization strategy to ensure long-term sustainability.

Strategic Objective 4.2: To continue enhancing organizational and corporate management capacity and resource mobilization to meet new challenges as a result of changing environment.

Activities:

Under this Objective, further action plans should be developed to achieve at least the following capacity areas:

1. CMAC Mine Detection Dog facility and capacity will be further improved to support national, regional and international mine action activities through training of MDDs and personnel.
2. Adequate organization management and resource mobilization capacity to meet new challenges and maintain CMAC’s leadership and competitive advantages in mine action.
3. Enhanced corporate management focusing on appropriate capacity building, human resource development and resource management.
4. Capacity to implement a mandate to carry out overseas missions and diversify resource mobilization activities.
5. Capacity to carry out advisory and consultancy roles and other services required by ASEAN Regional Mine Action Centre (ARMAC).
6. Capacity to design and deliver regional and international training courses.

Strategic Objective 4.3: To continue to enhance CMAC’s corporate management functions.

Activities:

1. Continue to strive to deliver effective organization leadership and strategic management.
2. Develop integrated systems and capacity to improve operations and resource management.
3. Strengthen the operations-driven work practices through continual improvements of the support and finance systems and services.

4. Continue to enhance disciplines, professionalism, attitude and commitment to organizational values among staff.
5. Continue to review policies and procedures in all management areas in response to changes.
6. Continue to implement and improve total quality management in all aspects of operations and corporate management.
7. Adapt a proactive approach in all corporate management areas.
8. Continue to review and reforms structures, roles and responsibilities as and when necessary.
9. Develop and enhance corporate and project management systems and practices that ensure effectiveness and efficiency of project implementation.
10. Develop attractive and innovative project proposals, ensure effective implementation and monitoring, and deliver timely reporting and other value-added contributions to donors.
11. Maintain and enhance excellent donor and partner relations as well as regional and international relations as a whole.
12. Create and maintain an effective public relations and communication regime to ensure public awareness and increased interests in support to mine action.

Strategic Objective 4.4: To secure sufficient funding to support CMAC's mine action mandate and corporate activities.

Activities:

1. Establish an effective business plan to stay competitive and cost-effective, taking into consideration the evolving nature of mine action sector.
2. Deliver service diversification to increase revenues, offering new services built upon existing skills and experience, including overseas missions.
3. Participate in domestic and international bidding for demining projects.
4. Ensure full accountability and transparency in financial management and logistics.
5. Ensure effective and efficient resource management and competitive efficiency of demining operations.
6. Continue to seek for equipment and other in-kind support from donors and partners.
7. Ensure all financial reports are timely and in compliance with donors' requirements.

Strategic Objective 4.5: To develop appropriate and timely exit strategy for the organization.

Activities:

1. In consultation with partners, donors and the Royal Government, ensure the exit strategy is realistic and achievable.
2. Gradually reduce donor reliance and switch to other sustainable sources of funding, including the Royal Government's contributions and other sources.
3. Consider integration of certain capacity element into the Royal Government.

Strategic Objective 4.6: To maintain and optimize the work force motivation and capacity.

Activities:

1. Strengthen CMAC human resource development and management, including a comprehensive human resource training and development plan.
2. Implement staff welfare programs, including the current seniority scheme, staff loan program, CMAC Community Development Centre and health care.
3. Have appropriate strategy and action plan to promote the development of the CMAC Community Development Centre.
4. Pursue gender equity goals in line with the Royal Cambodian Government Neary Rattanak III five year strategic plan.

Key Performance Indicators:

1. CMAC’s mandate reviewed
2. Organization and corporate capacity and resources in place
3. Funding secured and diversified
4. Drafting Exit strategy
5. Staff motivated and human resources fully managed and developed



FINANCIAL SITUATION AND PROJECTS FOR 2020

CMAC recognizes the expected tight financial situation over the period, while undertaking its critical role in mine action. CMAC will continue to balance the level of funds available for operational costs and corporate overheads. It will look for efficiencies in streamlining the organizational structure and business practices as well as alternative revenue streams from diversifying its services.

Funding is expected to come from three main sources: donors for humanitarian demining projects, the Royal Government for both humanitarian and development projects, and funding from competitive bidding projects and overseas missions/training. Legal mechanisms, structure and policies to mobilize and manage these resources should be put in place to ensure a sound resource management.

In addition to direct financial support, equipment support is of vital necessity. To keep the operational costs down, capital investment in equipment is important. This may come from equipment assistance, especially from the Government of Japan or others.

Based on confirmed and expected projects funding for 2020, CMAC expects to receive with a total amount of 14,768,562 USD to achieve a planned productivities of 80,405,949 m², which includes 13,499,892 USD in operational budget and 1,268,670 USD in equipment and training. Therefore, to support a full strategic operational plan on land release of 116,700,000 m², CMAC management needs to mobilize extra financial resources to fulfil its work plan. In order to achieve the implementation of the work plan 2020, CMAC will employ 1,400 technical and competent personnel.

Table 5: Project Supporting IWP 2020

Sr.	Project Title	Location	Donor/Partner		Remarks
I. Confirmed Demining Projects					
1	Mine/ERW Clearance in Banteay Meanchey (2-month extension)	DU1	UNDP	CMAA	
2	The Promotion of Community Development with Demining	DU1	JPN	JMAS	
3	Mine/ERW Clearance in Battambang (2-month extension)	DU2	UNDP	CMAA	
4	Royal Government of Cambodia – Japan Counterpart Fund Assistance for Human Security Projects	DU2	RGC	EoJ	
5	The Project for Integrated Mine Clearance and Landmine Victim Assistance (IMV-4) – Demining	DU2	JPN	CA	
6	Community Anti-tank Mine Clearance	DU2	IMCCD	IMCCD	

7	Leasing MDD to MAG Cambodia Program (3 SLD teams)	DU2	MAG	MAG	
8	Mine/ERW Clearance in Pailin (2-month extension)	DU3	UNDP	CMAA	
9	Landmine and ERW Clearance in Angkor Heritage Compound (Phase 2)	DU4	RGC	Apsara	
10	Comprehensive Mechanical Demining (CMD)	DU4	JPN	JMAS	
11	TSC Secondment to APOPO DU4	DU4	APOPO	APOPO	
12	Clearance of ERW in the East of Cambodia	DU5	USA	NPA	
13	The China-Aided Cambodia Landmines Elimination	DU6	PRC	MEF	
14	Southwest Irrigation (Phase 1)	DDU	RGC	MWRAM	
II. Confirmed Other Projects					
1	Royal Government FUNDP (Administration)-Extension	HQs	RGC	RGC	
2	Explosive Harvesting Program & Salvage Dive Unit	TMIA	USA	GW	
3	Third Country Training Program on mine action for the Federal Republic of Iraq and Kurdistan Region	HQs	JPN	JICA	
4	South-South Cooperation Program on mine action for Republic of Colombia	HQs	JPN	JICA	
5	Laos Cambodia South-South Cooperation on UXO/Mine Sector	HQ	JPN	JICA	
6	Safety Village Construction (SVC)	DU1&2	KOM	JMAS	
7	The Programme for Demining Toward Landmine Impact Free by 2025 and Supporting Socio-economic Development in the Kingdom of Cambodia (DSOC) - Community Assistance	DU2	JPN	CA	
8	DSOC Equipment and Other Support Cost	DU2	JPN	CA	
9	CMAC-JICA Technical Cooperation	HQs	JPN	JICA	
III. Expected/Negotiateion Projects					
1	IMV-4 Counterpart Contribution	DU2	RGC	MEF	
2	Landmine/UXO Clearance Securing the Safety around Koh Ke Compound	DU6	RGC	PHV	
3	Southwest Irrigation (Phase 2)	DDU	RGC	MWRAM	

OPERATIONAL MANAGEMENT AND TARGET PLAN

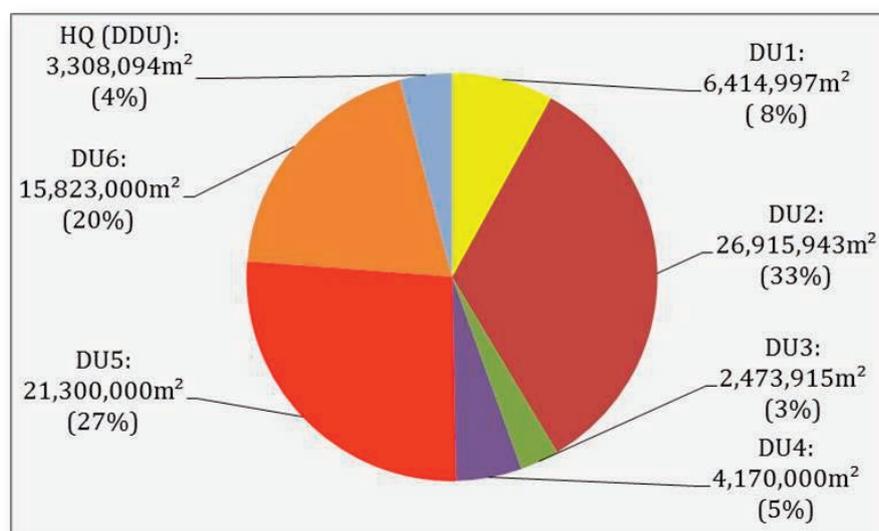
1. Overall Operational Work Plan

In compliance with CMAC Strategic Plan 2018-2015 and under the current capacity including human resources and equipment, in 2020, CMAC plans to carry out mine action operations to release 116,700,000 m² of landmine/ERW contaminated. However, with the confirmed and expected projects, CMAC expects to release approximately 80,406,949 m² of contaminated areas in 2020, among of which 44,804,055 m² is minefield and 35,601,894 m² is ERW field. Therefore, for another remaining 36,294,051 m² of contaminated areas, CMAC has to mobilize extra financial resources from other development partners and donors for additional project implementation. Besides land release activities, CMAC will respond to around 5,000 emergency requests and 40,000 mines/UXOs are expected to be removed and destroyed. In addition to land release activities, CMAC will continue to conduct mine risk education to minimize number of landmine/ERW casualties, support poverty reduction, and contribute to economic development. In this connection, post clearance development projects still remain on CMAC’s agenda to support mine/UXO affected communities and these activities can be carried out after the clearance operation. In 2020, CMAC also plans to construct access roads, schools, ponds and agriculture trainings. As a result, 20,000 families will be benefitting from CMAC mine/UXO clearance operation.

2. Demining Unit Planned Productivity

Each demining project has different objective and different goal. Some projects focus more on landmine clearance to support community development in the western Cambodia and other project focus on UXO clearance. Therefore, in order to achieve this above operational work plan, and to realize the outputs, this work plan is divided into geographical areas while the areas of responsibility of regional demining units are as followings:

Figure 5: Land Release Plan by Demining Units



2.1 Demining Unit 1

Demining Unit 1 (DU1) is responsible for implementation demining project and other mine action response for Banteay Meanchey and some parts of Oddor Meanchey Province. Under the financial supports from the UNDP under Clearing For Result project and from Japan through JMAS in implementing the Promotion of Community Development with Demining project, DU1 plans to clear roughly 6,414,997 m² of landmine/UXO contaminated land.

2.2 Demining Unit 2

Demining Unit 2 (DU2) operation mainly covers three provinces: Battambang, Pursat, and Pailin. CMAC mine clearance asset is mostly concentrated at DU2. A few large scale mine clearance projects are implemented here such as UNDP Clearing For Result Battambang, Integration Mine Clearance and Landmine Victim Assistance (IMV-4) project supported by the Government of Japan and Community Anti-Tank Mine Clearance project funded by IMCCD, which requires numerous demining teams to support the clearance of 26,915,943 m² of mine/UXO contaminated land.

2.3 Demining Unit 3

Demining Unit 3 (DU3) operation mainly covers Pailin province. Under the financial support from the UNDP under Clearing For Result project, DU3 plans to clear around 2,473,915 m² of landmine/UXO contaminated land. DU3 will deploy a number of tool boxes to support the operations on the ground to achieve its planned output.

2.4 Demining Unit 4

Demining Unit 4 (DU4) is responsible for demining operations covering the provinces of Siem Reap, Preah Vihea and Kompong Thom. In 2020, DU4 plans to release 4,170,000 m² in implementing three projects including the Landmine and ERW Clearance in Angkor Heritage Compound (Phase 2) supported the RGC through Apsara Authority, the Comprehensives Mechanical Demining supported by Government of Japan through JMAS and TSC Secondment to APOPO.

2.5 Demining Unit 5

Demining Unit 5 (DU5) covers seven provinces: Kompong Cham, Stueng Treng, Prey Veng, Rattanakiri, Mondulhiri, Kratie, and Svay Reang. With the support from the Government of the United States through the Norwegian People's Aid (NPA) in implementation of Clearance of ERW in the East of Cambodia project, DU5 plans to clear 21,300,000 m² of UXO contaminated areas in 2020.

2.6 Demining Unit 6

Demining Unit 6 (DU6) covers the province of Preah Vihear and some districts of the provinces of Siem Reap, Steung Treng and Oddor Meanchey. With the supports from the Government of People's Republic of China in implementation of China-Aid Cambodia Landmine Elimination project, DU6 plans to clear 15,823,000 m² of mine/UXO contaminated land in 2020, with deployment of BC team, TSC team, MRD team, TSD team and EOD team.

2.7 Central Headquarters (Demining for Development Unit-DDU)

CMAC Headquarters will implement mostly contractual service project to support certain development activities mostly through technical and non-technical survey. For 2020 under such implementation, 3,308,094 m² is expected to be released. CMAC HQ will deploy Battle Area Clearance-TS, Explosive Ordnance Disposal teams and other supporting resources to respond to such projects.

The achievability of these targets will be depended on the expected funding availability and effectiveness of the Land Release methodology. Key effort to address future contamination problem will be relied upon the innovation of the LR method through non-technical and technical survey. Large areas that are suspected of contamination with scattered mines/UXO and not well defined hazard area should be released through technical survey and non-technical where operationally appropriate. Therefore, CMAC develops its 2020 work plan in accordance with land release target productivities and the number of tools expected to be deployed based on confirmed project and expected project 2020.

Due to the different nature of mine/UXO threat, CMAC operational tools will be trained and equipped differently. Certain tools are designated to perform certain tasks. The following is the demining toolboxes which will be used effectively and efficiently in mine/UOX clearance and survey in 2020:

Table 6: Demining Tool Boxes Used to Support the Operations

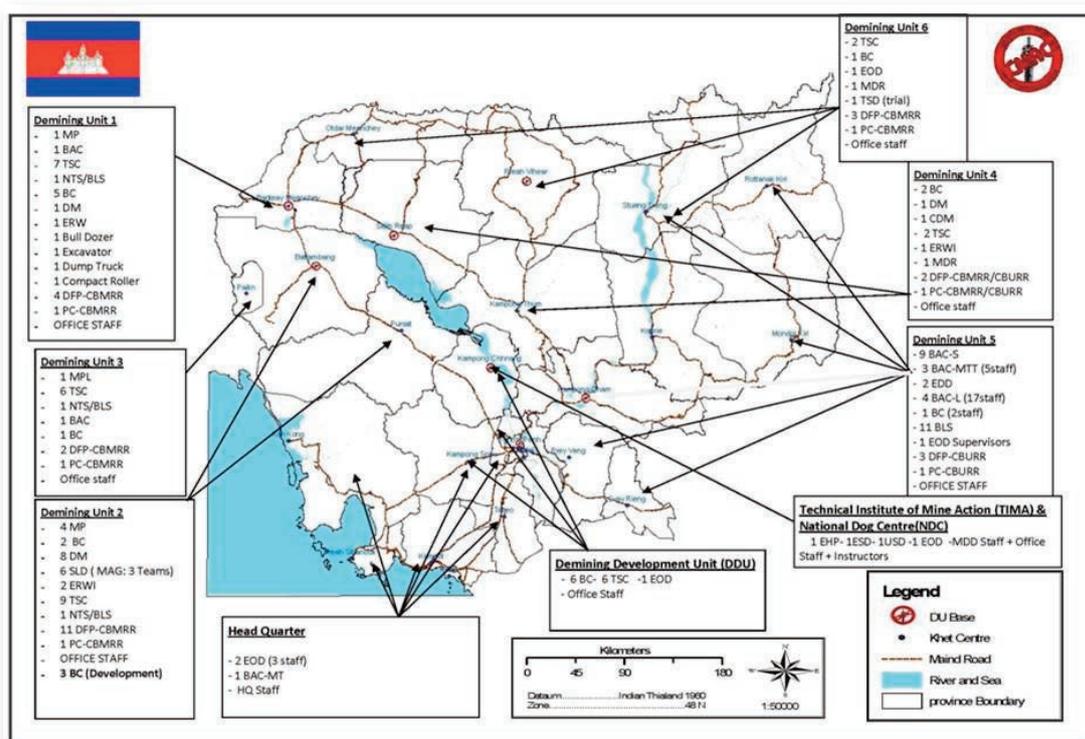
Toolbox	Code Number	Number of Team
Mobile Demining Platoon (27 staff)	MPL-27	6
Brush Cutter Team (9 staff)	BC-9	6
Brush Cutter Team (15 staff)	BC-15	3
Brush Cutter for Development Team	BC-D	14
Demining Machine (15 staff)	DM-15	5
Demining Machine integrated with MDD (12 staff)	DM-12	3
Demining Machine (3 staff)	DM-3	2
Cluster Demining Machine	CDM	1
Short Leash Detection Dog (10 staff)	SLD	3
Explosive Detection Dog (6 staff)	EDD	2
Technical Survey and Clearance Team (TSC-7 staff)	TSC-7	23
Technical Survey and Clearance Team (TSC-5 staff)	TSC-5	7
Non-Technical Survey Team	NTS	3
Baseline Survey team (NTS 5 staff)	BLS	11
Battle Area Clearance – Small Team (7 staff)	BAC-7	5

Battle Area Clearance – Small Team (5 staff)	BAC-S	6
Battle Area Clearance – Large Team (16 staff)	BAC-L	4
Battle Area Clearance-Multi Technical Team	BAC-MTT	4
Explosive Ordnance Disposal (5 staff)	EOD-5	3
Explosive Ordnance Disposal (3 staff)	EOD-3	2
Explosive Remnants of War Intervention	ERWI	4
Mine Detection Rate (10 staff)	MDR	2
Community Based Mine Risk Reduction	CBMRR	31
Explosive Security Detection Dog (5staff)	ESD	1
Underwater Survey and Diving Team (5 staff)	USD	1
Total		152

3 Operational Deployment Plan

All demining teams will be properly equipped and deployed under CMAC demining units throughout the country to respond to the emergency needs for mine/UXO clearance in the prioritized areas in compliance with the prioritization process under PMAC/MAPU to facilitate development and ensure safety of the community. The deployment of demining teams reflects the confirmed available funding and characteristic of each project.

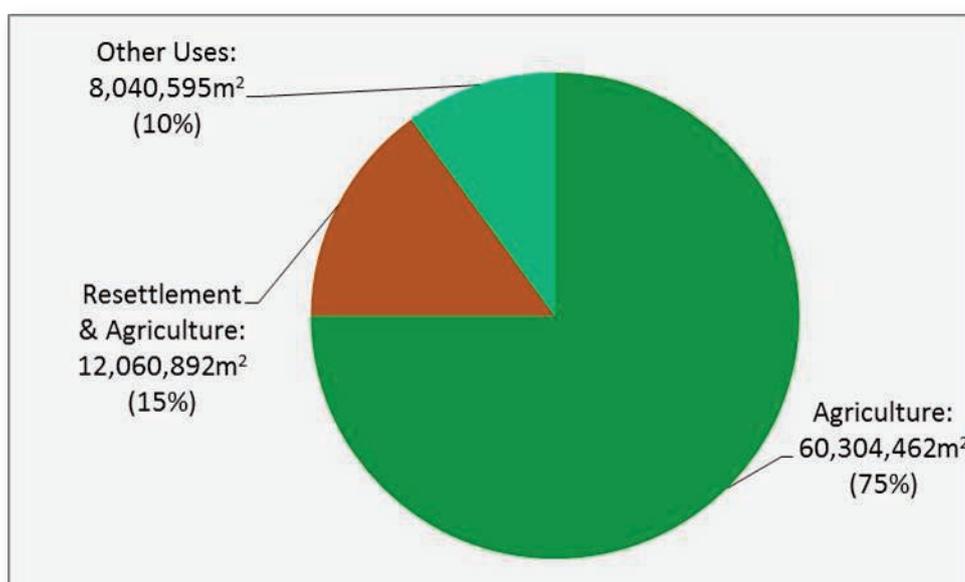
Figure 6: CMAC Planned Deployment Map for the Year 2020



4 Overall Planned Beneficiary in 2020

Practically, operational work plan minefield is prioritized through the PMAC/MAPU process, to ensure the effectiveness of the utilization of funding which will benefit the most landmine/UXO affected communities. It is expected that 25,000 families in the most impacted communities will be directly and indirectly benefited from demining operation in 2020. In terms of total number of population, 350,000 people will be benefited. Besides mine clearance task prioritized through PMAC/MAPU process, CMAC also respond to risk reduction clearance task which is expected to be 10% of overall clearance tasks. In terms of land use purpose, CMAC expects roughly 75% of the total released land will be used for agriculture this indicated the increase in agricultural activities whereas roughly about 15% is used both agriculture and resettlement while other 10% will be used for other development activities.

Figure 7: Socioeconomic Output through Land Release



CORPORATE MANAGEMENT WORK PLAN

1. Department of Planning and Operations

Operations and Technical Management

- Continue to strengthen cluster munitions survey in the eastern part of Mekong River.
- Continue to organize, deploy, and where necessary, reform operational teams and management to effectively and efficiently implement the projects.
- Continue to review, revise and develop Standing Operations Procedures (SOP's) in accordance with CMAS, international standards, best practices, operational challenges and application of new technologies and methods.
- Survey and re-survey contaminated areas aimed at releasing formerly suspected hazardous areas (SHA), classifying identified polygons into sectors for future technical survey and clearance, capturing contaminated areas formerly not recorded in the Baseline Survey, and marking confirmed hazardous areas (CHA) for future operations.
- Enhance operational database and information management to capture and analyze operational data and progress and produce timely and accurate reports for strategic, corporate and publicity applications.
- Apply online reporting by sending information from field to CMAC HQs through Tablet,
- Apply effectively Land Release principle with attention to structure, procedure and quality control.
- Strengthen procedure and review development of plan on mine/UXO field selection.

Cooperation with National and International Institutions

- Enhance and strengthen cooperation with Royal Cambodian Armed Forces through provision of skill and technical training in accordance with Strategic Plan 2018-2025.
- Enhance communication and relationship with Preah Vihear Authority in mine/UXO clearance for safety in conservation and research areas.
- Cooperate with other Authorities and Ministries to conduct a survey on chemical-weapon contaminated areas.
- Enhance the scope of CMAC-TMAC joint demining cooperation along Cambodian-Thai border.

Research and Development

- Strengthen management of research development facilities at Training Center in Kampong Chnang and Demining Unit 4 in Siem Reap to ensure provision of effective capacity for rigorous research development activities.
- Continue to conduct research on new demining technology in order to be able to identify and record the type of UXO or other metal fragment and its depth and possibly able to assess the condition of minified.

- Continue, in cooperation with Tohoku University, conducting research and operational trial on Advanced Landmine Imaging System (ALIS) as dual sensors system on minefield.
- Continue, in working with Innovative Operations System (IOS), conducting a research on capability of Demining Robot (DMR) in excavation of anti-personnel landmine.
- Conduct research and application of drone in survey operations.
- Study searching capability of new mine detection rats in cooperation with APOPO.
- Continue, in cooperation with APOPO, conducting new detection dog searching system and trial operation of Technical Survey Dogs.

2. Department of Human Resources

CMAC continues to facilitate career development of staff by providing career opportunity and utilizing the CMAC Human Resources database to identify all information in the training need for staff. While Cambodian economy has developed at a significant rate which puts upward pressure on the cost of living, staff motivation and employment benefit will need to be strategically adjusted to maintain the standard of living of CMAC staff. In addition, the social support to the staff will also need to be considered. Meanwhile, CMAC will pay much attention on gender equity as it not only meets challenge reduction, but also supports development, especially, poverty reduction, which is necessary for Cambodian development goal defined in the Royal Government rectangular strategy, millennium development goal and national development strategy in empowering woman staff.

To strengthen career development and capacity building to ensure sustainability, quality, capability, and skill of staff and successor.

- Assess ability, career and training needs of staff at all levels,
- Develop staff capacity-building plan based on institutional requirement, staff needs and mine action development,
- Conduct internal training to meet appropriate career at all levels for staff's position and actual need as well as promotion/encouragement.
- Share and exchange knowledge, skill and experiences with other institutions/units in the country, the region and the world.

To develop a comprehensive strategy in improving welfare, ensuring work performance safety and providing health services to support staff.

- Conduct health inspection and education to staff.
- Seek emergency services, treatment and health check for supporting staff such as National Social Security Fund.
- Seek support on health services for staff after retirement, handicap and disability.
- Take appropriate measure to mitigate risk and prevent diseases from affecting staff's welfare.

To improve and strengthen database management and human-resources database management system for ensuring effective and sustainable processes.

- Manage database, record system and archive of staffs who are currently working and former staff who are retired and disabled.
- Take appropriate measure in encouragement/punishment to staffs with transparency, fairness and seriousness.
- Conduct staff's annual work performance evaluation.
- Record and follow up staff's discipline and present.

To raise gender equity between men and women in mine action.

- Participate in skill training.
- Be evaluated and promoted.
- Express idea and participate in decision making.
- Receive encouragement through procedure revision and principle related to women's safety and health.

3. Department of Support

The quality of service support is one of the important factors to contribute to obtaining successful achievement of CMAC mission and operations. CMAC has put in place the sound policies and procedures applying to its daily management. However, keeping change and improvement are significant to exist in the new world change. In this spirit, CMAC has carefully kept track of the need for improvements in order to bring the new qualified measures, in this term is referred to the function of service supports, and digest them into its rules and regulations.

To raise quality and effectiveness of service support in supplying equipment/materials and repairing/maintaining vehicles and machines even more better to support mine/ERW clearance operations safely, effectively and timely.

- Strengthen fixed asset management and service support to meet the need of operations with effectiveness and on time.
- Strengthen qualified mechanism of management, maintenance and repair of all kinds of vehicle and demining machine and technical equipment.
- Strengthen management, transportation and use of all kinds of explosive, focusing on safety and explosive security.
- Strengthen implementation of procurements in compliance with CMAC's procedure and public procurement policy of the Ministry of Economy and Finance.

4. Department of MRE, Victim Assistance and Post Clearance Development

Mine Risk Education

In 2020, CMAC plans to reduce gradually 20% of annual mine/ERW casualty rate of people living in affected areas in 25 provinces throughout the country. In this connection, CMAC Community-Based Mine Risk Reduction (CBMRR) continues to play its important role in supporting affected communities to fully participate in determining the mine-action priorities in their communities, providing ongoing risk education at a local level to civilians at high risk, and ensuring greater integration with victim-assistance services and community development projects that could assist with providing alternative income generation activities for groups at risk.

- Develop MRE training manual for specific CMAC's regular teams.
- Build the capacity of 30 new staffs by providing MER training so that they are able to conduct MRE activities in the most vulnerable communities.
- Enhance capacity by providing training and refresher for existing Mine and UXO Committees (networks) and CMAC's regular teams.
- Provide MRE training (TOT) for local authorities and polices in collaboration with Ministry of Interior to enabling them to provide risk education to people at risk in respond to the " Safety Village" policy.
- Expand Community Based UXO Risk Reduction (CBURR) networks in UXO affected districts, communes and villages in collaboration with MRE partners and Ministry of Interior by empowering and transferring knowledge and skills to monks and local authorities.
- Host meeting/workshop to review current mine risk education strategy and SOPs, progress achievements, etc.
- Coordinate with the MRE technical working group to improve, expand and promote the mine/UXO awareness campaign to a reach wider audience through the annual Mine Awareness Day on 24 February.
- Produce a public information campaign (spot for radio and TV) and printed materials to raise awareness of the mine/UXO problem and support behavior change among mine/UXO-affected communities, particularly targeting those carrying out high risk activities due to livelihood requirements.
- Develop proposal(s) for fundraising to support MRE program.
- Provide mine risk education presentations and conduct household visits to deliver MRE messages about landmine and UXO hazards to people in the high risk communities.
- Mainstream mine/UXO awareness in village and commune meetings and at other social events in mine/UXO affected communities

Victim Assistance and Post-Clearance Development

Integrated Mine Clearance and Post-Mine Clearance Development project is being successfully implemented in providing safety and improving the living condition of the poor people living in the mine affected areas. Post-mine clearance development will provide opportunity for capacity building, education for children, job alternative and income generation, and contribute to community development, reducing migration, better living condition toward achieving Royal Government policy "Poverty Reduction".

- Promote and implement victim assistance and post-clearance development projects in order to improve the living standard and poverty reduction of people living in the affected communities.
- Identify specific high risk groups, including people who own heavy agricultural equipment and people expanding cultivation into new agricultural land in mined areas and provide direct education on the dangers of AP, AT mine and UXO awareness by CBMRR district-based staff.
- Collect information of Anti-tank mine location in target districts, and request for marking or/and clearance.
- Promote role and responsibility of the affected communities to advocate the Mine/UXO risk education and reduction activities plan in to the Commune Investment Plan (CIP) and Integrated Investment Plan at district level.
- Facilitate and transport injured people caused by mine and UXO in/nearby operation areas to hospital (Emergency response).
- Conduct fundraising and encourage development partners and donors to support local communities affected by landmine/ERW.
- Facilitate the needs assessment of the affected communities, and prepare proposal for development activities in post-mine clearance areas.
- Coordinate with Japan International Cooperation System (JICS), Good Earth Japan (GEJ), Japan Mine Action Service (JMAS) and other development partners to implement the community assistance projects: (1) agriculture training, (2) rural and farm roads and agricultural facilities construction, (3) water supply facilities, (4) school construction, (5) Improve Quality of Life for People with Disability, (6) Community Facilitation for Cassava Contract farming etc.
- Collaborate and coordinate with other mine action service providers, victim assistance and development agencies to obtain necessary support for risk education, victim assistance and development plans of the affected communities.
- Prepare for victim assistance and post clearance development database design and set up within current CMAC operation database.
- Implement the Program for Integrated Mine Clearance and Community Development Assistance, phase IV (IMV-4), to improve the living condition of the people in mine and ERW affected communities.

5. Department of Finance

Financial Management Responsibilities

- To conduct public financial management reform towards the international standard, known as “a step-by-step reform” from centralized input-oriented public financial management.
- To update and improve policies and procedures to ensure effective and efficient support for operations.
- To strengthen Public Financial Management Reform Program.

Planning and Budgeting

- To establish and maintain project budgets to support the mobilization of resources, and as a management tool, to support project management.
- To implement the Government Program Budget Policy.
- To integrate with the Public Financial Management Reform Program of the RGC.
- To develop and submit six-month report to the Council of the Minister.

Financial Policies and Standards

- To track activities code analysis to respond to stakeholder requirement and improve the existing internal control systems with other departments.
- Apply primary document defining long term vision and activities of the RGC to guide the implementation, which includes management and monitoring indicator frameworks as well as clear indicators and targets.
- Strengthen finance work flow through organizing meeting among CMAC finance staffs at HQ and demining unit level to discuss critical issues.
- Adopt direct payment system to CMAC staff and suppliers.
- Systemize the decentralized achievement-oriented or output-oriented public financial management system through the implementation of four-platform or/and four-phase strategies including:
 - Strengthened Budget Credibility,
 - Improved Financial Credibility,
 - Linking the Budget to Policy, and
 - Internal Control.

6. Department of International Cooperation and Project Management

CMAC's action was motivated by the Anti-Personnel Mine Ban Convention (APMBC) Article 6 in respect to the States Parties international cooperation and assistance in assisting other States Parties, the Cartagena Action Plan on "Ending the Suffering caused by Anti-personnel mines" particularly sets out to promote technical cooperation, information exchange on good practices and other forms of mutual assistance with other affected State Parties to take advantage of the knowledge and expertise acquired in the course of fulfilling such obligations. The Department will be responsible in coordinating with other stakeholders in mine action to develop and promote regional cooperation in sharing and effectively using national experiences and good practices, resources, technology and expertise.

To promote International Cooperation through knowledge exchange program.

- Continue to coordinate the implementation of South-South Cooperation Phase III between CMAC and UXO Laos, as well as CMAC and DAICMA Colombia.
- Look for further opportunities in expanding cooperation with other mine action operators around the world in order to share/exchange experience and best practice in mine action sector.

To effect overall improvement of project management section through close monitoring and systematic tracking of ongoing projects.

- Continue to coordinate and oversee CMAC-implemented humanitarian mine action projects in an effective and efficient manner in 2020 by strengthening M&E capacity and filling up vacant posts in the project M&E section within the department.
- Conduct field visit to DUs for monitoring, evaluation and compiling the project reports to submit to CMAC senior management.
- Analyze the productivity, cost, risk, weaknesses and strengths of on-going project implementation and completed projects.
- Continually produce the project reports and submit to senior management and donors (monthly, interim and completion reports) as required.

To continually develop new projects, follow up with on-going projects and completed projects.

- Capture, negotiate and gather information for developing the new project proposals. Including the confirmation by donor and/or senior management of support for projects
- Hold meetings with departments, stakeholders and project teams for developing the project proposals, including budgets and other necessary requirements, and submit to senior management and donors.
- Keep track and follow up the new projects for 2020, and existing projects including RGC, PRC, NPA and JMAS.
- Produce monthly, quarterly and completion reports for donor countries and CMAC senior management in a timely manner

7. Department of Quality Assurance and Quality Control

To continuously strengthen quality assurance and internal audit practices of all CMAC activities to ensure compliance with the standards for operation, support and finance activities.

- Observe and check the office management, administrative arrangement, and Platoon Accommodation at DU Level.
- Check and monitor the operational performance of mechanical clearance machines to ensure the effectiveness and efficiency of its practical performance at the field.
- Conduct spot checks on the operations of EOD teams in compliance with SOP so as to ensure that the teams are operating in a safe and secured manner.
- Monitor the operational performance of mine detection dog teams to ensure the appropriateness of using the right tool for the right task.
- Conduct spot and monitor the medical performance of all DUs.
- Conduct field revisit at some major projects.

8. Department of Compilation and Publicity

To keep audience, donors and national and international stakeholders informed of CMAC's activities, achievements, challenges and path ahead in mine action to save lives and support development for Cambodia.

- Take effective way and strategy to enhance national and international communications and cooperation in terms of information sharing and dissemination.
- Participate in meeting, workshop, exhibition and event for opportunity in publishing CMAC's image and reputation in demining activities and impacts.
- Work with national and international medias to publish about CMAC's activities in mine action and its impact.
- Update and upload information about CMAC into electronic system – website, facebook, messenger and so forth.

To develop and manage publication materials as sources of information and publicity.

- Develop and consolidate CMAC's plans including strategic plan, rolling plan, integrated work plan and so forth.
- Develop and compile reports, newsletter, leaflet and brochure.
- Develop information resource centre (IRC/library) at CMAC Headquarters.

9. General Corporate Management

The 2015 Management Plan intends to continue to address the aforementioned key determinants and to be consistent with CMAC Strategic Plan 2018-2025. The strategy is to ensure that CMAC has the appropriate institutional capacity and corporate resources it needs to achieve its goals and objectives; and that its workforce is motivated and has the necessary capabilities. A key task of under this Goal will be to focus on the business development capabilities of the organization to ensure that donors and partners understand CMAC requirements and resources are secured. CMAC also recognize that it must be proactive in looking for opportunities to increase its income stream providing new and innovative services built on its existing expertise and know-how.

- To review CMAC's institutional, legal and operational frameworks to ensure that CMAC will be able to carry out an effective mine action mandate in the changing mine action environments, especially relating to fund mobilization.
- To continue enhancing organizational and corporate management capacity and resource mobilization to meet new challenges as a result of changing environment.
- To continue to enhance CMAC's corporate management functions.
- To secure sufficient funding to support CMAC's mine action mandate and corporate activities.
- To maintain and optimize the work force motivation and capacity.

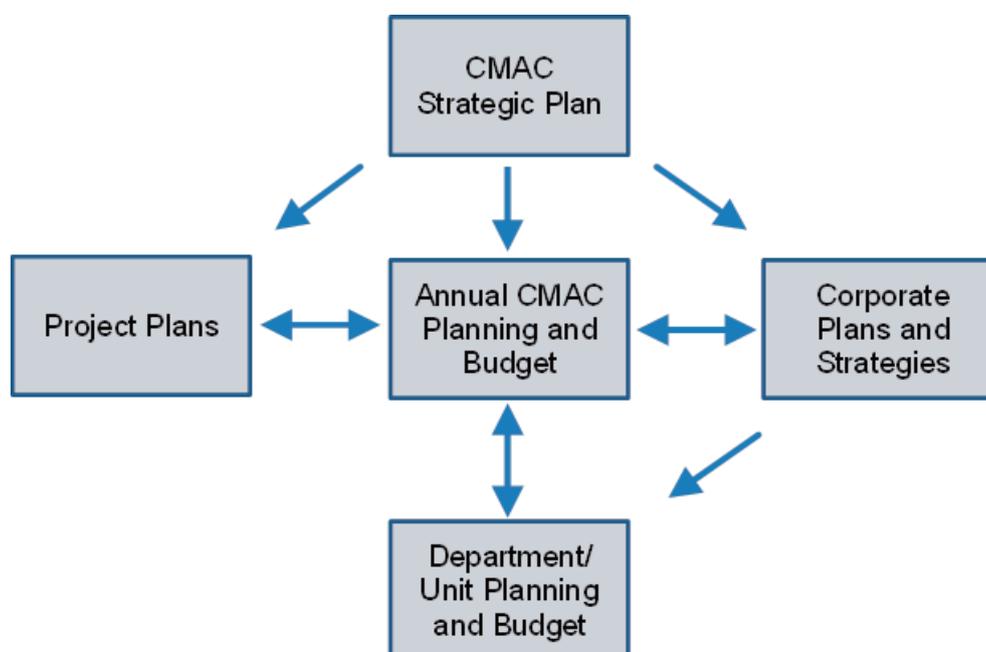
INTEGRATED WORKPLAN IMPLEMENTATION AND RISK MANAGEMENT

1. Integrated Work Plan Implementation

The integrated work plan for 2020 will be implemented with the amount of efforts and resources dedicated to specific strategic goals, reflecting our annual priorities in alignment with the National Mine Action Strategy to achieve national development objectives in alleviating poverty and strengthen economic growth.

Remaining on track with implementation is a key for a more innovative organisation. The implementation of the strategic plan will occur through the CMAC annual work planning and budget cycles. Progress will be measured through regular reports to the Senior Management Team.

Figure 8: Work planning and budget cycles



2. Risk Management

Risk management and contingency planning are necessary activities in demining, and contingencies often need to be implemented in unpredictable situations. As with any plan, there may be implementation problems caused by internal or external elements which need to be overcome. Some examples of these are: projects being dropped, delayed, revised or cut short due to reduced or unavailable funding. Also plans can be interrupted by unforeseen environmental forces or man-made catastrophe such as acts of war and civil unrest.

It is important to identify potential risks that may arise during the implementation phase so that solutions can be identified and quickly applied if necessary. Some of the potential risks which may be associated with this IWP 2020 are identified below:

3. Heavy Dependence on Donors

CMAC is heavily dependent on donor support which poses one of the major risks for its activities. Approximately 95% of CMAC's activities and resources are supported by different donors, development partners and contracting clients. Technically, each of these financing sources has its own focus, which sometimes has a critical impact on CMAC. Through practical experience, CMAC believes that good communications and well fostered relationship among donors, key stakeholders and CMAC is critical and must be cherished. CMAC will strive to maintain and further improve these relationships. Accordingly, coordination among all key players is another highly important factor to ensure the IWP 2020 is well accepted, and donors, clients and relevant stakeholders concerns are immediately addressed as they emerged. However, should funding be adversely affected because of projects being dropped, delayed, revised or cut short due to reduced or unavailable funding, CMAC will exercise its contingency mechanism appropriately to lessen adverse impacts on the organization.

4. Demining Is Dangerous by its Nature

It is generally accepted that demining work is a dangerous task; deminers require a high level of concentration and must strictly follow the standard operating procedures (SOPs) as a safety guideline and maintenance of work standards. This IWP 2020 highlights CMAC efforts to achieve higher clearance output for nearly the same amount of funding resource in the recent previous years. This stretching of output could be viewed as a cause of concern; however, CMAC projected its capability with in a careful and calculated manner, according to the prevailing ground situation, experience, research, technology and methodology available, and being conscious of staff safety and wellbeing. Together with keeping the level of morale and disciplines high, CMAC will ensure that the work practices continue in the safest environment for all staff, demining tools and equipment are appropriately allocated, maintained and supported; this will ensure that targeted outputs are reached successfully.



5. Political Commitment

The Royal Government of Cambodia makes every effort and commitment to support mine action in Cambodia. The Royal Government of Cambodia has incorporated mine action into its rectangular strategy and millennium development goals. Unfortunately, the current economic situation and revenue collection is limited which puts constraints on its ability to increase financial support to CMAC. Nonetheless, the Royal Government has committed significant financial resources to mine action sector in Cambodia through various channels and has created conducive environment and legislation to ensure that mine action business occurs as smoothly and as professionally as possible. CMAC will continue to work very close with the Royal Government's different ministries and national authorities as well as local authorities to sustain this commitment and relationship.

6. Environmental Factors

The environmental condition can be one of the biggest impacts on demining activities. Experience shows that environmental factors, including terrain, weather conditions and density of vegetation can slow down demining work considerably. Appropriate solutions must be found to address these issues at the field level. To address this, new approaches to mine/ERW clearance and technology will



be introduced, demining teams will be retrained and refreshed, multi-skills training will be provided, thus allowing field personnel to appropriately respond to prevailing environment.

CMAC is committed to finding the best possible solutions to deal with any problems that emerge during implementation of this IWP. Less serious impacts can often be dealt with through improving communication and coordination and training and mobilizing appropriate resources and methods to address problems. More serious impacts caused by financial shortfalls or lack of political wills can result in more drastic contingencies which CMAC will take into consideration to respond to each crisis as best as possible when they occur.

7. Work Force Issues

The formation of the ASEAN Economic Community is likely to put real pressure on CMAC's staffing costs. To be competitive in this labour market CMAC will need to pay higher wages to maintain and attract skilled staff. CMAC is facing many complex workforce challenges over the next coming years and such associated risk need to be mitigated appropriately including:

- Increased competition and migration in the labour market through increased migration and globalization;
- Non-competitive wages – maintaining a competitive level of wage when the cost of living is increasing;
- Recruitment and development of employees;
- Skills shortages;
- Retaining and motivating staff;
- Achieving gender equity;
- An ageing workforce;
- Competing for staff against more attractive industries/sectors;
- Seen as providing a “job” not a career;
- Work/home balance – particularly as CMAC duties take staff away from their home; and
- Staff welfare issues associated with CMAC being able to provide ongoing employment and welfare of staff after their employment ceases.

8. Other Challenges

In addition to the fact that CMAC management has been trying all utmost efforts to seek for assistance to support its humanitarian activities in demining operation to provide safety for the vulnerable people, other challenges are at the same time emerging as critical issues which require serious and immediate actions and solutions from the management as well as the Royal Government.

Deminers' aging: now that the deminers are getting retired gradually due to the fact that they reach the retirement age, CMAC management needs to take this issue into immediate account, or CMAC will face the lack of human resource. The solution to this issue is that sparing resources by recruiting new deminers, who are prioritized and strongly encouraged for the family members of the former CMAC deminers.

Community Developments for Deminers: Given that CMAC deminers have been devoting and risking their lives to save the lives of others for many years, they still finally have bare hand. They have to move from one place to another depending on the operation plan. In the end, they do not have any plot of land for their family. In this sense, CMAC management with the support from the Government has initiated to establish a community for CMAC staff, in particular for deminers, where they will have their own land not only for living but also for agriculture to sustain their living even after they are retired.





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