



**Ministry of Water Resources
and Meteorology**



Asia Development Bank

QUARTERLY PROGRESS REPORT-3 July - September, 2020

**Cambodia: Greater Mekong Sub-region Flood and Drought Risk
Management and Mitigation Project**

Project No.: 40190, Loan and Grant No: L2970-SF, G0330-SCF, L8262-SCF

October 2020

Summary

The Cambodia: GMS Flood and Drought Risk Management and Mitigation Project is progressing toward the set target with the overall progress of the project at 94% as of 30 September 2020. The four main outputs of the project are: i) Enhanced regional data, information and knowledge base for the management of floods and droughts, ii) Upgraded Water Management Infrastructures, iii) Enhanced Capacity of Community Based Flood and Drought Risk Management, and iv) Effective Project Implementation.

The original project completion (Loan/Grant Closing) date was 30 September 2019. The Loan/Grant closing date has been now extended by 18 months up to 31 March 2021. The extension is primarily to complete the civil works construction of the Damnak Chheukrom Irrigation Sub-project (Output 2). Reallocation of loan and grant proceeds have been made accordingly.

The first output is implemented by the Project Implementation Unit (PIU) at the Department of Hydrology and River Works (DHRW) of the Ministry of Water Resources and Meteorology (MOWRAM) with the support of National Flood Forecasting Center (NFFC) consulting team. The consulting assignment was completed in August 2019 and key deliverables have been submitted.

This component of the Project supported (i) development of design criteria for flood and drought risk mitigation schemes and water control infrastructure; (ii) strengthening of National Flood Forecasting Center (NFFC) and (iii) assessment of cross-border flood management options in Viet Nam and Cambodia. The key activities of this component have been completed.

One of the sub-outputs is the “trans-boundary (Cambodia-Vietnam) flood management options endorsed by both governments”. Project management units of both Cambodia and Vietnam have approved the agreed actions on the assessment of cross-border flood management options in Viet Nam and Cambodia. The Cambodia National Mekong Committee (CNMC) will incorporate the NFFC outputs to strengthen existing transboundary water resources management under the MRC 1995 Agreement cooperation framework. The Memorandum of understanding (MoU) between Vietnam National Mekong Committee (VNMC) and CNMC signed in 2005 aims to introduce mitigation measures in the development and management of the floodplain to avoid sub-optimal water regime and adverse impacts to both territories, during the flood season, under which Transboundary Water Resources Management issues have been identified under the MIWRM project.

After the completion of the Consulting Services of the NFFC component, the Project with the no-objection of ADB decided to engage individual consultants to support the newly established NFFC at DHRW. Accordingly, three individual consultants, (i) Hydrologist (ii) Hydraulic Specialist, and (iii) IT/Database Specialist, have been engaged since 10 June 2020. The three individual consultants will support the DHRW to implement the outputs of this component, especially the Flood and Drought Forecasting Models, till the end of the Project.

The second output is implemented by the Provincial Department of Water Resources and Meteorology (PDWRAM) in Pursat and has an overall progress of about 91%.

Rehabilitation of Damnak Chheukrom irrigation system is to support the improved drought management and increased flood protection of Pursat town¹. The irrigation system will provide 16,100 ha of irrigated areas. The works include construction of a new barrage and intake, rehabilitation of the main canal, secondary and tertiary canals and appurtenant structures; and laying of new tertiary canals/water courses.

The civil works for the Damnak Chheukrom Irrigation scheme has been packed into five packages consisting of two International Competitive Bidding (ICB) packages, the Barrage and the Main Canal, and three National Competitive Bidding (NCB) packages for the four secondary canals and their associated tertiary canals.

Following is the status of progress as of 30 September 2020 of the five civil contracts.

- Barrage – 83.07% compared to the target of 91.71%
- Main Canal – 89.64% compared to the target of 95.15%
- SC 1 and SC2 – 65.85% against the target of 81.21%.
- SC3 – 75.01% against the target of 91.32%
- SC4 – 86.16% against the target of 94.70%

The detailed Resettlement Plan (RP) prepared at the project preparatory stage has been split into two detailed RPs (DRPs) covering the barrage and the main canal (DRP 1) and the secondary and tertiary canals (DRP 2).

All resettlement issues under DRP1 and DRP2 have been now settled. The grievance of 2 affected households (AHs) under DRP1 (main canal section from Chainage 0:000 to Chainage 0:800) was resolved on 19 Mar 2020 under the Grievance Redress Mechanism (GRM). One of the two AHs accepted the compensation and the second AH's case is being handled through the GRM. The revised DRP2 covering the secondary and tertiary canals was approved on 4 April 2019 and disclosed on the ADB website. All compensation under DRP2 was paid in October 2019.

The three EMPs for main canal, barrage (packages 1-2) and secondary and tertiary canals (packages 3-5) have been updated to reflect the detailed engineering design and have been disclosed on the ADB website. The EMPs include updated detailed information on project detailed design and activities, impacts, mitigation measures and public consultation, so it has been agreed that an update to the IEE is not needed. The Initial Environmental and Social Impact Assessment (IESIA) has been prepared, reviewed by the inter-ministerial committee and is now approved by the Ministry of Environment (MOE). Updated Environmental Monitoring

¹ The main canal is now designed for maximum diversion capacity of 22.4 m³/s compared to the originally proposed 40 m³/s (ADB Aide Memoire, April 2016). The flood attenuation of the maximum peak flood at the Pursat Town will be limited compared to the estimated 1 in 50-year flood of 1,130 m³/s.

Reports for the period of Jan – Jun, 2019 and Jul – Dec 2019 have been submitted and accepted by ADB.

In order to protect the health and safety of the workers as well as the communities affected by the Project, a project-level COVID-19 risk assessment has been carried out. Similarly, all contractors will be instructed to update their respective health & safety (H &S) plans, as part of the construction EMP.

The semi-annual Safeguard Monitoring Report (SMR), covering combined the social and safeguard monitoring, is prepared based on the implementation of the Resettlement Plans, the Environmental Monitoring Plans (EMPs), the Contractor EMPs and regular site visits in each month have been prepared for the period from January to June 2020.

The third output is implemented by the CPMU in MOWRAM and the PIU, PDWRAM in Pursat with the support from CBDRM consulting team. The consulting services under this component was completed in 31 Aug 2019. All key outputs of the component are achieved. An additional output of piloting five community ponds was added to the component. Contracts of the five ponds were signed on 15 May 2020 and the community ponds are now under construction. Two have been completed, one is 50% complete and other two will be completed by Jan 2021. The three ponds construction has been disturbed by the rainfall in the last few months.

Additional FWUC training has been approved and the no-objection from ADB has been received on 21 Sep 2020.

The overall progress of this third component is 98%, with only the construction of the three community ponds remaining.

The last output is related to the management of the project by the CPMU with support from the Project Implementation Consultant (PIC) Team. The overall progress of the output is around 86% (progress revised based on the new completion date of 31 Mar 2021). The mobilization of the PIC international staff to Cambodia has been on hold since March 2020 due to the COVID-19 pandemic. While the construction work has not been disturbed, there are some impacts on key technical decisions on the Gates Design and Manufacturing and technical due diligence due to the PIC international staff unable to be mobilized in the field. Some field inputs have been converted to home-based input to enable home-based support by the PIC team during this pandemic. Staffs have been assigned for the Central Project Management Unit (CPMU) and the two Project Implementation Units (PIUs). The imprest accounts are operational. Quarterly and annual progress reports are prepared and submitted every quarter.

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1. Introduction

This is the Third Quarterly Report for the year 2020 (July – September) of the Cambodia: GMS-Flood and Drought Risk Management and Mitigation Project (FDRMMP), funded by the Asian Development Bank (ADB) and the Government of Cambodia.

Four Outputs of the project are presented below:

- a. Enhanced regional data, information and knowledge base for the management of floods and droughts: Under this component, three specific sub-outputs will be delivered (i) Strengthening of National Flood Forecasting Center in Cambodia; (ii) Development of design criteria for flood and drought risk schemes and water control infrastructure in the Mekong Delta, (iii) Assessment of cross-border flood management options in Viet Nam and Cambodia; and
- b. Upgraded Water Management Infrastructures: Under this component, Damnak Chheukrom Irrigation Systems Rehabilitation in Pursat Province will be implemented which will upgrade irrigation and drainage in 16,100 ha of land and provide increased flood protection for 10,000 people.
- c. Enhanced Capacity for Community-Based Disaster Management: Under this component, at least 5 communities (communes) have disaster risk management plans; at least 200 women are trained on CBDRM and at least 30% of CBDRM committee members are female; and farmer managed water user committees are established in Damnak Chheukrom Irrigation System.
- d. Effective Project Implementation: according to plan, project implementation is completed within 7.5 years (March 2021) and all accounts are closed within 8.0 years (September 2021). The project completion date was extended by 1.5 years from the original completion of September 2019, due to delay of the construction of infrastructures.

The Project area comprises selected sub-basins in Cambodia while the upgraded water management infrastructure, the Damnak Chheukrom Irrigation Scheme (DCIS), will be implemented in Pursat province. Flood forecasting models for Pursat river basin and the Mekong floodplain in Cambodia have been developed.

2. Basic Data

No.	Description	Detail
1	Asian Development Bank (ADB) Loan/Grant Number	L2970; G0330; L8262
2	Project Title	Cambodia: GMS Flood and Drought Risk Management and Mitigation Project
3	Borrower	Royal Government of Cambodia (RGC)
4	Project Management Unit and Implementation Unit	Ministry of Water Resources and Meteorology
5	Total estimated project cost	US\$ 47.75 million
6	Status of project financing: (Including availability of counter-part funds and co-financing):	Active
7	Dates of approval (ADB)	12 December 2012
8	Date of signing	17 January 2013
9	Date of effectiveness of ADB Loan	23 June 2014

No.	Description	Detail
10	Original ADB Loan closing date	30 September 2019
11	Elapsed loan period based on original loan closing dates	116%
12	Revised ADB Loan closing date	31 March 2021
13	Elapsed loan period based on revised loan closing dates	92%
14	Date of last ADB review mission	14 – 18 December 2015 17 - 20 February 2016 5 – 11 April 2016 5 – 12 September 2016 6 – 15 March 2017 11 – 18 September 2017 14 – 22 March 2018 25 September – 2 October 2018 25 March – 4 April 2019 1 – 9 October 2019 21 – 30 September 2020

3. Financing plan

Source	Amount (\$ Million)	Share of Total (%)
Asian Development Fund (ADF)	35.0	73%
ADB SCF Loan	4.00	8%
ADB SCF Grant	5.80	12%
Government of Cambodia	2.95	6%
Total	47.75	100%

Note: The above plan (ADF Loan) is based on SDR and US\$ exchange rate at the beginning of the project. The actual amount of the ADF loan will fluctuate according to the SDR exchange rate. The US\$ equivalent.

4. Utilization of Funds

Table 1 : Disbursement by Donor

Disbursement by Fund

Amount in US\$ As of 14 Oct 2020

Loan Category	Amount allocated (\$)	Amount Disbursed (\$)	Percentage Disbursed	Contract Award (\$)	Percentage Contract Award
ADB L2970-SF	31,665,332	21,673,808	68.4%	30,094,763	95.0%
ADB L8262-SCF	4,000,000	2,638,331	66.0%	3,865,761	96.6%
ADB G030-SCF	5,800,000	5,188,366	89.5%	5,532,909	95.4%
Government	2,950,000	NA	NA	NA	NA
Total	44,415,332	29,500,505	66.4%	39,493,434	88.9%
ADB only	41,465,332	29,500,505	71.1%	39,493,434	95.2%

Source: ADB Database as of 14 Oct 2020

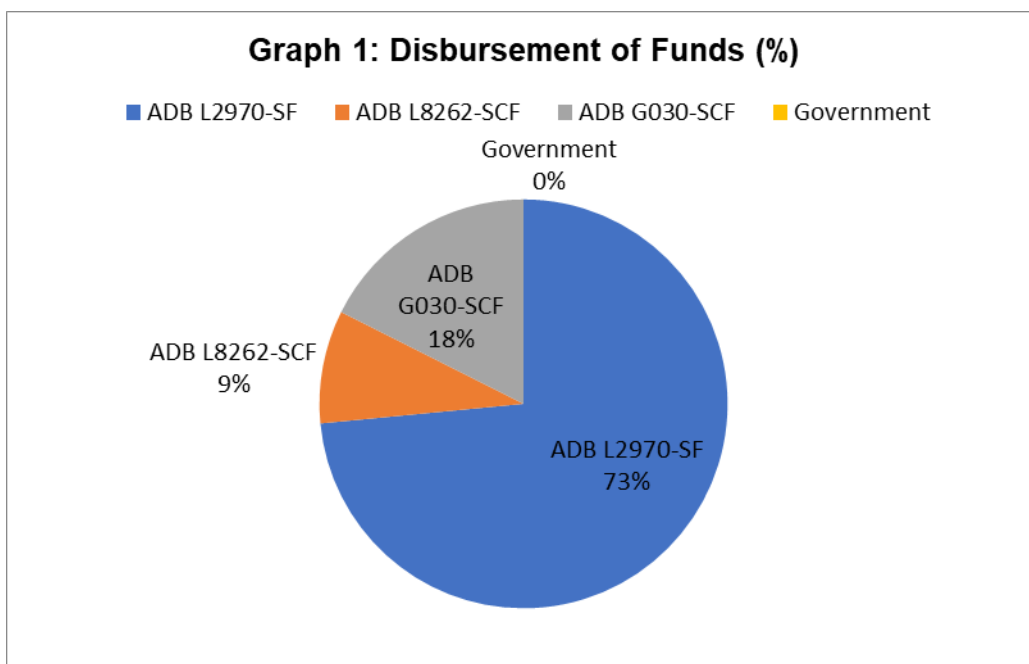


Table 2 : Detailed Status of ADB Loan Utilization

Detailed Status of ADB Loan Utilization (L2970)

Amount in US\$ As of 14 Oct 2020

Cat Ref	Cat Code	Category	Amount (\$)					% Disbursed
			Current Allocation	Contracts	Uncommitted Loan Balance	Disbursement	Balance	
1A	301	CW/Construction	23,834,791	25,870,862	(2,036,071)	17,637,710	6,197,081	74.0%
1B	302	CW/ Survey, Design, Supervision (DDCS)	2,274,896	1,565,337	709,558	1,253,634	1,021,262	55.1%
2	1501	Equipment	83,924	57,717	26,207	57,717	26,207	68.8%
3	1502	Vehicles	332,200	332,200	-	332,200	-	100.0%
4	2101	Consulting Services (PIC)	1,490,163	1,034,850	455,313	806,774	683,389	54.1%
5	2701	Implementation & Supervision	1,371,681	1,233,797	137,884	980,317	391,364	71.5%
6	2702	Operations & maintenance during implementation	-	1	(1)	-	-	0.0%
7	6901	Interest during construction	829,901	-	829,901	290,207	539,694	35.0%
8	9301	Unallocated	1,457,668	-	1,457,668	-	1,457,668	0.0%
99	9901	Imprest Account	(9,892)	-	(9,892)	315,250	(325,142)	
		Total	31,665,332	30,094,763	1,570,568	21,673,808	9,991,523	68.4%

Source: ADB Database as of 14 Oct 2020

Note: Current allocation is based on the SDR conversion rate of this date.

Table 3 : Detailed Status of SCF Loan Utilization

Detailed Status of ADB SCF Loan Utilization (L8262)

Amount in US\$ As of 14 Oct 2020

No	Category	Amount (\$)					
		Allocation	Contracts	Uncommitted Loan Balance	Disbursement	Balance	% Disbursed
1	Works - Construction contract	3,986,300	3,865,761	120,539	2,635,520	1,350,780	66.1%
2	Service charges	13,700		10,889	2,811	10,889	20.5%
3	Unallocated	-		-		-	
	Total	4,000,000	3,865,761	131,428	2,638,331	1,361,669	66.0%

Source: ADB Database as of 14 Oct 2020

Table 4 : Detailed Status of SCF Grant Utilization

Detailed Status of ADB SCF Grant Utilization (G0330)

Amount in US\$ As of 14 Oct 2020

Cat Ref	Cat Code	Category	Amount (\$)					
			Allocation	Contracts	Uncommitted Loan Balance	Disbursed	Balance	% Disbursed
4	3101	Consulting services (PIC)	1,234,735	1,489,174	(254,439)	1,160,967	73,768	94.0%
1	3201	Works - for NFFC	99,088	99,088	-	98,780	308	99.7%
1B	3201	1B WORKS-FOR CDBRM PILOTING	216,000	90,242	-	-	216,000	0.0%
2	3601	Vehicles for NFFC	213,400	213,400	-	213,400	-	100.0%
3	3602	Equipment for NFFC	387,453	387,453	-	387,453	-	100.0%
5	3801	National training	48,399	5,000	43,399	-	48,399	0.0%
6	3901	Service contracts	3,514,062	3,190,675	323,387	3,078,690	435,372	87.6%
7	3902	Office operation for NFFC	86,863	57,877	28,986	49,076	37,787	56.5%
		Sub-total	5,800,000	5,532,909	267,091	4,988,366	811,634	86.0%
		Pending Claims				-		
		O/S Advance (Imprest Account)				200,000	(200,000)	
		Total	5,800,000	5,532,909	267,091	5,188,366	611,634	89.5%

Source: ADB Database as of 14 Oct 2020

5. Implementation Progress

Detailed implementation progress of the four components of the Project is given in Annex 3. Summary progress narrative is given below.

Output 1 Enhanced regional data, information and knowledge base for the management of floods and droughts

The overall progress of this component is 99.5%. The consulting services of this component ended on 31 Aug 2019. Key outputs of the component are completed.

1. Key reports have been submitted. Including Final Report and other technical reports.
2. Key deliverables of the consulting services were:
 - a. Flood and Drought Risk Assessment Report – June 2016
 - b. Conceptual Design Report for Hydro-met Observation Network and Data Management System- July 2016
 - c. Conceptual Design Report for Flood Forecast and Dissemination- 14 Oct 2016
 - d. Technical Specifications for Hydro-met Equipment and Forecast System – March and Sep, 2016
 - e. Flood and Drought Hazard and Risk Assessment considering different probabilities – Completed
 - f. Climate Resilient Design Guidelines – Completed
 - g. Institutional Modernization of Improved Flood Forecast in Cambodia – Sep 2017
 - h. An Early Warning Strategy with Improved Regional Coordination and Cooperation – Action Plan developed.
 - i. Completion Report – August 2019
3. Out of the four sub-outputs of this component, following three sub-outputs are completed.
 - 1.1: All NFFC staff trained and operational by Q4 2018
 - 1.2: NFFC forecasting model calibrated and operational by 2018 (2011 baseline: NFFC is not operational)
 - 1.3: Design criteria for flood and drought mitigation schemes in the Mekong Delta developed and disseminated by 2018
4. The fourth sub-output **(1.4 Transboundary (Cambodia–Viet Nam) flood management options endorsed by both governments by 2018) is partially completed.** The outputs prepared under this Project will enable CNMC to implement the transboundary management options with Vietnam through the MRC protocol.
5. Three individual consultants (Hydrologist, Hydraulic Specialist and Database Specialist) have been engaged since 10 Jun 2020 to ensure the sustainability of the operation and maintenance of the invested hydro-met network in the Pursat River Basin and their use in the operation of flood forecasting and droughts prediction by the Department of Hydrology and River Works (DHRW).

Output 2 Upgraded Water Management Infrastructures

The civil works for the Damnak Chheukrom Irrigation scheme has been packed into five packages consisting of two International Competitive Bidding packages, the Barrage and the Main Canal, and three National Competitive Bidding (NCB) packages for the four secondary

canals and their associated tertiary canals. The contract for the Main Canal and the Barrage were signed in June and October 2017, respectively. Considering the suspension of civil works on 16 March 2018 for several months before the approval of the DRP1 in December 2018, the schedules of the two packages were revised. The construction of the Main Canal from chainage 0:800 km to 16:500 km has been completed. The main canal section from chainage 0:000 to 0:800 km was delayed due to the issues of two affected households. The construction on this remaining section started on 20 May 2020, after the Provincial Resettlement Committee has made a decision on the grievance of affected households and issued a letter to start work in this section on 18 March 2020.

The three NCB contracts of the Secondary and Tertiary canals were signed on 12 June 2019. However, full construction was on hold until the compensation was provided as per the DRP2. The compensation was provided in Oct 2019, after which the construction is now on going unhindered.

The following is the construction progress of the five contract packages (up to 30 Sep 2020):

- a. Barrage – 83.07% against the target of 91.71% (Rev-03) to be completed by Nov 2020
- b. Main Canal – 89.64% against the target of 95.15%
- c. SC1/SC2 and TCs – 65.85% against the target of 81.21%.
- d. SC3 and TCs – 75.01% against the target of 91.32%
- e. SC4 and TCs – 86.16% against the target of 94.70%

The key issues encountered in the implementation of the civil works construction are as follows:

1. The approval of Gates Shop Drawings and Method Statement took longer than expected as the submissions from the Contractor were not been adequate for approved by the Technical Team. Based on several rounds of comments and resubmissions, the EA at the advice of PIC and DDCS teams provided on 2 June 2020 “conditional approval” of submitted Gates Shop Drawings and Method Statement to start the manufacturing of the Gates. The conditional approval states that the Contractor has accepted to take full responsibility to take remedial measures in case of any technical problems arising from the manufacturing and installation of the Gates at the site.
2. The Contractor has completed the manufacture of the guide frames of the Barrage Gates, Intake Gates and the Under-sluice Gates. The Contractor transported the guide-frame to the site on 10-11 September 2020 and installed the sill beam on 12-13 September 2020. The H-beam steel of the gates were purchased and transported from China and Vietnam to Cambodia on 10 Sept 2020. Some materials are yet to be transported to Cambodia.
3. The structural analyses of the barrage piers and the hoist slabs prepared by the DDCS structural Engineer was reviewed and checked by the PIC International Structural Engineer in August 2020. Since the data of the Gates and hoisting system was needed to check the structural loads which was critical to the safely of the Barrage, this took more time. With this, the piers and hoisting slabs construction can be carried out without any delays.
4. The Barrage construction is about 8.64% behind the target. The Barrage Contractor has requested an extension of the completion date from current date of 5 Nov 2020 up to 26 Feb 2021. The Contractor has been instructed to complete the civil works by the end of December 2020, and the installation of the Gates may be considered for extension up to February 2020. The extension request will be addressed accordingly.

5. Due to the flash flood in the Pursat River, the downstream cofferdam at the barrage was broken which has delayed the installation of the guide frame.
6. The Main Canal construction is about 5.51% behind the target. Some delays occurred due to disturbance in the raining season.
7. Some areas near the SC3 and SC4 were flooded during the rainy season due to drainage problems. Hence, there is a need to add some drainage structures to manage this, which are described below.
8. The construction of the SC1/SC2 package (NCB-W03) is about 16.31% behind the target. There is minor variation requirement to include some required road crossings inlet structures, and lining of the short length of SC1 due to loose sands. The variations will be covered within the available contingency budget.
9. The construction of the SC3 package (NCB-W04) is about 16.31% behind the target. There is minor variation requirement to include some required drainage structures improved drainage in the command area. The variations will be covered within the available contingency budget.
10. The construction of the SC4 package (NCB-W05) is about 8.54% behind the target. There is minor variation requirement to include some required drainage structures improved drainage in the command area. The variations will be covered within the available contingency budget.
11. The impact of the COVID019 pandemic is now under assessment. The Contractors have been instructed to update the Health and Safety (H & S) Plan addressing the COVID-19 health risks taking into consideration the Government's COVID-19 Protocol and international practice.

Overall physical progress of this output is estimated as 91%.

Output 3 Enhanced Capacity of Community Based Flood and Drought Risk Management

The consulting assignment of the CBDRM component ended in August 2019, including the cost extension of the consulting services to pilot selected CBDRM measures identified in the safer village plan.

The key activities completed under the original consulting services are:

- i. Established Commune Coordination Committee (CCC) and District Coordination Committees (DCC) in Jan 2016 (Field verification conducted by the CBDRM team in coordination with PDOWRAM has indicated that five communes are in the command area. Thus, project activities have focused on 5 communes, rather than on 6 identified communes mentioned in the DMF. The 5 communes are: Talou and Khnar Toteung of Bakan district, and Samroung, Pteah Rung and Bak Chenchien of Phnom Kravanh District)
- ii. Completed the Hazard Vulnerability and Capacity Assessment (HVCA) Data Collection, 11 April 2016 and Data entry on Aug 2016.
- iii. CBDRM Village Training for 50 villages completed March 2017 (through intensive 5-6 days participatory training sessions involving 750 community members including 52% women)

- iv. CBDRM conference, completed October 2017 (There were 179 participants/17 females from various institutions and countries participated in the conference.)
- v. 50 Village Safer Plans, completed October 2017 (Prepared by the 50 VDMG (Village Disaster Management Groups) which can be considered equivalent to the concept of CBDRM committees mentioned in the DMF; have been formed. Each VDMG includes 10 members from the village, including women, elders, and youth. Women represent 42% of the members in the VDMGs. The preparation of Safer Plans is done in coordination with the Commune Coordination Committees (CCC) and the District Coordination Committees (DCC) that the CBDRM team has helped to establish earlier on during implementation of the component.
- vi. Steps 5 out of the 10 steps of establishing the Farmer Water User Communities (FWUC) has been completed by the FWUC team of MOWRAM with support from the CBDRM consulting team. Election of the FWUC management committees (Step 5) has been completed on 28 December 2018 structure. According to the FWUC Sub-Decree Article 6, the FWUCs of DCIS will be registered by the Pursat Provincial Department of Water Resources and Meteorology. The first training on O & M, Financial Management and Conflict Resolution was completed. Additional training to FWUC has been approved and no-objection from ADB received on 21 Sep 2020.
- vii. During the extension period, training on agriculture, specifically focusing on home gardening and poultry raising, was provided to 184 farmers including 132 female (72%) in 15 selected villages out of the 50 target villages. Similarly, FWUC training to 78 management committee members and 10 additional women members were provided. The FWUC training to additional 10 women and current 21 women members of FWUC (total 31 women) from 3 to 6 March 2020, covered the topics related to: System operation, Maintenance, Financial Management and Conflict Resolution.
- viii. The contracts of the piloting of 5 community ponds were signed on 15 May 2020. The status of the construction of the 5 ponds are as follows:
 - i. Contract No. CAM7-NS-CW07-CP-01: Sam San Community Pond's progress is 50% against the target of 100% by 20 August 2020. The contractor has requested to grant an extension time to finish the works by 30 January 2021. The pond is located near the hill side of mountain, and it was inundated during the rainy season which disturbed the construction.
 - ii. Contract No. CAM7-NS-CW07-CP-02: Rohal Til Community Pond construction has not started due to disturbance by the rainfall. The contractor has requested to grant an extension time to finish the works by 30 January 2021. It is located in the lowland area; access was disturbed due to inundation and rice cultivation by the farmers.
 - iii. Contract No. CAM7-NS-CW07-CP-03: Toul Totoeung Community Pond is now completed. The EA issued the completion certificate on 17 August 2020.
 - iv. Contract No. CAM7-NS-CW07-CP-04: Thlok Dangkor Community Pond construction has not started due to disturbance by the rainfall The contractor has requested to grant an extension time to finish the works by 30 January 2021. It is

located in the lowland area, and access was disturbed due to inundation and rice cultivation by the farmers.

- v. Contract No. CAM7-NS-CW07-CP-05: Prey Kanlong Community Pond is now completed. The EA issued the completion certificate on 17 August 2020.
- vi. The contract extension of the 3 remaining community ponds up to 30 January 2021 was approved by PRC on 31 August 202 and no objection from ADB has been received..

Overall physical progress of this output is estimated as 98%.

Output 4 Effective Project Implementation

All consultants including the External Safeguard Monitoring Consultants, the individual National Financial Management Specialist has been recruited. The External Safeguard Monitoring Consultants has been recruited by the GDR/IRC.

Staffs have been assigned for the Central Project Management Unit (CPMU) and the two Project Implementation Units (PIUs). The imprest accounts are operational. Quarterly and annual progress reports are prepared and submitted every quarter.

The Contract Award and Disbursement (CAD) Projection was updated on 23 Jun 2020, based on the project status and revised project completion date. The mobilization of the PIC international staff to Cambodia has been on hold since March 2020 due to the COVID-19 pandemic. While the construction work has not been disturbed, there are some impacts on key technical decisions on the Gates Design and Manufacturing and technical due diligence due to the PIC international staff unable to be mobilized in the field. Some field inputs have been converted to home-based input to enable home-based support by the PIC team during this pandemic.

Staffs have been assigned for the Central Project Management Unit (CPMU) and the two Project Implementation Units (PIUs). The imprest accounts are operational. Quarterly and annual progress reports are prepared and submitted every quarter.

Overall physical progress of this component is estimated as 86% (progress revised based on extended completion date).

The Project Implementation progress output wise is given in Table 5.

Table 5 : Project Implementation Progress

A	Outputs	% Weight of Output	% Weight of Total Project	Current Achievement	Component Wise Achievement
1	Enhanced regional data, information and knowledge base for the management of floods and droughts				
1.1	Procurement of Equipment for NFFC	10.0%	2.0%	100%	10%
1.2	Supply and installation of Equipment	10.0%	2.0%	100%	10%
1.3	Training of NFFC Staff	20.0%	4.0%	100%	20%
1.4	NFFC forecasting model calibrated and operational	30.0%	6.0%	100%	30%
1.5	Design criteria for flood and drought mitigation schemes in the Mekong Delta developed and disseminated	20.0%	4.0%	100%	20%
1.6	Trans-boundary (Cambodia–Viet Nam) flood management options endorsed by both governments	10.0%	2.0%	95%	10%
	Sub-total	100%	20%		99.5%
2	Upgraded Water Management Infrastructures				
2.1	Preparation of Detailed Design, Bidding Documents	25%	12.5%	100%	25%
2.2	Implementation of Resettlement Plans	7.5%	3.8%	100%	8%
2.3	Implementation of IEE and EMP	7.5%	3.8%	100%	8%
2.4	Tendering for Civil Works	10%	5.0%	100%	10%
2.5	Construction of Irrigation System	49%	24.5%	83%	41%
2.6	O & M Plans for each unit of upgraded infrastructure adopted	1%	0.5%	0%	0%
	Sub-total	100%	50%		91%
3	Enhanced Capacity of Community Based Flood and Drought Management				
3.1	Training on CBDRM (50 communities/villages)	25%	5%	100%	25%
3.2	Five Communes/50 Villages have DRM plans	35%	7%	100%	35%
3.3	FWUC Establishment	28%	6%	100%	28%
3.4	CBDRM Piloting	10%	2%	80%	8%
3.5	Agricultural Training	2%	0%	100%	2%
	Sub-total	100%	20%		98%
4	Effective Project Implementation				
4.1	Establish CPMU and PIUs	10%	1%	100%	10%
4.2	Open Imprest Accounts	10%	1%	100%	10%
4.3	Recruitment of Project Implementation. NFFC, DDCS, CDBRM and other Consultants (External Monitoring Consultant)	20%	2%	100%	20%
4.4	Submit Quarterly and Annual Reports	30%	3%	92%	28%
4.5	Prepare and Submit Project Completion Report	10%	1%	0%	0%
4.6	Maintain and operate CPMU	10%	1%	92%	9%
4.7	Maintain and operated PIUs	10%	1%	92%	9%
	Sub-total	100%	10%		86%
	Total Progress		100%		94%

Note: the progress in Output 4 has been reported considering the new new loan closing date of 31 March 2021.

Implementation progress in terms of safeguards, procurement of goods, consulting services and work contracts, physical progress, and results achieved against the targets defined in the DMF are presented below.

6. Safeguards

The project is categorized as "B" for Environment, "A" for Involuntary Resettlement, and "C" for indigenous Peoples.

An Initial Environmental Examination (IEE) was prepared for the rehabilitation of the Damnak Chheukrom Irrigation Scheme in 2012. The three EMPs for main canal, barrage (packages 1-2) and secondary and tertiary canals (packages 3-5) have been updated to reflect the detailed engineering design and are being finalized based on comments from ADB. The EMPs have

been disclosed on the ADB Website. The EMPs include updated detailed information on project detailed design and activities, impacts, mitigation measures and public consultation, so it has been agreed that an update to the IEE is not needed.

As per the requirements of Ministry of Environment (MOE), an Initial Environmental and Social Impact Assessment (IESIA) report has been prepared by a certified consultancy firm accredited and approved by the MOE.

In order to protect the health and safety of the workers as well as the communities affected by the Project, a project-level COVID-19 risk assessment has been carried out. Similarly, all contractors are instructed to update their respective health & safety (H &S) plans, as part of the construction EMP. A check list for COVID-19 Prevention Measures has been prepared and disseminated to all stakeholders, and the contractors (See **Annex 9**).

The Project is classified as Category A for Involuntary Resettlement, and the category remains unchanged during implementation despite the change of scope. The draft Resettlement Plan (RP) prepared at the project preparatory stage has been split into two detailed RPs (DRPs) covering barrage and the main canal (DRP 1) and secondary and tertiary canals (DRP 2).

All resettlement issues under DRP1 and DRP2 have been now settled. The grievance of 2 affected households (AHs) under DRP1 (main canal section from Chainage 0:000 to Chainage 0:800) was resolved on 19 Mar 2020 under the Grievance Redress Mechanism (GRM). One of the two AHs accepted the compensation and the second AH's case is being handled through the GRM.

In addition, a Social and Environmental Safeguard Due Diligence and Code of Conduct of the implementation of the five community ponds under the CBDRM component has been submitted to and approved by ADB.

The semi-annual Safeguard Monitoring Report (SMR), covering combined the social and safeguard monitoring, is prepared based on the implementation of the Resettlement Plans, the Environmental Monitoring Plans (EMPs), the Contractor EMPs and regular site visits in each month have been prepared for the period from January to June 2020. It will be submitted to ADB soon.

Table 6 below presents the Project's status on safeguards.

Table 6 : Safeguards

Sub-project/ Contract	Social Safeguard Assessment	Social Safeguard Screening (Y/N)	Resettlement Plan		Environment Assessment	
			Completed	On-going	Completed	On-going
Damnak Chheukrom Irrigation Scheme (DCIS)- New Barrage in	Completed	Y	Yes	DRP1 (Barrage and Main Canal) submitted and approved by ADB on 21	Yes, EMP for Barrage prepared.	MOE has accepted in principle

Sub-project/ Contract	Social Safeguard Assessment	Social Safeguard Screening (Y/N)	Resettlement Plan		Environment Assessment	
			Completed	On-going	Completed	On-going
Pursat River				<p>December 2018.</p> <p>The DRP2 (Secondary and Tertiary Canals) was approved on 4 April 2019</p> <p>An Income Restoration Plan has been prepared by a qualified community development specialist. All AHs have opted for 300\$ cash. Compensation under DRP2 has been paid in October 2019.</p>		the updated 2012 IEE and an IESIA prepared by firm accredited has been approved by MOE,
DCIS - Main Canal, Pursat	Completed	Y	Yes	Covered in DRP1 reported above.	Yes, EMP for Main Canal prepared and disclosed.	
DCIS - Secondary Canals, Pursat	Completed	Y	Yes	DRP2 was approved on 4 April 2019, reported above	Yes, EMP for SCs/TCS completed, and disclosed.	IESIA prepared by a registered firm has been approved as reported above
DCIS - Tertiary Canal, Pursat	Completed	Y	Yes	Covered in DRP2 reported above	Yes, EMP for SCs/TCS completed, and disclosed.	IESIA prepared by a registered

Sub-project/ Contract	Social Safeguard Assessment	Social Safeguard Screening (Y/N)	Resettlement Plan		Environment Assessment	
			Completed	On-going	Completed	On-going
						firm has been approved as reported above

7. Gender

The Project is effective gender mainstreaming and GAP covers 15 actions and 7 targets. According to the new operational priority 2 of ADV: Accelerating Progress in Gender Equality, 2019-2024, the GAP will be assessed as successful by completion, when at minimum, 80% of GAP actions (12 of 15 actions) and 80% of numeric targets (6 of 7 targets) achieved and all data of beneficiaries reported with sex-disaggregation. According to the latest report (**Annex 8**), the overall GAP implementation is on track (except for target 5 – ensure at least 30% of members of the FWUC are women). Currently, FWUC consists of 21 women (27%) of 78 members. During the field visit, limited capacity of women was identified as main barrier for their participation in FWUC. To give women more opportunities, CPMU FWUC Unit has provided training to additional 10 women and 21 current women members of FWUC from 3 to 6 March 2020. With the selection of least additional 5 women to be part of FWUC, which will add up to 26 women (31%) of 83 FWUC. Recommendations from last review mission addressed including (i) 385 women (52%) of 750 community received CBDRM trainings, (ii) safer village plans with gender provision implemented, (iii) 74 (37%) of 198 unskilled workers are women.

The disaggregated working days data in the civil contracts are monitored (Table 7). Women working days of unskilled labor women is xx%, more than the 30% minimum requirement,

Table 7 : Labor engaged during July - Sep 2020

Contract Number	Description	Unskilled Labor		
		Men (Person- day)	Women (Person- day)	% Women
CAM2-ICB-W01	Barrage & Intake Structure	3,160	1,110	35.12%
CAM2-ICB-W02	Main Canal	4,122	1,418	34.40%
CAM3-NCB-W03	SC1&SC2-TC	1,063	480	45.15%
CAM4-NCB-W04	SC3-TC	768	540	70.30%

CAM5-NCB-W05	SC4-TC	1,696	551	32.24%
Total:		10,809	4,099	37.93%

8. Procurement

Procurements of key goods contracts have been completed.

The procurement activities of works comprise of multiple contracts. The details are presented in the **Table 8**:

Table 8 : Works Contracts – awarded

S N	Package No	Estimated Amount (\$USD) ¹	Date of Award Contract	Contract Awarded (\$USD)
1	Upgrading of Damnak Chheukrom Irrigation System, Main Canal (CAM1-ICB-W02)	9,800,000	19 June 2017 18 Jan 2019 (Variation 1) 13 Jan 2020 (Variation 2) 17 Jun 2020 (Variation 3)	8,606,327.12 10,772,429.25 (Variation 1) 10,895,973.96 (Variation 2) 11,149,867.53 (Variation 3)
2	Upgrading of Damnak Chheukrom Irrigation System-Construction of New Barrage on Pursat River (CAM2-ICB-W01) ²	10,300,000	18 October 2017 9 Jul 2018 (Variation 1) 8 Aug 2019 (Variation 2) 16 Jun 2020 (Variation 3)	9,012,485.13 10,128,598.50 (Variation 1) 10,413,704.17 (Variation 2) 10,413,704.17 (Variation 3)
3	Upgrading of Damnak Chheukrom Irrigation System, Secondary Canals 1 and 2, and Tertiary Canals (CAM3-NCB -W01)	2,993,000	12 June 2019 3 Jun 2020 (Variation 1)	2,068,033.16 3,344,301.93 (Variation 3)
4	Upgrading of Damnak Chheukrom Irrigation System, Secondary Canal 3, and Tertiary Canals (CAM4-NCB -W02)	2,904,000	12 June 2019 3 Jun 2020 (Variation 1)	2,052,886.83 2,413,369.37 (Variation 3)
5	Upgrading of Damnak Chheukrom Irrigation System, Secondary Canal 4, and Tertiary Canals (CAM5-NCB -W03)	2,821,800	12 June 2019 3 Jun 2020 (Variation 1)	2,034,847.20 2,415,369.63 (Variation 3)
6	Minor Civil Works and earthworks (CAM-6)	95,000	16 August 2017	99,088
7	CP-01 Sam San Community Pond	23,114.74	15 May 2020	22,597.51
8	CP-02 Rohatil Community Pond	19,221.75	15 May 2020	18,515.82
9	CP-03 Toul Toloeung Community Pond	16,670.79	15 May 2020	15,974.50
10	CP-04 Tlok Dangkor Community Pond	21,664.04	15 May 2020	20,964.51
11	CP-05 Prey Kanlong Community Pond	12,916.56	15 May 2020	12,190.00

S N	Package No	Estimated Amount (\$USD) ¹	Date of Award Contract	Contract Awarded (\$USD)
	Total	29,007,387,88		29,925,942.97

Procurements of all key consulting services have been completed.

Details of the contracts awarded up to date are given in Annex 5 An updated Procurement Plan dated August 2019 is given in **Annex 5**.

9. Status of Compliance with Loan Covenants

There 28 loan covenants that are required to be complied within the project. So far there are 21 complied, two are being complied with, three are partly complied with, one is not yet due, and one is not relevant. The detail covenants are attached as **Annex 7**

10. Major Project Implementation Issues and Solutions:

No.	Problem	Recommendation
1	Capacity of the government counterparts in the CPMU and PIUs need to be strengthened through formal and informal trainings so that the project deliverables are achieved in a timely manner.	PIC is assisting and supporting the CPMU and PIUs through formal and informal (on-the-job) training program. DDCS, CBDRM and NFFC consultants are also undertaking required capacity building actions.
2	The DHRW and the Pursat PDWRAM have limited financial resources to operate and maintain the newly established hydro-meteorological stations. The modeling tools, database and platform are now installed and operational. Apart from flood forecasting, they can also be used for land use planning, spatial planning and ultimately the governance of the national water resources. This will require dedicated manpower and resources.	The institutional report has made recommendations for the sustainability of the NFFC. This will require commitment in terms of manpower and financial resources from MOWRAM to sustain its operation. Annual O & M budget is required to sustain the operations of the installed hydro-met stations.
3	CBDRM is still new for MOWRAM and the critical issue for FWUCs is how to build a functional FWUCs. It is expected that many issues will pop up regarding the sharing of responsibility between the PDWRAM and FWUCs. And PDWRAM capacity to manage such a large irrigation scheme is limited, particularly on water sharing during scarce water availability in the dry season.	Closer participation the communities through the established FWUC and Village Disaster Management Committees (VDMG) are required. Training to FWUC have been provided and regular follow up training is recommended. A river basin level water distribution/operation of all irrigation will be required.
4	The COVID-19 pandemic has created problems with the mobilization of the international staff of PIC, in addition, mobilization of labor by the Contractors are disturbed. Additional Health and Safety measures are required to smoothly implement the construction activities.	Due to the COVID-19 pandemic, some field inputs of PIC international staff have been converted to home-based in order to support the project from home until the travel restrictions are eased. This needs to be reviewed periodically, In order to protect the health and safety of the workers as well as the communities affected by the Project, a project-level COVID-19 risk assessment is being carried out. Similarly, all contractors are instructed to update their respective health & safety (H &S) plans, as part of the construction EMP.

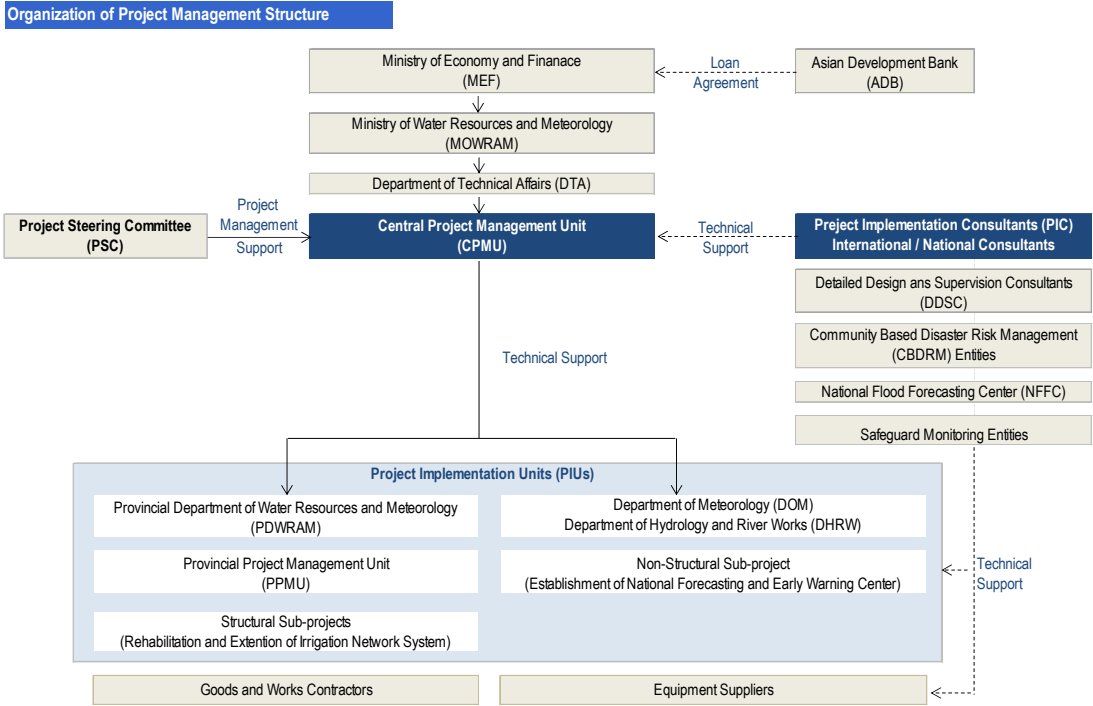
Annexes

Annex 1 : Project Implementation Plan (up to the original project closing date only)

Activity	2015				2016				2017				2018				2019				2020				2021							
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
1 Enhanced regional data, information and knowledge base for the management of floods and droughts																																
Recruitment of NFFC Consultants	■	■	■	■																												
Supply and installation of Equipment					■	■	■	■																								
Training of NFFC Staff					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■												
Test FFEWS in 2018 and 2019 wet season													■	■			■	■														
Implementation and operation of NFFC									■	■	■	■	■	■	■	■	■	■	■	■												
Support to NFFC by Individual National Experts																					■	■	■	■								
2 Upgraded Water Management Infrastructures																																
Recruitment of Consultants	■	■	■																													
Detailed Design and Bidding Documents				■	■	■	■	■	■	■	■	■																				
Implementation of Resettlement Plans					■	■	■	■	■	■	■	■	■	■																		
Tendering for Civil Works					■	■	■	■	■	■	■	■																				
Construction of Irrigation System													■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3 Enhanced Capacity of Community Based Flood and Drought Management																																
Recruitment of Consultants	■	■	■																													
CBDRM and FWUC Support					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■												
Implementation of CBDRM & FWUC					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■												
Piloting of community ponds																					■	■	■	■								
4 Effective Project Implementation																																
Project Progress Reporting (Quarterly/Annual)					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Maintain and operate CPMU and PIUs	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Project Completion Report																													■			

Note: The extended loan/grant closing date is 31 March 2021.

Annex 2 : Project Organization Structure



Annex 3 : Detail Project Implementation Progress (as of 30 Sep 2020)

Design Summary	Performance Targets and Indicators with Baselines	Progress/Achievement
<p>Impact</p> <p>Reduced economic losses resulting from floods and droughts</p>	<p>By 2020, average annual economic losses reduced by 50% in project areas</p> <p>(2011 baseline [Pursat flood damage]: \$13.4 million)</p>	<p>The impact will be monitored and evaluated after the completion and operation of the main component of the Project (Irrigation Sub-project).</p> <p>(The Project Completion Date has been extended up to 31 March 2021).</p>
<p>Outcome</p> <p>Improved capacity and preparedness to manage and mitigate the impacts of flood and drought events</p>	<p>NFFC issuing flood warnings to NCDM and linked to MRC regional flood management and mitigation center by 2015</p>	<p>Target Q3 2019 (Revised)</p> <p>Flood warnings are being issued by the DHRW-NFFC as per the National Disaster Management Strategy, which included NCDM.</p> <p>Hydrological data from the MRC HYDMET database are used by the flood forecasting models to generate daily forecasts.</p> <p>Regular close consultations with NCDM and MRC should be continued to share data and information, and issue flood warnings</p>
	<p>At least 6 gender-sensitive commune disaster risk management plans implemented</p>	<p>Number of communes revised to five (5) based on the irrigation project target area. 50 Gender sensitive Safer Village Plans (SVP) in 5 communes prepared and adopted.</p> <p>Gender is an integral part of the SVPs, which were prepared by the 50 Village Disaster Management Groups (VDMGs) (144 (41%) out of the 350 members are women)</p> <p>Five community ponds and one field channel (selected in the Safer Village Plans) are now under construction (implementation) and will be completed by Dec 2020.</p>
	<p>16,100 ha of upgraded irrigation and drainage operational (2011 baseline: 0 ha dry season paddy)</p>	<p>The physical infrastructure (barrage, canals), that will irrigate 16,100 ha of agriculture land in wet season and 6,000 ha in the dry season, is now under construction and will be completed by Dec 2020 (Barrage Contractor has requested for extension up to Feb 2021)</p> <p>Detailed design completed and ICB contracts for Barrage (18 Oct 2017) and Main Canal (19 Jun 2017) awarded. Three NCB contracts of Secondary and Tertiary Canals signed on 12 Jun</p>

Design Summary	Performance Targets and Indicators with Baselines	Progress/Achievement
		<p>2019).</p> <p>Updated completions dates are:</p> <ul style="list-style-type: none"> • Main Canal – 31 December 2020 (ADB no-objection received on 16 June 2020), further extension needed as the main canal section from Chainage 0:000 to 0:800 is cleared on 18 March 2020 only) • Barrage – November 2020 (extended date, ADB NOL on 2 Apr 2020); Contractor requested for extension up to Feb 2021, which is under review. • Secondary and Tertiary Canals – December 2020
	<p>Increased flood protection for 10,000 people (2011 baseline [Pursat flood]: 1,991 households displaced or approximately 9,955 people)</p>	<p>People (more than 10,000) living in the Pursat River Basin, including Pursat town, (population number to be verified) benefited from the flood forecasting and early warning system.</p> <p>NFFC flood forecasting model developed and operational for the Pursat Tributary basin and Mekong Mainstream. Daily flood forecasts are issued which support flood warnings</p>
<p>Outputs</p> <p>1. Enhanced regional data, information, and knowledge base for the management of floods and droughts</p>	<p>All NFFC staff trained and operational by Q2 2016</p>	<p>Target: Q4 2018</p> <p>NFFC staff trained and are now operating the National Flood Forecast Center (NFFC) in Department of Hydrology and River Works (DHRW)</p> <p>Twenty formal trainings have been provided to DHRW, CPMU, and DOM on hydrologic and hydrodynamic models and improved weather forecasting using global and regional modelled and satellite products, web-portals, multi-regression forecasting and SPI. Additional training has been provided by the hydromet equipment supplier on the field instrumentation and software provided. Mentoring and on-the-job training of the DHRW-NFFC staff on the use of the improved forecasting techniques were support during the 2018 and 2019 monsoon season continued up to Aug 2019. Women represented over 40 percent of the staff trained.</p> <p>(Completed)</p>

Design Summary	Performance Targets and Indicators with Baselines	Progress/Achievement
	NFFC forecasting model calibrated and operational by 2017 (2011 baseline: NFFC is not operational)	<p>Target: by Q4 2018</p> <p>The flood forecasting models and drought tools were developed by the end of 2017 for the mainstream Mekong and Pursat Tributary basin and tested. Additional cross-sectional survey information was used to refine the Pursat hydraulic model, and field trips have been conducted to verify structural features on the landscape to refine the mainstream Mekong hydraulic model. The regression model for the mainstream Mekong was updated. Trainings on the models were conducted. A NFFC Web Portal for dissemination of flood and drought conditions was developed and was operational prior to the 2018 monsoon season. The forecast system was used during the 2018 and 2019 monsoon season, additional refinements to the models and model interface were made, and DHRW forecast staffs were provided with as-required operational support during the two monsoon seasons.</p> <p>(Completed)</p>
	Design criteria for flood and drought mitigation schemes in the Mekong Delta developed and disseminated by mid-2014	<p>Target: by Q4 2018</p> <p>Design guidelines for flood and drought mitigation have been finalized and an additional chapter on Ecosystem-based Adaptation to climate change, developed by SPCR of MOE, was added to the guideline. The design guidelines were presented and discussed at the Concluding workshop held in August 2019. Ready to be printed after receiving no-objection from ADB)</p> <p>(Completed)</p>
	Transboundary (Cambodia–Viet Nam) flood management options endorsed by both governments by 2015	<p>Target by 2018</p> <p>Contact with the ADB GMS FDRMMP Viet Nam was initiated in Q2 2017. A coordination Workshop was organized in Hanoi on 5 Nov 2018 by Viet Nam Project where a joint Action Plan at the project level was developed. The Action Plan has been agreed at the project levels of two countries (13 May 2019). The Action Plan was presented to the appropriate line ministries in both governments for consideration and for follow-up. The role of the National MRC committees with respect to the Action Plan was uncertain.</p>

Design Summary	Performance Targets and Indicators with Baselines	Progress/Achievement
		<p>The technical and institutional capacity of MOWRAM to participate in transboundary initiatives has been strengthened under the activities of the NFFC component.</p> <p>The Cambodian National Mekong Committee (CNMC) will use the outputs of the Project to implement the transboundary management options with Vietnam through the MRC protocol.</p> <p>(Progress: 95%)</p>
2. Upgraded water management infrastructure	At least 30% of workdays are provided by women on an equal pay for equal work basis	<p>Target: by Q4 2020</p> <p>Included in the Works Contract</p> <p>From July – Sep 2020, of the total unskilled workers, women provided 4,099 person-days of work out of total 10,809 person-days of work under 5 civil works contracts (37.93%).</p>
	O&M plans for each unit of upgraded infrastructure adopted	<p>Target: by Q3 2019 (Revised Q1 2021, subject to project extension)</p>
		<p>DCCS consultant is preparing plans and will be adopted after completion of infrastructure. DCCS O & M Engineer is mobilized for this purpose.</p> <p>(Progress at 0%, not due)</p>
	3. Enhanced capacity for community-based disaster risk management	6 communes have disaster risk management plans and organizations to coordinate response by end of 2018
At least 200 women are trained on CBDRM and at least 30% of CBDRM committee members are female		<p>Target: by Q2 2017</p>
		<p>CBDRM Training provided to 750 community members, out of which 385 (52%) were women.</p> <p>144 (41%) out of the 350 members of the 50 Village Disaster Management Groups (VDMGs) (CBDRM committee members) are women.</p>

Design Summary	Performance Targets and Indicators with Baselines	Progress/Achievement
		<p>Additional trainings include:</p> <ul style="list-style-type: none"> i) Training Need Assessment workshop on 26 May 2017, 13 women (19%) out of 69 participants Training of Trainer, 4 out of 14 participants are female (29%) ii) During Step 1 Information on FWUC formation was disseminated in 5 communes, 50 villages, 2,159 (46%) out of 4701 participants were female. Trainings to elected FWUCs provided in Q3 2019. iii) Extension period: Training on home gardening (vegetables) and poultry were completed in 15 villages during June and July 2019, for 184 participants including 132 women (72%) (66 women, 67%). iv) Additional 10 women and 21 current women members of FWUC (30 women in total) trained on FWUC from 3 to 6 March 2020. <p>(Completed)</p>
4. Effective project implementation	Project implementation is completed within 6 years (by March 2019) and all accounts are closed within 6.5 years (by September 2019)	<p>Target: By Q1 2021 (Project Completion Date Extended)</p> <hr/> <p>Progress: CPMU & PIUs have been established with proper financial flow. Staff and consultants have been recruited.</p> <p>(Progress at 86%, considering project completion date as 31 March 2021)</p>
Activities with Milestones		
<p>Outputs</p> <p>1. Enhanced regional data, information, and knowledge base for the management of floods and droughts</p>	1.1 Equip NFFC by end of 2014	The DHRW flood forecast office was equipped with the required IT system to support the models, hydromet data acquisition and processing, and forecast dissemination via a web portal by Q2 of 2018. Twelve hydromet stations for the Pursat Tributary basin were installed in May of 2018.
	1.2 Appoint NFFC Staff by mid-2013	Staff appointed in Q4 2015
	1.3 Install software and calibration for selected basins by 2015	Hydrological and hydrodynamic models developed, staff trained and the Pursat Tributary

Design Summary	Performance Targets and Indicators with Baselines	Progress/Achievement
		and mainstream Mekong forecast models operational for the 2018 and 2019 monsoon season
	1.4 Calibrate and test forecasts in flood season 2015 – 2016	Forecasts models developed, calibrated, tested and operated for the 2018 and 2019 monsoon season.
	1.5 Update national design standards for hydraulic structure by 2015	Design Guidelines, including a chapter on Ecosystem-based Adaptation (EbA), were presented and discussed at the Concluding workshop held on August 09, 2019 and was finalized in Nov 2019, submitted to ADB on 17 February 2020 for no-objection, ready to be printed.
2. Upgraded water management infrastructure	2.1 Prepare detailed engineering design by end of Q3 2013	Detailed design completed in Q1 2017
	2.2 Prepare resettlement plan and implement relocations according to plan by end of Q4 2013 for primary canal, Q2 2014 for secondary canals, and Q3 2014 for tertiary canals	Detailed RP1 of barrage and main canal prepared, by GDR and no-objection from ADB received on 21 December 2018. Detailed RP2 of secondary and tertiary canals submitted were prepared and no-objection from ADB was received on 4 April 2019.
	2.3 Call for bids by end of Q3 2013 for primary canal, Q4 2013 for secondary canals, and Q2 2014 for tertiary canals	Contracts of Main Canal and Barrage awarded on 18 Oct 2017 and 19 Jun 2017, respectively.3 NCB Contracts of Secondary and Tertiary canals awarded on 12 June 2019.
	2.4 Contract for construction works by Q1 2014 for primary canal, Q3 2014 for secondary canals, and Q4 2014 for tertiary canals	Contract for Main Canal signed 19 June 2017, for Barrage signed on 18 Oct 2017. Contracts for three packages of SCs and TCs signed on 12 June 2019.
	2.5 Undertake construction work by Q1 2014	Construction work of Canal started in Q3 2017, of Barrage in Q4 2017, and the secondary and tertiary canals in Q3 2019.
	2.6 Commission structures and undertake acceptance trials by mid-2018	Structures to be commissioned as follows: <ul style="list-style-type: none"> • Main canal – Q4, 2020 (extension may be necessary as the section from Chainage 0:000 to 0:800 km was cleared only on 19 March

Design Summary	Performance Targets and Indicators with Baselines	Progress/Achievement
		2020) <ul style="list-style-type: none"> • Barrage – Q4 2020 (Extended, no objection from ADB received on 2 Apr 2020). Barrage contractor has requested for extension up to Feb 2021 (under review) • Secondary and tertiary canals – Q4 2020
3. Enhanced capacity for community-based disaster risk management	3.1 Establish farmer water user committees at Damnak Chheukrom Irrigation System 2014	18 Farmer water user sub-groups, and 4 user-groups have been established in SC1, SC2, SC 3 and SC 4; Establishment of overall FWUC completed in Q1 2018.
	3.2 Implement training for children, women and men in all project villages, including preparation of agricultural management plans, irrigation O & M plans and training for operation of water control structures by 2015	CBDRM trainings completed in 50 villages; Training on home gardening (vegetables) and poultry were completed in 15 villages during June and July 2019 for 184 participants including 132 women (72%) (66 women, 67%). FWUC Training on O&M, Financial Management and Conflict Resolution is completed by 20 September 2019, 68 FWUC management members, 20 (29.4%) of which are female, have received the training lessons. Additional 10 women and current 21 women members (total 31 women) trained on FWUC operations from 3 to 6 Mar 2020.
	3.3 Piloting of CBDRM measures by Q4 2019 (additional scope of extension)	Feasibility study of 5 community ponds and one field channel have been completed. Contracts for construction of the 5 ponds were signed on 15 May 2020. Field channel is included on the NCB contract and is now under implementation.
4. Effective project implementation	4.1 Appoint implementation management consultants by Q2 2013	PIC appointed in Q2 2015
	4.2 Establish two project implementation units by Q2 2013	PIUs established in Q4 2014
	4.3 Establish national project performance monitoring and evaluation mechanisms by Q3 2013	Project Performance Monitoring System (PPMS) has been incorporated in the Project Quarterly Progress Reports submitted every quarter.

Design Summary	Performance Targets and Indicators with Baselines	Progress/Achievement
	4.4 Complete central project management unit staff capacity building by Q3 2014	CPMU Staff training provided by NFFC, CBDRM. DDCCS and PIC teams. To be continued up to the completion of Project,

Note:

CBDRM - Community-based disaster risk management; CPMU- Central Project Management Unit; DDCCS - Detailed Design and Construction Supervision, FWUC=Farmer Water User Community; NFFC= National Flood Forecasting Center; PIC= Project Implementation Consultant, PIU = Project implementation Unit.

Annex 4 : Contracts Awarded

Package	Estimated Amount (\$)	Date of Award	Contract Amount (\$)
Goods			
Vehicles (Package-GMS-FDRMMP/MOWRAM-VE-01)	424,000	6 March, 2015	533,000
Office Equipment (Package-GMS-FDRMMP/MOWRAM-VE-02)	75,000	25 February 2015	48,371
Furniture (Package-GMS-FDRMMP/MOWRAM-VE-03)	9,345	20 February, 2015	9,345
Motorcycles (Package-GMS-FDRMMP/MOWRAM-VE-04)	15,000	10 March, 2015	12,600
Supply and Installation of Hydro-meteorological Equipment and Data Management Software (including Training and Technical Support) (Package- NCB/MOWRAM/CAM-5-HM-EQ-01)	483,100	20 October 2016	387,453
Services			
Project Implementation Consultant (PIC), (Package-GMS-FDRMMP-CS-001)	2,191,000	31 March 2015	2,045,230
Detailed Design and Construction Supervision (DDCS) (Package-GMS-FDRMMP-CS-002)	1,877,000	20-August-15	1,565,337
Community Based Disaster Risk Management (CBDRM) (Package-GMS-FDRMMP-CS-004)	1,480,000	27-Aug-15	1,645,736
Support to National Flood Forecasting Center (NFFC) and to Improve Hydraulic Design Standards (Contract No. GMS-FDRMMP-CS-003)	1,312,000	4-Dec-15	1,638,525
National Financial Management Specialist (Contract No. GMS-FDRMMP-ICS-01)	70,000	30-Aug-2017	35,000
Works			
Upgrading of Damnak Chheukrom Irrigation System, Main Canal (CAM2-ICB-W02)	9,800,000	19 June 2017 18 Jan 2019 (Variation 1)	8,606,327.12 10,772,429.25 (Variation 1)

		13 Jan 2020 (Variation 2)	10,895,973.96 (Variation 2)
		17 Jun 2020 (Variation 3)	11,149,867.53 (Variation 3)
		18 October 2017	
		9 Jul 2018 (Variation 1)	9,012,485.13
Construction of Damnak Chheukrom Irrigation System, Barrage (CAM1-ICB-W01)	10,300,000	8 Aug 2019 (Variation 2)	10,128,598.50 (Variation 1)
		16 Jun 2020 (Variation 3)	10,413,704.17 (Variation 3)
Upgrading of Damnak Chheukrom Irrigation System, Secondary Canals 1 and 2, and Tertiary Canals (CAM3-NCB -W01)	2,993,000	12 June 2019	2,068,033.16
		3 Jun 2020 (Variation 1)	3,344,301.93 (Variation 3)
Upgrading of Damnak Chheukrom Irrigation System, Secondary Canal 3, and Tertiary Canals (CAM4-NCB -W02)	2,904,000	12 June 2019	2,052,886.83
		3 Jun 2020 (Variation 1)	2,413,369.37 (Variation 3)
Upgrading of Damnak Chheukrom Irrigation System, Secondary Canal 4, and Tertiary Canals (CAM5-NCB -W03)	2,821,800	12 June 2019	2,034,847.20
		3 Jun 2020 (Variation 1)	2,415,369.63 (Variation 3)
Construction of shelters and facilities			
For installation of water level recorders and rainfall station in Pursat	95,000	10 August 2017	99,000
CAM-6-NS-W01			
CP-01 Sam San Community Pond	23,114.74	15 May 2020	22,597.51
CP-02 Rohatil Community Pond	19,221.75	15 May 2020	18,515.82
CP-03 Toul Toleung Community Pond	16,670.79	15 May 2020	15,974.50
CP-04 Tlok Dangkor Community Pond	21,664.04	15 May 2020	20,964.51
CP-05 Prey Kanlong Community Pond	12,916.56	15 May 2020	12,190.00

Annex 5 : Procurement Plan (approved on 20 August 2019)

Basic Data

Project Name: Greater Mekong Subregion Flood and Drought Risk Management and Mitigation Project (CAM)	
Project Number: 40190-013	Approval Number: 2970/0330/8262
Country: Cambodia	Executing Agency: Ministry of Water Resources and Meteorology
Project Procurement Classification:	Implementing Agency: N/A
Project Procurement Risk:	
Project Financing Amount: US\$ 47,750,000 ADB Financing: US\$ 35,000,000 Cofinancing (ADB Administered): US\$ 9,800,000 Non-ADB Financing: US\$ 2,950,000	Project Closing Date: 30 September 2019
Date of First Procurement Plan: 12 December 2012	Date of this Procurement Plan: 20 Aug 2019 Version 8

A. Methods, Thresholds, Review and 18-Month Procurement Plan

1. Procurement and Consulting Methods and Thresholds

Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of		
M	Thre	Comm
International Competitive Bidding for Goods	US\$ 500,000 and Above	The draft English language version of the procurement documents for each type of procurement must be submitted for ADB review and approval regardless of the estimated contract amount. First ADB-approved procurement documents will be used as a model for all subsequent procurement of similar work and type of procurement financed by ADB, and need not be subjected to further prior review.
National Competitive Bidding for Goods	Between US\$ 100,001 and US\$ 499,999	The first contracts for NCB, shopping, and community procurement regardless of their value will be subject to ADB's prior review and approval, subsequent contracts for similar work will be subject to post review.
Shopping for Goods	Up to US\$ 100,000	The first contracts for NCB, shopping, and community procurement regardless of their value will be subject to ADB's prior review and approval, subsequent contracts for similar work will be subject to post review.

Procurement of		
M	Thre	Comm
International Competitive Bidding for Works	US\$ 3,000,000 and Above	The draft English language version of the procurement documents for each type of procurement must be submitted for ADB review and approval regardless of the estimated contract amount. First ADB-approved procurement documents will be used as a model for all subsequent procurement of similar work and type of procurement financed by ADB, and need not be subjected to further prior review.
National Competitive Bidding for Works	Between US\$ 100,001 and US\$ 2,999,999	The first contracts for NCB, shopping, and community procurement regardless of their value will be subject to ADB's prior review and approval, subsequent contracts for similar work will be subject to post review.
Shopping for Works	Up to US\$ 100,000	The first contracts for NCB, shopping, and community procurement regardless of their value will be subject to ADB's prior review and approval, subsequent contracts for similar work will be subject to post review.

Co	
M	Co
Quality- and Cost-Based Selection for Consulting Firm	CPMU will recruit PIC and DDCSC following QCBS procedures
Quality-Based Selection for Consulting Firm	CBDRM and NFFC packages
Individual Consultant Selection	National Financial Management Specialist

2. Goods and Works Contracts Estimated to Cost \$1 Million or More

The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Procurement Method	Review (Prior/ Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
None							

3. Consulting Services Contracts Estimated to Cost \$100,000 or More

The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior/Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
None							

4. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

The following table lists smaller-value goods, works and consulting services contracts for which the activity is either ongoing or expected to commence within the next 18 months.

Goods and Works								
Package Number	General Description	Estimated Value	Number of Contracts	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
CAM7-NS-W07	CBDRM Piloting	US\$ 236,000	6	Shopping	Prior	Shopping	Q3/2019	Multiple community-based pilot sub-project

Consulting Services								
Package Number	General Description	Estimated Value	Number of Contracts	Recruitment Method	Review (Prior/Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
None								

B. Indicative List of Packages Required Under the Project

The following table provides an indicative list of goods, works and consulting services contracts over the life of the project, other than those mentioned in previous sections (i.e., those expected beyond the current period).

Goods and Works							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of	Procurement Method	Review (Prior/Post)	Bidding Procedure	Comments
None							

Consulting Services							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of	Recruitment Method	Review (Prior/Post)	Type of Proposal	Comments
None							

C. List of Awarded and On-going, and Completed Contracts

The following tables list the awarded and on-going contracts, and completed contracts.

1. Awarded and Ongoing Contracts

Goods and Works							
Package Number	General Description	Estimated Value	Awarded Contract Value(US \$)	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract	Comments
CAM2-ICB-W02	Upgrading of Damnak Chheukrom Irrigation, System Main Canal	9,800,000.00	8,606,327.12 10,772,429.25 (Var 1)	ICB	10 Nov 2016	30 May 2017 18 Jan 2019 (Var 1)	
CAM1-ICB-W01	Construction of New Barrage on Pursat River	10,300,000.00	9,012,485.13 10,128,598.50 (Var 1)	ICB	Q2/2017	18 Oct 2017 4 Jul 2018 (Var 1)	
CAM3-NCB-W03	Upgrading of Damnak Chheukrom Irrigation System, Secondary	2,993,000.00	2,068,033.16	NCB	Q1/2018	28 May 2019	
CAM4-NCB-W04	Upgrading of Damnak Chheukrom Irrigation System, Secondary	2,904,000.00	2,052,886.83	NCB	Q1/2018	28 May 2019	
CAM5-NCB-W05	Upgrading of Damnak Chheukrom Irrigation System, Secondary	2,821,000.00	2,034,847.20	NCB	Q1/2018	28 May 2019	

Consulting Services							
Package Number	General Description	Estimated Value	Awarded Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of	Comments
GMS-FDRMMP-CS-03	Consultants for support to national flood forecasting center and to improve hydraulic design	1,312,000.00	1,638,325.10 1,765,830.28 (Cost Variation 6)	QBS	Q4 / 2014	23-Nov-15 3 May 2019 (Var 6)	
GMS-FDRMMP-CS-04	Consultants/NGO/Institute - CBDRM and FWUC	1,480,000.00	1,645,736.40 1,745,736.40 (Cost Variation)	QBS	Q4 / 2014	26-AUG-15 29 Nov 2018 (Var)	
GMS-FDRMMP-CS-0	Project Implementation Consultants	2,190,100.00	2,045,230.00	QCBS	Q4 / 2012	31-MAR-15	

Consulting Services							
Package Number	General Description	Estimated Value	Awarded Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of	Comments
GMS-FDRMMP-CS-002	National consultants for detailed design and construction supervision	1,877,000.00	1,565,337.40	QCBS	Q4 / 2014	18-AUG-15	
GMS-FDRMMP-ICS-01	National Financial Management Specialist	70,000	35,000 70,000 (Var 1)	Individual Consultant Selection (ICS)	Q1/2017	29-Aug-2017 Aug 2018 (Var 1)	Initial contract for 1 year (10 months intermittent input), renewed

2. Completed Contracts

Goods and Works								
Package Number	General Description	Estimated Value	Awarded Contract Value	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract	Date of Completion	Comments
VEH-001	Vehicles	424,000.00	533,000.00	NCB	Q4 / 2014	02-MAR-	12-MAR-	
OE 1	Office Furniture	25,000.00	9,345.60	SHOPPING	Q4 / 2014	18-FEB-15	12-MAR-15	
FM 01	Motorcycles	15,000.00	12,600.00	SHOPPING	Q4 / 2014	10-MAR-	29-APR-15	
OE 2	Office Equipment	50,000.00	48,371.00	SHOPPING	Q4 / 2014	03-FEB-15	07-MAY-15	
NCB/MOWRAM/CAM-5-HM-EQ-01	Supply and Installation of Hydro-meteorological Equipment and Data Management Software (including Training and Technical Support)	446,000	387,453	NCB	17 May 2016	22 Sep 2016	2018	
CAM6-NS-W01	Construction of the Minor Civil works for Hydro-met Stations	95,000	99,088	Shopping	31 May 2017	10 Aug 2017	2018	

Consulting Services								
Package Number	General Description	Estimated Value	Awarded Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract	Date of Completion	Comments
None								

D. National Competitive Bidding

A. Regulation and Reference Documents

1. The procedures to be followed for national competitive bidding shall be those set forth for the "National Competitive Bidding" method in the Government's Procurement Manual issued under Sub-Decree Number 74 ANKR.BK, updated version dated 22 May 2012 with the clarifications and modifications described in the following paragraphs. These clarifications and modifications are required for compliance with the provisions of the Procurement Guidelines.

2. For the procurement of ADB financed contracts under National Competitive Bidding (NCB) procedures, the use of harmonized national bidding documents (NCB and National Shopping) developed in consultation with development partners including ADB, is mandatory except where the Government and ADB have agreed to amendments to any part of the documents. The Procurement Manual also advises users to check the ADB website from time to time for any update on ADB documents, which form the basis, among others, of the existing harmonized national bidding documents.

B. Procurement Procedures

1. Application

3. Contract packages subject to National Competitive Bidding procedures will be those identified as such in the project Procurement Plan. Any change to the mode of procurement of any procurement package in the Procurement Plan shall be made through updating of the Procurement Plan, and only with prior approval of ADB.

2. Sanctioning

4. Bidders shall not be declared ineligible or prohibited from bidding on the basis of barring procedures or sanction lists, except individuals and firms sanctioned by ADB, without prior approval of ADB.

3. Rejection of all Bids and Rebidding

5. The Borrower shall not reject all bids and solicit new bids without ADB's prior concurrence. Even when only one or a few bids is/are submitted, the bidding process may still be considered valid if the bid was satisfactorily advertised and prices are reasonable in comparison to market values.

4. Advertising

6. Bidding of NCB contracts shall be advertised on the ADB website via the posting of the Procurement Plan. Borrowers have the option of requesting ADB to post specific notices in the ADB website.

C. Bidding Documents

5. Use of Bidding Documents

7. The Standard National Competitive Bidding Documents provided with the Government's Procurement Manual shall be used to the extent possible both for the master bidding documents and the contract-specific bidding documents. The English language version of the procurement documents shall be submitted for ADB review and approval in accordance with agreed review procedures (post and prior review) as indicated in the Procurement Plan. The ADB-approved procurement documents will then be used as a model for all procurement financed by ADB for the project.

6. Bid Evaluation

8. Bidders shall not be eliminated from detailed evaluation on the basis of minor, non-substantial deviations.

9. A bidder shall not be required, as a condition for award of contract, to undertake obligations not specified in the bidding documents or otherwise to modify the bid as originally submitted.

7. Employer's Right to Accept or Reject Any or All Bids

10. The decision of the Employer to accept or reject any or all bids shall be made in a transparent manner and involve an obligation to inform of the grounds for the decision through the bid evaluation report.

8. ADB Policy Clauses

11. A provision shall be included in all NCB works and goods contracts financed by ADB requiring suppliers and contractors to permit ADB to inspect their accounts and records and other documents relating to the bid submission and the performance of the contract, and to have them audited by auditors appointed by ADB.

12. A provision shall be included in all bidding documents for NCB works and goods contracts financed by ADB stating that the Borrower shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the contract in question.

13. A provision shall be included in all bidding documents for NCB works and goods contracts financed by ADB stating that ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices or any integrity violation in competing for, or in executing, ADB-financed contract.

Annex 6 : Completed Trainings and Other Activities

	Title	Description	Date of Activity		Participants			Service Provider	Remarks
			Start	Finish	Total	F	M		
1	CBDRM Inception Workshop- Phnom Penh	Inception Workshop of CBDRM Consultant	13 Jan 2016	13 Jan 2016	120	32	88	CBDRM Consultants	One day
2	CBDRM Inception Workshop- Pursat	Inception Workshop of CBDRM Consultant	15 Jan 2016	15 Jan 2016	72	14	58	CBDRM Consultants	One day
3	NFFC Inception Workshop	Inception Workshop of NFFC Consultant	6 Apr 2016	6 Apr 2016	50	5	45	NFFC Consultant	One day
4	Steering Committee Meeting	First Steering Committee meeting	19 May 2016	19 May 2016	23	3	20	CPMU/PIC	Half day
5	Training Needs Assessment (TNA) Workshop	TNA Workshop by CBDRM Consultant	26 May 2016	26 May 2016	69	11	58	CBDRM Consultants	In Pursat
6	CBDRM Advisory Group (CAG) Meeting	First meeting of CAG organized by CBDRM team	27 May 2016	27 May 2016	24	7	17	CBDRM Consultants	In Pursat
7	Hydrological Modelling - Intro	Introduction to HEC-HMS modelling framework	August 08, 2016	August 23, 2016	9	3	6	NFFC Consultant	Phnom Penh
8	Meteorological Forecast Improvements	Introduction to the use of Global Products to improve weather forecasts	September 26, 2016	October 03, 2016	12	4	8	NFFC Consultant	Phnom Penh
10	CBDRM Midterm Review Workshop	CBDRM Midterm Review Workshop	26 Oct 2016	26 Oct 2016	93	17	76	CBDRM Consultants	Pursat

	Title	Description	Date of Activity		Participants			Service Provider	Remarks
			Start	Finish	Total	F	M		
11	CBDRM Midterm Review Workshop	CBDRM Midterm Review Workshop	28 Oct 2016	28 Oct 2016	47	9	38	CBDRM Consultants	Phnom Penh
12	CBDRM Advisory Group (CAG) Meeting	Second Meeting of CAG, organized by CBDRM Team	29 Nov 2016	29 Nov 2016	14	4	10	CBDRM Consultants	Pursat
9	CBDRM Training of Trainers	Training of Master Trainers	29 Aug 2016	12 Sep 2016	14	4	10	CBDRM Consultants	Pursat
12	Weather RADAR and Interpretation of outputs		18-Jan-16	23-Jan-17	17	6	11	NFFC Consultants	Phnom Penh
13	CBDRM Advisory Group (CAG) Meeting	Third Meeting of CAG, organized by CBDRM Team	28 Feb 2017	28 Feb 2017	14	4	10	CBDRM Consultants	Pursat
14	Web Portal Development		30 March 17	31 Mar 17	5	2	3	NFFC Consultants	Phnom Penh
15	CBDRM	CBDRM workshop on Village Safer Plan integration into Commune Investment Program	03 Aug 2017	03 Aug 2017				CBDRM Consultants	Pursat
16	CBDRM Conference	It was a knowledge-sharing event aimed at pulling together the different experiences of CBDRM.	03 Oct 2017	05 Oct 2017				CBDRM Consultants	Siem Reap
17	NFFC training	Development and Application of Multi-regression model in Flood	11 Sep 2017	14 Sep 2017	6	2	4	NFFC Consultants	Phnom Penh

	Title	Description	Date of Activity		Participants			Service Provider	Remarks
			Start	Finish	Total	F	M		
		Forecasting							
18	NFFC training	Development and Application of Hydrological model (HEC-HMS) in Flood Forecasting	18 Sep 2017	20 Oct 2017	6	2	4	NFFC Consultants	Phnom Penh
19	NFFC training	Application of SPI for drought definition and prediction	24 Oct 2017	27 Oct 2017	7	1	6	NFFC Consultants	Phnom Penh
20	NFFC training	Development and Application of Hydrodynamic model (HEC-RAS) in Flood Forecasting	11 Dec 2017	22 Dec 2017	12	3	9	NFFC Consultants	Phnom Penh
21	NFFC Training	(Sutron)	14 June 2018 And 20 June 2018	15 June 2018 21 June 2018	7	2	5	Sutron (Hydro-met Station Supplier)	Phnom Penh
22	NFFC Training	Hydro-Meteorological Data Management Software	14 June 2018 And 20 June 2018	15 June 2018 21 June 2018	7	2	5	Sutron (Hydro-met Station Supplier)	Phnom Penh
23	NFFC on-the-job Training	Mekong HEC-HMS Operational training	August 13 2018	August 24 2018	12	3	9	NFFC Consultants	Phnom Penh
24	NFFC on-the-job Training	Mekong HEC-RAS Operational Training	August 27 2018	August 31 2018	12	3	9	NFFC Consultants	Phnom Penh
25	NFFC-on-the job training	Hydrodynamic model for flood forecasting and	3 Sep 2018	7 Sep 2018	9	2	7	NFFC Consultants	Phnom Penh

	Title	Description	Date of Activity		Participants			Service Provider	Remarks
			Start	Finish	Total	F	M		
		flood mapping							
26	NFFC on-the-job training	Drought Monitoring and Prediction Schedule	13 Nov 2018	16 Nov 2018	9	3	6	NFFC Consultant	Phnom Penh
27	NFFC Training	Additional Training from SUTRON on Hydromet Station and Server	11 Dec 2018	18 Dec 2018	4	1	3	SUTRON	Phnom Penh
28	NFFC Training	Pursat Flood forecasting System (Hec-HMS Soil Accounting Model)	15 Jul 2019	26 Jul 2019	3	1	1	NFFC Consultant	Phnom Penh
29	CBDRM Training	Training on Agriculture extension (Home gardening and Poultry raising) in 15 selected villages	5 June 2019	25 Jul 2019	184	132	52	Pursat PDA	DCIS project areas
30	CBDRM Training	FWUCs/FWUC elected members of the DCIS training on O&M, Service fee collection and financial management	20 Aug 2019	30 Aug 2019	77	20	57	DCIS Project areas Pursat Flood forecasting System (Hec-HMS Soil Accounting Model)	CBDRM Consultant
31	FWUC Training	Training to additional 10 women members and current 21 member of FWUC on operation and management	3 Mar 2020	6 March 2020	31	31	0	CPMU-FWUC team	

Annex 7 : Status of Compliance with Loan Covenants

	Covenants	Reference in LA	Status
	Social		
1.	The Borrower shall cause MOWRAM to ensure that the gender action plan prepared for the Project shall be fully implemented and the resources needed for its implementation shall be made available in a timely manner, and specifically that: (a) CBDRM training modules are gender sensitive and address the needs of women; (b) data disaggregated by sex and ethnic origin shall be collected in all communities covered by the Project and analyzed to verify effective and equitable implementation of the Gender Action Plan (GAP) and Project activities; (c) through condition in the bid documents for Works contracts, at least 30% of unskilled workers employed in Works are women; (d) at least 30% of CBDRM group members are women; (e) at least 40% of participants in training are women; (f) at least 40% of participants in all public consultations for the development of safer village and commune plans are women; and (g) at least 30% of members of the farmer water user committees formed under the Project are women.	Schedule 5	Complied (a) – (c) are fully implemented (d) 41% of CBDRM group members (144 out of 350 Village Disaster Management Group) are women; (e) 52% of 750 of participants in training are women; (f) 45% of participants in all public consultations for the development of safer village and commune plans are women; and (g) Not fully complied – 26% of members elected in the farmer water user committees are women.
	Safeguards		
2.	The Borrower shall cause MOWRAM and the PDWRAM to ensure that CBDRM groups shall be established at each Subproject site and are the focal point for consultation and training. The Borrower shall cause MOWRAM and the PDWRAM to ensure that at least 30% of members of the CBDRM groups are women. In communities where ethnic groups reside, the Borrower shall cause MOWRAM and the PDWRAM to ensure that representatives of each ethnic group shall be included as members of the CBDRM group.	Schedule 5,	Complied. 41% of the 350 members of the Village Disaster Management Groups (VDMG) are women. Only 10% of the 102 members in 2 District and 5 Commune committees are women. This is because the members are selected from existing district and commune level government, where number of women elected was less.
3.	The Borrower shall ensure or cause the Project Executing Agency to ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health and safety; (b) the Environmental Safeguards; and (c) all measures	Schedule 5,	Complied. Detailed design and construction follow applicable laws and the Environmental and

	Covenants	Reference in LA	Status
	and requirements set forth in the IEE, the EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report. If there is any discrepancy between the Borrower's relevant laws and regulations and the requirements of ADB's Safeguard Policy Statement (2009), ADB's policy shall apply.		Social Safeguards requirements. IEE has been updated and EMPS are prepared for each component. IEE/EMPs and DRPs are part of the contract of works.
4.	The Borrower shall ensure or cause the Project Executing Agency to ensure that all land and all rights-of-way required for the Project are made available to the Works contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the Borrower relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; and (c) all measures and requirements set forth in the RP and any corrective or preventative actions set forth in the Safeguards Monitoring Report.	Schedule 5,	Being complied with DRP1 was finalized/approved in on 26 December 2018. DRP2 was finalized and approved on 4 April 2019.
5.	Without limiting the application of the Involuntary Resettlement Safeguards or the RP, the Borrower shall ensure or cause the Project Executing Agency to ensure that no physical or economic displacement takes place in connection with the Project until: (a) compensation and other entitlements have been provided to affected people in accordance with the RP; and (b) a comprehensive income and livelihood restoration program has been established in accordance with the RP.	Schedule 5,	Being complied with The civil works started prior to the approval of DRP. However, corrective actions provided by the MTR have been implemented accordingly.
6.	The CPMU shall not issue a notice to proceed to the contractors for specific sections of the Works of a Subproject until the Borrower has satisfactorily completed, in accordance with the approved RP for that subproject, compensation and assistance payments and relocation to new sites, and ensured rehabilitation assistance is in place prior to obtaining possession and rights to the land.	Schedule 5,	Complied No objection letters for two contract awards were provided by ADB prior to the approval of DRP1. However, the Notice to Proceed and mobilization of contractors were made with clear instructions to work in sections/locations which are free from LAR issues. However, the corrective actions have been implemented and the DRP 1 was approved in late December 2018.

	Covenants	Reference in LA	Status
7.	<p>The Borrower shall ensure or cause the Project Executing Agency to ensure that all bidding documents and contracts for Works contain provisions that require contractors to:</p> <p>(a) comply with the measures relevant to the contractor set forth in the IEE, the EMP, and the RP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set forth in a Safeguards Monitoring Report;</p> <p>(b) make available a budget for all such environmental and social measures;</p> <p>(c) provide the Borrower with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, and the RP;</p> <p>(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and</p> <p>(e) reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.</p>	Schedule 5, para. 10	<p>Complied</p> <p>The bidding documents and works contracts include the IEE/EMPs and DRPs.</p> <p>The IEE.EMPs and DRPs include these conditions.</p> <p>Separate budget (under provisional sum) is included in the works contracts.</p>
8.	<p>The Borrower shall make available or cause the Project Executing Agency to make available necessary budgetary and human resources to fully implement the EMP and the RP.</p>	Schedule 5, para. 11	<p>Complied.</p> <p>Separate provisional budget is allocated in works contracts to implement EMPs.</p> <p>Implementation of DRPs is under government budget by GDR/IRC.</p>
9.	<p>The Borrower shall do the following or cause the Project Executing Agency to do the following:</p> <p>(a) submit quarterly Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;</p> <p>(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, and the RP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan;</p> <p>(c) no later than the commencement of land acquisition and resettlement activities, engage qualified and experienced external expert(s) or qualified NGO(s) under a selection process and terms of reference acceptable to ADB, to verify information produced through the Project monitoring process, and facilitate the carrying out of any verification activities by such external experts; and</p> <p>(d) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP and the RP promptly after becoming aware of the breach.</p>	Schedule 5, para. 12	<p>Partly complied with</p> <p>Quarterly Safeguard environmental monitoring report has been submitted.</p> <p>External Monitoring Organization (EMO) is in place.</p> <p>Safeguard progress and issues are reported in quarterly reports. Safeguard sections of the QPRs needs strengthening to adequately reflect the compliance status per reporting period.</p>

	Covenants	Reference in LA	Status
			Verification report and corrective action implementation report has not yet been submitted as agreed during MTR
10.	The Borrower shall ensure that the preparation, design, construction, implementation and operation of the Project and all Project facilities comply with (a) the Borrower's applicable laws and regulations relating to indigenous peoples; (b) the Indigenous Peoples Safeguards; and (c) all measures and requirements set forth in the RPs and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Schedule 5, para. 13	Complied. No IP is identified in the project corridor of impact covered in the DRPs.
11.	The Borrower shall establish and publicize the existence of a grievance redress mechanism to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the Project's performance, including possible corruption, and environmental, social, and other concerns.	Schedule 5, para. 18	Complied. Grievance Redress Mechanism is in place. GDR will hold further public consultation and provide trainings on GRM.
	Others		
12.	The Borrower and the Project Executing Agency shall ensure that the Project is implemented in accordance with the detailed arrangements set forth in the PAM. Any subsequent change to the PAM shall become effective only after approval of such change by the Borrower and ADB. In the event of any discrepancy between the PAM and this Loan Agreement, the provisions of this Loan Agreement shall prevail.	Schedule 5, para. 1	Complied. Project implementation is as per PAM.
13.	The Borrower through MOWRAM shall establish a Project steering committee which shall meet yearly, and more frequently as required, to oversee Project implementation and provide guidance. The steering committee shall be chaired by the Minister of MOWRAM or his delegate and have members from Council for Agriculture and Rural Development, MEF, MAFF, MOWRAM, the National Committee for Disaster Management, the Cambodia National Mekong Committee and the provincial governor of Pursat or his representative.	Schedule 5, para. 2	Complied. Project Steering Committee is formed chaired by the Secretary of State of MOWRAM with representatives of key ministries and agencies. One meeting has been held on 19 May 2016.
14.	Except as ADB may otherwise agree, Goods and Works shall only be procured on the basis of the methods of procurement set forth below: (a) International Competitive Bidding; (b) National Competitive Bidding; and (c) Shopping.	Schedule 4, para. 3	Complied. Procurement is as per approved Procurement Plan.
15.	The Borrower through MOWRAM shall make the necessary budgeting and operational arrangements acceptable to ADB to manage operations of the hydraulic structures developed under the Project. In addition, the Borrower shall ensure that adequate	Schedule 5, para. 3	Not yet due. (construction has yet to complete as of Sep. 2019)

	Covenants	Reference in LA	Status
	resources are allocated and maintenance work done on the hydraulic structures and flood embankment constructed and upgraded under the Project to ensure their sustainability. The Borrower through MOWRAM shall also provide adequate resources for the operation of the NFFC.		FWUC has been established with the elections completed in January 2018. FWUC and its farmer water user groups and sub-groups shall be responsible for minor O&M.
16.	The methods of procurement are subject to, among other things, the detailed arrangements and threshold values set forth in the Procurement Plan. The Borrower may only modify the methods of procurement or threshold values with the prior agreement of ADB, and modifications must be set out in updates to the Procurement Plan.	Schedule 4, para. 4	Complied. Procurement is as per approved Procurement Plan.
17.	The Borrower may grant a margin of preference in the evaluation of bids under international competitive bidding in accordance with paragraphs 2.55(a) and 2.56 of the Procurement Guidelines for domestically manufactured Goods and paragraphs 2.55(b) and 2.56 of the Procurement Guidelines for domestic Works.	Schedule 4, para. 5	Not relevant Margin of preference is not granted.
18.	The Borrower through MOWRAM shall ensure that all Works contracts contain a provision that in the event UXO clearance is needed, the services of a reputable and experienced mine security organization, acceptable to ADB, shall be engaged to carry out and then certify that the subproject area is clear of UXO.	Schedule 5, para. 5	Complied. Included in bid documents and contracts.
19.	The Borrower and ADB shall ensure that, prior to the commencement of any procurement activity under national competitive bidding; the Borrower's national competitive bidding procedures are consistent with the Procurement Guidelines. Any modifications or clarifications to such procedures agreed between the Borrower and ADB shall be set out in the Procurement Plan. Any subsequent change to the agreed modifications and clarifications shall become effective only after approval of such change by the Borrower and ADB.	Schedule 4, para. 6	Complied. All procurements follow Gov't Procurement Manual and approved Procurement Plan. Procurement Plan is updated as necessary with ADB's approval.
20.	The Borrower shall not award any Works contracts until it has provided ADB with adequate evidence that: (a) an EMP has been developed and approved by ADB following the completion of detailed designs for each Subproject it has incorporated the relevant provisions from the EMP into the Works and provided adequate budget for the performance of the same contract; and (b) for Works contracts involving involuntary resettlement impacts, it has prepared and submitted to ADB the final RP based on the Project's detailed design, and obtained ADB's clearance of such RP.	Schedule 4, para. 7	Partly complied EMPs for the three NCB packages included into the civil works contracts have not yet been approved by ADB. DRP1 and DRP2 were approved in late December 2019 and April 2019, respectively.
21.	Except as ADB may otherwise agree, the Borrower shall apply	Schedule 4,	Complied.

	Covenants	Reference in LA	Status
	quality- and cost-based selection for selecting and engaging Consulting Services.	para. 8	PIC and DDCs consulting services are based on QCBS; and NFFC and CBDRM are based on QCB as per approved Procurement Plan.
22.	(a) The Borrower shall ensure that all Goods and Works procured (including without limitation all computer hardware, software and systems, whether separately procured or incorporated within other goods and services procured) do not violate or infringe any industrial property or intellectual property right or claim of any third party. (b) The Borrower shall ensure that all contracts for the procurement of Goods and Works contain appropriate representations, warranties and, if appropriate, indemnities from the contractor or supplier with respect to the matters referred to in subparagraph (a) of this paragraph.	Schedule 4, para. 9	Complied. The bidding documents and procurement is as per Government Procurement Manual and ADB bidding documents.
23.	The Borrower shall ensure that all ADB-financed contracts with consultants contain appropriate representations, warranties and, if appropriate, indemnities from the consultants to ensure that the Consulting Services provided do not violate or infringe any industrial property or intellectual property right or claim of any third party.	Schedule 4, para. 10	Complied All consulting contracts follow these measures including intellectual property rights.
24.	Contracts procured under international competitive bidding procedures and contracts for Consulting Services shall be subject to prior review by ADB, unless otherwise agreed between the Borrower and ADB and set forth in the Procurement Plan.	Schedule 4, para. 11	Complied. ADB prior review is followed as per approved Procurement Plan.
25.	The Borrower shall cause MOWRAM to ensure that the Works contractors (a) provide timely payment of wages and safe working conditions to all workers; (b) maximize the employment of local poor people who meet the job and efficiency requirements for the Works, including at least 30% women; (c) pay equal wages to men and women employees for work of equal value; (d) do not employ child labor, as required by the relevant laws and regulations of the Borrower; (e) carry out HIV/AIDS, STI and human trafficking education and awareness campaigns in the construction sites; and (f) include specific provisions to give effect to this clause in the Works contracts and monitor their compliance.	Schedule 5, para. 14	Complied. All works contracts have these conditions included in the contracts. At-site monitoring is made by safeguards and gender specialists regularly and included in quarterly safeguards monitoring reports.
26.	The Borrower shall comply with, and shall cause MOWRAM and the IAs to comply with ADB's Anticorruption Policy (1998, as amended to date). The Borrower (a) acknowledges ADB's right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive or coercive practices relating to the Project; and (b) agrees to cooperate fully with, and to cause MOWRAM and the IAs to cooperate fully with, any such investigation and to extend all necessary assistance, including providing access to all	Schedule 5, para. 16	Complied. Government and ADB's Anti-Corruption Policy is followed.

	Covenants	Reference in LA	Status
	relevant books and records, as may be necessary for the satisfactory completion of any such investigation.		
27.	The Borrower shall cause MOWRAM and the IAs to ensure that anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of the executing and implementing agencies and all contractors, suppliers, consultants, and other service providers as they relate to the Project. The Borrower shall ensure that MOWRAM and the IAs conduct periodic inspections of the contractors' activities related to fund withdrawals and settlements.	Schedule 5, para. 17	Complied. Bidding documents and contracts include these provisions.
28.	To deter corruption and increase transparency, the Borrower shall cause MOWRAM to maintain a Project-specific web page on its website to disclose information about procurements related to the Project. For each contract, the web page shall include information on, among others, the list of participating bidders, name of the winning bidder, basic details on bidding procedures adopted, amount of contract awarded, and the list of goods/services procured. In addition to the web-based disclosure, stakeholders, which include civil society and NGOs, shall be provided detailed information on procurement on public notice boards in their respective provinces.	Schedule 5, para. 19	Partly complied. Project web page is as follows: http://dhrw-cam.org/gsmflood.php Not all required information has regularly been updated.

Annex 8 : Gender Action Plan (GAP)

GENDER ACTION PLAN (GAP) MONITORING TABLE

Date of Update: 30 Sep 2020

Project Title	Greater Mekong Sub region Flood and Drought Risk Management and Mitigation Project
Country:	Cambodia
Project Number	40190
Type of Project (Loan and Grant Numbers):	Loan 2970/8262/G0330-CAM
Approval:	August 2014
Location:	Pursat province and in Phnom Penh
Gender Category:	Effective Gender Mainstreaming (EGM)
Mission Leader:	Long Piseth
Project Impact	The project impact will be reduced economic losses resulting from floods and droughts.
Project Outcome:	The project outcome will be improved capacities and preparedness to manage and mitigate the impacts of flood and drought events.

Basic Criteria for GAP Implementation are reported below:

- 1) Gender specialists / gender focals are in place in the CPMU/PIU and at all relevant levels of project monitoring and implementation: Ms Sim Sokhema is the MoWRAM gender focal and Ms Pan Sovannarith is the PDWRAM/PIU focal person. Ms Kol Prapey is the gender specialist in the CBDRM consulting team and the PIC team (replaced Mr Chuon Rithy from March 2018). She will also be responsible for GAP monitoring and compliance in the construction sites.
- 2) Sex-disaggregated data are integrated in the project performance monitoring system (PPMS) progress reports: all GAP and gender features are included in the Project's progress reports (Note: PPMS is not prepared separately, as required information/reports are in the quarterly/annual progress reports)
- 3) GAP implementation is included in the project work plans and budget
- 4) GAP orientations were provided to CPMU, PIU, and relevant staff at national and provincial levels including consultant teams.

Gender Action Plan (GAP Activities, Indicators and Targets, Timeframe and Responsibility)	Progress to date (As of 31 March 2019)	Issues and Challenges
Output 1: Enhanced regional data, information and knowledge base for the management of floods and droughts.		
<p>1.1. Actively identify and recruit qualified women staff</p> <p>Action 1: Achieved.</p>	<p>Two out of the three staff seconded by DHRW to the NFFC team are women. Both female staff hold the following positions with DHRW:</p> <ol style="list-style-type: none"> 1. Ms Pot Peou, joined the DHRW in 1988 as technician in hydrology, her current position is Vice-Chief of Office of Flood Forecasting and Research. Ms Pot Peou graduated from Prek Liep National School of Agriculture as Technicians (CL IV) ²in Hydrology in 1987. 2. Ms Horn Leakhena: joined DHRW in October 2017. Ms. Horm Leakhena graduated from Royal University of Agriculture. <p>Their duties with DHRW include hydrological and rainfall data collection, processing and archiving. Their duties involve collecting near real time river water level and rainfall data from different sources and stations in Cambodia, other MRC member countries, and the Regional Flood Management and Mitigation Center in Phnom Penh. They are responsible for the preparation of the forecast and upon approval of their manager, the forecast is used by MOWRAM and disseminated to other relevant authorities and to the publics through various means.</p>	
<p>1.2. Ensure at least 2 women are trained on forecasting models and climate change</p> <p>Target 1: Achieved.</p>	<p>Ms. Pot Peou and Ms. Ms. Horm Leakhena participated in all trainings and on-the-job mentoring offered during the conduct of the component activities.</p> <p>The training organized by the project has helped them to strengthen their theoretical knowledge and skills to better conduct flood forecasting and data collection activities. It is to be noted that Ms Pot Peou has 30 years of experiences and is approaching retirement.</p> <p>Through the project Ms Horm Leakhena has strengthen her knowledge and experience in hydrology and in particularly for the conduct of flood forecasting activities. English language training would be beneficial to further</p>	

² In Hydrology Education WMO classification: (CL-II)-Engineer, (CL-III)-Technician, (CLIV)-Technician

	her advancement and technical skills.	
1.3. Gender and community vulnerability issues will be assessed and addressed in the study on trans-boundary flood management. Action 2: Achieved.	<p>The Action Plan developed by the Project Teams for the Vietnam and Cambodian ADB GMS FDRMMP includes consideration of the engagement of vulnerable communities with respect to the sharing of flood forecasts and actions that have transboundary implications.</p> <p>The Action Plan lays the foundation for further country to country discussions on transboundary flood management and the consideration of gender and community vulnerabilities.</p>	
Output 2: Upgraded Water Management Infrastructure.		
2.1 Ensure at least 40% of participants of technical training (flood and drought resilience farming, animal health, water and sanitation, wetland and water conservation, trafficking, domestic violence, agricultural production technique) and any other related training identified by stakeholders is women. Target 2: Achieved.	<p>50 villages were trained on CBDRM. 52% (385 out of 750 community participants) are women.</p> <p>The Agriculture Training organized in June – July 2019 on home gardening and poultry raising at household level included 184 farmers, of which 132 were females (72%)</p> <p>Training to FWUC members on (i) System Operation and Maintenance (ii) Financial Management and (iii) Conflict Resolution were provided in September 2019. Number of participants was 78, out of which 19 were female.</p>	
2.2 Provide equal opportunity and equal pay for equal work to both females and males for labor construction. Action 3: Likely to be achieved. (as 3 national contracts are yet to be started)	<p>Specific terms are included in the Civil Works Contracts related to work and wage equality, prevention of child labor, and minimum of 30% of all unskilled workers need to be women, A monthly report of workers and their salaries with gender is prepared and monitored to meet the above requirement.</p> <p>Tasks and activities performed by women and men:</p> <p>Men: having machine operator, General measurement, making formwork, casting concrete, steel bending, wiring, transporting of heavy work (some of work used by machine and need technical skill work).</p> <p>Women: mostly involved in small or light work such as: planting and carrying grass, wiring, curing water, joint in cleaning site and cooking etc.,</p> <p>No “child labor” is hired by the contractor since project start.</p> <p>Unskilled men and women receive equal pay for same work and fair</p>	<p>There was lack of women in community to participate in the construction because most of women are busy with their house, farm work and have also migrated to Phnom-Penh and even Thailand). The contractor has committed to cooperate with village chiefs to get more women workers.</p> <p>During wet season, most people especially women are busy with farm works, hence, there is less available unskilled workers that can be hired for the project. On the other hand, there is also limited work that can be done during rainy season (August-September). Attaining the 30% women in the unskilled labor is quite difficult.</p> <p>It seems constructors know very well about child</p>

	<p>payment. For example, women earned in amount 25,000 riels to 28,000 riels per day, while men received up to 25,000 to 28,000 riels per day included with three time of food provided by contractor.</p> <p>On 08 August 2018 the worker received training awareness on drought prevention and HIV at the construction site by police authority with cooperation the contractor.</p> <p>During construction stage, frequent meetings between the contractor, consultant, local authority and people are arranged to ensure that women and men participate in project activities. Two public consultations during construction phase were held on 26 June 2018 at Prahas Kbal site, with 44 % female participants (33 female participants of 75 Participants).</p> <p>Women un-skill workers in community were encourage to work in the construction side.</p>	labor prohibited
<p>2.3 Ensure at least 30% of unskilled workers are women through condition of bid documents.</p> <p>Target 3: Achieved</p>	<p>The civil works bid documents include this mandatory condition. Monthly reports of workers are collected and monitored that the clause is followed. Regular site visits and monitoring by CPMU Gender Specialist, MOWRAM Gender Focal Person and consultant team are made.</p> <p>Reporting period Status (Apr – Jun 2020) Out of the total 10,548 person-days of unskilled workers during the reporting period, 5,223 (49.5%) were provided by women.</p> <p>Regular monitoring of the project site have be done to ensure contractors implement the loan covenants including the LGAP and comments/observations be discussed immediately with the contractors to implement corrective/preventive measures.</p>	
Output 3: Enhanced capacity for community-based disaster risk management.		
<p>3.1. Ensure at least 40% of participants in all public consultations for the development of safer village and commune plans are women.</p> <p>Target 4: Achieved</p>	<p>49% (249 out of 513 of community people) participating in the Village Planning Activity are female.</p> <p>45% are women (403 out of 892 participants) in public consultations for the Coordination Committee in 2 districts and 5 communes 50 villages.</p> <p>50% are women (378 out of 756 participants) attended HVAC held on 10 April 2016. Documentation in the HVAC report submitted to the CPMU</p> <p>50 village disaster management groups (VDMG) were formed. 41% (144 out of 350 members) are women.</p>	

<p>3.2 Schedule of CBDRM training for community should be conducted to fit the schedules of both men and women in the community schedule to ensure effective participation of both.</p> <p>Action 4: Achieved.</p>	<p>Training Need Assessment was done on 26 May 2016, 19 % (13 out of 69 participants) were female. The participants were from the existing commune district structures, where female representatives were only 19%.</p> <p>The community training schedule was established based on consultations with all participants during the Training Need Assessment Workshop.</p> <p>50 villages were trained on CBDRM. 52% (385 out of 750 community participants) were women. A training for one village took 5 days, however, this 5-day training was divided into two or more sections (e.g. 2 days and 3 days, or 2 days, 2days and 1 days). The pattern varied from one to another village depending on the availability of both female and male participants. The starting time and ending time of each training days, were also well consulted and agreed by participants, especially women.</p>	
<p>3.3 Ensure CBDRM training modules are gender sensitive and address the needs of women</p> <p>Action 5: Achieved.</p>	<p>CBDRM training manuals include gender roles and women in DRM. Gender perception is integrated into CBDRM Training Manuals.</p> <p>The topics included in the training manual are:</p> <p>Module 2 Session 2.4. Gender and The Role of Women In DRM</p> <p>What is Gender? Gender Cross Cutting Issue, what is Gender Mainstreaming? Implications of Gender Mainstreaming, Effective Gender Mainstreaming, Why Is Gender Mainstreaming Important? How to Ensure Gender Mainstreaming in CDBRM?, What does gender equality mean? How to achieve Gender Equality? Role of women in disaster management</p> <p>Module 7, Session 3: Gender Action Plan</p> <p>1. What is Gender Action Plan: What makes a Good Quality and Realistic Gender Action Plan (GAP)? Features of a “Good” GAP, what are Common Problems encountered in Gender Action Plan (GAP)? Common GAP problem,</p> <p>2. Role of Women in DRM expressed in the development of a “good” GAP (Improved Capacity of Women in DRM, Clear Strategy to Mainstream Gender in CBDRM</p> <p>3. Incorporation of GAP into CBDRM: Gender Action Plan of Community</p>	

	Based Disaster Risk Management (CBDRM) and Farmer Water Users Community (FWUC).	
<p>3.4 Ensure at least 30% of members of the farmer water user committees are women</p> <p>Target 5: Partially Achieved</p>	<p>27 % Elected members of the Community Water User Committee 21 out of 78 elected members.</p> <p>41 % were female (2714 female participants voted for FWUC and FWUG of 6627 Participants).</p> <p>Preparation of the Statute of the FWUG in 5 communes. 45 (33%) out of 135 of participants. step 1- 5 out of the 10 steps of FWUC establishment completed for FWUC formation, including Step 5 Election of the FWUC Groups and Sub-groups. In Step 1- Dissemination meetings, 46% (2,159 out of 4,701 participants) were female.</p> <p>Elections of one Farmer Water User Community (FWUC), 3 Farmer Water User Groups (FWUGs) at Secondary Canal level and 18 Farmer Water User Sub-Groups (FWUSGs) at tertiary canal levels were completed in February 2018.</p> <p>CPMU FWUC team have conducted 7 meetings with communities for project information disclosure (PID). During the consultation and meeting for PID; there were total 2,159 participants with 4,701 females equal to 45%.</p> <p>Gender awareness manual are prepared and translated in Khmer language. Trainings are provided to FWUC/FWUGs/FWUSGs in August 2019</p> <p>Report on FWUC election prepared by FWUC department.</p>	<p>The participants in all activities related to FWUC establishment and elections included more than 30% women. However, the election to the FWUC committees, carried out under the FWUC sub-decree resulted in only 27% of women members (21 out of 78 members).</p> <p>Targeted training was hence provided to 10 additional women and current 21 women members of FWUC from 3 to 6 March 2020 by the CPMU FWUN Unit. The new women members trained were encouraged to take of specific roles in the FWUC committees in cooperation with the elected members.</p>
<p>3.5. Ensure at least 40% of women in project communes participate in the formulation, implementation and training on CBDRM</p> <p>Target 6: Achieved.</p>	<p>Above 40% of women attended in CBDRM's activities as included in 3.1 & 3.2.</p> <p>52% of women who attended the training had low education level, where trainers spent more time to explain and discuss in a flexible schedule covering real practical experience in both the theory and practice sessions. During the training, most of women were hesitant to talk because they think it's a new concept, and it needed special effort to encourage women to participate in DRM planning.</p> <p>Note: this action is associated with the DMF gender target "at least 200</p>	

	<p>women are trained on CBDRM". Based on the report in 3.2: 50 villages were trained on CBDRM. 52% (385 out of 750 community participants) are women. This is to confirm that this DMF gender target is achieved by the MTR.</p>	
<p>3.6. Ensure at least 30% of CBDRM group members are women</p> <p>Target 7: Achieved.</p>	<p>27 (31 %) out of 87 of CBDRM committee members in 5 communes and 2 districts are female</p> <p>50 Village Disaster Management Groups (VDMG) were formed in year 2016-2017. 144 (41%) out of 350 VDMG members are female.</p> <p>Membership of the VDMG is selected in compliance with directive/guideline for VDMG establishment of the National Committee for Disaster Management.</p> <p>The main objective of VDMG is to support the process of preparing a Commune Investment Plan (CIP) when the Commune Council starts collecting needs and activities as well as village-level data / information for the investment plan, actively involved with the village's key and advisory group of the CBDRM project.</p> <p>The roles of VDMG member are presented by group discussion activities. The gender role was discussed for three different phases of disaster cycle-before, during and after a disaster strikes. This tool tells what men and women do and what activities they share in order to manage the impact of disasters.</p> <p>Number of women are increased participation in project activities from 30% (27 (31 %) out of 87 of CBDRM) to 41 % (144 (41%) out of 350 VDMG members) and equitable access to the GAP and project resources, including skills training, technical and management services such as disaster risk management, O&M, etc.</p>	
<p>3.7. Gender sensitive awareness material for CBDRM prepared (Gender sensitive materials for CBRM will be tested with communities ensuring they, especially women clearly understand.)</p>	<p>Training manuals, for master trainers and community, including gender awareness materials and project brochure were prepared and disseminated.</p> <p>CBDRM Team together with the CPMU has developed tools for gender checklist and tested with communities and master trainers ensuring them, especially women clearly understand the definition, concept, and gender roles for CBDRM, and also include best practices on integration of gender</p>	

<p>Action 6: Achieved.</p>	<p>into DRM during field training.</p> <p>All terminology and message in the training materials used local terminology with pictures showing relevant topics and roles and responsibility of both men and women which advances gender sensitive knowledge, skills and attitude.</p> <p>Villages plan have been prepared at the end of each training, involving local women and men in each village, where women community leaders are encouraged to take on roles and responsibilities and contribute to disaster risk management of villages and communes.</p> <p>To strengthen the capacity of trainers and the communities, following activities were conducted: (i) conduct orientation on GAP to master trainers, (ii) provide TOT to master trainers, with project's context, (iii) develop gender checklist, and (iv) sex-disaggregated data collection report in each training villages/commune.</p>	
<p>Output 4: Effective project implementation</p>		
<p>4.1 Ensure qualified women are encouraged to apply for position in the project Action 7: Achieved.</p>	<p>20% (6 out of 30 counterpart staff) are female.</p> <p>119 applications were received for master trainers TOT under CBDRM component, 44 (37 %) out of 119 applicants were female. Of this total number, 24 top scoring candidates were shortlisted, 7 are female (29%) and 11 are from Pursat province.</p> <p>56% (9 out of 16 selected candidates) are from Pursat (5 additional points were awarded to local candidates).</p> <p>31% (5 out of 16 selected candidates) are women</p> <p>Women were encouraged to apply for master trainers' position by awarding 5 extra points to women.</p>	
<p>4.2 Strengthen capacity building of existing gender focal point at PDWRAM on gender issues in flood and drought, on implementation and monitoring. Action 8: Achieved.</p>	<p>Gender specialists of PIC, CBDRM and DDCCS work closely with CPMU and PIU gender focal points related to delivering project's activities by engaging to field monitoring, coaching, mentoring and on-the-job training in particular gender issues in flood and drought, GAP implementation and monitoring, and working with contractors.</p>	
<p>4.3 Conduct a consultation workshop on the project</p>	<p>GAP's orientation and consultation workshop held in Phnom Penh on 16 August 2016 (50%, 14 out of total 28 participants) were women, and in</p>	

<p>GAP to introduce and get feedback, on the gender actions with all project consultants, all government counterparts as well as project management team at national and provincial levels.</p> <p>Action 9: Achieved.</p>	<p>Pursat on 18 August 2016 (30%, 6 out of 20 participants) are women.</p> <p>The participants were gov't counterpart staff, project management team at national and provincial levels, and project's consultants. The objective was to introduce the project's GAP, discussion, and clarification.</p>														
<p>4.4 Adjust GAP as required based on further gender analysis during implementation to ensure effective gender mainstreaming actions are implemented.</p> <p>Action 10: Achieved</p> <p>(GAP was discussed with all stakeholders; specific adjustment was not required)</p>	<p>Gender focal points and specialists discussed strategies to address challenges in implementing the gender action plan at a workshop on 16 and 18 in Phnom Penh and Pursat province, organized by PIC. The consultation workshops confirm that the GAP remains relevant in the current contexts, so there is no adjustment to GAP. Lessons learned and best practices were shared on engaging women in decision-making positions and project activities generated by PIC.</p>														
<table border="1"> <thead> <tr> <th colspan="3" data-bbox="485 695 1921 748">Issues discussed during the Consultative Workshops in Phnom Penh and Pursat.</th> </tr> <tr> <th data-bbox="485 748 758 834">Outputs</th> <th data-bbox="758 748 1381 834">Indicator</th> <th data-bbox="1381 748 1921 834">Issue of the groups who have worked progressive</th> </tr> </thead> <tbody> <tr> <td data-bbox="485 834 758 1016">1. Enhanced regional data, information and knowledge base for the management of floods and droughts.</td> <td data-bbox="758 834 1381 1016"> <p>Ensure at least 2 women are trained on forecasting models and climate change</p> <p>Gender and community vulnerability issues will be assessed and addressed study on trans-boundary flood management.</p> </td> <td data-bbox="1381 834 1921 1016">MoWRAM should be encouraged attract the female students from national universities to join as volunteers of different Departments.</td> </tr> <tr> <td data-bbox="485 1016 758 1344">3. Enhanced capacity for community-based disaster risk management</td> <td data-bbox="758 1016 1381 1344"> <p>Ensure at least 40% of participants in all public consultations for the development of safer village and commune plans are women.</p> <p>Schedule of CBDRM training for community should be conducted to fit the schedules of both men and women in the community schedule to ensure effective participation of both.</p> <p>Ensure CBDRM training modules are gender sensitive and address the needs of women.</p> </td> <td data-bbox="1381 1016 1921 1344"></td> </tr> <tr> <td data-bbox="485 1344 758 1398">4. Effective project</td> <td data-bbox="758 1344 1381 1398">Strengthen capacity building of Existing Gender Focal Point at PDWRAM on gender issues in flood and</td> <td data-bbox="1381 1344 1921 1398">Gender Focal Point was nominated by</td> </tr> </tbody> </table>	Issues discussed during the Consultative Workshops in Phnom Penh and Pursat.			Outputs	Indicator	Issue of the groups who have worked progressive	1. Enhanced regional data, information and knowledge base for the management of floods and droughts.	<p>Ensure at least 2 women are trained on forecasting models and climate change</p> <p>Gender and community vulnerability issues will be assessed and addressed study on trans-boundary flood management.</p>	MoWRAM should be encouraged attract the female students from national universities to join as volunteers of different Departments.	3. Enhanced capacity for community-based disaster risk management	<p>Ensure at least 40% of participants in all public consultations for the development of safer village and commune plans are women.</p> <p>Schedule of CBDRM training for community should be conducted to fit the schedules of both men and women in the community schedule to ensure effective participation of both.</p> <p>Ensure CBDRM training modules are gender sensitive and address the needs of women.</p>		4. Effective project	Strengthen capacity building of Existing Gender Focal Point at PDWRAM on gender issues in flood and	Gender Focal Point was nominated by
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	implementation	drought, on implementation and monitoring. Conduct regular meeting with gender focal points and GFP, and monitoring on the implementation of the project GAP by project gender consultant. Data disaggregated by sex and ethnic origin shall be collected in all communities covered by the Project and analyzed to verify effective and equitable implementation of the GAP and Project activities.	PIU/PDWRAM - Mr. Pa Sovannareth (M). Project should be conduct regular monthly meetings with Gender Focal Point.
4.5 Provide capacity building on gender issues in flood and drought, how to mainstream gender in CBDRM to all consultants, government counterparts, and management levels. Action 11: Achieved.	<p>Gender Action Plan Consultation Workshop prepared by PIC in two places; one in MoWRAM office in Phnom Penh on 16 August 2016 (46 %, 13 out of total 28 participants were women), and other in the KM Hotel in Pursat province on 18 August 2016 (29 %, 13 out of 28 participants were women). In total 38%, 20 out of 52 participants were women. Sixteen CBDRM master trainers received trainings on gender issues in flood and drought and on how to mainstream gender in CBDRM/gender orientation activities.</p> <p>Content or topics taken up during workshop and the objective of the workshop were:</p> <ul style="list-style-type: none"> • To present the objective and expected outputs of GAP, • To share experience of each other from government counterpart and consultant level, • To present the project scope, GAP overview, and get feedback on the gender actions of the GAP. • To share experience of on-going project activities to help adjust GAP to ensure effective gender mainstreaming actions are implemented. • To review progress of gender actions of different project components to verify effective and equitable implementation of the GAP and project activities including resource allocation to implement GAP. 		
4.6 Project gender consultant conduct regular meeting with gender focal points, and monitor the implementation of the project GAP. Action 12: Achieved.	<p>Gender focal persons meet every month, and attend project meetings and visit construction sites to oversee the project implementation including women's participation and gender issues.</p> <p>During the site observation, action plan(s) were designated as being accountable for specific objectives and activities for Gender and women participant. However, the contractor responsible for ensuring that women participant process needs to be monitored to meet the contract bids agreement requirement.</p>		
4.7 Provide capacity building on monitoring, gender mainstreaming in CBDRM, gender issues in flood and	<p>Checklists for monitoring and evaluation are incorporated with other activities in 4 component project cycle with CBDRM team including gender focal.</p> <p>The capacity building training provided earlier is considered sufficient as the</p>		

<p>drought to the gender counterparts by CBDRM/Gender Specialist Action 13: Achieved.</p>	<p>gender counterparts are receiving on-the-job capacity building for GAP monitoring as they are part of the CBDRM activities.</p>	
<p>4.8 Ensure adequate funds available to implement GAP. Action 14: Achieved.</p>	<p>As the GAP is mirrored the DMF, thus there is no separate budget to implement GAP, and it is well-integrated in the project's budget allocation/plan, such as training, sharing of information, workshop and awareness programs and field work etc.</p>	
<p>4.9 Data disaggregated by sex and ethnic origin shall be collected in all communities covered by the project and analyzed to verify effective and equitable implementation of the GAP and project activities. Action 15: Achieved.</p>	<p>PIC and consulting teams with Gender focal person undertake regular monitoring of the project site to ensure contractors implement the loan covenants including the GAP, collect quarterly records for GAP monitoring from the project components which is used as the basis for preparation of quarterly progress reports. Completion reports of events, workshops and trainings include sex-disaggregated data.</p> <p>Site managers understand of the GAP and Gender mainstreaming and they are instructed to monitor the work conditions for women in the construction work, it will also serve to attract and retain women as workers during a critical time of labour shortages in the construction.</p>	

Annex 9 : Checklist for COVID-19 Prevention Measures

COVID-19 Health and Safety Plan

To prevent/against with COVID-19, some measures are needed to be implemented as below:	Yes	No
Dissemination about COVID-19 prevention and mitigation measures to staff and workers through orientation or distributing leaflet/poster at information/safety board at each construction and camp site;		
Daily checking temperature of staff and workers prior starting the works;		
Staff and workers have to wear masks all the time and properly;		
Do not share personal items or supplies such as phones, pens, notebooks, tools, etc.;		
Avoid common physical greetings, such as handshakes;		
Maintain a minimum physical distance of one metre from others if possible;		
Wash hands often with soap and water for at least 20 seconds after using the washroom, before handling food, after blowing nose, coughing, or sneezing, and before smoking. If hands are not visibly soiled, and soap and water are unavailable, alcohol-based hand sanitizer can be used;		
All offices and jobsites implement additional cleaning measures of common areas. All door handles, railings, ladders, switches, controls, eating surfaces, shared tools and equipment, taps, toilets, and personal workstation areas are wiped down at least twice a day with a disinfectant, such as disinfectant wipes. Individuals are responsible for cleaning and disinfecting their workstations;		
Commonly touched surfaces on vehicles and equipment are thoroughly cleaned and disinfected at the end of shifts and between users;		
Coughing or sneezing into a tissue or the bend of your arm, not your hand; And dispose of any tissues you have used as soon as possible in a lined waste basket and wash your hands afterwards;		
Complying with any instructions announced by Ministry of Health accordingly;		

Response measures: Possible cases of COVID-19

Individuals who have been potentially exposed to the virus, or who are exhibiting flu-like symptoms such as fever, tiredness, coughing, or congestion are instructed to:

- Not come to work;
- Contact their supervisor and/or human resources department;
- Stay at home and self-isolate; and
- Contact local health authorities for further direction.

Such individuals are required to follow the directions of the local health authority and may not return to work until given approval by the proper health authorities;

Individual who begin to display flu-like symptoms on site are instructed to avoid touching anything, take extra care to contain coughs and sneezes, and return home immediately to undergo self-isolation as directed by the local health authority;

All areas on site potentially infected by a confirmed or probable case are barricaded to keep individuals two meters away until the area is properly cleaned and disinfected.

Monitoring

Contractor (Environment, Safety and Health Officer at each site) is to conduct daily monitoring (frequency to be determined based on a project scale and scope) to verify that the appropriate measures have been implemented and are maintained. And monitoring result has to reflect in monthly progress report to Consultants; Environmental Specialist of consultant team should be instructed to monitor the site and reflect in environmental monitoring reports to CPMU as well as ADB.