



មជ្ឈមណ្ឌលសកម្មភាពកំចាត់មីនកម្ពុជា
Cambodian Mine Action Centre

CMAC

Operational Achievement Report



March - 2021



CMAC Monthly Operational Achievement Report

Period: 01 – 31 March 2021





1. General Situation

In March 2021, CMAC has got 2 projects from JMAS so-called the Project of Reconstruction Support with Demining in Banteay Meanchey province “RSDB” and the Project of Reconstruction Support with Cluster-Disposal in Stung Treng province “RSCS”. All CMAC Demining Components and Demining Units were continually assigned to have the operational clearance mine/UXO fields as planned target has been set in 2021. Anyway, a lot of requests for small scale clearances were requested by the local authority to CMAC for emergency response and escape them from the target area for safe manner and better environment to our people to avoid from having high risk of mine incident and future affection. However, during this reporting period, CMAC deployed its demining resources in each Demining Unit (DU) to clear the contaminated landmine and battlefield areas; and handed over them to those whom requested in purposes of using land in according to their requests for agriculture; developing and also for the risk reduction activity in their communities. In addition, CMAC also deployed at least 14 Explosive Ordnance Disposal teams (EOD) at DU1, DU2, DU3, DU4, DU6 and TIMA and as well as the mobile teams to respond the emergency call/tasks by collecting and destroying safely those mines and UXO reported by local authorities, NGOs and community population in terms of providing them the safe environment of daily living condition and doing agricultural activities in their communities without any fear feeling and the threats from mine and ERW. The detail tasks and progress achieved for the month of March 2021 is represented as the following:

2. Deployment Tools (Asset)

In March 2021, CMAC still deployed its demining resources to each Demining Unit, Head Quarters, Development Demining Unit (DDU) and CMAC Technical Institute of Mine Action (TIMA) as the month before. However, all CMAC demining teams are still working to support many landmine/ERW high priority clearance tasks selected through the National Planning Mechanism, often refers to as MAPU process, as participatory and carrying on approach methods to mine action planning; and urgent humanitarian and development supported tasks requested by local authorities and mine/ERW affected communities. The following table 1 shows us the demining tools (asset), which were deployed for each Demining Unit.



Table 1: March 2021

Demining Units	Actual Demining Assets (Tools)																				
	PMD-27staff	PMD-17staff	BAC--7staff	BAC--5staff	TSC-7staff	CTS-7staff	PBC-15staff	BCT-9staff	BC-D-2staff	PDM-16staff	DMT-2staff	CDM--2staff	EOD-5staff	DIT-5staff	SLD-10staff(2dogs)	EDD-10staff(4dogs)	TSD-5staff(4dog)	ESD-5staff(4dogs)	MDR-15staff	CBM/CBU-D/FP	CBM/CBU-PC
DU#1(BMC)	1	-	-	-	2	-	-	4	-	-	2	-	1	-	-	-	-	-	-	4	1
DU#2(BTB, PLN)	-	4	-	-	17	-	2	3	-	7	-	-	3	-	2	3	-	-	-	12	2
DU#3(PST)	-	2	-	-	4	-	-	-	-	1	-	-	1	-	1	-	-	-	-	2	1
DU#4 (SRP & Kg. Thom, PVH)	-	-	-	-	10	-	-	2	-	-	-	-	1	-	-	-	-	-	1	2	1
DU#5 (Eastern provinces)	-	-	5	-	-	15	-	-	-	-	-	-	4	-	-	-	-	-	-	3	1
DU#6(PVH, STR & OMC)	-	-	-	4	10	-	1	4	-	-	-	1	1	-	-	-	1	-	1	5	1
Development Demining Unit (DDU)	-	-	-	-	5	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-
CMAC Technical	-	-	-	-	1	-	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-



Institute of Mine Action (TIMA)																					
CMAC HQ (Phnom Penh)		-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	
National Dog Center (NDC)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Community Development Center (CDC)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total	1	6	5	4	49	15	3	14	2	8	2	1	10	2	3	3	1	1	2	28	7

Note:

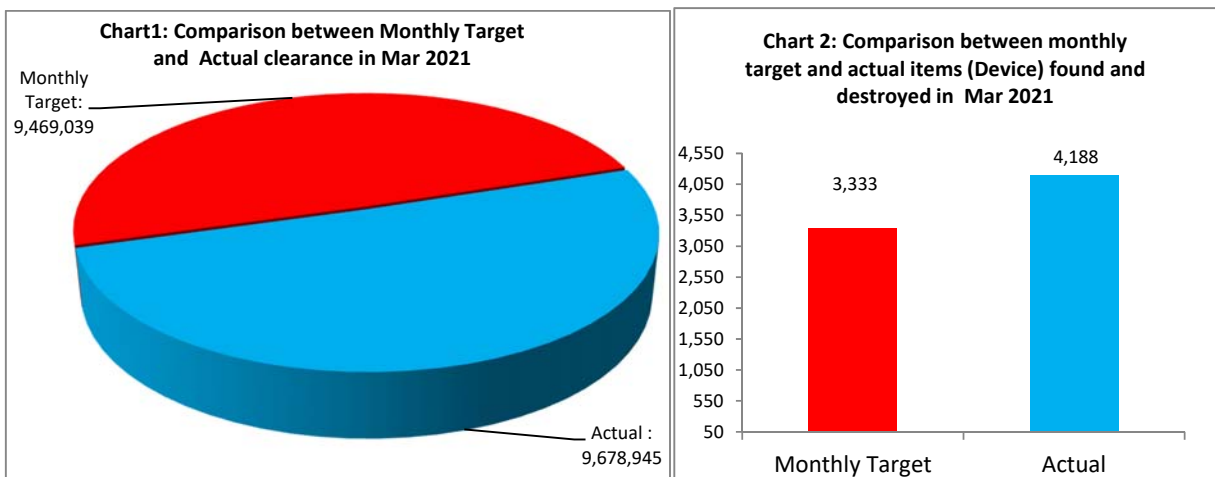
Movement

- CDM#01, BCT#06 and EOD#01 of former DU4_CMD-JMAS project moved to work at DU6_RSCS-JMAS on 01 March 2021.
- 4 BAC (BAC#01, 02, 03&06) recreated and deployed the operations at DU6_RSCS-JMAS on 01 March 2021.

3. Summary of Progress

However, as mentioned on the results of March 2021; a total of **9,678,945 m²** of land has been released throughout the country. This includes **5,652,843 m²** of minefield areas, and **3,143,462 m²** of UXO field areas and **882,640 m²** of areas cleared without sketches for safety principles, which is **102.22%** compared to the monthly target of **9,469,039 m²** in 2020. But if this is compared to the same period of March 2020 (as of 7,588,724 m²), it is **27.54%** more than the progress of March 2020. In total from January to March 2021, all teams were able to release **27,644,651 m²**, while the total accumulative progress for the same period in 2020 is **21,383,250 m²** that it is **29.28%** more than the progress of 3-month in 2020. The details of CMAC accumulated operational summary progress report from 1992 up-to March 2021 is showing in **ANNEX-A**, and the monthly progress by each DU is represented in **ANNEX-B**. The below Chart.1 is demonstrating the monthly target Vs progress achievement accomplished in March 2021.

Anyway, if comparing the progress of March to February 2021 (as of 9,866,181 m²), it is **1.90%** lower than progress of February 2021.



A part of the above mentioned; at least **978** AP mine, **13** AT and **3,197** ERW were found and destroyed safely. If comparing these items (mines and Explosive Remnants of War) found and destroyed in March 2021 (as of **4,188** items) to the monthly target in 2021 (as of 3,333 items), it is **125.65%**. The Chart 2 above



is represented the device found and destroyed by comparing to monthly target of mine/UXO in March 2021.

4. Allocation of Demining Tools (Assets) by Project:

In addition to the deployment by each Demining Units (DU) and progress achieved during the month, CMAC also deployed its demining resources (assets) to support each project so that they may respond to the project's target as said within the project agreement and also to meet the project's requirement as the following resources in Table 2:

Overview of the Committed Assets by Project

Table 2:

S/N	Project's name	Jan-21	Feb-21	Mar-21	Remarks
1	DU1_CFR23	2TSC,2BC	2TSC,2BC	2TSC,2BC	This project starts from 01 Jan-31 Dec 2021.
2	DU1-SVC (Infrastructure),	1Buldozer, 1 Compact roller, 1 dump truck, 1 Excavator	1Buldozer, 1 Compact roller, 1 dump truck, 1 Excavator	1Buldozer, 1 Compact roller, 1 dump truck, 1 Excavator	1)-This project is just renewed for a new agreement from 01 Apr 2020 to 31 Mar 2021.
3	DU1-CMA21	1PC&4CBM &1EOD	1PC&4CBM &1EOD	1PC&4CBM &1EOD	
4	DU1-RSDB-JMAS	-	-	1PMD,2BCT,1EOD&2 DMT	This project starts from 01 Mar 2021 to 28 Feb 2022.
5	DU2_CFR24(BTB)	2TSC,2BC	2TSC,2BC	2TSC,2BC	1)-This project starts from 01 Jan-31 Dec 2021
6	DU2-CFR25(PLN)	1BCT and 3 TSC	1BCT and 3 TSC	1BCT and 3 TSC	This project starts 01 Jan to 31 Dec 2021.
7	DU2-CAC (IMCC)	1TSC	1TSC	1TSC	This project is just renewed for a new agreement from 16 Aug 2020 to 15 Aug 2021.
8	DU2-PIMV	4PMD, 8PDM, 7TSC, 2PBC, 2SLD, 3EOD, 7PC&CBM, project staff	4PMD, 8PDM, 7TSC, 2PBC, 2SLD, 3EOD, 7PC&CBM, project staff	4PMD, 7PDM, 11TSC, 2PBC, 2SLD, 3EOD, 7PC&CBM, project staff	This project starts from 01 Jul 2020 to 31 Mar 2022
9	DU2-CMA-21	5 CBM	5 CBM	4 CBM	This project starts on 01 Jul 2020.
10	DU2-MAG	3 SLD	3 SLD	3 SLD	1)- This project is renewed from 01 March 2021 to 30 Apr 2021. 2)-SLD#05 has been hired by MAG for a year (01 Jun 2019 to 31 July 2021)
11	DU3-PIMV	2PMD, 8TSC, 1SLD, 1EOD, 1PC&2CBM	2PMD, 8TSC, 1SLD, 1EOD, 1PC&2CBM	2PMD, 4TSC, 1SLD, 1EOD, 1PC&1CBM	This project starts from 01 Jul 2020 to 31 Mar 2022
12	DU3-CMA21	-	-	1CBM	
13	DU4-MDR-APOPO	1BC, 1TSC,1MDR	1BC, 1TSC,1MDR	1BC, 1TSC,1MDR	1)-This project starts on 01 Jan to 31 Dec 2021 (MRD#01, TSC#22, BC#25).
14	DU4-CCL3	6TSC, 1BCT, 3PC&CBM& office staff	6TSC, 1BCT, 3PC&CBM& office staff	6TSC, 1BCT, 3PC&CBM& office staff	1)-This project starts from 01 Jan to 31 Dec 2020. 2)-ERWI#02 supported by DU6, its workbase at DU4.

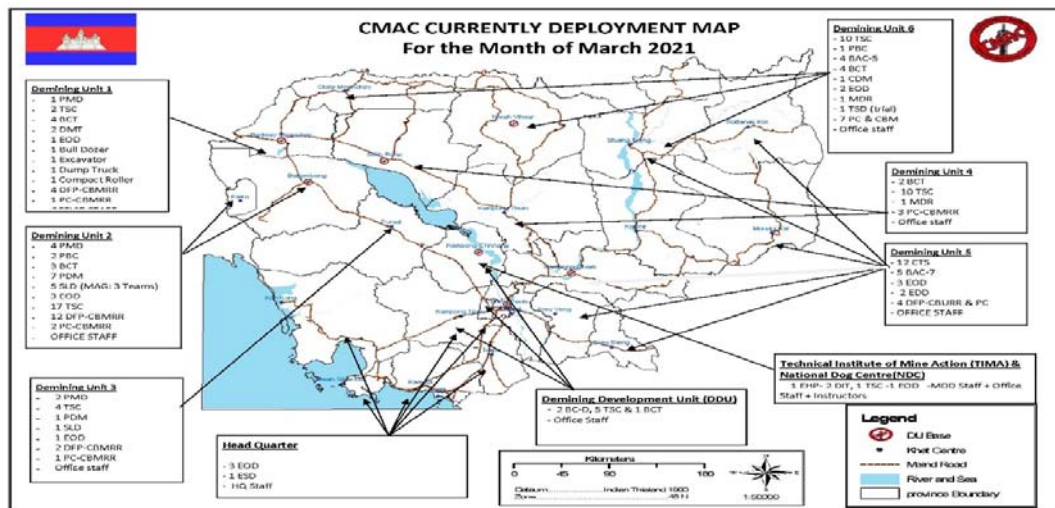


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S/N	Project's name	Jan-21	Feb-21	Mar-21	Remarks
15	DU4-Apsara	3TSC,	3TSC,	3TSC,	This project starts on 1 March 2021 until new notice.
16	DU4-CMA21	-	-	1CBURR	
17	DU5& HQ –USA24	9BAC-S, 4MPB, 4BAC-MTT, 2EDD, 1BC	9BAC-S, 4MPB, 4BAC-MTT, 2EDD, 1BC	-	This project starts on 01 Mar 2020 to 28 Feb 2021.
18	DU5-NPA23	3CTS	3CTS	-	This project starts on 01 November 2020
19	DU5& HQ –USA25	-	-	12CTS, 5BAC-7, 4EOD, 2FDD, 2EOD sup. & office staff	This project starts on 01 Mar 2021 to 28 Feb 2022.
20	DU6_CCL3	9TSC, 3BCT, 1PBC, 6CBM & office staff	9TSC, 3BCT, 1PBC, 6CBM & office staff	9TSC, 3BCT, 1PBC, 6CBM & office staff	This project starts from 01 Jan to 31 Dec 2020.
21	DU6-APOPO	1MDR, 1TSC, 1BC, 1TSD	1MDR, 1TSC, 1BC, 1TSD	1MDR, 1TSC, 1BC, 1TSD	1)-This project starts on 01 Nov 2019 to 31 Jul 2020(TSC#20&TSD#01) 2)- This project starts on 01 Jan to 31 Dec 2021 (TSC#05, BCT#22& MDR#02).
22	DU6-RSCS-JMAS	-	-	4BAC-5, 1BCT, 1CDM 1EOD &1CBU	This project starts from 01 Mar 2021 to 28 Feb 2022.
23	DDU-CMA21	5TSC, 1BCT & 2 BC-D	5TSC, 1BCT & 2 BC-D	5TSC, 1BCT & 2 BC-D	-This project starts on 1 January 2021.
24	HQ_CCL-03	2EOD, 1ESD	2EOD, 1ESD	2EOD, 1ESD	This project starts on 01 Jan-31 Dec 2021.
25	TIMA-CCL3	1EOD, 1TSC, 2DIT& office staff & instructor	1EOD, 1TSC, 2DIT& office staff & instructor	1EOD, 1TSC, 2DIT& office staff & instructor	This project starts from 01 Jan to 31 Dec 2021.
26	TC- Golden West foundation	1Explosive Harvesting team (8persons)	1Explosive Harvesting team (8persons)	1Explosive Harvesting team (8persons)	

The below figure is the CMAC deployment map as of March 2021

Figure:1



a. *Teams Deployed Vs Staff of the month of March 2021*



Table 3:

Demining Tools/Assets	No. of teams	No. of staff per team	Total staff in Mar 2021	Actual Staff		Different	Remarks
				Male	Female		
PMD-27	1	27	27	24	3		
PMD-17	6	17	102	71	10	-21	
PBC	3	15	45	30	9	-6	
BCT	13	9	117	94	1	-22	
BC-D	3	3	5	5	0		
PDM	8	16	128	87	8	-33	
DMT	2	2	1	1	0		
CDM	1	2	2	2	0		
TSC	49	7	343	268	7	-68	
BAC-7	5	7	35	30	5		
BAC-5	4	5	20	20	0		
CTS	12	7	84	59	25		
MPB	0	16	0	0	0		
EOD	14	5	70	60	1	-9	
BAC-MTT	0	5	0	0	0		
DIT	2	5	10	8	0	-2	
SLD	6	10	60	50	5	-5	
EDD	2	10	20	12	0	-8	
TSD	1	5	5	5	0		
ESD	1	5	5	4	1		
MDR	2	15	12	9	3		
CBMRR-DFP	28	1	28	24	4		
CBMRR-PC	7	1	7	6	1		
Total	170		1,126	869	83	-174	

Note:

- Base on the different figure between teams deployed and staff, it shows that at least **-1.02%** was lost during the reporting period.

b. Planned and actual operational team-days of the month of March 2021

Table 4

Demining Tools/Assets	No. of teams	Operational team days		Different	Remarks
		Plan	Actual		
PMD	7	154	142	-12	
PBC	3	66	66		
BCT	14	308	277	-31	
BC-D	2	44	44		
PDM	8	176	176		
DMT	2	22	10	-12	
CDM	1	22	22		
TSC	49	1,078	1,053	-25	
BAC-S	5	110	110		
BAC-S	4	88	88		
CTS	12	264	264		
MPB					
EOD	14	308	297	-11	



Demining Tools/Assets	No. of teams	Operational team days		Different	Remarks
		Plan	Actual		
BAC-MTT					
DIT	2	44	44		
SLD	6	132	132		
EDD	2	44	44		
TSD	1	22	22		
ESD	1	22	22		
MDR	2	44	40	-4	
CBMRR-DFP	28	616	616		
CBMRR-PC	7	154	154		
Total	170	3,718	3,623	-95	

:

Note:

- In average, each mobile platoon and mobile team lost at least **-0.56%** working days (team.day) due to Especially, the movement of teams to new minefields and meeting; receptions of delegations and/or guests who visited the minefields and public holiday as mentioned in page 2, that are the cases of losing working days and progress during the reporting period.

5. Activities Output

a) Completion Minefield:

As part of above description, at least **67** mine/ERW fields have been cleared completely by the Demining Units, DDU and Head Quarters during the reporting period. All completed mine/ERW fields have been handed over to the local authorities and communities for productive purposes in accordance with their requests. The **Annex-C** attached shows the detail list of completed mine/ERW fields and some of them are on-going. Among those minefields cleared, it shows the number of beneficiaries as shown in table 5:

b) Number of Minefield and Socio Beneficiaries as of March 2021

With this regard, CMAC mine action activities contribute significantly to the country in terms of mine/UXO casualty reduction. They also contribute to the enhancement of livelihood, settlement, socio-economic and infrastructure activities for individual and also for the affected community development so as to meet the National Strategy of poverty reduction. Without demining, most development activities may not be taken place caused by landmine and UXO contamination. Therefore, the CMAC's mine action activity is still at the top important issue and requirement of the Royal Government of Cambodia to assist Cambodians' people and develop its country as well without the threats of landmine/ERW.

Anyway, during this reporting period, landmine and ERW clearance as of March 2021 provided at least **273** families as direct beneficiaries and **2,372** families as indirect beneficiaries. The Table 5 below is showing us the number of minefields completed and beneficiaries by each DU:

Table5:

DUs	No. of M/Fs released	Area (qsm)	Beneficiaries			No. of M/Fs On going	No. of M/Fs suspended	No. M/Fs handed over
			(Family)					
			Direct	Indirect	Student			
DU1	5	262,110	15	-	-	5	-	5
DU2	28	2,768,678	91	808	-	28	-	28
DU3	4	182,250	50	1,119	-	8	-	4
DU4	13	1,402,292	24	117	-	13	-	13



DU5	2	277,247	7	-	-	22	-	2
DU6	11	1,543,582	36	196	-	22	-	11
TIMA	4	218,172	50	132	-	2	-	4
Total	67	6,654,331	273	2,372	-	100	-	67

c) Land Released Productivities as of March 2021

The overall progress achievement for the month of March 2021 was **9,678,945 m²**, which was **2,152,325 m²** was released as C2, and **6,643,980 m²** was released as C3 and **882,640 m²** was released by spot check to move ERW out from the small pits and prepare administration and safety areas for operations respectively. In addition, at least **2,163** items of Mine/ERW (727 AP, 8 AT and **1,428** ERW) were found in the affected landmine and UXO contamination areas to destroy safely. And it should be noted that these figures (mine/UXO found) as mentioned above are not included with the number of devices found and destroyed by EOD teams during the reporting period.

The below table 6 provides a summary of productivity achieved during the reporting period implemented by all Demining Units for the month of March 2021.

Table 6: Summary of productivity achieved:

Land Released Categories	Area (m ²)	AP Mine destroyed	AT Mine destroyed	ERW destroyed	IP Mine destroyed	Small Arm(kg)	Fragment
C1 area released	-	-	-	-	-	-	-
C2 area released	2,152,325	45	-	90	-	-	13,109
C3 area released	6,643,980	622	8	1,025	-	-	142,398
Other Clearance	882,640	60	-	313	-	-	11,604
Total	9,678,945	727	8	1,428	-	-	167,111

Note: - Above number of mines and ERW is not included EOD teams' ones.

d) BLS operational progress report

In March 2021, all DUs didn't conduct the Baseline Survey services. Regarding this activity the following results:

Table 7:

Description	DU	Remarks
Number of villages visited	-	
Number of new BLS polygons discovered	-	
Size of BLS polygons (m ²)	-	



e) EOD Team Operational Achievement

In addition to the deployment of demining platoons and mobile teams, during the reporting period CMAC deployed at least 10 EOD teams, and other demining tools such as, BAC-MTT etc throughout the country to collect and destroy mines and ERW reported by local authorities, local people, policemen and NGOs. Anyway, some of EOD teams were deployed at various Demining Unit, CMAC Technical Institute of Mine Action (TIMA), Development Demining Unit (DDU) and Headquarter. This includes 2 EOD and 1 BAC-MTT teams were deployed in CMAC headquarters to respond the urgent requests around Phnom Penh municipality, Kandal, Kampong Speu, Takeo, Kampot, Preah Sihanouk and Koh Kong provinces and others else were fully deployed to respond at the northwestern provinces of Cambodia such as in Battambang, Pursat, Pailin under DU2. By the way, in results to compare the number of **358** requests (EOD calls) in March 2021, it is **85.85%** lower than monthly target plan 2021 (as of **417** requests). They did this better work to provide a safe environment from the threat and fear of mines and ERW in the country. Regarding this activity, those teams achieved the following results:



Table 8:

Description	March 2021	Accumulative Progress (Jan-Mar 2021)
Areas Cleared (Spot check) in m ²	21,453	58,688
# EOD tasks conducted (Responded)	358	971
# APM destroyed	251	703
# ATM destroyed	5	22
# ERW destroyed	1,769	4,536
# Improvised mines destroyed	-	10
# Small Arms Ammunition (kg)	8	49
# Fragment (pieces)	6,521	15,174

f) Mine Risk Education and Reduction (MRE)

Mine Risk Education still plays vital role in reducing and removing threats provoked by mines and ERW. This includes MRE and collecting requests from local communities and authorities and NGOs. However, the remaining CBMRR are still doing their tasks as well. Regarding this, at least **1,459** MRE sessions to **79,651** audiences, and visited **44,777** households and collected **274** community's requests, were carried out by all CBMRR and demining platoons and mobile teams during the reporting period. The below Table 8 provides an overview of details MRE outputs as of March 2021.



Table 9: Overview of outputs

Types of Progresses	Demining teams	CBMRR (DFP)	Total
Village visited	408	454	862
Course of MRE session	570	889	1,459
Household and field visited	6,035	38,742	44,777
Total audience group attended in MRE Course	25,007	54,644	79,651



Types of Progresses	Demining teams	CBMRR (DFP)	Total
➤ Men	9,527	22,550	32,077
➤ Women	9,656	24,357	34,013
➤ Children in school	3,974	5,127	9,101
➤ Out of school children	1,850	2,610	4,460
Total number of requests(M/UXO) and report to EOD	268	46	314
- AP & Improvised mines	71	14	85
- AT mines	-	-	-
- UXO	1,006	95	1,101
MRE materials have been used for their activities			
- large T-shirt	-	-	-
- Small T-shirt	1	-	1
- Note book	9	-	9
- Poster	174	-	174
- Flyer	34	-	34
- Leaflet	2	-	2
- Other		-	-

Productivity Analysis

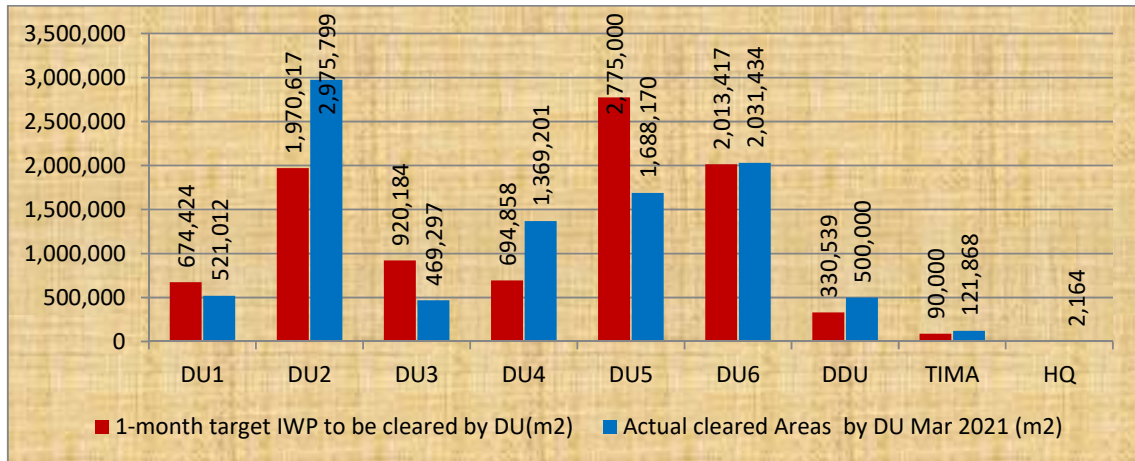
1) Progress Comparison to the Set IWP 2021 (by Month):

The table below is demonstrated the Set of Monthly Clearance Target in IWP 2020 by comparing to Progress Achievement accomplished in March 2021.

Table 10: Monthly Clearance Target VS Actual Progress Achievement March 2021

S/N	Demining Unit	Areas to be cleared by DU in March 2021 (m ²)	Actual Achievement in March 2021	
			Actual Progress by DU in March 2021 (m ²)	% in comparing to Monthly Work Plan by DU
1	DU1	674,424	521,012	77.25%
2	DU2	1,970,617	2,975,799	151.01%
3	DU3	920,184	469,297	51.00%
4	DU4	694,858	1,369,201	197.05%
5	DU5	2,775,000	1,688,170	60.83%
6	DU6	2,013,417	2,031,434	100.89%
7	DDU	330,539	500,000	151.27%
8	TIMA	90,000	121,868	135.41%
9	HQ	-	2,164	-
	Total	9,469,039	9,678,945	102.22%

Chart4: Comparison of each DU target set in IWP 2021 VS Monthly Actual Achievement



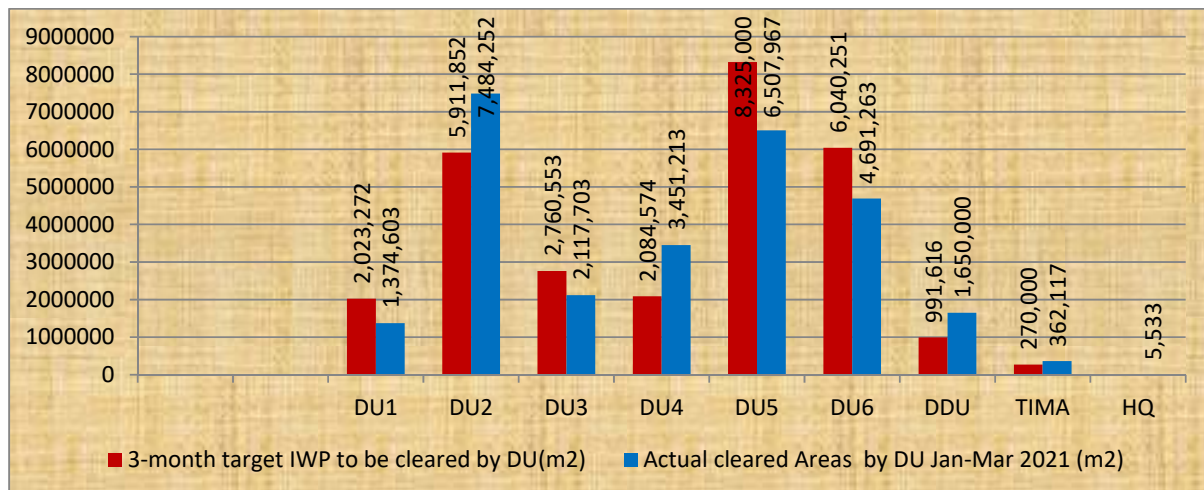
2) Progress Comparison to 3-Month Planned target VS accumulative progress

the table 11 below shows each Demining Unit accumulative progress achieved against the planned target of each DU, starting from January to March 2021.

Table 11: 3- Month Clearance Target VS Accumulative Actual Progress Achievement Jan-Mar 2021

S/N	Demining Unit	3-Month Planned target by DU from Jan- Mar 2021 (m ²)	Actual Achievement from Jan-Mar 2021	
			Accumulative Actual Progress by DU from Jan-Mar 2021(m ²)	% in comparing to 3-Month Work Plan by DU
1	DU1	2,023,272	1,374,603	67.94%
2	DU2	5,911,852	7,484,252	126.60%
3	DU3	2,760,553	2,117,703	76.71%
4	DU4	2,084,574	3,451,213	165.56%
5	DU5	8,325,000	6,507,967	78.17%
6	DU6	6,040,251	4,691,263	77.67%
7	DDU	991,616	1,650,000	166.40%
8	TIMA	270,000	362,117	134.12%
9	HQ	-	5,533	-
	Total	28,407,118	27,644,651	97.32%

Chart5: Comparison of 3-Month Planned Target VS 3-Month Actual Achievement by Demining Units



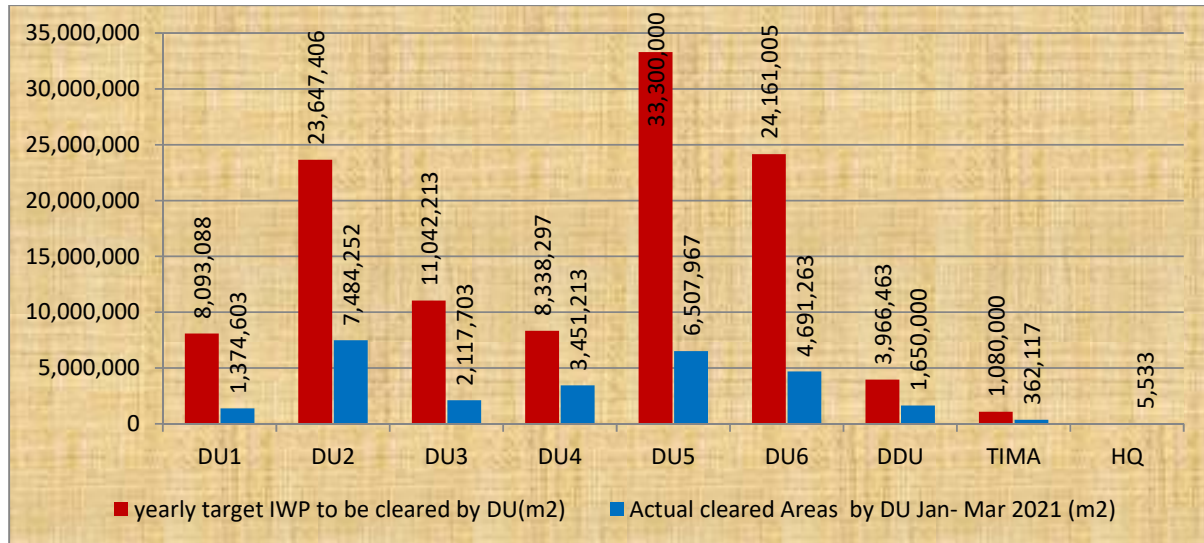


The purpose of setting out the planned target to all Demining Units is for CMAC Internal Monitoring activity at CMAC Senior Level and also to reflect progress achievement against the annual work plan based on existing projects, project target, demining resources, clearances techniques and methodologies of CMAC. Regarding this, each Demining Unit was not set out the same standardized figures of Planning Target to perform the tasks. This due each Demining Unit consists of different projects, resources, timeframe and budgeting to implement the project at different terrain and locations. However, the table 11 below shows us each Demining Unit progress achieved against the planned target of each DU, starting from January to March 2021.

Table 11:

S/ N	Demining Unit	Annual Work Plan Set, 2021		Actual Achievement from Jan-Mar 2021	
		Areas to be cleared by DU in (m ²)	Annual (%) by DU	Accumulated progress by DU in Jan to Mar 2021 in (m ²)	% in comparing to Annual Work Plan by DU
1	DU1	8,093,088	7.12%	1,374,603	16.98%
2	DU2	23,647,406	20.81%	7,484,252	31.65%
3	DU3	11,042,213	9.72%	2,117,703	19.18%
4	DU4	8,338,297	7.34%	3,451,213	41.39%
5	DU5	33,300,000	29.31%	6,507,967	19.54%
6	DU6	24,161,005	21.26%	4,691,263	19.42%
7	DDU	3,966,463	3.49%	1,650,000	41.60%
8	TIMA	1,080,000	0.95%	362,117	33.53%
9	HQ	-	-	5,533	-
	Total	113,628,472	100%	27,644,651	24.33%

Chart6: Comparison of each DU target set in IWP 2021 VS Actual 3-month Achievement (Jan-Mar 2021)



In March 2021, most DUs achieved productivities against the monthly IWP target 2021 but it was still encountered issues as the following points:

a. Projects and refreshing course issues:

No.	Demining Unit	Issues	Lost productivity (m ²)
1	DU1&DU2	DU1&2 didn't get CFR-Top UP in March 2021 as planned (Yearly Planned Target: 4,350,000m ²).	362,500
2	DU1&DU6	DU1 & DU6 conducted Refresher course for PMD and mobile teams of 2 new JMAS	576,705



		projects(DU1_RSDB-JMAS&DU6_RSCS-JMAS) for 12 days at their working sites, Banteay Meanchey and Stung Treng provinces respectively.	
3	DU5	Planned deployment of 15 CTS in DU5 but actual 12 CTS only.	1,500,000
		Total	2,257,955

b. If we add the lost productivity with actual one as table showing:

1-Month target	Actual productivity	Lost productivity	Total (m ²)	Compared to 1-month target (%)
9,469,039 m ²	9,678,945 m ²	2,257,955 m ²	11,936,900 m ²	126.06%

3) Progress Analysis by Project:

In addition to the progress by each DU and by demining tools, CMAC is still implementing and recording the progress by each project including the bilateral and earmark projects. During the reporting period, some projects have been being continuing an implementation so called USA-NPA(USA-25) project of DU5 from 1 March 2021 to 28 March 2022 and two projects have started an implementation so called Integrated Mine Clearance Landmine Victim Assistance (IMV) of DU2 from 01 March 2021 to 31 March 2022, CCL03 project of DU4, DU6, TIMA and some teams in CMAC from 01 January to 31 March 2021 and Clearing For Results so called (CFR) from 01 Jan to 31 December 2021 for DU1, DU2 &DU3. Two JMAS Projects for DU1_RSDB-JMAS& DU6_RSCS-JMAS, the period project: 01 March 2021 to 28 February 2022. However, the accumulative progress of all projects' achievement from the starts up to March 2021 are presenting as below table 13:

Table 13: Some Current Projects Executing up to March 2021

Project Name	Project Duration		Achievement			Project Target	Percentage
	Starting date	End date	Project progress up to last month in 2021 (m ²)	Project progress in Mar 2021 (m ²)	Project accumulated progress up to Mar 2021 (m ²)		
CAC (IMCCD)	16-Aug-20	15-Aug-21	166,989	20,655	187,644	200,000	93.82%
USA-NPA (USA25)	1-Mar-21	28-Feb-22		1,688,170	1,688,170	33,300,000	5.07%
PIMV	1-Jul-20	31-Mar-22	18,380,877	2,718,514	21,099,391	44,940,000	46.95%
CCL-03	1-Jan-21	31-Dec-21	3,594,137	2,454,193	6,048,330	15,960,000	37.90%
DU1-CFR23	1-Jan-21	31-Dec-21	686,505	435,209	1,121,714	3,618,088	31.00%
DU2-CFR24	1-Jan-21	31-Dec-21	614,501	396,664	1,011,165	3,512,406	28.79%
DU3-CFR25	1-Jan-21	31-Dec-21	590,306	309,263	899,569	3,122,213	28.81%
APOPO	1-Jan-21	31-Dec-21	743,333	500,049	1,243,382	8,711,061	14.27%
APSARA	1-Jan-21	30-Jun-21	436,152	367,114	803,266	1,228,241	65.40%

4) Operational Factor Analysis:

Regarding the above demonstrated progress, some relevant reasons for the productivity achieved during the reporting period (by focusing on March 2021) areas below:



Fragment Contamination (FC), in total **167,111** pieces found over a cleared area of **9,678,945 m²**. This is **0.02** pieces per square meter. In percentage of technical terms, it is:

- **93.24%** of land cleared had light fragment contamination, in the operational areas of all DUs,
- **6.76%** of land cleared had medium fragment contamination, in the operational areas at all DUs,

Note: * Fragment Contamination Factor (FC) Light=1(0.25 to 2 pieces per m²); medium=0.8 (2 to 3.50 pieces per m²); heavy=0.6 (3.50 to 4 and/ or over 4 pieces per m²)

- 1. The presence of personnel at work, in total (18,863 person-days):**
 - 82.56% of total field personnel were present at work
 - 1.97% of total field personnel were assigned to attend CMAC training courses,
 - 0.02% were on mission,
 - 1.57% were on taking annual leave,
 - 0.60% were on sick leave,
 - 0.14% were on compensation leave
 - 0.22% were on maternity leave
 - 0.00% were on leave without pay
 - 0.06% were on leave without permission,
 - 11.56% were shortfall field personnel,
 - 0.00% were absent,
 - 0.10% were on obligation leave (to work out of the project temporarily...etc),
 - 1.19% were absent for other reasons

- 2. Working Hours, in total (19,832 hours-days):**
 - 78.55% of total times were working hours
 - 0.22% of total times were the raining period,
 - 11.84% of total times were the travelling hours,
 - 1.62% of total times were the maintenance periods of all BC and DM teams,
 - 0.23% of total times were the repairing hours of all BC and DM teams,
 - 0.00% of total times were waiting periods to get spare part for repairing some BC and DM teams,
 - 0.03% of total times were the movement or replacing accommodation and transportation of goods; and BC or DM to the new location,
 - 7.51% of total times were other reasons and or moved BC to assist other development.

- 3. The Mine Detectors, in total (13,386 mine detector-days):**
 - 62.38% of all mine detectors (MD) were actually used for the operations.
 - 37.62% of mine detectors were not used due to deminers being absent or on leave, or detectors broken and being sent for repairs at the CMAC Central Workshop in Battambang province,

- 4. The mine detection dogs (MDD), in total (732 mine detection dog-days):**
 - 81.42% of all mine detection dogs (MDD/EDD) were actually used for operations.
 - 10.79% of mine detection dogs were assigned to attend refresher training at the CMAC TC and
 - 5.75% of mine detection dogs were sick and had to be treated at the CMAC Training Center.
 - 2.05% of lack mine detection dogs.

5) Other Reasons Affecting Operational Progress:

a) Adherence to work plan

- During the reporting period as of March 2021, DU5 are still improving and urging the use of the Land Release Techniques, BLS, Process and methodology to eliminate the mistakes to their demining teams in terms of correction and prevention action of any misunderstanding and technical aspects so that to work as well, speed up operations and increasing progress to meet the planned target of CMAC Annual Work Plan as set out of the year 2021. However, some



mistakes of technical aspects in doing BLS and Survey are still complicated issues at frontline level that needs experts from CMAC HQ to assist them for correction action in a timely.

b) Collaboration with others

- At least **67** minefields have been cleared in March 2021 handed over to the land owners and local communities for productive purposes at Banteay Meanchey, Battambang, Pailin, Siem Reap, Preah Vihear, Kampong Cham, Kratie and various provinces in collaboration with the local authorities, MAPU and CMAA in doing the QA/QC activities before releasing land safely.
- In addition to the above mentioned, during the reporting period all DUs have also cooperated with MAPU, local authorities, NGOs, stakeholders and other development partners in Banteay Meanchey, Battambang, Pailin, Siem Reap, Oddar Meanchey, Preah Vihear, Kampong Cham, Kratie and southeastern provinces of Cambodia to collect the mine/UXO clearance requests for their next clearance planning.

c) Challenges and actions taken

Demining Unit 1:

- Weather was hot, some time.
- Some operational material/equipment is broken and older.

Demining Unit 2:

- Weather was hot, some time.
- There was dense vegetation in some areas.
- There was a lot of fragmentation.
- Some operational material/equipment such as grass cutters and hand cutting tools are broken.

Demining Unit 3:

- Weather was hot, some time.
- There was dense vegetation in some areas.
- There was a lot of fragmentation.
- Some grass cutters and hand cutting tools could not sharpen anymore.

Demining Unit 4:

- Weather was hot, some time.
- There was dense vegetation.
- Some areas were mineralized soils.
- Some fields are the plateaus.

Demining Unit 5:

- Weather was hot, some time.
- There were insects in some UXO fields to disturb operational clearance.
- The ERW requests from local authorities were not taken place on time due because of remote places.

Demining Unit 6:

- Weather was hot.
- There was dense vegetation.

Safety and Occupational Health

- There were neither critical issues nor accidents at all DUs for this reporting period, especially the safety principle and staff healthy were strengthened and suffused to all mobile platoons and teams about SOP, sanitation, epidemic diseases and food prevention.



- All DUs always take measure to prevent the spread of COVID-19:
 - Clean hands often with soap and water or an alcohol-based hand rub.
 - Checks the temperature before operations.
 - Wear facial mask.
 - Maintain the social distancing guidelines.
 - Work at home for some office staff.
 - Cover nose and mouth with bent elbow or a tissue/scarf when coughing or sneeze.

d) The Next Month Planning

- All DUs are going to continue strengthening and urge all demining teams to implement and follow on all existing SOPs to avoid mine/ERW incident during operations and as well as to provide them for safe manner and professionalism in demining.
- All DUs will continue to follow up and work closely to monitor and conduct QA/QC independently with their own resources and also to cooperate with CMAA QA/QC teams as much as possible, to eliminate all mistakes of all demining teams' performance as well and also to increase productivity to achieve their set target in 2021.
- All DUs will continue to maintain, follow up and implement the existing projects at their own DUs. Taking responsibility for coordinating and cooperating with CMAC Headquarters and the donors, to accomplish the project goals and objectives and the planned targets for 2020 as well.
- All DUs will continue to perform and apply the land release process and techniques to all demining teams in order to increase productivity and to achieve the set target in 2021.

6. Major Events:

- None

7. Suggestion/Conclusion:

- All demining activities and safety principle at ground levels are still continuing to respect and follow on them and existing SOPs so that everyone (deminers) gets safe during their performing the demining activities without any accident from explosion of landmine and UXO, in October 2021.
- The Department of Support/HR should strengthen performing its processes of resupply, repairs for operational equipment, vehicles, brush cutters, demining machines and materials smoothly for all DUs.
- Without the equipment support/resupply in time for all Demining teams, it will make decreasing of massive progresses of the performing will not meet the annual target plan of 2021.

Verified by:

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 06 May 2021

Attachment:

- Annex A: CMAC Operational Progress Summary from 1992 up to March 2021
- Annex B: Monthly Progress Report by DU for March 2021



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CAMBODIAN MINE ACTION CENTRE

- Annex C: List of Completed Minefields and On-going as of March 2021 (all DUs)
- Annex D: Summary of Baseline Survey Report for March 2021.
- Annex E: Summary of CBMRR Report for March 2021.