

Project Administration Manual

Project Number: 40190
Loan Number: LXXXX
November 2012

Greater Mekong Subregion: Flood and Drought Risk
Management and Mitigation Project
– Royal Government of Cambodia

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Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The executing and implementing agencies are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by the executing and implementing agencies of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Loan Negotiations the borrower and ADB shall agree to the PAM and ensure consistency with the Loan agreement. Such agreement shall be reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the PAM and the Loan Agreement, the provisions of the Loan Agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

Abbreviations

ADB	=	Asian Development Bank
ADF	=	Asian Development Fund
AFS	=	audited financial statements
AP	=	affected people
APFS	=	Annual project financial statements
CBDRM	=	community-based disaster risk management
CNMC	=	Cambodia National Mekong Committee
CPMU	=	central project management unit
CQS	=	consultant qualification selection
DHRW	=	Department of Hydrology and River Works
DIC	=	Department of Investment and Cooperation
DMF	=	design and monitoring framework
DOM	=	Department of Meteorology
EA	=	executing agency
EIA	=	environmental impact assessment
EMP	=	environmental management plan
EOI	=	expression of interest
FGIA	=	first generation imprest account
FTP	=	full technical proposal
FS	=	financial statements
FWUC	=	farmer water users community
GAP	=	gender action plan
GDTA	=	General Directorate of Technical Affairs (of MOWRAM)
IA	=	implementing agency
ICB	=	international competitive bidding
IEE	=	initial environmental examination
IPSAS	=	international public sector accounting standards
IRC	=	inter-ministerial resettlement committee
ISA	=	International Standards on Auditing
MAFF	=	Ministry of Agriculture Fisheries and Forestry
MEF	=	Ministry of Economy and Finance
MRC	=	Mekong River Commission
MOWRAM	=	Ministry of Water Resources and Meteorology
NBC	=	National Bank of Cambodia
NCB	=	national competitive bidding
NCDM	=	national committee for disaster management
NFFC	=	National Flood Forecasting Center
NGO	=	nongovernment organizations
PAI	=	project administration instructions
PAM	=	project administration manual
PAFS	=	project accounts financial statements
PDWRAM	=	Provincial Department of Water Resources and Meteorology
PIC	=	project implementation consultants
PIU	=	project implementation unit
PPCR	=	pilot project for climate resilience
PPMS	=	project performance monitoring system
PSC	=	project steering committee
QBS	=	quality based selection

QCBS	=	quality- and cost based selection
RFP	=	request for proposal
RP	=	resettlement plan
RRP	=	report and recommendation of the President to the Board
SCF	=	Strategic climate fund
SGIA	=	second generation imprest accounts
SOE	=	statement of expenditure
SOP	=	standard operating procedures
SPS	=	safeguard policy statement
SPRSS	=	summary poverty reduction and social strategy
TOR	=	terms of reference
UXO	=	unexploded ordnance
WA	=	withdrawal application

I. PROJECT DESCRIPTION

A. Project's Rationale, Location and Beneficiaries¹

1. **Rationale.** Natural disasters in Cambodia are normally caused by water and weather such as drought and flood which have significant impacts on urban and rural areas. As a result, flood and drought risk is the main obstacle to poverty reduction and economic development in Cambodia. While the people of Cambodia have adapted to the annual floods and are used to “living with flood”, they are less prepared for droughts that occur with a frequency of once in every three years. Meteorological droughts due to low rainfalls over the wet season (May–November) reduce yields of rain-fed rice and other crops. Similarly, the agricultural impacts of hydrological droughts in the dry season due to less than normal stream flows reduce irrigation water supply and adversely affect dry season production.

2. **Location.** The project is located in Pursat province and in Phnom Penh.

3. **Beneficiaries.** The project will improve drought risk management for about 16,100 ha of command area in Pursat province and flood risk management for Pursat township.

B. Project Impact and Outcome

4. The project impact will be reduced economic losses resulting from floods and droughts. The project outcome will be improved capacities and preparedness to manage and mitigate the impacts of flood and drought events.

C. Project Outputs

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

5. The project will support: (a) development of design criteria for flood and drought risk mitigation schemes and infrastructure water control infrastructure in the Mekong Delta; (b) assessment of cross-border flood management options in Viet Nam and Cambodia; and (c) strengthening of the National Flood Forecasting Center in Cambodia.

2. Upgraded Water Management Infrastructures

6. The project will support the Damnak Chheukrom Irrigation System Rehabilitation for improved drought management and increased flood protection of Pursat township. The subproject includes:

- (i) an upstream controlled and supply managed irrigation scheme to provide: wet season supplementary irrigation for 16,100 ha of net command area in Pursat Province; and full irrigation to a smaller net command area during the dry season;
- (ii) a new headworks structure that will withdraw irrigation water from the Pursat River to the command area and facilitate peak flood diversion using the scheme's main canal, comprising of: a new barrage located on the Pursat River about

¹ ADB TA No.6456-REG: Preparing the GMS Flood and Drought Risk Management and Mitigation was approved for the preparation of the project design and for assistance with project implementation readiness.

- 40km upstream of Pursat Town that is designed to safely convey the 50-year flood under anticipated climate change conditions; and an intake structure that can control river withdrawals for both command and flood diversion flows;
- (iii) a 30 km main canal that will convey the peak flood diversion discharge of 40m³/s from the Pursat River to the Svay Donkeo River, which comprises of: rehabilitation of a 14 km reach of an old non-functioning main canal; and further construction of 16 km of new main canal;
 - (iv) four new main canal cross regulator structures to control flows and water levels within the main canal for diversion of command flows into the secondary canals while allowing conveyance of the peak flood discharge of 40 m³/s;
 - (v) new outlet structure near the Svay Donkeo River;
 - (vi) four new secondary canals with a total length of 51.5 km, including check structures and outlets to the tertiary system;
 - (vii) new tertiary and distribution canals, and new drainage systems;
 - (viii) canal cross-drainage and overflow structures along the main canal; and
 - (ix) new road bridges along the main and secondary canals.

3. Enhanced Capacity for Community-Based Flood and Drought Management








7. Community Based Flood and Drought Management activities will be implemented to ensure that communities are able to obtain the full benefit from improved water control infrastructure and improved flood warnings. Community-driven flood and drought risk reduction measures will be implemented based on participatory local level flood and drought risk assessment and analysis and disaster risk reduction and management plans. Farmer water user committees (FWUC) will receive training and support to effectively undertake their role as managers of the tertiary and distribution irrigation system; and will be supported in climate adaptation measures diversify their crops (rice or other crops) to reduce their crop irrigation requirement for the dry and early-wet season crops.

4. Effective Project Implementation

8. The project will support the executing agency and implementing agencies to undertake overall project supervision and strengthen the planning, implementation and management capacities of implementing agencies. The project will provide improved office facilities, office equipment and technical equipment, capacity development of the staff, and consulting services for detailed design and construction supervision and implementation support.

II. IMPLEMENTATION PLANS

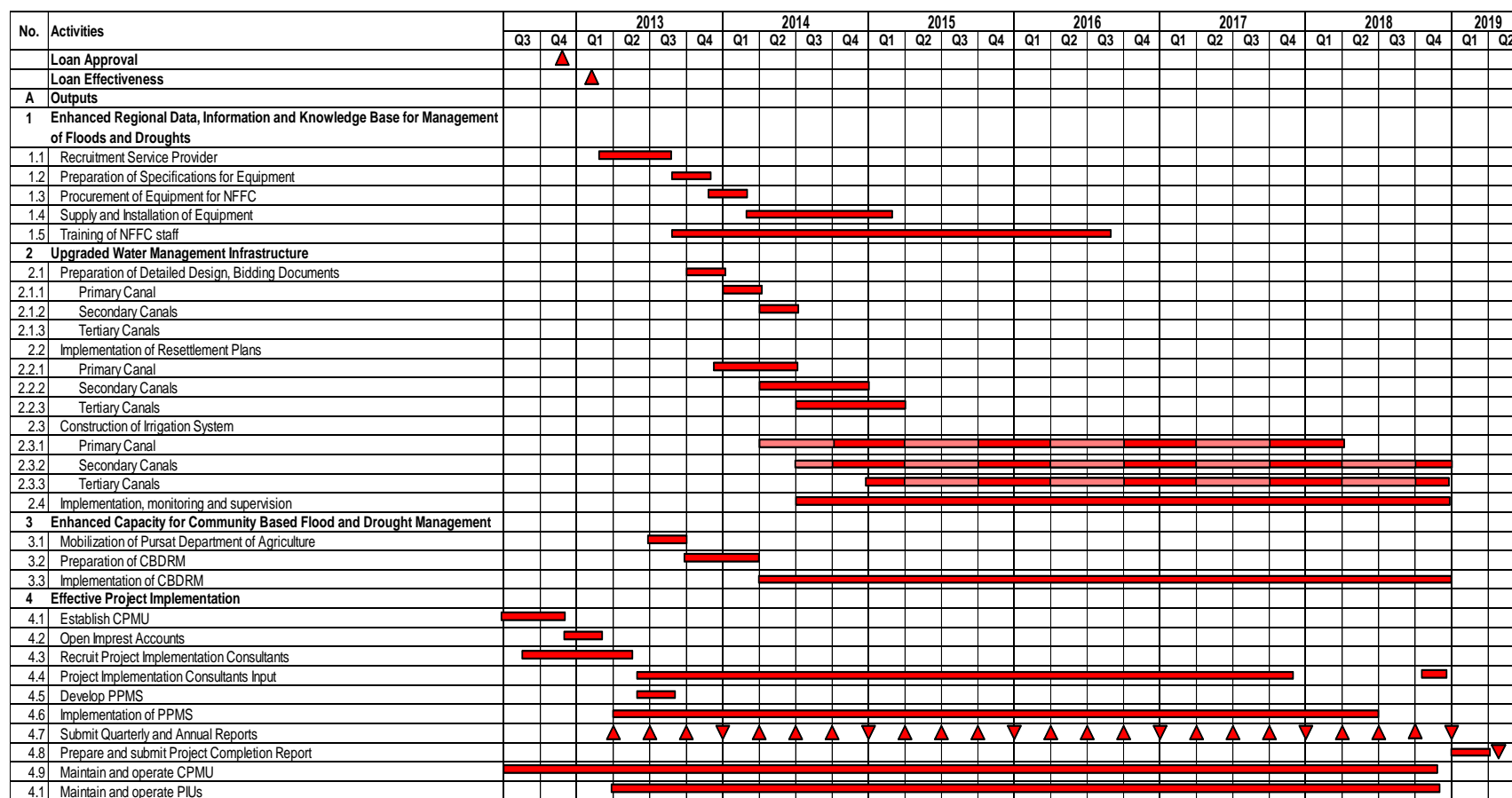
A. Project Readiness Activities

Indicative Activities	Months							Who responsible
	Aug	Sept	Oct	Nov	Dec	Jan	Feb	
Advance contracting actions								SEER/MOWRAM/ GDTA/CPMU
Establish project implementation arrangements								MOWRAM/GDTA/ CPMU/PDWRAMs
ADB Board approval (December 2012)								SEER
Loan signing								SEER/OGC/MEF
Government legal opinion provided								MOWRAM/MEF
Government budget inclusion								MOWRAM/MEF
Loan effectiveness								SEER/OGC

CPMU = Central Project Management Unit, GDTA = Department of Technical Affairs, MEF = Ministry of Economy and Finance, MOWRAM = Ministry of Water Resources and Meteorology, OGC = Office of the General Counsel of the Asian Development Bank, SEER = Environment, Natural Resources and Agriculture Division, Southeast Asia Department of the Asian Development Bank.

B. Overall Project Implementation Plan

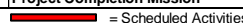
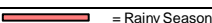


4



■ = Scheduled Activities ■ = Rainy Season ▼ ▲ = milestones

CBDRM = community-based disaster risk management; CPMU = central project management unit; EMP = environment management plan; NFFC = National Flood Forecasting Center; PIU = project implementation unit; PPMS = project performance monitoring system;

No.	Activities			2013				2014				2015				2016				2017				2018				2019	
		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	Q1	Q2
B	Management Activities																												
5	Procurement Packages																												
5.1	Preparation of Bidding Documents																												
5.1.1	NFFC Equipment																												
5.1.2	Primary Canal																												
5.1.3	Secondary Canal																												
5.1.4	Tertiary Canals																												
5.2	Bidding and Contracting																												
5.2.1	NFFC Equipment																												
5.2.2	Primary Canal																												
5.2.3	Secondary Canals																												
5.2.4	Tertiary Canals																												
6	Consultant Selection																												
6.1	Project Implementation Consultant																												
6.2	Safeguard Monitoring Entities																												
6.3	Design, Bid Docs, Const Supervision Consultants																												
6.3.1	Primary Canal																												
6.3.2	Secondary Canals																												
7	Environmental Management Plan																												
7.1	Preparation of Sub-project EMP																												
7.2	Implementation of EMP																												
C.	ADB Review																												
8.1	Inception																												
8.2	Annual Review																												
8.3	Mid-term Review																												
8.4	Project Completion Mission																												

 = Scheduled Activities
  = Rainy Season
   = milestones
 CBDRM = community-based disaster risk management; CPMU = central project management unit; EMP = environment management plan; NFFC = National Flood Forecasting Center; PIU = project implementation unit; PPMS = project performance monitoring system;

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Stakeholders – Roles and Responsibilities

Project Stakeholders	Management Roles and Responsibilities
Executing Agency	
<ul style="list-style-type: none"> Ministry of Water Resources and Meteorology 	<p>The Ministry of Water Resources and Meteorology (MOWRAM) will be the Executing Agency (EA) through its General Directorate of Technical Affairs (GDTA).</p>
<ul style="list-style-type: none"> Central Project Management Unit 	<p>MOWRAM has established a Central Project Management Unit (CPMU) in Phnom Penh headed by the Director General of GDTA as full time Project Manager.² The CPMU will be responsible for day to day implementation of project activities including:</p> <ul style="list-style-type: none"> overall management and coordination of the project; liaison with the Provincial Department of Water Resources and Meteorology (PDWRAM) in Pursat for project management and implementation at provincial level; establishment and management of three first generation imprest accounts (FGIA) and supervision of operation of second generation imprest accounts (SGIA); submission of withdrawal applications to ADB; retention of supporting documents; submission of reporting requirements; provision of guidance and coordination to PDWRAM of Pursat with respect to rehabilitation and construction of flood and drought management infrastructure; implementation of the Project Performance Management System (PPMS), procurement of consulting services following ADB procedures; procurement of good and works following international competitive bidding (ICB) and national competitive bidding (NCB) procedures as per the procurement plan; provision of technical assistance to PDWRAM of Pursat and communities for procurement following shopping procedures; provision of technical assistance to PDWRAM of Pursat for establishment of FWUCs; preparation of annual forecasts of contract awards

² The CPMU, the Project Director, Project Manager and the senior key staff have been officially appointed under Decision 138 MOWRAM on 14 June 2011.

- and disbursements;
- arranging for annual audit of project accounts;
- synthesizing reports from project implementation units (PIU) and preparing project progress reports; and
- preparation of completion reports as required.

Project Steering Committee

- **Project Steering Committee** To facilitate efficient implementation and management of the project, a project steering committee (PSC) will be established by MOWRAM to be chaired by the Minister of MOWRAM or his delegate. The PSC will provide strategic guidance and monitoring of project implementation activities; ensure interagency cooperation at national level; review and advice on policy issues and implementation constraints; ensure integration with other donors and government developmental activities as required; and approve annual budget for the project.

Implementing Agencies

- **Department of Hydrology and River Works** The Department of Hydrology and River Works (DHRW) of MOWRAM will be the Implementing Agency (IA) for the non-structural component related to improvement in hydro-meteorological services and the strengthening of the National Flood Forecasting Center (NFFC). DHRW will establish a PIU to implement and coordinate activities related to this component. DHRW-PIU will be responsible for:
 - preparation of specifications for the hydro-meteorological network and data acquisition system and related equipment for the NFFC;
 - assistance to the CPMU for procurement of equipment, instruments, software and tools for the NFFC following NCB procedures;
 - management of day to day project activities including monitoring of expenditures and preparation of Project accounts and records;
 - establishment and management of a second generation imprest account (ADB SCF grant); and
 - monitoring implementation of the project activities including installation of equipment and provision of training.
- **Provincial Department of Water Resources and Meteorology in Pursat** The PDWRAM in Pursat will be the IA responsible for implementation and operation of the flood and drought risk management infrastructure subproject. PDWRAM will establish a PIU to implement and coordinate subproject activities at provincial and district levels.

The PIU will be responsible for overall technical supervision and management of project funds allocated to the province and for overall management and coordination of subproject implementation including:

- establishment of three SGAs;
- procurement of goods and civil works under shopping procedures with assistance and guidance from the CPMU;
- management of day to day project activities including monitoring of expenditures and preparation of project accounts and records;
- monitoring construction and upgrading of flood and drought management activities;
- management of the FWUC support activities in cooperation with the CPMU; and
- implementation of the Resettlement Plan (RP), Environmental Management Plan (EMP); and Gender Action Plan (GAP) with technical assistance provided by Project Implementation Consultants (PIC).

Financiers

- ADB
 - Provide financing 73.2% of the project cost through a \$35.0 million equivalent ADF loan; 8.4% through a \$4.0 million SCF Loan, and 12.2% through a \$5.8 million SCF Grant in accordance with the Loan and Grant Agreements;
 - Monitor compliance with agreed project implementation arrangements, disbursement procedures, procurement procedures, consultant selection procedures, and reporting;
 - Monitor schedules of activities, including funds flow;
 - Review compliance with agreed procurement procedures;
 - Analyze the outcomes of the capacity building and training programs;
 - Monitor effectiveness of safeguard procedures;
 - Monitor project conformity with ADB anti-corruption policies;
 - Undertake periodic review missions twice per year;
 - Undertake midterm project review jointly with the Government; and
 - Carry out project completion mission and prepare project completion report.

B. Key Persons Involved in Implementation

Executing Agency

MOWRAM

Division for Technical Services

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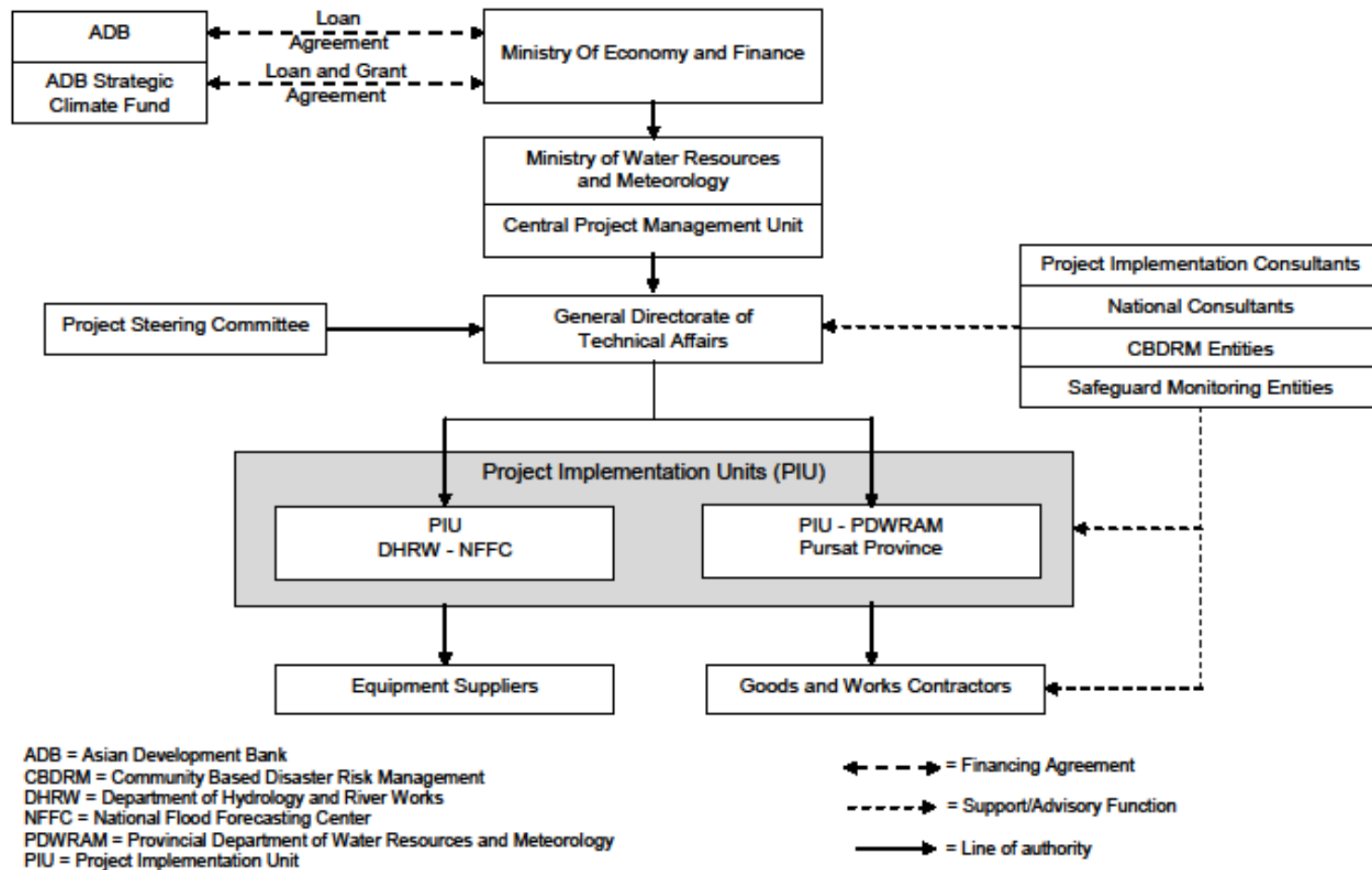
C. Project Management Structure

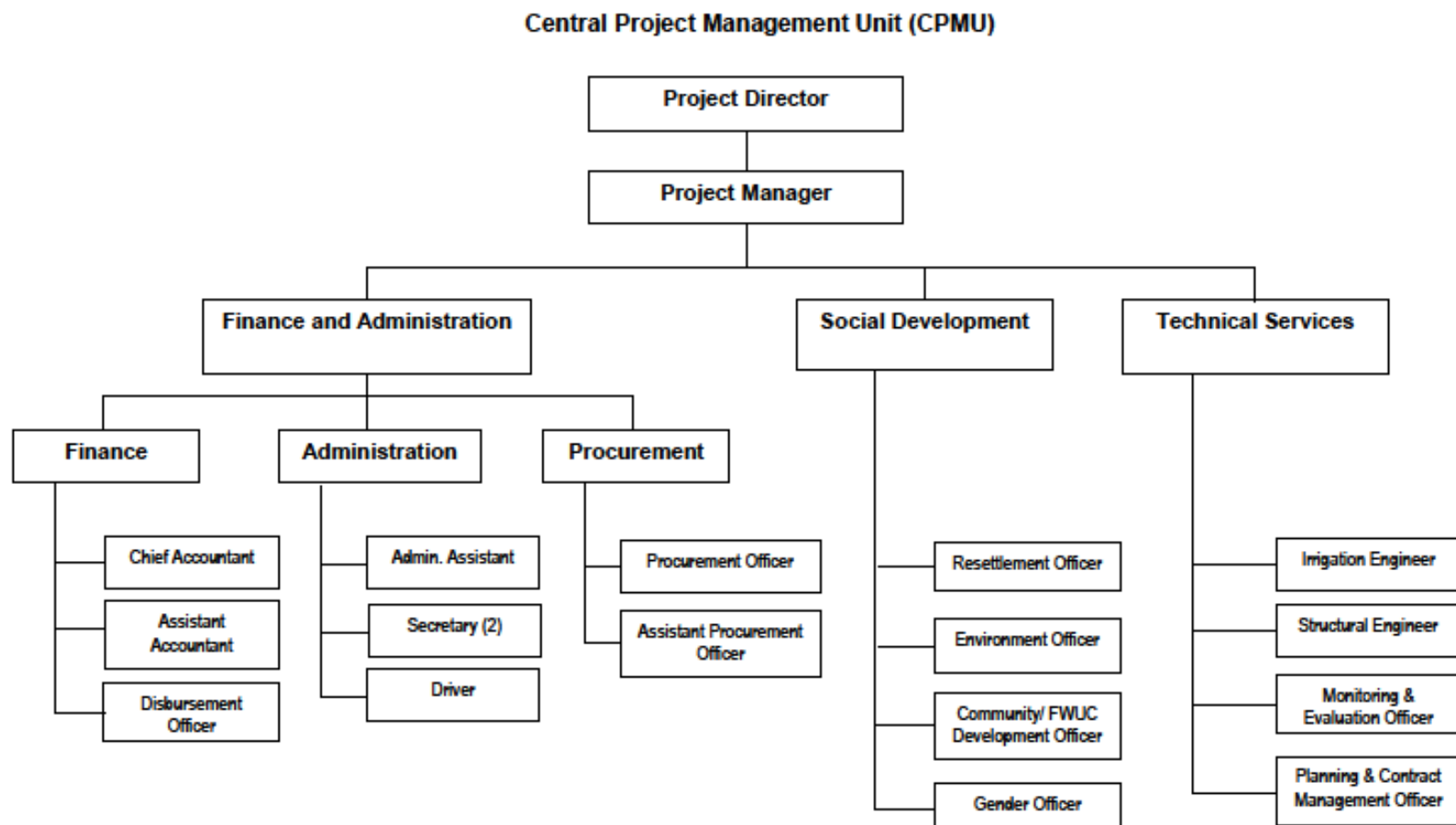
9. To ensure effective implementation of the project, the Government will establish a PSC to be chaired by the Minister MOWRAM or his delegate. The PSC will include representatives at an appropriate level from the Ministry of Economy and Finance (MEF), General Directorate of the Ministry of Agriculture, Fisheries and Forestry (MAFF), GDTA, Ministry of Environment, National Committee for Disaster Management (NCDM), and Cambodia National Mekong Committee (CNMC). In addition the Governor of Pursat Province or his representative will be a member of the PSC. The PSC will meet once per year or more frequently as required. Within 2 weeks of each meeting, the PSC will submit a copy of the minutes of the meeting, in English to ADB and in Khmer to relevant project staff and units.

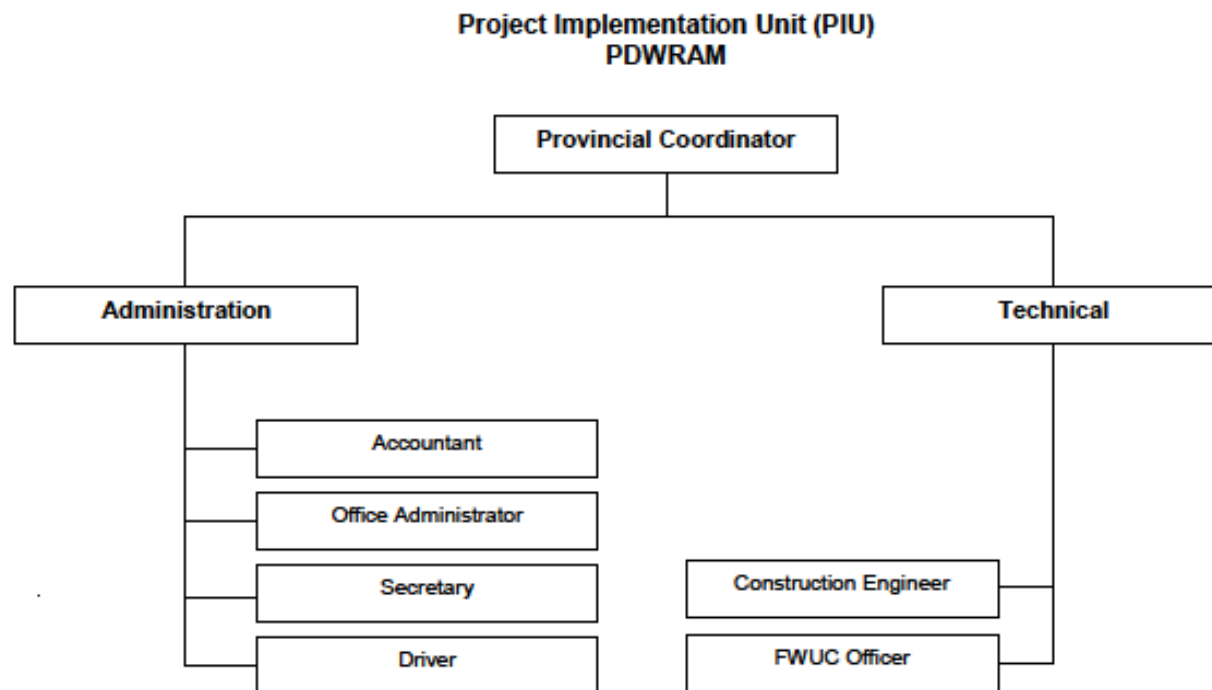
10. MOWRAM through its GDTA will be the EA for the project. The Secretary of State for MOWRAM will be the Project Director. MOWRAM has established a CPMU in Phnom Penh and has appointed a Project Manager and a full complement of staff. The CPMU will be responsible for day to day management of the project with assistance from the PIC to be recruited by the CPMU. The CPMU will be responsible for recruitment of consultants, procurement of goods, works and services following ICB and NCB procedures, management and withdrawal of funds, disbursement, and reimbursement. The CPMU will also be responsible for management, coordination and supervision of the project activities of the IAs.

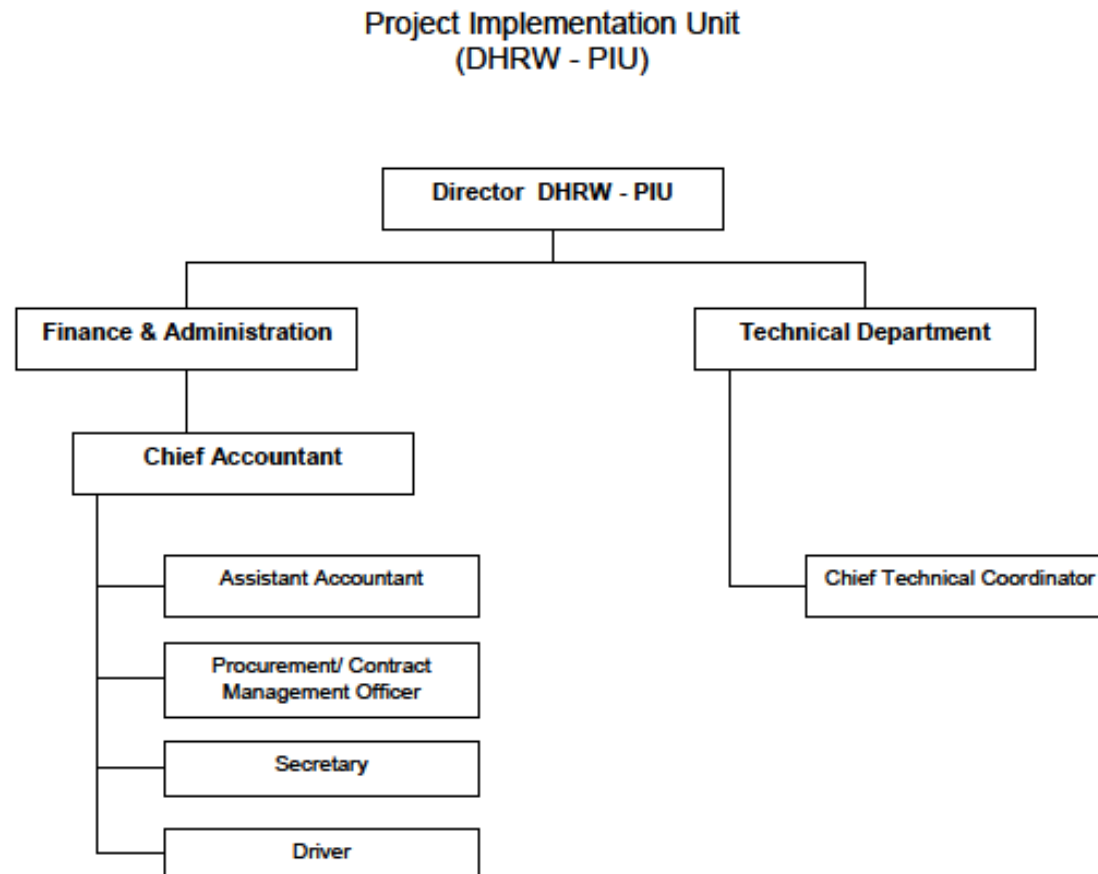
11. The IAs will be DHRW in Phnom Penh and PDWRAM in Pursat province. The DHRW in collaboration with the Department of Meteorology (DOM) will be responsible for implementation of the first component for Strengthening of Regional Cooperation for Management of Climate Extremes. The component is intended to: improve hydro-meteorological services and the strengthening of NFFC; improve hydraulic design standards guidelines for climate resilient design of structures; and improve capacity for cross-border flood management through improved regional cooperation for flood and drought management. The PDWRAM in Pursat will be the implementing agency for the Damnak Chheukrom irrigation rehabilitation and flood control subproject. PDWRAM will establish a PIU to implement and coordinate subproject activities at the provincial and district levels. National consultants will be recruited by the CPMU to assist PDWRAM in the preparation of detailed technical designs of the subproject works as well as assist the PIU in supervision of construction work. The national consultants for detailed design and construction supervision will be located at the PIU of PDWRAM.

D. Project Organization Structure









E. Technical Considerations

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

12. The outputs of this component will be:
- (i) improved hydro-meteorological network and data acquisition;
 - (ii) new flood and drought forecasting models developed;
 - (iii) nation-wide flood and drought forecasting and early warning strategy formulated;
 - (iv) water management operational framework for water allocation in the Pursat basin formulated.
 - (v) improved capacity of DHRW and NFFC for flood and drought forecasting and early warning; and
 - (vi) improved hydraulic design standards and guidelines for climate resilient design of structures.
13. The expected outcome of the subproject will be communities that are better prepared to mitigate flood risks due to availability of adequate forecasts and early warning with adequate lead time before floods events.

2. Output 2. Upgraded water management infrastructure

14. Under this component, the project will rehabilitate the Damnak Chheukrom Irrigation System in Pursat Province. The scope of work under this component will comprise: (a) a new barrage located on the Pursat River about 40 km upstream of Pursat Town that is designed to safely convey the 50-year flood under anticipated climate change conditions; and (b) an intake structure that can control river withdrawals for both command and flood diversion flows; (iii) construct a 30 km main canal that will convey the peak flood diversion discharge of 40 m³/s from the Pursat River to the Svay Donkeo River, which comprises of: (a) rehabilitation of a 14 km reach of an old non-functioning Khmer Rouge main canal; and (b) further construction of 16 km of new main canal; (iv) construction of four new main canal cross regulator structures to control flows and water levels within the main canal for diversion of command flows into the secondary canals while allowing conveyance of the peak flood discharge of 40 m³/s; (v) construction of a new outlet structure near the Svay Donkeo River; (vi) construction of four new secondary canals with a total length of 51.5 km, including check structures and outlets to the tertiary system; (vi) construction of new tertiary and distribution canals, and new drainage systems; (vii) construction of canal cross-drainage and overflow structures along the main canal; and, (viii) construction of new road bridges along the main and secondary canals.
15. Subproject implementation will include the following steps:
- (i) preparation of detailed engineering design;
 - (ii) updating of resettlement plan;
 - (iii) review/approval of detailed design;
 - (iv) tendering for civil works;
 - (v) implementation of the resettlement plan and payment of compensation to project affected people before issuing instruction to proceed to contractors;
 - (vi) implementation of construction works;
 - (vii) environmental and social safeguard monitoring;
 - (viii) commissioning, training and handover; and
 - (ix) operation and maintenance and monitoring.

16. The safeguard specialists in the CPMU, with assistance from the PIC, shall be responsible to ensure that after detailed design, the RP is updated in consultation with the PIU and project affected people. This will ensure that appropriate measures are taken to mitigate any negative social impacts including special measures for land acquisition and compensation, and to ensure full implementation of measures to improve the participation of women and other disadvantaged groups as beneficiaries. The environment specialist, with assistance from the PIC, will update the Initial Environment Examination (IEE) and prepare an EMP for the subproject, and will ensure that the measures identified in the EMP are implemented in accordance with the relevant laws and regulations of Cambodia and the requirements of ADB's Safeguard Policy Statement (2009). The safeguards specialists with assistance from the PIC will ensure the GAP is fully implemented.

3. Output 3. Enhanced capacity for community-based flood and drought management

17. Community based disaster risk management (CBDRM) will, to the extent possible, be integrated with the implementation of the upgrading of water management infrastructure. The output of this component will be:

- (i) improved agriculture support program;
- (ii) improved capacity of FWUC, including provision of offices at selected locations;
- (iii) improved capacity of FWUC for drought risk management (irrigation) and flood risk management;
- (iv) improved capacities of communities and local governments to work together to improve community disaster preparedness (under CBDRM)

4. Output 4. Effective project implementation

18. The project will improve the capacity of the executing and implementing agencies in project implementation and management, through improved office facilities and equipment, skills development of project staff, provision of technical equipment, and consulting services for implementation support, detailed design and construction supervision.

19. The CPMU will recruit a team of consultants from an international firm to assist in project implementation and capacity building. National consultants will also be recruited to assist in the preparation of detailed design and construction supervision of the Damnak Chheukrom Irrigation subproject.

20. The PIC will make regular field inspections during construction to provide quality assurance as the resources to monitor construction in remote locations are inadequate within the established government structures.

F. Implementation Arrangements

1. Subproject Preparation and Approval

21. Careful planning of subproject activities requires consideration to the timing of the rainy season. During that period, construction activities can be limited as a result of heavy precipitation that renders earthwork impossible. Recruitment of national consultants for preparation of detailed design and supervision of construction will begin shortly after

appointment of the PIC who will be responsible to prepare the Terms of Reference (TOR) for those consultants. Subproject implementation will include the following steps:

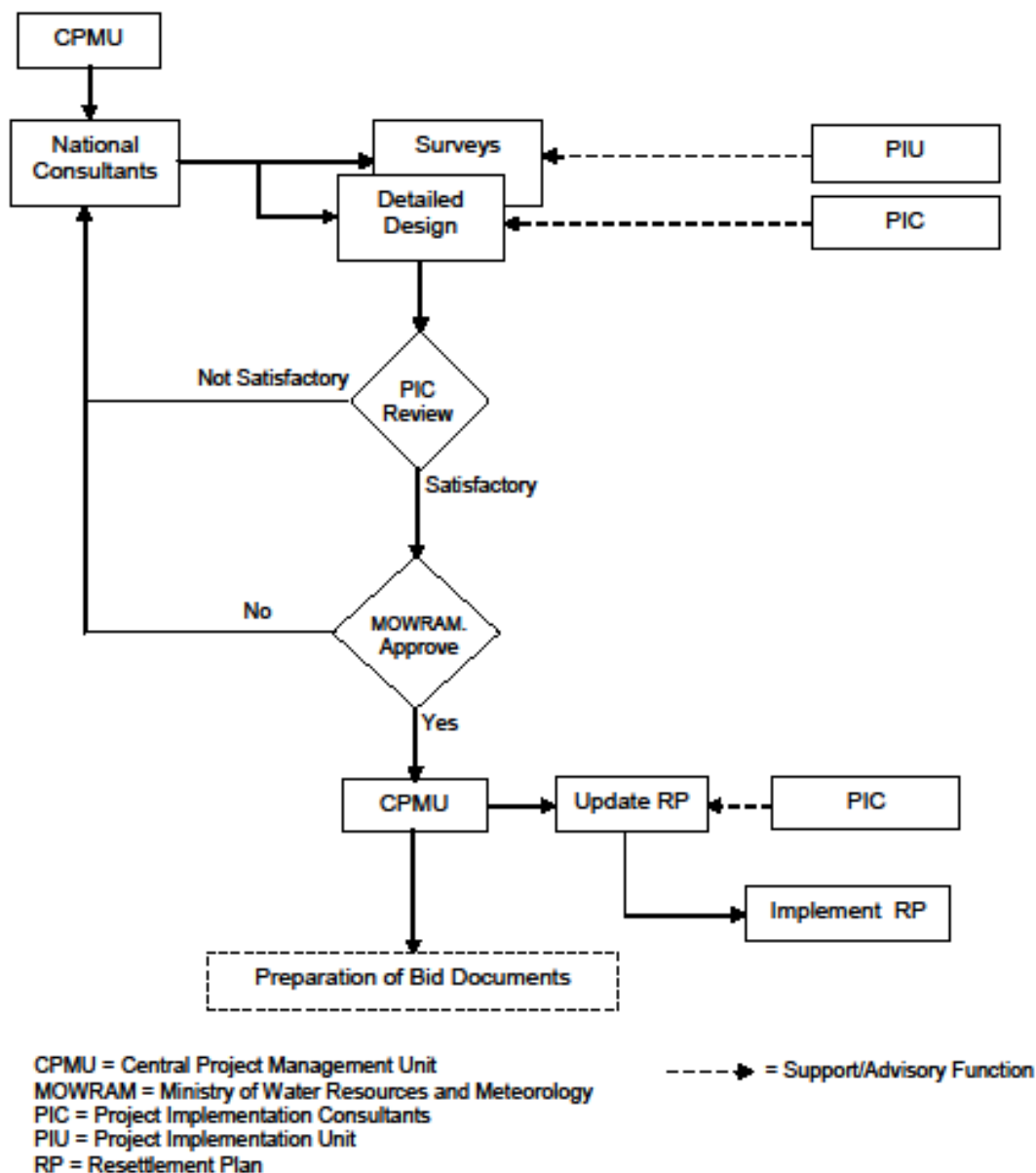
- (i) Survey and preparation of Detailed Engineering Design;
- (ii) Updating of resettlement plan and preparation of environment management plan;
- (iii) Review/approval of detailed design;
- (iv) Preparation of tender documents;
- (v) Tendering for construction works;
- (vi) Complete implementation of resettlement plans and provision of required compensation to project affected people before issuing Instruction to proceed to contractors.
- (vii) Construction, including technical and safeguard supervision and monitoring;
- (viii) Commissioning, training and handover; and
- (ix) Operation, maintenance and monitoring.

22. The preparation of detailed design and supervision of construction will be carried out by national consulting firms to be recruited by the CPMU following Consultants' Qualifications Selection (CQS) or Quality Based Selection (QBS) procedures depending on the estimated value of the services.

23. After detailed design, the social and environmental safeguard officers of the CPMU with assistance from the PIC will be responsible for updating and finalizing the RP in consultation with the PIU, and project affected people. This will ensure that appropriate measures are taken to mitigate any negative social impacts including special measures for land acquisition, compensation, and to ensure full implementation of measures to improve the participation of women and other disadvantaged groups as beneficiaries. The environment officer of the CPMU with assistance from the PIC will prepare an EMP to ensure that specific mitigation measures, environmental monitoring requirements, and related institutional arrangements, including budget requirements are identified and carried out during implementation. The safeguards officers will also ensure the GAP is fully implemented. Monitoring of implementation of social and environmental safeguards will be carried out internally by the PIU with guidance from the CPMU and the PIC. The inter-ministerial resettlement committee (IRC) will also recruit external safeguard monitoring entities following CQS procedures to monitor implementation of the RP, EMP and GAP. All safeguard studies and reports will be submitted to ADB for no-objection following ratification by the PSC.

2. Detailed Design of the Subproject

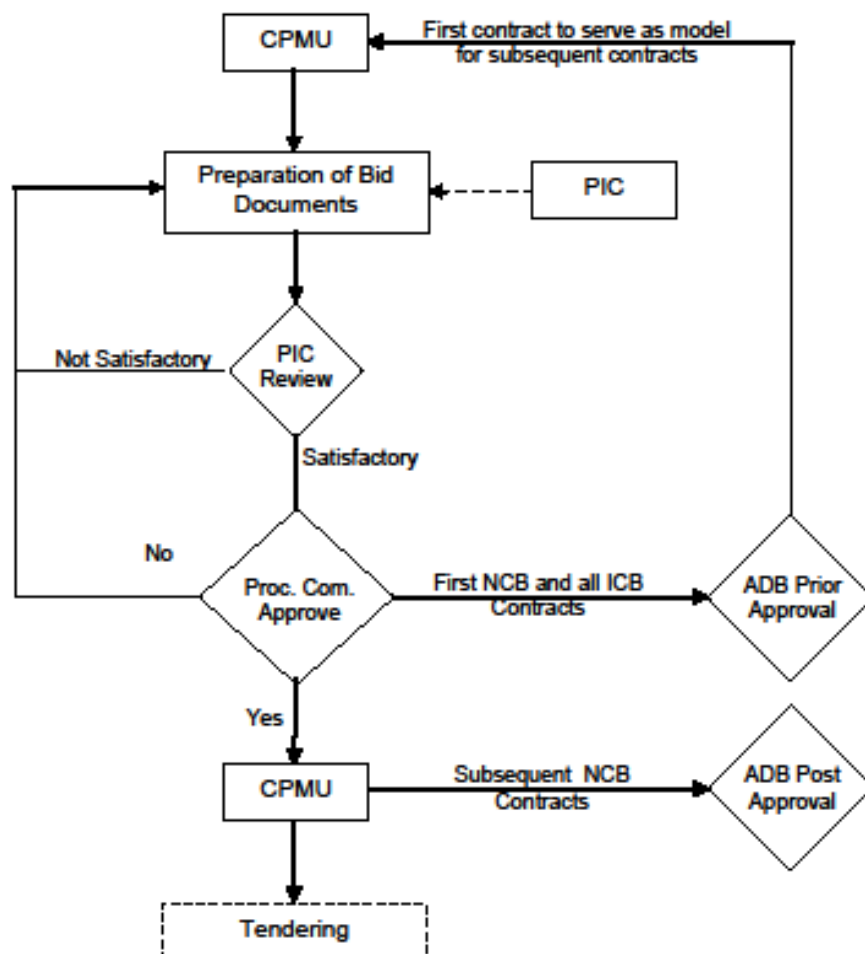
24. The CPMU will recruit national consultants to carry out surveys and detailed engineering designs of the civil works component. The PIU will assist in carrying out the surveys as necessary and the PIC will provide support to the national consultants as required during detailed design. The detailed design will be reviewed by the PIC, and if satisfactory will be submitted to the MOWRAM. MOWRAM will review the detailed design to ensure that it meets the standards and specifications of the Government. Once the detailed design has been approved by MOWRAM, the resettlement officer of the CPMU with assistance from the PIC will review the RP, and MOWRAM will initiate implementation of the RP to ensure timely payment of compensations and implementation of all measures of the RP prior to the start of construction activities. The diagram below shows a summary work flow for the preparation and approval process for detailed design of subprojects:



3. Preparation of Bidding Documents

25. Once the detailed designs are approved, national consultants recruited by the CPMU with guidance from the PIC will prepare bid documents following ICB or NCB procedures depending of the estimated value of the work. The PSC will set up a Procurement Committee for the project who will be responsible to oversee all procurement activities including preparation of bid documents, opening of tenders, and bid evaluation. The bid documents will be prepared using ADB standard format documents. The draft English language version of the procurement documents for the first ICB and NCB contracts for each type of works will be submitted for ADB review and prior approval regardless of the estimated contract amount. ADB-approved

procurement documents will be used as a model for all subsequent ICB and NCB procurement of same nature. All documents for ICB procurement will require prior approval of ADB. Documents for NCB procedures will require prior approval of ADB for the first contract, and all subsequent contracts of similar nature will only require post approval. The PIC will review the bidding documents before they are submitted to the procurement committee, and if found satisfactory the documents will be submitted to ADB for approval as required. The diagram below shows a summary work flow for the preparation and approval of bidding documents for subprojects.

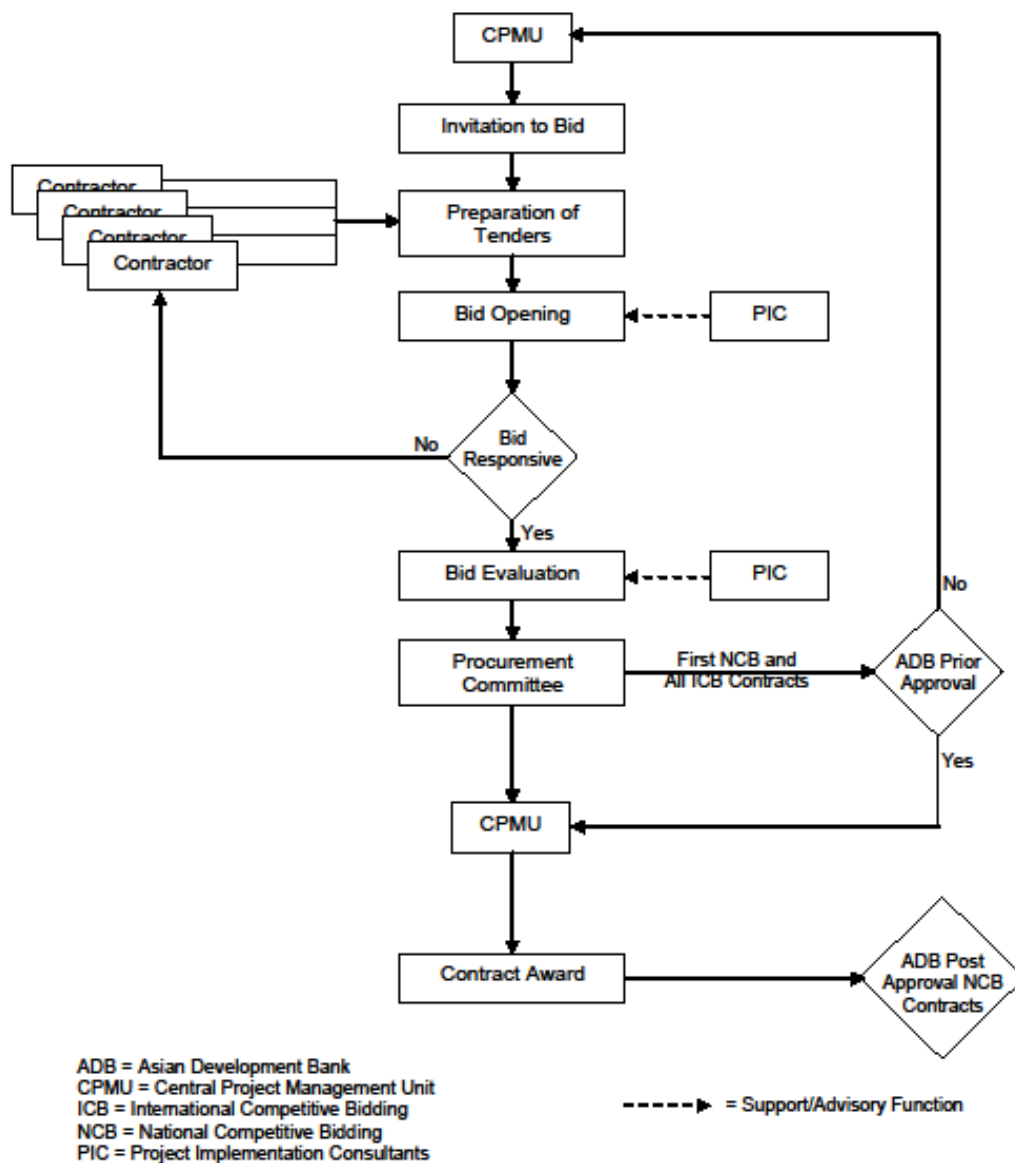


ADB = Asian Development Bank
 CPMU = Central Project Management Unit
 PIC = Project Implementation Consultants

-----> = Support/ Advisory Function

4. Procurement of Works Contracts

26. Procurement of civil works contracts for the subprojects will be carried out by the CPMU following ICB or NCB procedures depending of the estimated value of the work, in accordance with the procurement plan. Procurement of contracts following NCB procedures will require prior approval of ADB for the first contract and all subsequent contracts of similar nature will require post approval. All ICB contracts will require prior approval of ADB. The PIC will assist the CPMU in the opening and evaluation of tenders. The procurement committee will review and approve all recommendations of the bid evaluation team. The diagram below shows a summary work flow for the tendering and contract award process.



5. Construction Supervision

27. Upon award of contract to the contractors, the CPMU will issue an order to proceed to the national consulting firm to carry out supervision of construction works. Notice to proceed to the contractor will not be issued until the safeguards monitoring entity has certified that all requirements of the subproject resettlement plan have been fully implemented. The PIU will provide assistance and support to both the national consultants and the safeguard monitoring entities in supervision and monitoring of the implementation of the subprojects. The PIC will make regular field inspections during construction to ensure that the works are implemented according to specifications.

IV. COSTS AND FINANCING

28. Total project cost is \$47.75 million, of which ADB will finance \$35.0 million equivalent from its Special Funds resources and the Government \$2.95 million. An additional \$9.80 million will be financed by ADB Strategic Climate Fund (SCF) through a \$5.80 million grant and a \$4.00 million concessional loan. ADB will finance taxes and duties on ADB financed expenditures. All resettlement costs will be financed by the Government.

29. The ADB SCF will finance civil works, consulting services, service contracts, equipment and vehicles for the NFFC, national training, contingencies and service charge through a \$4 million concessional loan and a \$5.8 million grant. The pilot project for climate resilience (PPCR) endorsed the financing envelope for Cambodia in June 2011, which included this project. ADB SCF financing will be administered by ADB.

A. Detailed Cost Estimates by Expenditure Category

	(Riel Billion)			(US\$ '000)		
	Local	Foreign	Total	Local	Foreign	Total
I. Investment Costs						
A. Civil Works						
Construction Contracts	74.2	38.6	112.8	18,344.8	9,463.2	27,808.0
Works for NFFC	0.4	0.2	0.6	90.0	60.0	150.0
Survey, Design and Supervision	9.1	1.0	10.1	2,238.8	248.8	2,487.6
Subtotal	83.7	39.8	123.5	20,673.7	9,772.0	30,445.6
B. Resettlement	10.6	-	10.6	2,607.1	-	2,607.1
C. Vehicles and Equipment						
Vehicles	0.5	0.7	1.2	120.0	180.0	300.0
Vehicles for NFFC	0.2	0.2	0.4	40.0	60.0	100.0
Motorcycles	0.0	0.0	0.0	1.6	2.9	4.5
Motorcycles for NFFC	0.0	0.0	0.0	3.2	5.9	9.0
Equipment	0.1	0.2	0.3	14.0	56.0	70.0
Equipment for NFFC	0.3	1.3	1.6	80.0	320.0	400.0
Subtotal	1.1	2.5	3.6	258.7	624.8	883.5
D. Consulting Services						
International Consultants	0.5	5.2	5.7	133.1	1,267.5	1,400.6
National Consultants	2.0	-	2.0	496.0	-	496.0
Consultant Support Costs	0.7	0.1	0.8	171.2	36.8	208.0
Subtotal	3.3	5.3	8.6	800.3	1,304.3	2,104.6
E. Training						
National Training	1.6	-	1.6	395.6	-	395.6
F. Service Contracts	11.8	-	11.8	2,861.3	-	2,861.3
G. Implementation and Supervision						
Government Staff	0.9	-	0.9	218.1	-	218.1
Incremental Staff	1.0	-	1.0	233.4	-	233.4
Office Operations	1.8	0.3	2.2	453.2	81.8	535.0
Office Operations for NFFC	0.4	-	0.4	102.0	-	102.0
Vehicle and MC Operation	0.2	0.2	0.4	46.4	46.4	92.7
Subtotal	4.3	0.5	4.8	1,053.1	128.2	1,181.2
H. Operation and Maintenance During Implementation	1.7	-	1.7	414.6	-	414.6
Total BASELINE COSTS	118.1	48.2	166.3	29,026.3	11,829.2	40,855.5
Physical Contingencies	8.7	4.2	12.8	2,127.7	1,022.7	3,150.4
Price Contingencies	11.3	0.6	11.9	2,648.7	136.0	2,912.6
Total PROJECT COSTS	138.1	52.9	191.0	33,878.6	12,987.9	46,866.5
Interest During Implementation	-	3.8	3.8	-	926.2	926.2
Total Costs to be Financed	138.1	56.7	194.8	33,878.6	13,914.1	47,754.7

B. Allocation and Withdrawal of Loan and Grant Proceeds

ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS –ADF GMS Flood and Drought Risk Management and Mitigation				
CATEGORY				ADB FINANCING
Number	Item	Amount Allocated (\$) [to be converted to SDR]		Percentage and Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Works	[26,729,524]		
1A	Construction contracts		[24,222,216]	87 percent of total expenditures claimed
1B	Survey, design, supervision		[2,507,308]	100 percent of total expenditures claimed
2	Equipment	[166,582]		100 percent of total expenditures claimed
3	Vehicles	[197,902]		100 percent of total expenditures claimed
4	Consulting Services	[869,865]		41 percent of total expenditures claimed
5	Implementation and Supervision	[1,094,345]		100 percent of total expenditures claimed
6	Operations and maintenance during implementation	[414,600]		100 percent of total expenditures claimed
7	Interest During Construction	[912,429]		100 percent of amount due
8	Unallocated	[4,614,753]		
	Total	[35,000,000]		

ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS –SCF GMS Flood and Drought Risk Management and Mitigation				
CATEGORY				SCF FINANCING
Number	Item	Amount Allocated (\$) 		Percentage and Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Works – construction contracts	3,586,300		13 percent of total expenditures claimed
2	Service charge	13,700		100 percent of amount due
3	Unallocated	400,000		
	Total	4,000,000		

ALLOCATION AND WITHDRAWAL OF GRANT PROCEEDS -SCF GMS Flood and Drought Risk Management and Mitigation				
CATEGORY				SCF FINANCING
Number	Item	Amount Allocated (\$)		Percentage and Basis for Withdrawal from the Grant Account
		Category	Subcategory	
1	Civil Works – for NFFC	150,000		100 percent of total expenditures claimed
2	Vehicles for NFFC	115,545		100 percent of total expenditures claimed
3	Equipment for NFFC	403,430		100 percent of total expenditures claimed
4	Consulting services	1,235,735		59 percent of total expenditures claimed
5	National training	395,600		100 percent of total expenditures claimed
6	Service contracts	2,861,250		100 percent of total expenditures claimed
7	Office operations for NFFC	86,863		100 percent of total expenditures claimed
3	Unallocated	572,263		
	Total	5,800,000		

NFFC = National Flood Forecasting Centre.

C. Detailed Cost Estimates by Financier (\$ '000)

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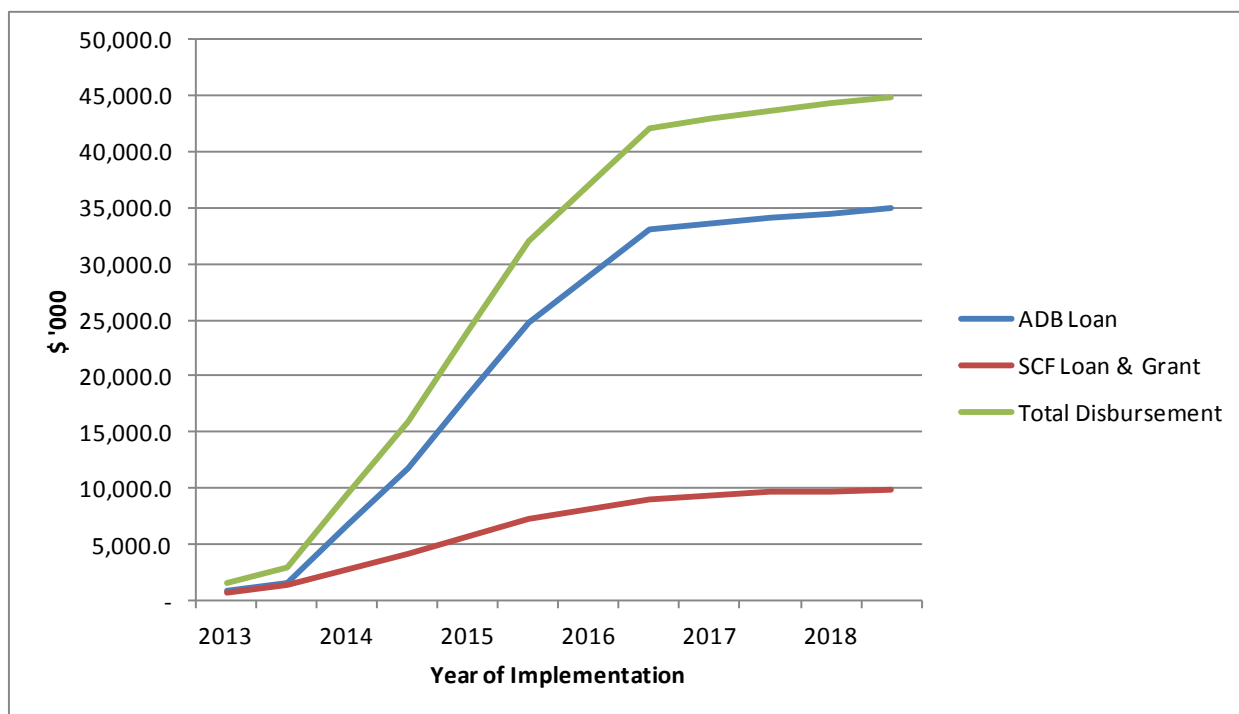
	The Government		Asian Development Bank		ADB SCF Loan		ADB SCF Grant		Total
	Amount	%	Amount	%	Amount	%	Amount	%	Amount
I. Investment Costs									
A. Civil Works									
Construction Contracts	-	-	24,222.2	87.1%	3,586.3	12.9%	-	0.0%	27,808.5
Works for NFFC	-	-	-	0.0%	-	0.0%	130.3	100.0%	130.3
Survey, Design and Supervision	-	-	2,507.3	100.0%	-	-	-	-	2,507.3
Subtotal	-	-	26,729.5	88.2%	3,457.8	11.4%	130.3	0.4%	30,317.6
B. Resettlement	2,607.1	100.0%	-	-	-	-	-	-	2,607.1
C. Vehicles and Equipment									
Vehicles	-	-	193.5	100.0%	-	-	-	-	193.5
Vehicles for NFFC	-	-	-	-	-	-	106.5	100.0%	106.5
Motorcycles	-	-	4.4	100.0%	-	-	-	-	4.4
Motorcycles for NFFC	-	-	-	-	-	-	9.0	100.0%	9.0
Equipment	-	-	166.6	100.0%	-	-	-	-	166.6
Equipment for NFFC	-	-	-	0.0%	-	-	403.4	100.0%	403.4
Subtotal	-	-	364.5	41.3%	-	-	519.0	58.7%	883.5
D. Consulting Services	-	-	869.9	41.3%	-	-	1,234.7	58.7%	2,104.6
E. Training									
National Training	-	-	-	-	-	-	395.6	100.0%	395.6
F. Service Contracts	-	-	-	-	-	-	2,861.3	98.7%	2,899.3
G. Implementation and Supervision									
Government Staff	-	-	218.1	100.0%	-	-	-	-	218.1
Incremental Staff	-	-	233.4	100.0%	-	-	-	-	233.4
Office Operations	-	-	550.1	100.0%	-	-	-	-	550.1
Office Operations for NFFC	-	-	-	-	-	-	86.9	100.0%	86.9
Vehicle and MC Operation	-	-	92.7	100.0%	-	-	-	0.0%	92.7
Subtotal	-	-	1,094.3	92.6%	-	-	86.9	7.4%	1,181.2
H. Operation and Maintenance During Implementation	-	-	414.6	100.0%	-	-	-	-	414.6
Total BASELINE COSTS	2,607.1	6.4%	29,472.9	72.1%	3,586.3	8.8%	5,227.7	12.8%	40,894.0
Contingencies	347.5	5.9%	4,614.8	77.8%	400.0	6.7%	572.3	9.6%	5,934.5
Total PROJECT COSTS	2,954.6	6.2%	34,087.6	71.4%	3,986.3	8.3%	5,800.0	12.1%	46,828.5
Interest During Implementation	-	0.0%	912.4	98.5%	13.7	1.5%	-	-	926.2
Total Costs to be Financed	2,954.6	6.2%	35,000.0	73.3%	4,000.0	8.4%	5,800.0	12.1%	47,754.7

D. Detailed Cost Estimates by Outputs/Components (\$ '000)

	Enhanced Flood and Drought Management	Upgraded Water Infrastructure	Enhanced Capacity For CBDRM	Effective Project Implementation	Total
I. Investment Costs					
A. Civil Works					
Construction Contracts	-	31,932.8	40.0	-	31,972.8
Works for NFFC	150.0	-	-	-	150.0
Survey, Design and Supervision	-	2,968.2	-	-	2,968.2
Subtotal	150.0	34,901.0	40.0	-	35,091.0
B. Resettlement	-	2,954.6	-	-	2,954.6
C. Vehicles and Equipment					
Vehicles	-	-	-	312.7	312.7
Vehicles for NFFC	111.4	-	-	-	111.4
Motorcycles	-	-	-	5.0	5.0
Motorcycles for NFFC	10.1	-	-	-	10.1
Equipment	-	-	-	74.2	74.2
Equipment for NFFC	445.8	-	-	-	445.8
Subtotal	567.3	-	-	391.9	959.2
D. Consulting Services					
International Consultants	-	-	-	1,410.1	1,410.1
National Consultants	-	-	-	545.4	545.4
Consultant Support Costs	-	-	-	235.1	235.1
Subtotal	-	-	-	2,190.7	2,190.7
E. Training					
National Training	395.6	-	-	-	395.6
F. Service Contracts	1,420.0	603.2	1,292.0	-	3,315.2
G. Implementation and Supervision					
Government Staff	-	-	-	254.6	254.6
Incremental Staff	-	-	-	272.4	272.4
Office Operations	-	-	-	636.7	636.7
Office Operations for NFFC	102.0	-	-	-	102.0
Vehicle and MC Operation	-	-	-	104.7	104.7
Subtotal	102.0	-	-	1,268.3	1,370.3
H. Operation and Maintenance During Implementation	-	589.9	-	-	589.9
Total PROJECT COSTS	2,634.9	39,048.8	1,332.0	3,850.9	46,866.5
Taxes	15.0	3,147.7	10.3	377.8	3,550.8
Foreign Exchange	486.2	10,787.3	16.0	1,698.4	12,987.9

E. Detailed Cost Estimates by Year (\$' 000)

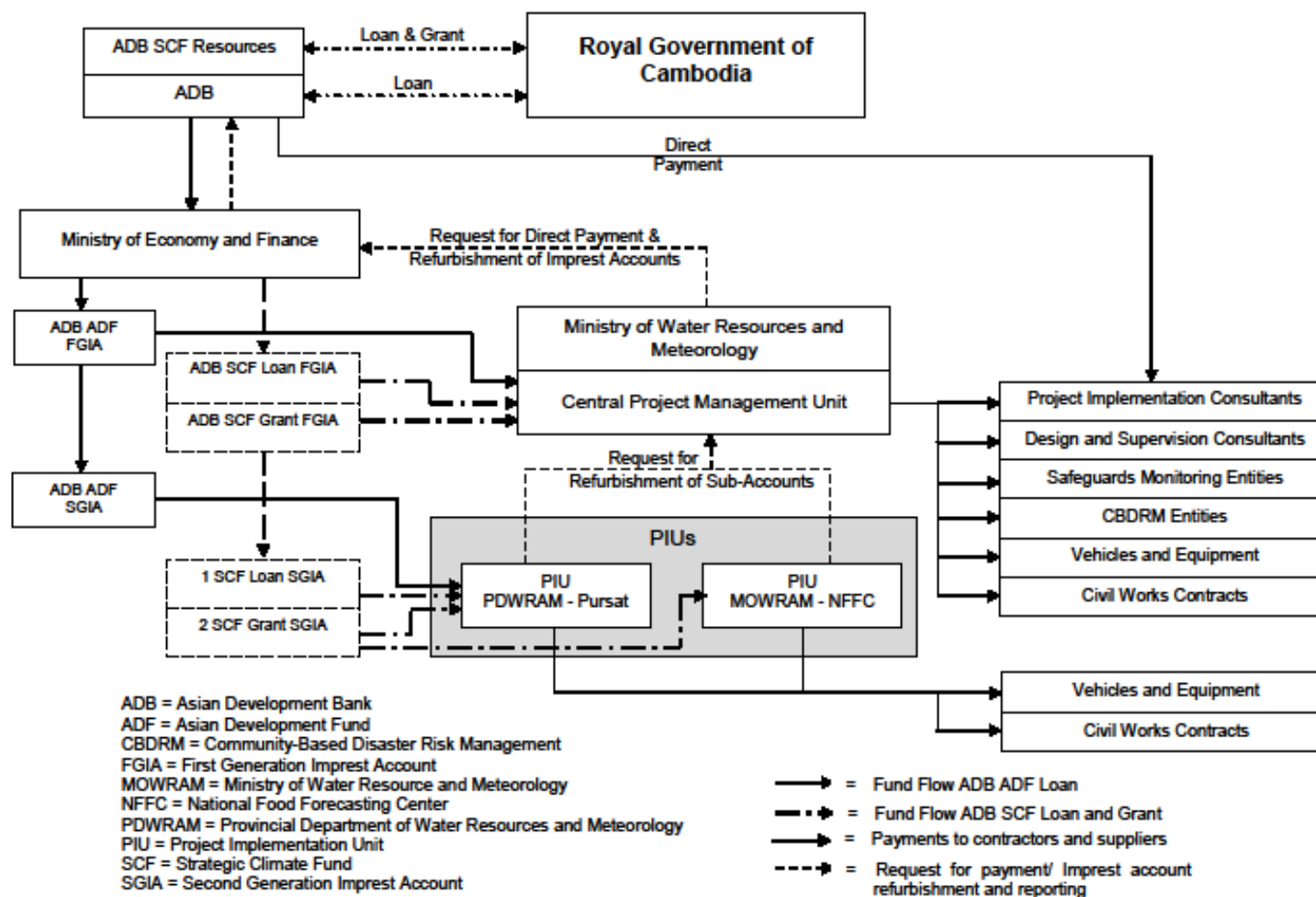
Totals Including Contingencies							
	2013	2014	2015	2016	2017	2018	Total
I. Investment Costs							
A. Civil Works							
Construction Contracts	109.1	9,427.9	14,234.1	8,201.7	-	-	31,972.8
Works for NFFC	50.0	100.0	-	-	-	-	150.0
Survey, Design and Supervision	623.1	1,631.4	204.6	285.3	223.7	-	2,968.2
Subtotal	782.2	11,159.3	14,438.8	8,487.0	223.7	-	35,091.0
B. Resettlement	2,795.7	159.0	-	-	-	-	2,954.6
C. Vehicles and Equipment							
Vehicles	261.2	-	-	51.6	-	-	312.7
Vehicles for NFFC	111.4	-	-	-	-	-	111.4
Motorcycles	5.0	-	-	-	-	-	5.0
Motorcycles for NFFC	5.0	5.1	-	-	-	-	10.1
Equipment	74.2	-	-	-	-	-	74.2
Equipment for NFFC	271.5	174.3	-	-	-	-	445.8
Subtotal	728.2	179.4	-	51.6	-	-	959.2
D. Consulting Services							
International Consultants	641.8	514.0	188.7	-	-	65.6	1,410.1
National Consultants	164.4	138.4	131.7	90.6	15.0	5.3	545.4
Consultant Support Costs	41.4	37.9	39.5	41.2	42.9	32.2	235.1
Subtotal	847.6	690.3	359.9	131.8	57.9	103.1	2,190.7
E. Training							
National Training	197.8	197.8	-	-	-	-	395.6
F. Service Contracts	120.0	595.5	917.6	941.9	620.2	120.0	3,315.2
G. Implementation and Supervision							
Government Staff	37.3	39.3	41.3	43.3	45.5	47.8	254.6
Incremental Staff	40.0	42.1	44.2	46.4	48.7	51.1	272.4
Office Operations	95.0	99.3	103.6	108.1	112.9	117.9	636.7
Office Operations for NFFC	33.0	33.0	18.0	18.0	-	-	102.0
Vehicle and MC Operation	16.2	16.7	17.2	17.7	18.2	18.7	104.7
Subtotal	221.5	230.3	224.2	233.5	225.3	235.5	1,370.3
H. Operation and Maintenance During Implementation	-	-	-	-	190.3	399.6	589.9
Total PROJECT COSTS	5,693.0	13,211.7	15,940.6	9,845.7	1,317.4	858.2	46,866.5

F. Disbursement S-curve

Source: Staff Estimates

G. Fund Flow Diagram

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V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

30. A financial management risk assessment of the executing and implementing agencies had been carried out using the standard Financial Management Assessment Questionnaire specified by ADB, which were completed by the EA and IAs. The main findings of the risk assessment regarding financial management are summarized below.

31. The organizations structures of the EA and IAs for the structural subproject are appropriate for implementation of the project. The current organizational structures of the EA and IAs are generally adequate to meet the needs of the project. The funds flow from ADB to EA and IAs are arranged through MEF. The existing accounting standards, systems and policies are in principle adequate to the EA and IAs, and for the project. The accounting procedures, invoice procedures and internal controls are in place for the EA and IAs and for the project.

32. The organizational structures of the EA and the two IAs are generally suitable for the needs of the project. The EA is a ministry under Royal Government of Cambodia. There are two kinds of departments: administrative departments and technical departments. The IA for output 1 is an established technical department of the EA. The IA for output 2 is a provincial government department in charge of construction and management of water projects within the province.

33. The EA and IAs have experience in implementing externally-financed projects. The two IA have been involved in at least one foreign project in last few years. MOWRAM has implemented a number of externally financed projects with financing from ADB as well as other external donors. The EA is fully familiar with ADB procedures and regulations regarding procurement, disbursement, safeguards, and general administrative requirements.

B. Disbursement

34. The ADB ADF Loan, ADB SCF Loan and ADB SCF Grant proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time),³ and detailed arrangements agreed upon between the Government and ADB.

35. Pursuant to ADB's Safeguard Policy Statement (2009) (SPS),⁴ ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS. All financial institutions will ensure that their investments are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list (Appendix 5) to subprojects financed by ADB.

36. Fund flow will follow the ADB Disbursement Guidelines with FGIAs managed by the CPMU and SGIAs managed by the relevant PIUs. There will be three FGIAs (one each for the ADB ADF Loan, the ADB SCF Loan, and ADB SCF Grant) and 4 SGIAs (PDWRAM PIU will maintain and operate one each for ADB ADF Loan, the SCF Loan, and the SCF Grant; and DHRW PIU will maintain and operate one SGIA for the SCF Grant). See the Fund Flow diagram in section G above.

³ Available at: http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf

⁴ Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

37. The project finance and accounting functions will be performed by qualified and experienced staff both at central level and in the participating province. The project will provide training and written guidelines, particularly regarding ADB disbursement procedures, to the accounting staff of the EA and the two PIUs. The project will prepare TORs that define duties, responsibilities, lines of supervision, and limits of authority for all officers, managers, and staff of the EA and PIUs. The following responsibilities will be performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction. The bank reconciliation will be prepared by someone other than those who approve payments. Accounting software must be capable of generating reports identifying expenditures in accordance with project components, expenditure accounts, disbursement categories, and sources of funds. A project financial manual will be prepared to be applicable for the project and acceptable to ADB.

38. Controls will be in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained. The chart of accounts will allow accounting for and reporting on project activities and disbursement categories. The cost allocations to the various funding sources will be made accurately and in accordance with established agreements. The general ledger and subsidiary ledgers will be reconciled and in balance. Recognized accounting software acceptable to ADB will be used by the CPMU and PIUs. The software must be capable of accommodating electronic transfer of accounting data from PIUs to the CPMU to facilitate timely reporting. All accounting and supporting documents will be retained on a permanent basis in a secure system that allows only authorized users easy access. Regular monitoring and internal audit functions will be built in to monitor transactions from central government to provincial, and subproject levels. Such control procedures will be documented in the project finance and administration manual.

1. Imprest Accounts

39. After ADB ADF Loan, ADB SCF Loan and ADB SCF Grant effectiveness, the Government will open three FGIAs in USD in a bank acceptable to the Government and ADB, to receive each of the loans and grant funds for the project. The FGIAs will be operated and managed by the CPMU under the supervision of the Central Treasury in accordance with ADB's *Loan Disbursement Handbook* (January 2007, updated from time to time). ADB disbursement procedures will be followed for withdrawal of ADB funds through the FGIAs. Funds in the FGIAs will be used to pay for eligible project expenses encountered by the CPMU and to establish advances in the SGIAs in USD that will be controlled by the two PIUs under the supervision of the provincial treasury.

40. The maximum ceiling of the imprest accounts "in aggregate" will not at any time exceed the lower of (i) the estimated ADB financed expenditures to be paid from the respective imprest account for the next 6 months or (ii) 10% of the respective loan or grant amount.

41. The request for initial advance to each FGIA should be accompanied by an Estimate of Expenditure Sheet⁵ setting out the estimated expenditures for the first six (6) months of project implementation, and submission of evidence satisfactory to ADB that the FGIA has been duly opened. For every liquidation and replenishment request of the FGIA, the borrower will furnish to ADB (a) Statement of Account (Bank Statement) where the FGIA is maintained, and (b) the Imprest Account Reconciliation Statement reconciling the above mentioned bank statement

⁵ Available in Appendix 29 of the *Loan Disbursement Handbook*.

against the EA's records.⁶

42. The CPMU Director and the Chief Accountant will be responsible and accountable to the Central Treasury and ADB for managing the budget and for all expenditures related to the project in accordance with the conditions of the Loan Agreement, Government and ADB regulations, and other legal documents.

43. Four SGIAAs will be opened in USD and managed by the PIUs to pay for eligible expenses encountered by the PIUs. The amount to be deposited into each of the SGIAAs will be equivalent to 6 months estimated expenditures, but not exceeding the equivalent of \$200,000.

44. The PIUs will prepare liquidation and replenishment requests for their SGIAAs. These will be submitted to the CPMU, which will consolidate the requests before sending them to MEF. The use of SGIA and all disbursements will be made in accordance with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time).

45. CPMU will ensure that all SGIAAs will be audited as part of the regular annual audits of project accounts.

2. Direct Payment and Statement of Expenditures

46. If required, loan proceeds may be disbursed directly by ADB to contractors, suppliers and consultants, in accordance with the approved contracts between the executing agency or the implementation agencies and the contractors, using direct payment procedures. For payments up to \$100,000 from the FGIA or SGIAAs, ADB's statement of expenditures (SOE) procedure may be used to reimburse eligible expenditures and to liquidate advances. Sample forms for withdrawal of loan proceeds, replenishment of imprest accounts, and SOE can be downloaded from the ADB website.⁷ SOE records should be maintained and made readily available for review by ADB's disbursement and review missions or upon ADB's request for submission of supporting documents on a sampling basis, as well as for independent audit.⁸ CPMU will be responsible for ensuring that SOEs are operated in accordance with ADB's requirement.

47. Payments made directly from CPMU and PIUs will be supervised and authorized by the Treasury (at central and provincial levels respectively) upon receipt of payment documents. Based on the payments that have been authorized by the provincial treasury, each PIU will prepare withdrawal applications (WA) with associated payment documents/statements and the SGIA balance sheet (using the CPMU format) and submit these to the CPMU. Upon receipt of reimbursement applications and payment documents from PIUs, the CPMU will prepare an aggregated WA and submit to the MEF for endorsement. Authorized withdrawal applications will be forwarded to ADB for processing and for reimbursement to the first generation imprest accounts.

⁶ Follow the format provided in Appendix 30 of the *Loan Disbursement Handbook*.

⁷ Available at: http://www.adb.org/documents/handbooks/loan_disbursement/default.asp

⁸ Checklist for SOE procedures and formats are available at:

http://www.adb.org/documents/handbooks/loan_disbursement/chap-09.pdf

http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-100-Below.xls

http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-Over-100.xls

http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Operating-Costs.xls

http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Free-Format.xls

3. Particular Conditions for Disbursement

48. Before the submission of the first WA, the borrower shall submit to ADB sufficient evidence of the authority of the person(s) who will sign the WAs on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per WA is \$100,000, unless otherwise approved by ADB. The borrower is to consolidate claims to meet this limit for reimbursement and imprest account claims. WAs and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB members, and are eligible for ADB financing.

4. Disbursement and Liquidation Procedures for Counterpart Funds

49. Withdrawal of government counterpart funds must be carried out in accordance with the Government Policies and Procedures. MOWRAM will be responsible for submitting WAs to MEF. Counterpart funds WAs should be made in accordance with the budget plan agreed between MOWRAM and MEF. Counterpart funds may only be withdrawn for expenditures of the project which are specified in the project loan/credit/grant agreements. The CPMU should set out the expenditure percentages, for the project in the Project Finance Manual as a supplement to the main Financial Management Manual (September 2005). Counterpart funds withdrawals may be made for:

- (i) Special Account Initial Advance
- (ii) Special Account Replenishment
- (iii) Direct Payment to Supplier or Contractor

50. **Key Internal Controls.** WAs must be signed by an authorized signatory or signatories. WAs must be sequentially numbered starting with the number one. Counterpart funds advanced to projects must be held in a Government Counterpart Funds/Project Account at the National Bank of Cambodia (NBC) or other approved financial institution.

51. **Counterpart Funds Initial Advance.** The CPMU completes the Government WA form for the initial advance of counterpart funds and submits to the MEF – Department of Investment and Cooperation (DIC). The maximum amount of the advance of counterpart funds will be agreed between MOWRAM/CPMU and MEF. The Government WA Form must be signed by the authorized signatories of MOWRAM/CPMU and submitted to DIC. The Government WA must be recorded in the Project Counterpart Funds WA Register.

52. DIC will review the completed forms and in conjunction with the Finance and Administration Department transfers the funds to the Project's Counterpart Funds Imprest/Special Account and advises MOWRAM of the transfer. On receipt of advice from the NBC that the funds have been deposited into the Counterpart Funds Special Account, the receipt of the funds should be recorded in the General Ledger and the Government WA Register must be up-dated.

53. **Counterpart Funds Replenishment.** The CPMU completes the Government WA form and attaches a statement of actual expenditure. Supporting expenditure documentation must be maintained by the CPMU for subsequent review by MEF or audit. The Government WA Form must be signed by the authorized signatories of the MOWRAM/CPMU and submitted to DIC. The Government WA must be recorded in the Project Counterpart Funds WA Register.

54. DIC will review the completed forms and in conjunction with the Finance and Administration Department transfers the funds to the Project's Counterpart Funds Imprest/Special Account. On receipt of advice from the NBC that the funds have been deposited into the Counterpart Funds Special Account, the receipt of the funds should be recorded in the General Ledger and the Government WA Register must be up-dated.

55. **Direct Payment to Supplier or Contractor.** The CPMU completes a Government WA Form. Separate WAs are required for each payment in different currencies. The following documentation must be attached to the WA Forms:

- (i) Copy of Contract(s)
- (ii) Supplier or contractor invoice or claim
- (iii) For civil work – summary of work progress certified by project technical officer and approved by the relevant project authorized officer
- (iv) For equipment and materials purchased - evidence of shipment, either a copy of the bill of lading or the forwarder's certificate
- (v) Performance security such as a bank guarantee in the case of advance payments if required under the terms of the contract, or where an unusually large advance payment is made

56. The Government WA Form must be signed by the authorized signatories of MOWRAM/CPMU and submitted to the DIC. The Government WAs must be recorded in the Project Counterpart Funds WA Register. The DIC reviews the completed forms and in conjunction with the Finance and Administration Department arranges the payment to the supplier or contractor. On receipt of advice from the DIC that the payments have been made, the receipt of the counterpart funds should be recorded in the General Ledger and the Government WA Register must be updated.

C. Accounting

57. The financing units established in CPMU and each PIU involved in project implementation will maintain records and accounts that identify goods and services from loan proceeds, financing resources received, expenditures incurred, and use of government counterpart funds. These accounts will be established and maintained in conformity to the Government's accounting laws and regulations and in accordance with sound accounting principles and standards acceptable to ADB. The CPMU will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) collecting verifying WAs from the PIUs, and preparing and sending WAs to ADB.

D. Auditing

58. The CPMU will review and consolidate the accounts and have them audited annually in accordance with sound accounting practices by the sovereign audit agency of the Government or other auditors acceptable to ADB. Audit coverage will include a statement verifying whether or not the funds disbursed by ADB were used for the purposes for which they were provided, as well as separate opinions on (i) utilization of the imprest account and project advance accounts; (ii) the statement of expenditures, including whether the amount claimed is duly supported and verified; (iii) whether the CPMU and each PIU are operating the imprest and advance accounts in accordance with ADB procedures; and (iv) compliance with financial covenants specified in the loan agreements.

59. Audit reports, management letter, and related financial statements will be submitted to ADB in the English language no later than 6 months after the end of the fiscal year to which they relate, or the project closing date if earlier. ADB informed the Government of its policy on submission of audited accounts (covering failure of submitting audited accounts and financial statements by the due date). Formal warning will be issued, and disbursements suspended, for accounts more than 6 months overdue. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

60. Compliance with these financial reporting and auditing requirements will be monitored by review missions and during normal project supervision, and followed up regularly with all concerned, including the external auditor. ADB shall impose the following measures should the CPMU fail to submit within the due date:

- (i) **Within 6 months after the due date.** Processing of requests for new contract awards and disbursement such as replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will be put on hold.
- (ii) **Within 12 months after the due date.** Disbursement shall be suspended.

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting⁹

61. All advance contracting will be undertaken in conformity with ADB's *Procurement Guidelines* (April 2010, as amended from time to time)¹⁰ and ADB's *Guidelines on the Use of Consultants* (April 2010, as amended from time to time).¹¹ The issuance of invitations to bid under advance contracting will be subject to ADB approval. The borrower, MOWRAM, DHRW and PDWRAM have been advised that approval of advance contracting does not commit ADB to finance the project.

62. **Advance contracting.** To facilitate rapid start up, the government and ADB agreed to a number of advance actions to expedite (i) the establishment of a functional CPMU with sufficient number of qualified and experienced staff; (ii) recruitment of PIC; and (iii) recruitment of national safeguard monitoring entities by IRC.

63. Advance action for the recruitment of PICs will include invitation for expression of interests (EOI), shortlisting, issuance of Request for Proposals (RFP) to shortlisted firms, and evaluation of technical and financial proposals. Once the loan becomes effective, approval will be sought from ADB to invite the first ranked firm for contract negotiations. The Government was advised that ADB approval of advance procurement action will not in any way commit ADB to approve the proposed loan, and ADB financing will be dependent upon compliance with all aspects of ADB procedural requirements, including compliance of the Government with relevant provisions of the loan and project agreements and ADB guidelines.

B. Procurement of Goods, Works and Consulting Services

1. Procurement of Goods and Works

64. For contracts for civil works valued at \$1,000,000 and above or for goods valued at \$500,000 and above, the project will follow ICB procedures in accordance with ADB's *Procurement Guidelines* (April 2010, as amended from time to time). NCB procedures will be followed for contracts valued at less than \$1,000,000 but more than \$100,000 for civil works and less than \$500,000 but more than \$100,000 for goods. For NCB procedures, the provisions of the Government's Standard Operating Procedures (SOP) as agreed with ADB¹² will be followed. In case of inconsistency between ADB procedures and the SOP, ADB procedures will be applied. The proceeds of the Loans will be disbursed in line with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time).

65. Procurement of civil works packages and goods and services following ICB and NCB procedures will be carried out by the CPMU. Goods and civil works packages valued at up to \$100,000 will be procured by the CPMU and PIUs following shopping procedures acceptable to

⁹ There will be no retroactive financing under the Project

¹⁰ Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

¹¹ Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

¹² Ministry of Economy and Finance (MEF) Manual on Standard Operating Procedures for Externally Financed Project/Programs in Cambodia (May 2012). Financial Management Manual for Externally Financed Project/Programs in Cambodia (May 2012); MEF. Procurement Manual for Externally Financed Project/Programs in Cambodia, Phnom Penh (in two volumes) (May 2012).

ADB. All ICB contracts will require prior approval of ADB. The first NCB civil works contract for each type of work, will be subject to ADB prior approval. Subsequent NCB contracts for work of similar nature will be subject to the ADB post approval. Prior and post review thresholds were discussed and agreed with the EA and are included in the procurement plan in Section C below.

66. Before the start of any procurement ADB and the Government will review the public procurement laws of the central and state governments to ensure consistency with ADB's *Procurement Guidelines* and the SOP (as revised from time to time).

67. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C below. It shall be reviewed annually thereafter and updated, as necessary.

2. Consulting Services

68. All consultants and nongovernment organizations (NGO) to be financed by the ADB loan will be recruited according to ADB's *Guidelines on the Use of Consultants* (April 2010, as amended from time to time).¹³

69. The project implementation consultants will assist the CPMU with project implementation support, such as, (i) build the capacity of CPMU and PIUs in project management, procurement, and financial management; (ii) assist in updating the resettlement plan and environmental management plans based on the approved detailed engineering design; and (iii) assist in monitoring, evaluation and reporting.

70. It is estimated that the project will require up to 173 person months of consulting services consisting of 49 person months of international consultants and 124 person months of national consultants to be recruited from international firms using quality and cost-based selection (QCBS) with a standard ratio of (80:20) using full technical proposals. The majority of the consulting services will be located at the IA office in Pursat province to ensure effective coordination with PDWRAM staff, with only administrative support consultants located at the MOWRAM offices in Phnom Penh.

¹³ Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

C. Procurement Plan

Project Name: GMS Flood and Drought Management and Mitigation Project (Cambodia)	
Country: Regional	Executing Ministry of Water Resources and Agency: Meteorology
ADF Loan Amount: \$35,000,000 SCF Loan Amount: \$4,000,000 SCF Grant Amount: \$5,800,000	Loan Number: 40190
Date of First Procurement Plan: 30 August 2011	Date of this Procurement Plan: 16 October 2012

1. Process Thresholds, Review and 18 Month Procurement Plan

a. Project Procurement Thresholds

71. Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Method	Threshold
International Competitive Bidding for Works	\$1,000,000 and above
International Competitive Bidding for Goods	\$500,000 and above
National Competitive Bidding for Works	Between \$100,000 and \$1,000,000
National Competitive Bidding for Goods	Between \$100,000 and \$500,000
Shopping for Goods	Up to \$100,000
Shopping for Works	Up to \$100,000

b. ADB Prior or Post Review

72. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project.

Procurement Method	Prior or Post	Comments
Procurement of Goods and Works		
International Competitive Bidding for Works	Prior ^a	
International Competitive Bidding for Goods	Prior ^a	
National Competitive Bidding for Works	Prior/Post ^b	
National Competitive Bidding for Goods	Prior/Post ^b	
Shopping for Goods	Prior/Post ^b	
Shopping for Works	Prior/Post ^b	
Community Participation in Procurement for Works	Prior/Post ^b	
Recruitment of Consulting Firms		
Quality- and Cost-Based Selection for Consulting Services	Prior	CPMU will recruit PIC following QCBS procedures with a standard 80:20 ratio
Quality-Based Selection for Consulting Services	Prior	Contract valued at more than \$200,000 for engagement of national consultants, NGOs and similar organizations will be

Procurement Method	Prior or Post	Comments
		recruited by CPMU following QBS.
Consultant's Qualification Selection for Consulting Services	Prior	Contract valued at less than \$200,000 for engagement of national consultants, NGOs and similar organizations will be recruited by CPMU following CQS.

CPMU = central project management unit; CQS = consultant's qualification selection; NCB = national competitive bidding; NGO = non-government organization; QBS = quality based selection; QCBS = quality – and cost based selection; PIC = project implementation consultants.

^a 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.

^b 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.

c. Goods and Works Contracts Estimated to Cost \$1 Million and Above

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

General Description	Contract Value (\$ '000)	Procurement Method	Prequalification of Bidders (Y/N)	Advertisement Date (quarter/year)	Comments
Ministry of Water Resources and Meteorology					
Upgrading of Damnak Chheukrom Irrigation System, Main Canal Pursat	15,945.6	ICB	N	Q3 2013	Single stage 1 envelope. To be undertaken by CPMU
Construction of new barrage on Pursat River and Upgrade of Phthenh Rung Reservoir	6,840.7	ICB	N	Q3 2013	Single stage 1 envelope. To be undertaken by CPMU
Upgrading of Damnak Chheukrom Irrigation System, Secondary Canals, Pursat	4,914.0	ICB	N	Q4 2013	Single stage 1 envelope. To be undertaken by CPMU

Notes: CPMU = central project management unit; ICB = international competitive bidding.

d. Consulting Services Contracts Estimated to Cost \$100,000 and Above

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

General Description	Contract Value (\$,000)	Recruitment Method	International or National Assignment	Advertisement Date (quarter/year)	Comments
Ministry of Water Resources and Meteorology					
Project Implementation Consultants	2,190.7	QCBS - 80:20	International & National	Q4 2012	Consultant recruitment to be managed by CPMU
National consultants for detailed design, and construction	2,968.2	QBS	National consultants	Q2 2013	Consultant recruitment to be managed by CPMU

General Description	Contract Value (\$,000)	Recruitment Method	International or National Assignment	Advertisement Date (quarter/year)	Comments
supervision					
Service Contracts – CBDRM and FWUC support	1,332.0	CQS or QBS	National Consultants	Q2 2013	Consultant, NGO or institutes to be recruited by CPMU
Service Contract to Improve Hydraulic Design Standards	600.0	QBS	International & National	Q2 2013	Consultant recruitment to be managed by CPMU
Service contract for support to national flood forecasting center	720.0	QBS	International & National	Q2 2013	Consultant recruitment to be managed by CPMU

CPMU = central project management unit; CQS = consultant qualification selection; NCB = national competitive bidding; QBS = quality based selection; QCBS = quality - and cost based selection;

e. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000

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

General Description	Contract Value (\$,000)	Procurement / Recruitment Method	Comments
Ministry of Water Resources and Meteorology			
Upgrading of Damnak Cheokrom Irrigation System, Tertiary Canals, Pursat	4,025.0	NCB	Multiple packages of less than \$1 million each to be procured by the CPMU
Hydro-meteorological equipment	445.8	NCB/Shopping	Multiple packages – procurement by CPMU with technical assistance from PIU
Office Equipment	74.3	Shopping	Office Equipment – procurement by CPMU and PIUs
Vehicles	424.1	NCB	FWD vehicles for NFFC, CPMU and PIUs – procurement by CPMU
Motorcycles	15.1	Shopping	Motorcycles for NFFC and PIU - PDWRAM– procurement by PIUs
Minor civil works and earthworks	150.0	NCB	Minor earthworks for NFFC – procurement by PIU
Safeguard Monitoring Entities	51.3	CQS	Single contract to be procured by IRC
Audit	105.0	CQS	6 Yearly Contracts to be procured by CPMU

CPMU = central project management unit; CQS = consultants' qualification selection; FWD = four-wheel drive; IRC = inter-ministerial resettlement committee; NCB = national competitive bidding; NFFC = National Flood Forecasting Center; PDWRAM = Provincial Department of Water Resources and Meteorology; PIU = project implementation unit.

f. Indicative List of Packages Required Under the Project

76. The following table provides an indicative list of all procurement (goods, works and consulting services) over the life of the Project.

General Description	Estimated Value (cumulative) (\$ '000)	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable	Comments
Goods					
Hydro-meteorological Equipment	445.8	2	NCB	n.a.	By CPMU
Office Equipment	74.3	4	Shopping	n.a.	By CPMU/PIUs
Vehicles	424.1	2	NCB/ Shopping	n.a.	By CPMU/PIUs
Motorcycles	15.1	Multiple	Shopping	n.a.	By PIUs
Works					
Damnak Chheukrom subproject main canal	15,945.6	1	ICB	n.a.	By CPMU
Construction of new barrage on Pursat River and upgrade of Phthenh Rung Reservoir	6,840.7	1	ICB	n.a.	By CPMU
Damnak Chheukrom subproject secondary canals	4,914.0	1	ICB	n.a.	By CPMU
Damnak Chheukrom subproject tertiary canals	4,205.0	Multiple	NCB	n.a.	By CPMU
Consulting Services					
Project implementation consultants	2,190.7	1	QCBS (80:20) International and National	FTP	By CPMU
Service Contracts – (NFFC)	720.0	1	QBS	BTP	By CPMU
Service Contract to Improve Hydraulic Design Standards	600.0	1	QBS	BTP	By CPMU
Service Contracts – CBDRM and FWUC support	1,332.0	Multiple	CQS/QBS	FTP	By CPMU
Engineering Design and Supervision Consultants	2,968.0	1	QBS	FTP	By CPMU
Safeguard Monitoring Entity	51.3	1	CQS	FTP	By CPMU
Project Financial Audit	105.0	6	CQS	BTP	By CPMU

BTP = biodata technical proposal; CBDRM = community-based disaster risk management; CPMU = central project management unit; CQS = consultant's qualifications selection; FTP = full technical proposal; FWUC = farmer water users community; ICB = international competitive bidding; NCB = national competitive bidding; NFFC = National Flood Forecasting Center; PIU = project implementation unit; QBS = quality based selection; QCBS = quality – and cost based selection.

D. National Competitive Procurement Procedures

1. General

77. The procedures to be followed for National Competitive Bidding shall be those set forth for the "National Competitive Bidding" method in the Government's *Standard Operating Procedures, Procurement Manual* of May 2012 issued under sub-decree number 74 ANK dated 22 May 2012 with clarification and modifications describe in the following paragraphs required for compliance with the provision of the ADB Procurement Guidelines.

2. Civil Works

78. For NCB contracts, documents will be modeled on those developed for NCB under previous projects funded by the ADB. This model is a single stage, single envelope model with post-qualification. In each province, the responsible implementation agency will submit the first draft English language version of the procurement documents for the first works contract to ADB for review and approval regardless of the estimated contract amount. For subsequent contracts, ADB will review the documents after award. ADB-approved procurement documents will be used as a model for all succeeding NCB contracts financed by ADB for the Program.

3. Recruitment of Consultants

79. For ADB-funded contracts, either QCBS, CQS QBS, or individual consultant selection will be applied. For QCBS, full technical proposals will be required. To calculate the firm's total score, the technical proposals will be given a weight of 80% and the financial proposal 20%. For CQS, a firm/NGO/institute will be chosen from amplified EOIs submitted in response to a detailed advertisement. The first-ranked firm will be requested to submit a combined bio-data technical proposal and financial proposal as a basis for negotiations with the EA. For recruitment of individual consultants recruited by the Government or ADB, ICS will be applied.

4. Application

80. Contract packages subject to NCB procedures will be those identified as such in the Procurement Plan. Any changes to the mode of procurement from those provided in the Procurement Plan shall be made through updating of the Procurement Plan, and only with prior approval of ADB.

5. Eligibility

81. 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.

6. Advertising

82. Bidding of contracts of more than \$25,000 for goods and works and for all services shall be advertised in local newspapers. If some contractors, service providers or suppliers are base in district towns, the advertisements must be posted on the district notice board as well as the C/S and the province/municipality.

7. Anti-Corruption

83. Definitions of corrupt, fraudulent, collusive and coercive practices shall reflect the latest ADB Board-approved Anti-Corruption Policy definitions of these terms and related additional provisions.

8. Bid Evaluation

84. Unless otherwise agreed ADB will review the bid evaluation report and recommendation for contract award, for all contracts, on a prior review basis.

9. Rejection of all Bids and Rebidding

85. Bids shall not be rejected and new bids solicited without ADB's prior concurrence.

10. Bidding Documents

86. The bidding documents provided with the Government's Procurement Manual shall be used to the extent possible. Documentation prepared for the first contract under NCB arrangements shall be submitted for ADB review and approval, regardless of the estimated contract amount, in accordance with agreed review procedures (prior and post review). Once accepted, the ADB-approved procurement documents will then be used as a model for all similar procurement financed by ADB for the Program, and need not be subjected to further review unless specified in the procurement plan. For ICB standard ADB bidding documents shall be used. All ICB documents will require prior approval of ADB.

11. Member Country Restrictions

87. Bidders must be nationals of member countries of ADB, and offered goods, works and services must be produced in, and supplied from, member countries of ADB.

E. Consultant's Terms of Reference

1. Background

88. Consultants to be financed from ADB resources include the PICs and national consultants to assist in the preparation and supervision of subproject works. Entities for external monitoring of safeguard measures, including resettlement, will be recruited by IRC following CQS procedures. All consultants and institutes will be selected and engaged in accordance with the *ADB's Guidelines on the Use of Consultants* (April 2010 as amended from time to time).

89. The CPMU will recruit the PICs from a consulting firm following QCBS procedures with a standard ratio of 80:20. National consultants for preparation of detailed design, preparation of bidding documents and supervision of construction, will be recruited by the CPMU following CQS or QBS procedures depending of the value of the contracts.

2. Project Implementation Consultants

90. The PIC will be selected and engaged in accordance with *ADB Guidelines on the Use of Consultants* (April 2010, as amended from time to time). The CPMU will recruit the PIC following QCBS procedure with a standard quality to cost ratio of 80:20. Full Technical Proposals (FTP)

will be invited from short listed firms. The TOR of the PIC is outlined below. TOR for national consultants for preparation of detailed design, preparation of bid documents and supervision of construction for the flood and drought risk management infrastructure subproject will be developed after loan effectiveness with assistance from the PIC.

91. The PIC comprise a total of 49 person months of international specialists and 124 person months of national specialists - for a total of 173 person months of specialist inputs. Advance action for recruitment of PIC has been approved to expedite timely mobilization of consultants. The consulting team will be fielded within 3 months of loan effectiveness and will provide support and advice to the CPMU and the PIU throughout the proposed project.

92. The PIC will support the CPMU and PIUs in technical areas of engineering design and construction supervision, as well as provide valuable quality assurance with respect to safeguard issues and sustainability of the subproject. International expertise will be provided in: (i) project management, (ii) technical engineering - flood and drought management, including flood drainage and irrigation canal, river bank protection, embankments, mechanical structures (gates, sluices); (iii) economics; (iv) procurement and (v) social and environmental safeguards. National specialists will be required in similar technical areas to facilitate technology transfer from international specialists and to handle the project activities in the absence of the international consultants. National consultants will also support the community-based disaster risk management, mechanical engineering components, monitoring and evaluation activities under the supervision of the Team Leader.

93. The PIC will specifically assist the CPMU and PIUs to undertake the following tasks:

- (i) preparation of TORs for detailed design, supervision and safeguard consultants and assistance in their recruitment and supervision;
- (ii) preparation of tender and bid documents for procurement of works and goods;
- (iii) assistance to CPMU for bid evaluation of goods, works and services;
- (iv) development, implementation and reporting on capacity building program for MOWRAM staff assigned to the project. The program will include training on project implementation and management procedures as appropriate to each staff position and responsibility;
- (v) assistance in supervision of the overall project implementation;
- (vi) assistance in the supervision of the social and environmental safeguards and implementation of the EMP, RP and GAP;
- (vii) assistance in financial management and accounting of project expenditures;
- (viii) assistance in monitoring and evaluation of the project;
- (ix) assistance in reporting of project progress through preparation of Inception Report after 3 months, quarterly and annual progress report, and project completion report to ADB and EA. The reports will include progress reports on all procurements, including key stages and final outcomes. The reports will include information on progress of capacity development activities and training outcomes.

Table 1: Project Implementation Consultant Inputs

	Location	Unit	2013	2014	2015	2016	2017	2018	Total
1. International Consultants									
a. Flood/Drought Risk Management Specialist / Team Leader	PP	Months	8	8	6	-	-	2	24
b. River Engineer – Hydrologist	Pursat	Months	3	-	-	-	-	-	3
c. Civil/Irrigation Engineer	Pursat	Months	6	6	-	-	-	-	12
d. Environmental Specialist	Pursat	Months	3	2	-	-	-	-	5
e. Social Safeguards/ Resettlement Specialist	Pursat	Months	3	2	-	-	-	-	5
Subtotal			23	18	6	-	-	2	49
2. National Consultants									
a. Water Resources – Flood and Drought Management Specialist ^a	PP	Months	9	11	10	5	-	1	36
b. River Engineer - Hydrologist	Pursat	Months	6	-	-	-	-	-	6
c. Civil – Irrigation Engineer	Pursat	Months	6	6	6	6	-	-	24
d. CBDRM /Gender Specialist	Pursat	Months	-	3	3	3	3	-	12
e. Structural Engineer	Pursat	Months	3	-	-	-	-	-	3
f. M&E specialist	PP	Months	2	2	2	2	-	-	8
g. Environmental Specialist	Pursat	Months	2	2	2	1	-	-	7
h. Social Safeguards Specialist	Pursat	Months	2	2	2	2	-	-	8
i. Procurement Specialist	PP	Months	6	4	2	-	-	-	12
j. Economist /Financial Spec,	PP	Months	4	2	2	-	-	-	8
Subtotal			40	32	29	19	3	1	124
Total			63	50	35	19	3	3	173

Notes: ^a Deputy Team leader

Source: Staff estimates.

E. Detailed Tasks of Specialists (PIC)**1. Flood/Drought Risk Management Specialist - Team Leader (24 person-months – International)**

94. The Team Leader cum Flood / Drought Risk Management Specialist will have a post graduate degree in water resources, irrigation, hydrology or a related field and at least 15 years experience in flood/drought risk management; extensive international work experience in project implementation, management and administration; and good knowledge and understanding of project implementation and administration of ADB financed projects. Extensive work experience in the Mekong Region and preferably in Cambodia will also be an asset. The candidate must have demonstrated ability to lead teams composed of international and domestic consultants and to create a strong working relationship with the executing and implementing agencies. Excellent communication (written and oral) skills and strong inter-personal skills will be considered an asset. The consultant will be based in Phnom Penh at the CPMU and will be responsible for overall project management and delivery of the defined tasks of the PIC. Specifically the candidate will be responsible for the following scope of work:

- (i) Coordinate with the EA, IA, CPMU and PIUs for smooth and timely implementation and completion of the project;
- (ii) Review the PPTA reports and prepare a plan for detailed studies and project implementation;
- (iii) Prepare TOR for the detailed design consultants and construction supervision consultants and assist in the selection and recruitment of the consultants;

- (iv) With the assistance of the procurement specialist, prepare tender documents for construction contracts and assist in procurement of the works, goods and services, and establish capacity within the CPMU and PIU to undertake procurement using local, and international, competitive bidding procedures;
- (v) With assistance of the financial specialist, advise CPMU and PIUs on disbursement procedures and project accounting;
- (vi) In consultation with relevant specialists and MOWRAM, prepare a capacity development plan for staff assigned to the project, including training in procurement and accounting procedures, reporting and project management for respective project staff;
- (vii) Supervise and guide team members on subprojects preparation and project implementations;
- (viii) Prepare capacity building plans for O&M of the subproject for sustainable and smooth operation of project assets;
- (ix) Prepare quarterly and annual progress reports for submission to EA and ADB;
- (x) With the support of the CBDRM specialist, assist in the preparation of community based disaster management plans in the project areas;
- (xi) Formulate and develop the PPMS, establish a framework for PPMS reporting in accordance with the requirements of ADB and the Government.
- (xii) Assist the CPMU in the preparation of the completion report

2. River Engineer /Hydrologist (3 person-months - International)

95. The river engineer/ hydrologist will have a post graduate degree in hydrology, river engineering and/or a related field and at least 10 years experience in hydrological studies, modeling and development of early warning systems. He/she will have extensive international work experience in a related field, good knowledge and understanding of hydrological conditions of the Mekong River Basin and considerable work experience in the Mekong Region preferably in Cambodia. The candidate will have demonstrated ability to work in a multidisciplinary team and will possess excellent communication (written and oral) skills. He/she will be based in Pursat and will be responsible for the following scope of work:

- (i) Review the hydrological study of PPTA and suggest further detailed studies needed;
- (ii) Assist with the preparation of the TOR for detailed design consultant for hydrological studies and survey of the subproject;
- (iii) Report to the team leader on the findings of the hydrological study and their implications on the subprojects;
- (iv) Assist in the preparation and development of the flood and drought early warning system;
- (v) Provide technical and management assistance to PDWRAM regarding O&M of irrigation systems, river bank protection and overall management of the subprojects;
- (vi) Provide assistance to the CPMU and PIU in the technical supervision of project works;
- (vii) Assist in preparation of contract documents, prequalification of contractors, and selection of contractors; and

3. Civil/Irrigation Engineer (12 person-months - International)

96. The civil/irrigation engineer will have a post graduate degree in Civil/ Irrigation Engineering and/or a related field and at least 15 years experience in planning and design of irrigation development projects. He/she will have extensive international work experience in a related field, a good knowledge and understanding of irrigation and agricultural systems in the Mekong River Basin and considerable work experience in the Mekong Region preferably in Cambodia. The candidate will have demonstrated ability to work in a multidisciplinary team and excellent communication (written and oral) skills. He /she will be based in Pursat and will be responsible for the following scope of work:

- (i) review the irrigation requirements and water balance analysis performed during PPTA and recommend further detailed studies needed;
- (ii) assist in the preparation of TOR for the detailed design consultants of the irrigation components of the subproject;
- (iii) provide assistance to the CPMU and PIU in technical supervision of irrigation component of the project, including contract management; and
- (iv) assist and supervise detailed design activities, preparation of bid document, and construction works of the irrigation subproject.

4. Environment Specialist (5 person-months - International)

97. The environment specialist will have a post graduate degree in environmental engineering/science or a related field and at least 10 years experience in preparation of IEE, EIA and EMP. He /she will have extensive international work experience in the related field and considerable work experience in the Mekong Region preferably in Cambodia. The candidate will have demonstrated ability to work in a multidisciplinary team and excellent communication (written and oral) skills. He/ she will be based in Pursat and will be responsible for the following scope of work:

- (i) assist and supervise detailed design of subproject, preparation of bid document and construction works from an environmental point of view;
- (ii) update the environmental screening and IEE based on detailed design;
- (iii) assist in the design and implementation of environmental mitigation measures during detailed design and construction stages; and
- (iv) supervise construction work and monitor the implementation of the EMP.

5. Social Safeguard/Resettlement Specialist (5 person-months - International)

98. The social safeguard/resettlement specialist will assume responsibility for the training of CPMU and PIU staff in social issues and procedures and particularly implementation of the resettlement plan. He/she will also be responsible for establishing procedures in respect of resettlement and assist in the identification of procedures to resolve any resettlement that might be associated with rural infrastructure rehabilitation. The specialist will have a post graduate degree in sociology and at least 15 years experience in preparation and implementation of resettlement plans, social and poverty assessment, and GAP. He /she will have extensive international work experience in the related field and considerable work experience in the Mekong Region preferably in Cambodia. The candidate will have demonstrated ability to work in a multidisciplinary team and excellent communication (written and oral) skills. He/ she will be based in Pursat and will be responsible for the following scope of work:

- (i) assist and supervise detailed design of subprojects, preparation of bid documents and construction works from a social safeguard point of view;
- (ii) assist in the preparation and review of RP and necessary safeguard surveys following ADB and Cambodia Government's safeguards policies;
- (iii) assist EA and IAs in the implementation of land acquisition and resettlement plans in the subprojects areas;
- (iv) in accordance with the community participation development plan, disseminate the project concept and activities among target communities, and facilitate the selection of participating communities and local organizations.

6. Water Resources – Flood/Drought Management Specialist/Deputy Team Leader (36 person-months – National)

99. The National Water Resources Specialist cum Deputy Team Leader will have a Master's degree in water resources, irrigation, hydrology or a related field with 10 years of relevant work experience. Experience working with international consulting firms preferably in donor funded projects and government institutes will be considered an asset. The candidate must have demonstrated ability to work in a multidisciplinary team and excellent communication skills in spoken and written English. He /she will be based at the CPMU in Phnom Penh and will assist the Team Leader supervise the work of the team and deliver the project outputs in a timely manner. The scope of work will include the following project activities and tasks:

- (i) overall coordination of project activities including inter-agency coordination as well as coordination with ADB, PSC, EA and IAs;
- (ii) assist the EA in the preparation of TORs for detailed design and supervision consultants and their selection and recruitment;
- (iii) assist the EA in the preparation of tender and bid documents and procurement for civil works, goods and services;
- (iv) assist the EA in the supervision of the overall project implementation;
- (i) assist the EA in the evaluation of technical and financial submissions resulting from procurement activities, including preparation of independent evaluation reports for review by MOWRAM and ADB;
- (ii) supervision of the social and environmental safeguards and EMP activities;
- (iii) supervision of financial management and accounting of the project expenditures;
- (iv) supervision of the monitoring and evaluation of the project; and
- (v) assistance in reporting on project progress through the Inception Report, quarterly and annual progress reports, and project completion report for the EA and ADB.

7. River Engineer/Hydrologist (6 person-months - National)

100. The National River Engineer/Hydrologist will have a bachelor's degree in engineering/hydrology with 10 years of relevant work experience, including experience working with international consultants preferably in donor funded projects and government institutes. He/she will have demonstrated ability to work in a multidisciplinary team and excellent communication skills in spoken and written English. He/she will be based in Pursat province and will work under the direct supervision of the International River Engineer/Hydrologist and assist him/her carry out the following tasks:

- (i) assist and supervise detailed design of subproject, preparation of bid document and construction works; and

- (ii) review detailed design of subprojects related to flood risk management and mitigation including the river bank protection and flood control structures in the subprojects.

8. Civil/Irrigation Engineer (24 person-months - National)

101. The National Civil/Irrigation Engineer will have a Bachelor's degree in engineering with 5 years of relevant work experience and experience working with international consultants preferably in donor funded projects and government institutes. He /she will have demonstrated ability to work in a multidisciplinary team and excellent communication skills in spoken and written English. He/she will be based in Pursat and will work under the direct supervision of the International Civil/Irrigation Engineer and assist him/her undertake the following tasks:

- (i) assist and supervise detailed design of subproject, preparation of bid documents and construction works; and
- (ii) review detailed design of subproject related to irrigation development, civil works and design criteria for flood and drought risk management subprojects.

9. Community-based Disaster Risk Management Specialist/Gender and Development Specialist (12 person-months - National)

102. The CBDRM specialist will have a Bachelor's degree in social sciences with 5 years of relevant work experience including experience working with international consultants or NGOs preferably in donor funded projects and government institutes. The specialist will assume responsibility for building the capacity of the CPMU and PIU staff in gender responsive design and analysis. He/she will be responsible for insuring that the GAP is being implemented in accordance with ADB policies on gender. He /she will have demonstrated ability to work in a multidisciplinary team and excellent communication skills in spoken and written English. He/she will be based in Pursat and will undertake the following tasks:

- (i) assist the CPMU and PIU to mobilize and establish FWUC in the subproject to undertake the O&M of the flood and drought management infrastructure;
- (ii) assist in the preparation of the community based disaster risk management strategy in the subproject areas;
- (iii) provide guidance to the CPMU and PIU in implementation of GAP;
- (iv) build capacities of project staff of the CPMU and PIU in gender responsive design and analysis;
- (v) review gender analysis, prepare consultation GAP workshop with stakeholders and update GAP;
- (vi) prepare gender-sensitive indicators and prepare checklist for evaluation of gender responsiveness of proposed subprojects;
- (vii) work closely with other specialist to ensure gender is integrated in all training components;
- (viii) advise CBDRM committees on gender issues and enhance capacity of women involved in the committee;
- (ix) assist and supervise detailed design of subprojects, preparation of bid documents and community related activities; and
- (x) in collaboration with procurement specialist, assist the EA in recruiting qualified NGOs to support CBDRM capacity development.

10. Structural Engineer (3 person months - National)

103. The National Structural Engineer will have a Bachelor's degree in engineering with 5 years of relevant work experience including experience working with international consultants preferably in donor funded projects and government institutes. He /she will have demonstrated ability to work in a multidisciplinary team and excellent communication skills in spoken and written English. He /she will be based in Pursat and will work under the direct supervision of the International Civil/Irrigation Engineer and assist him/her undertake the following tasks:

- (i) assist and supervise detailed design of subproject, preparation of bid documents and construction works; and
- (ii) review detailed design of structures related to ADB financed flood and drought management subprojects.

11. M & E Specialist (8 person months - National)

104. The National M&E Specialist will have a Bachelor's degree in social sciences, statistics, quantity surveying, civil or agricultural engineering with 5 years of relevant work experience. He /she will have experience working with international consultants preferably in donor funded projects and government institutes. He/she will have demonstrated ability to work in a multidisciplinary team and excellent communication skills in spoken and written English. He/she will be based in Phnom Penh and will undertake the following tasks:

- (i) assist and supervise detailed design of subprojects, preparation of bid document and construction works;
- (ii) develop and update a PPMS for monitoring project activities, outputs and outcomes;
- (iii) review subproject profile including baseline data and detailed design for construction works from the viewpoint of project monitoring and evaluation;
- (iv) promote stakeholder consultation and assist in collecting necessary data for project performance monitoring and evaluation; and
- (v) assist in preparation and review of the inception report, progress reports and final report to meet monitoring and evaluation requirements.

12. Environmental Specialist (7 person-months - National)

105. The National Environmental Specialist will have a Bachelor's degree in environmental sciences or other relevant field with 5 years of relevant work experience and experience working with international consultants preferably in donor funded projects and government institutes. He /she will have demonstrated ability to work in a multidisciplinary team and excellent communication skills in spoken and written English. He/she will be based in Pursat and will work under the direct supervision of the International Environmental Specialist and will assist him/her undertake the following tasks:

- (i) assist and supervise detailed design of subproject, preparation of bid documents and construction works;
- (ii) update the environmental screening and IEE;
- (iii) assist in the design and implementation of environmental mitigation measures during detailed design and construction stages; and
- (iv) supervise construction work and monitor the implementation of the EMP.

13. Social Safeguard Specialist (8 person-months - National)

106. In addition to support the International social safeguard/resettlement specialist, the national social safeguard specialists The National Social Safeguard Specialist will have a tertiary degree in social sciences with 10 years of relevant work experience and experience working with international consultants preferably in donor funded projects and government institutes. He/she will have experience with ADB safeguard policies and requirements. He/she will have demonstrated ability to work in a multidisciplinary team and excellent communication skills in spoken and written English. He/ she will be based in Pursat and will work under the direct supervision of the International Social Safeguard Specialist and will assist with the following tasks:

- (i) assist the International Social Safeguard/Resettlement specialist in the updating and finalization of the resettlement plan;
- (ii) assist CPMU and PIU in the implementation of land acquisition and resettlement plans in the subproject areas;
- (iii) follow up and monitor the implementation of the resettlement plan; and
- (iv) provide guidance to the CPMU and PIU in implementation of RP.

14. Procurement Specialist (12 person-months - National)

107. The procurement specialist will have graduate qualifications in business administration, engineering or other related fields and at least 10 years experience in procurement, preparation of tender and contract documents, evaluation of bids, and contracts managements of ADB projects. He /she will have demonstrated ability to work in a multidisciplinary team and excellent communication (written and oral) skills. He/she will be based in Phnom Penh at the CPMU and will be responsible for but not limited to the following scope of work:

- (i) assist the CPMU and PIU to prepare standard bidding documents, call for proposals, evaluation of bids and contract negotiations following the agreed procurement procedures as described in the PAM;
- (ii) assist in preparing documents and reporting to ADB and EA./IAs;
- (iii) preparation and implementation of capacity development modules for MOWRAM staff on preparation of standard bidding documents and evaluation of Bids; and
- (iv) reporting on staff capacity development outcomes.

15. Economist/Financial Specialist (8 person-months - National)

108. The National Economist and Financial Specialist will have a Bachelors degree in Economics with 5 years of relevant work experience and experience working with international consultants preferably in donor funded projects and government institutes He /she will have experience with ADB economic analysis of projects and will have demonstrated ability to work in a multidisciplinary team and will have excellent communication skills in spoken and written English. He/ she will be based in Phnom Penh and will be responsible for the following specific tasks:

- (i) assist the EA in managing fund flow, imprest accounts and expenditure under the project accounts;
- (ii) assist the EA in preparing budgets for project activities including civil works and other procurement;
- (iii) prepare revised economic analysis and review them at the detailed design stage

NOTE: For all consultants, fluency in both spoken and written English is expected.

F. Service Contract for Strengthening of NFFC

109. Recruitment of a service provider for strengthening of the NFFC will be carried out by CPMU following CQS or QBS procedures. The detailed TOR for the service contract will be prepared by DHRW with assistance from the PIC. The scope of the service contract will include but may not be limited to:

- (i) assess the hydro-meteorological network and data acquisition system required for flood forecasting and early warning in the major tributaries and to implement priority network and data acquisition improvement activities;
- (ii) assess the current forecasting capacity and propose necessary flood and drought forecasting tools (hydrological and hydraulic models, rainfall forecasting including regional storm tracking and satellite based rainfall estimates);
- (iii) assist in the preparation of specification for procurement of equipment, instruments and tools for the NFFC;
- (iv) develop and pilot an operational strategy for disseminating nationwide flood forecasting and early warning at the community level;
- (v) provide necessary trainings and capacity development for sustainable operation of the NFFC including recommendations of the institutional setup of the NFFC and within DHWR; and
- (vi) provide guidance to improve coordination to provide national forecast data for regional forecasting and vice-versa.

G. Service Contract for Improved Hydraulic Design Standards

110. Recruitment of consultants and or institution for preparing improved hydraulic design standards will be carried out by CPMU following CQS procedures. The detailed TOR for the service contract will be prepared by DHRW with assistance from the PIC. The scope of the service contract will include but may not be limited to:

- (i) risk assessment of impact of floods and droughts with different probabilities;
- (ii) evaluation of residual risk under varying degrees of protection;
- (iii) comparison of flood and drought hazards with the standards currently applied;
- (iv) estimates of the cost of infrastructures related to flood and drought proofing for floods and droughts of different frequencies;
- (v) development of design criteria for structural flood and drought control in the Mekong area (and elsewhere) in Cambodia; and
- (vi) provision of guidelines for climate resilient design of structures in the Mekong area (and elsewhere) of Cambodia.

H. Outline Terms of Reference for NGO or similar organization providing services to support the CBDRM output 3.

111. Expected outputs of the CBDRM output are:

- (i) provincial, district, commune and village level participants from selected areas trained in flood and drought risk assessment and analysis; prioritization, definition and implementation of locally appropriate flood and drought risk management measures;

- (ii) safer village and commune plans developed, utilized and updated;
- (iii) community-driven flood and drought risk reduction measures implemented in all selected communes;
- (iv) local level coordinating committees organized and managing the CBDRM implementation;
- (v) technical support and services available to provide technical assistance to the Coordinating Committees;
- (vi) local facilitators recruited and trained to support village and commune planning and implementing risk reduction strategies in participating communes; and
- (vii) a CBDRM model will be formulated and proposed to expand to a larger scale in the subproject areas.

:

112. The tasks of the service provider (NGO or similar organization) will include the following:

- (i) assisting the CPMU and PIUs in the CBDRM process, particularly in seeing to it that the process is understood at the local level;
- (ii) development of the production of the training materials in Khmer;
- (iii) gathering and collecting the materials on CBDRM in Cambodia, studying it and if possible use it as basis for production of training manuals;
- (iv) coordinating with the CPMU, PIUs, and villages in the preparation and implementation of all the training and workshop activities: schedule, participants, venue, and additional resource persons, if needed;
- (v) providing training to the communes and districts related to non structural flood and drought risk management, as needed;
- (vi) studying and reviewing and finalizing the sample formats for safer village plan, safer commune plan and priority investments;
- (vii) advising the local level CCs and the local facilitators as to the feasibility and soundness of the proposed measures as contained in local disaster preparedness from the technical and financial point of view;
- (viii) assisting local level CCs and the local facilitators in producing detailed investment plans based on the priorities contained in the Safer Commune Plans. Translate or interpret the investments to an investment plan that includes the technical details;
- (ix) advising on the technical design, construction drawing and total cost estimate for small civil works and equipment for the subproject focused on strengthening CBDRM.

I. Outline Terms of Reference for Auditing Firm

1. The Project

113. The project that will be audited, the EA and some audit information are summarized below. This TOR is for the audit of the annual project financial statements (APFS).

2. The Objective of the Audit:

114. The objective of is to enable the auditor to express a professional opinion on the use of loan and/or grant proceeds from ADB and its co-financiers. The auditor shall also express the compliance with the covenants of the loan or grant agreement, as well as a separate opinion on the use of the PA procedures and the statement of expenditures.

115. The audit of the APFS is primarily designed to ensure that the financial statements (FS) have been prepared in accordance with the relevant legal requirements and accounting standards adopted by the project and give a true and fair view of the financial performance and position of the project and the EA.

3. The Conduct of the Audit

116. The audit will be conducted in accordance with International Standards on Auditing (ISA). Those standards require that the auditor plans and performs the audit to obtain reasonable assurance about whether the FS are free from material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the APFS. Audit also includes assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall FS presentation.

117. In complying with ISA, the auditor shall:

- (i) review ISA 240¹⁴ (Annex 2), ISA 200¹⁵ (Annex 3), ISA 315¹⁶ (Annex 4) and other relevant ISAs before planning and performing the audit. Auditor shall consider risks of material misstatements in audited APFS to reduce audit risk to an acceptably low level;
- (ii) review ISA 250¹⁷ (Annex 5) in designing and performing audit procedures and in evaluating and reporting the results thereof. The auditor should recognize that noncompliance by the entity with laws and regulations may materially affect the Project Accounts Financial Statements (PAFS) as required by ISA 250;
- (iii) communicate audit matters of governance interest arising from the audit of APFS to those charged with governance of an entity as required by ISA 260,¹⁸ as given in Annex 6;
- (iv) determine overall responses to assessed risks at the FS level, and should design and perform further audit procedures to respond to assessed risks at the assertion level as required by ISA 330,¹⁹ as given in Annex 7;
- (v) include an understanding and assess the internal control environment of the service provider during the audit process as required ISA 402,²⁰ as given in Annex 8, if certain aspects of an entity's operations are performed by a third party service provider; and
- (vi) obtain written representations from management and, where appropriate, those charged with governance as required by ISA 580,²¹ as given in Annex 9, as part of the audit process.

¹⁴ The Auditor's Responsibility to Consider Fraud in an Audit of Financial Statements

¹⁵ Overall Objectives of Independent Auditors

¹⁶ Identifying and Assessing the Risks of Material Misstatements

¹⁷ Consideration of Laws and Regulations in an Audit of Financial Statements

¹⁸ Communication of Audit Matters with Those Charged with Governance

¹⁹ The Auditor's Procedures in Response to Assessed Risks.

²⁰ Audit Considerations Relating to an Entity Using a Service Organization

²¹ Written representation

4. Audit Procedures

118. To comply with the Audit procedures, auditor shall:

- (i) review the Report and Recommendation of the President its linked and supporting documents;
- (ii) plan and conduct the audit in accordance with a risk based framework. The detailed audit work program should be sufficiently extensive in its coverage to support the opinion given;
- (iii) provide interim feedback to the management on the system of internal control and any improvements required for corrective action;
- (iv) gather sufficient audit evidence to substantiate in all material respects, the accuracy of the information contained in supporting schedules attached to the financial statements including any and all supporting schedules. This should include verifying samples of transactions and account balances, reviewing any areas where significant estimates and judgments are made by management, as well as performing analyses to verify reported data and confirm year-end balances;
- (v) review all Statement of Expenditures submitted to the ADB in support of requests for periodic replenishment of the project designated account(s). Expenditures should be examined for eligibility based on criteria defined in the terms of the financing agreement. Where ineligible expenditures are identified as having been included in WAs and reimbursed, they should be reported;
- (vi) review and evaluate the system of internal control and assess the internal control environment to determine the degree of reliance that may be placed upon them and to determine the extent of testing of actual transactions needed to assure the auditor of the completeness and accuracy of the accounting records;
- (vii) include procedures that are designed to provide reasonable assurance that material misstatements (if any) are detected in accordance with International Standards on Auditing. The audit coverage will consider the risk of material misstatements as a result of fraud or error; and
- (viii) determine whether accounting policies are appropriate and consistently applied; and determine whether all financial statement disclosures are adequate.

5. Audit Scope in Compliance with Financing Arrangements

119. To comply with agreed project financing arrangements the auditor shall carry out tests to evaluate the following documents:

- (i) the project's Imprest Account(s) and sub-account(s);
- (ii) statement of expenditures;
- (iii) compliance with covenants contained in the Loan or Grant Agreements;
- (iv) any material weaknesses in internal control which were identified during the audit;
- (v) compliance with Standard Operating Procedures, Financial Management Manual and Procurement Manual;
- (vi) fixed assets procured. Review the allocation of project vehicles and equipment and whether these are being utilized in accordance with the Loan or Grant Agreement; and
- (vii) any other matters which the auditor considers should be brought to the attention of the borrowers.

120. Based on the assessment, the auditor shall justify whether:

- (i) all funds provided by ADB and its co-financiers, as given in Annex 10, have been used in accordance with the conditions of the relevant loan or grant agreement with due attention to economy and efficiency, and only for the purposes for which the loan or grant was intended;
- (ii) counterpart funds, as given in Annex 11, have been provided and used in accordance with the relevant financing agreements, with due attention to economy and efficiency, and only for the purposes for which the loan or grant was intended;
- (iii) goods, works and services financed, as in the procurement plan given in Annex 12, have been procured in accordance with relevant financing agreements, including specific provisions of the ADB Procurement Guidelines;
- (iv) expenditures submitted to ADB are eligible for financing and all necessary supporting documents, records and accounts in support of withdrawals have been adequately maintained;
- (v) all necessary supporting documents, records and accounts have been kept in respect of all project expenditures (including expenditures reported, using Statement of Expenditures or Imprest Fund Procedures); and
- (vi) the Imprest Accounts and sub-accounts have been maintained and operated in accordance with the provisions of the relevant financing agreements.

6. Project Accounts Financial Statements

121. The auditor should verify whether the PAFS have been prepared in accordance with International Public Sector Accounting Standards (IPSAS); and discuss the impact on the financial statements, if any deviations from IPSAS.

122. The financial statements for a project should include:

- (i) a statement of cash receipts and payments for the period;
- (ii) Imprest Account(s) and sub-account(s);
- (iii) Statement of Expenditures;
- (iv) other supplementary schedules of value;
- (v) accounting policies and explanatory notes; The explanatory notes should include reconciliation between the amounts shown as "received by the project from ADB " and that disbursed by ADB and a summary of movements on the project's Designated Account; and a comparison of the project budget to accumulated receipts and expenditure (by disbursement categories) since the commencement of the project; and
- (vi) when the entity makes publicly available its approved budget, a comparison of budget and actual amounts either as a separate additional financial statement or as a budget column in the statement of cash receipts and payments.

7. Audit Methodology

123. Based on this TOR, the audit firm will prepare a methodology to ensure that the audit required is comprehensive and it is expected that a high degree of probity, compliance with the law and accountability be reflected in the methodology. The methodology should, at minimum, shall address the following:

- (i) ISA Compliance: The auditor should indicate the extent (if any) that the audit would not conform to ISA and indicate any alternative standards to which the auditors would conform;
- (ii) understanding of the environment and key areas of audit risk for the project;
- (iii) audit planning and the role that the client is expected to play in this process;
- (iv) the proposed audit team's experience;
- (v) the resources to be allocated to the audit to address the risks identified;
- (vi) the approach to field work (i.e. gathering of evidence to support assertions to be made in the audit opinions);
- (vii) quality assurance arrangements (including mechanisms for the client to be involved in this process); and
- (viii) timetable for completion of the audit work.

124. The methodology proposed by the audit firm, adjusted for any changes agreed during contract negotiations, will form part of the contract.

8. The Audit Report

125. As a minimum, the audit report will:

- (i) state the purpose of the report and its intended use;
- (ii) state whether IPSAS have been adopted in the preparation of the APFS and indicate the effect of any deviations from these standards;
- (iii) state that the audit was conducted in accordance with ISA;
- (iv) The audit opinion will cover both the current period and the cumulative period since commencement of the project;
- (v) The audit opinion will state whether or not the FS present fairly the financial position, results of operations and sources and uses of funds of the project.
- (vi) The auditor is also expected to express an opinion as to the compliance with the terms and conditions of the relevant Loan or Grant Agreement.
- (vii) The auditor should also indicate, where present, the extent of any noncompliance by reference to the financial covenant.
- (viii) The auditor should also indicate whether any attached supplementary FS and Notes to the FS have been subjected to the same auditing procedures as in the case of the basic FS.

126. Irregularities and instances of noncompliance with government or institutional rules and regulations that do not give rise to a qualified opinion or disclaimer of opinion should not be subjects of the report of the auditor. When the auditor has comments that are not material to the opinion, these should be set out in the Management Letter.

127. Where the Loan or Grant Agreement of a project requires the separate audit of the SOE and Imprest Accounts and sub-accounts, respectively, additional paragraphs should be included in the audit opinion:

- (i) referring to the SOE financial statement, certifying to the eligibility of those expenditures against which SOE disbursements were made; and
- (ii) referring to the Imprest Account financial statements.

128. In addition to the management letter, at least the following five specific opinions on FS required from the auditor:

- (i) opinion on the balance sheet,
- (ii) opinion on cash flow,
- (iii) opinion on income statements (profit and loss),
- (iv) opinion on statement of expenditures, and
- (v) opinion of imprest accounts and sub-accounts.

129. When applicable, the auditor opinion and report should indicate the extent of any differences and the impact on the audit of the auditor's use of auditing standards other than ISA compared to the use of ISA.

9. Management Letter

130. Together with the audit opinion, the auditor will submit a management letter (interim and final following each audit fieldwork). The management letter should address as a minimum the following:

- (i) the effectiveness of the internal control system in asset management and maintenance and in ensuring compliance with laws, regulations and financing agreements;
- (ii) any identified weaknesses in the internal control environment, including the auditor's assessment of the impact on the project FS and recommendations for remedial action. There should be a listing of the prior year's recommendations that have not been implemented and their effect on the project FS; and
- (iii) where the internal controls are not reliable, the auditor will provide details of the assessment and the alternative methods employed to gain assurance over the accuracy and completeness of the FS.

10. Exit Conference

131. Upon completion of the field work, the auditor will hold an exit conference with the project management and the ADB. The exit conference will give the auditor an opportunity to obtain management's comments on the accuracy and completeness of the auditor's findings, conclusions, and recommendations, including whether or not management concurs with the audit findings. It will also include a discussion of common findings across projects being audited and recommendations for addressing bottlenecks in preparation for the next audit. The auditor will document the exit conference for inclusion in the audit working papers.

11. Access to Information and Records

132. The auditor will be provided with unrestricted access to all payment records and supporting documents, invoices and all types of contracts, except claims of consultants engaged directly by ADB including statements of account, legal agreements and minutes of meetings, etc. Project staff shall fully cooperate with the auditor. The Auditor shall have the right of access to banks and depositories, consultants, contractors and other persons or firms engaged by the project.

133. The auditor is encouraged to meet and discuss audit related matters including input to the audit plan with ADB project officers.

134. It is highly desirable that the auditor reviews the Loan or Grant Agreement, which summarizes the ADB's financial reporting and auditing requirements. The auditor should also be familiar with the ADB's *Disbursement and Procurement Handbook*.

12. Deliverables and Timing

135. Five sets of the financial statements (in US Dollars and in English) and the corresponding audit report (in English) and management letter (in English) shall be delivered to each EA in accordance with the submission dates stated in Annex 1.

13. Annexes

136. All annexes of this TOR will be completed and endorsed by ADB prior to the advertisement or recruitment of the audit firm or institution.

VII. SAFEGUARDS

137. The project is categorized as “B” for Environment, “A” for Involuntary Resettlement, and “C” for Indigenous Peoples.

A. Environmental Impact

138. The Environment classification is confirmed as category B. An IEE was conducted for Damnak Chheukrom Irrigation Scheme in accordance with the ADB SPS (2009) and the Government’s environmental regulations. Main environmental impacts are potential downstream impacts, construction related short-term impacts on land and water bodies, and water pollution due to increased use of irrigation and potential increase in fertilizer. The IEE confirms that the project is not likely to cause any significant adverse environmental impacts. The initial water balance study shows that water availability downstream is sufficient under both current and projected climate conditions and Pursat River Residual Discharge will be more than the required minimum Environment Discharge. Additional water balance studies will be conducted during the detailed design to confirm the availability of water in the downstream communities, and develop any additional mitigation measures if necessary.

139. Projected negative impacts during construction are temporary and can be minimized by the proposed mitigation measures and monitoring specified in the EMP of the draft IEE and inclusion of special environmental conditions in the bidding documents. The EMP will be updated to modify or include any additional mitigation and monitoring measures based on the detail design. The PDWRAM in Pursat will work with MOWRAM to carry out the water quality testing at the selected sites to assess any negative impact on the water bodies and collaborate with the Provincial Department of Agriculture to ensure appropriate use of agricultural chemicals. Budget for water quality monitoring is included as part of the environmental monitoring costs. Main environmental safeguard responsibility lies with PMU and PIU assisted by the international and national environmental specialists (consultants). Any disputes as a result of adverse environmental impact will be solved through the Grievance Redress Mechanism set up under the project. The environment specialists will provide the guidance at the 1st stage while the Provincial Grievance Redress Committee may consult with the provincial department of environment to seek for its technical opinion if necessary.

B. Land Acquisition and Resettlement

140. Negative impacts for the project are considered significant with an estimated 792 affected households (around 3,960 affected people). Out of the total of affected households, 125 will need to be relocated and 251 (around 1,506 people) are considered vulnerable, including households headed by the elderly, women, and persons with disability; landless families and households living below the poverty line. Total land take is 280.7 hectares which includes 172.5 hectares of agricultural lands and 13.9 hectares of residential lands and 82 ha of unutilized forest lands. In accordance with ADB’s Safeguard Policy Statement (2009) the project is classified as Category A for involuntary resettlement, requiring a full RP. The RP has been prepared and have been agreed between the government and ADB.²² The RP will be updated following completion of detailed engineering design and the update will be subject to ADB review and approval prior to implementation.²³

²² RP is included as linked document 20.

²³ Expansion of flood area in Boeng Preah Ponley Reservoir (BPR) might affect on land use at Phteah Rung Commune. A total of 248,270.00 m² (8.84%) of private plots of land belonging to 64 individuals might be acquired.

141. The international social safeguards/resettlement specialist and the national social safeguards/gender in the PIC team will provide assistance and support to MOWRAM, PDWRAM and the Provincial and commune council administrations that are jointly responsible for planning and supervision of implementation of resettlement and site clearance. The initial cost of resettlement for the Damnak Chheukrom irrigation subproject is estimated at \$2.937 million. The estimated cost will be updated following completion of a detailed measurement survey and replacement cost survey after completion of detailed engineering design. The IRC, MOWRAM and ADB will review and revise the RP and budget should unforeseen obligations related to the agreed RP arise during implementation. Public consultation and disclosure have been conducted and the documents have been uploaded on ADB website prior to the ADB Management Review Meeting.

142. Land acquisition, compensation and relocation of affected people (AP) shall not commence until the ADB has reviewed and approved the updated RP. All resettlement activities will be coordinated with the civil works schedule. MOWRAM will ensure that civil works contractors will not be issued a notice to proceed until: (i) compensation and relocation of APs have been satisfactorily completed; (ii) agreed rehabilitation assistance is in place; and (iii) the site is free of all encumbrances (where relevant).

143. Under the guidance of IRC, MOWRAM's Resettlement Unit will collaborate with CPMU to carry out routine internal monitoring of implementation of the RP. The outcome of these periodic internal monitoring will be reported to IRC and ADB on a quarterly basis. The status of implementation of the RP will be incorporated in the quarterly progress report for submission to ADB. Indicators subject to integrated internal monitoring are those related to process and immediate outputs and results. The updated RP will identify relevant indicators with the assistance of the international social safeguards/resettlement specialist.

144. The IRC will recruit the services of an external safeguard monitoring entity to monitor and report on the implementation of the RP every six months until completion of implementation. The safeguard monitoring entity shall be selected by the IRC from independent organizations, such as academic or research institutes, NGOs, or local consulting firms with experience in monitoring and evaluation of resettlement activities. The essential indicators will be developed by the PICs' international social safeguards/resettlement specialist based on the findings in the detailed measurement survey and will be reflected in the updated RP as well as the TOR of the external safeguard monitoring entity. The external safeguard monitoring entity will issue a certificate of compliance with the RP requirements upon completion of resettlement activities. Based on this certificate, MOWRAM will then seek ADB no objection to award civil works contract(s) and authorize subsequent release of funds for civil works.

C. Indigenous People

145. No ethnic minority people are residing in the project area. The Indigenous Peoples classification for the project in Cambodia is confirmed as Category C.

in the BPR area which may result to economic displacement outside the direct impact areas. Main structures will not be affected in BPR. Temporary land acquisition will be determined during the design measurement survey prior to civil works during RP updating process"

D. Grievance Redress Mechanism

146. The objective of the grievance redress provisions for environment and involuntary resettlement related issues is to resolve complaints as quickly as possible and at the local level through a process of conciliation; and, if that is not possible, to provide clear and transparent procedures for appeal. APs are entitled to lodge complaints regarding any aspect of the preparation and implementation of the RP without prejudice to their right to file complaints with the Provincial Courts at any point in the process. A well-defined grievance redress and resolution mechanism will be established to resolve AP grievances and complaints in a timely and satisfactory manner. All APs will be made fully aware of their rights, and the detailed grievance redress procedures will be publicized through an effective public information campaign. The grievance redress process includes four stages:

- (i) **First stage.** APs will present their complaints and grievances verbally or in writing to the village chief, commune chief or IRC and PRS working groups. The receiving agent will be required to provide immediate written confirmation of receipt of the complaint. If after 15 days the aggrieved AP does not hear from the village and commune chiefs or the working groups, or if he/she is not satisfied with the decision taken in the first stage, the complaint may be brought to the District Office. For environment; environment specialist (consultants) will assess the causes and degree of adverse impacts and provide suggestions to the PIU or contractors for needed actions.
- (ii) **Second stage.** The District Office will be required within 15 days of receipt of the complaint to resolve the complaint to the satisfaction of all concerned. If the complaint cannot be solved at this stage, the District Office will bring the case to the Provincial Grievance Redress Committee for solution.
- (iii) **Third stage.** The Provincial Grievance Redress Committee will meet with the aggrieved party(ies) and attempt to resolve the grievance. The Committee may ask for technical guidance from the Provincial Department of Environment or a review of the detailed measurement survey by the external safeguard monitoring entity. Within 30 days of the submission of the grievance, the Committee must come to a decision in writing and submit copies to MOWRAM, PDWRAM, PDRD, PRS/IRC, the external safeguard monitoring entity, and the AP.
- (iv) **Final stage.** If the aggrieved AP(s) does not hear from the Provincial Grievance Redress Committee or is not satisfied with the decision of the Provincial Redress Committee, he/she may bring the case to Provincial Court. This is the final stage for adjudicating complaints. The Court will reach a decision in writing and submit copies to MOWRAM, PDOWRAM, PRS/IRC, the external safeguard monitoring entity, and the AP(s). If any party is still unsatisfied with the Provincial Court judgment, he/she can bring the case to a higher-level court.

147. It is recognized that many potentially APs do not have the writing skills or communications skill to express their grievances verbally. However, APs will be encouraged to seek assistance from the external safeguard monitoring entity, nominated local NGOs or other family members, village heads or community chiefs to have their grievances recorded in writing. All APs will be provided assistance to access to the detailed measurement survey data (DMS) or other documentation and the survey and valuation of their assets, to ensure that if disputes do occur all the details have been recorded accurately enabling all parties to be treated fairly.

148. MOWRAM, through the CPMU, will shoulder all the administrative and legal fees including other costs borne out from the resolution of the grievance or complaint. The external

safeguard monitoring entity will evaluate the efficiency of the procedures for and the resolutions of grievances and complaints. It may also recommend further measures for the redress of unresolved grievances. The PICs will train the resettlement committee staff to enhance their skills on handling grievance procedures and strategy.

VIII. GENDER AND SOCIAL DIMENSIONS

149. To ensure benefits accrue to women; a social impact analysis and GAP has been prepared for the project. Specific attention will be given to ensure that women: (i) actively participate in project related technical training events, consultation on project design and resettlement arrangements; and (ii) obtain employment on an equal pay for equal work basis in project funded construction works; The National CBDRM/gender Specialist and the Resettlement Specialist will support the EA and IA to ensure the GAP is fully implemented. The Specialists will work closely with the Province, District and Community to provide services to the women in the project area. Project progress reports will provide regular updates on the implementation and impact of the GAP.

150. A national CBDRM/gender specialist will be included in the PIC team and gender mainstreaming training will be delivered for the project at National, Provincial and Local level with focus on data collection, social/gender analysis and monitoring and evaluation needs of the GAP. An awareness raising campaign will be undertaken for the project on issues identified during the consultation process, commencing prior to the start of any civil works.

151. The project is classified as Effective Gender Mainstreaming and resources are adequately provided in the project for implementation of the GAP. MOWRAM will have the overall responsibility of implementing the GAP. The PDWRAM of Pursat Province will be involved in the implementation of all features/activities of the GAP. A gender focal person will be assigned in the CPMU to ensure coordination and linkage across the various GAP activities. MOWRAM, commune and village officials, and representatives from the MOE and women's groups will be involved in different stages of GAP implementation.

Gender Action Plan

Project Outputs	Gender Design Features/Activities
1. Enhanced regional data, information and knowledge base for the management of floods and droughts.	<p>Actively identify and recruit qualified women staff</p> <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>
2. Upgraded Water Management Infrastructure	<p>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 are women.</p> <p>Provide equal opportunity and equal pay for equal work to both females and males for labour construction</p> <p>Ensure at least 30% of unskilled workers are women through condition of bid documents</p>
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>

Project Outputs	Gender Design Features/Activities
	<p>Ensure CBDRM training modules are gender sensitive and address the needs of women</p> <p>Ensure at least 30% of members of the farmer water user committees are women</p> <p>Ensure at least 40% of women in project communes participate in the formulation, implementation and training on CBDRM</p> <p>Ensure at least 30% of CBDRM group members are women</p> <p>Gender sensitive awareness material for CBDRM prepared (Gender sensitive materials for CBRM will be tested with communities ensuring they, especially women clearly understand.)</p>
4. Effective project implementation	<p>Ensure qualified women are encouraged to apply for position in the project</p> <p>Strengthen capacity building of Existing Gender Focal Point at PDWRAM on gender issues in flood and drought, on implementation and monitoring</p> <p>Conduct a consultation workshop on the project 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>Adjust GAP as required based on further gender analysis during implementation to ensure effective gender mainstreaming actions are implemented</p> <p>Provide capacity building on gender issues in flood and drought, how to mainstream gender in CBDRM to all consultants, government counterparts, and management levels</p> <p>Conduct regular meeting with gender focal points and GFP, and monitoring on the implementation of the project GAP by project gender consultant.</p> <p>Provide capacity building on monitoring, gender mainstreaming in CBDRM, gender issues in flood and drought to the gender counterparts by CBDRM/Gender Specialist</p> <p>Ensure adequate funds available to implement GAP</p> <p>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.</p>

GFP = gender focal point, CBDRM = community based disaster risk management, GAP = Gender Action Plan, PDWRAM = Provincial Director of Water Resources and Meteorology.
Source: Staff assessments.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Reduced economic losses resulting from floods and droughts	By 2020, average annual economic losses reduced by 50% in project areas (2011 baseline [Pursat flood damage]: \$13.4 million)	NCDM statistics	Assumption O&M budgets sufficient to maintain infrastructure Risk Frequency and severity of flood and drought events exceed capacity of infrastructure due to climate change
Outcome Improved capacity and preparedness to manage and mitigate the impacts of flood and drought events	NFFC issuing flood warnings to NCDM and linked to MRC regional flood management and mitigation center by 2015 At least 6 gender-sensitive commune disaster risk management plans implemented 16,100 ha of upgraded irrigation and drainage operational (2011 baseline: 0 ha dry season paddy) Increased flood protection for 10,000 people (2011 baseline [Pursat flood]: 1,991 households displaced or approximately 9,955 people)	Project monitoring reports MRC reports NCDM reports MOWRAM reports NCDM reports	Assumptions MRC Regional Flood Forecasting Center continues to operate and provide daily regional flood forecasts Regional cooperation through MRC remains effective
Outputs 1. Enhanced regional data, information, and knowledge base for the management of floods and droughts	All NFFC staff trained and operational by Q2 2016 NFFC forecasting model calibrated and operational by 2017 (2011 baseline: NFFC is not operational) Design criteria for flood and drought mitigation schemes in the Mekong Delta developed and disseminated by mid-2014 Transboundary (Cambodia–Viet Nam) flood management options endorsed by both governments by 2015	MRC and national flood management organization reporting Design criteria as agreed by the governments of Cambodia and Viet Nam	Assumption MRC procedures for data exchange are fully implemented
2. Upgraded water management infrastructure	At least 30% of workdays are provided by women on an equal pay for equal work basis O&M plans for each unit of upgraded infrastructure adopted	Project monitoring and evaluation system ADB supervision mission reports Midterm review report MOWRAM's quarterly and annual progress reports Consultant's progress reports	Assumptions Construction is not delayed by extreme climate events (floods) Government policies remain conducive to enhanced paddy rice production

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
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	Commune and provincial minutes of local government meetings confirming acceptance of the plans Project monitoring and evaluation system, gender action plan monitoring.	Assumption Cooperation with NCDM in project communities is managed effectively
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)	MOWRAM's project completion reports	

Activities with Milestones	Inputs																
1. Enhanced regional data, information, and knowledge base for the management of floods and droughts.	Asian Development Fund loan: \$35.00 million																
1.1 Equip NFFC by end of 2014.	<table><tr><th>Item</th><th>Amount (\$ million)</th></tr><tr><td>Works</td><td>26.73</td></tr><tr><td>Equipment and vehicles</td><td>0.37</td></tr><tr><td>Consulting services</td><td>0.87</td></tr><tr><td>Implementation and supervision</td><td>1.09</td></tr><tr><td>Operation and maintenance</td><td>0.42</td></tr><tr><td>Interest</td><td>0.91</td></tr><tr><td>Unallocated</td><td>4.61</td></tr></table>	Item	Amount (\$ million)	Works	26.73	Equipment and vehicles	0.37	Consulting services	0.87	Implementation and supervision	1.09	Operation and maintenance	0.42	Interest	0.91	Unallocated	4.61
Item	Amount (\$ million)																
Works	26.73																
Equipment and vehicles	0.37																
Consulting services	0.87																
Implementation and supervision	1.09																
Operation and maintenance	0.42																
Interest	0.91																
Unallocated	4.61																
1.2 Appoint NFFC staff by mid-2013.																	
1.3 Install software and calibration for selected basins by 2015.																	
1.4 Calibrate and test forecasts in flood season 2015–2016.																	
1.5 Update national design standards for hydraulic infrastructure by 2015.																	
2. Upgraded water management infrastructure.	ADB SCF loan: \$4.00 million																
2.1 Prepare detailed engineering design by end of Q3 2013.	<table><tr><th>Item</th><th>Amount (\$ million)</th></tr><tr><td>Works</td><td>3.59</td></tr><tr><td>Service charge</td><td>0.01</td></tr><tr><td>Unallocated</td><td>0.40</td></tr></table>	Item	Amount (\$ million)	Works	3.59	Service charge	0.01	Unallocated	0.40								
Item	Amount (\$ million)																
Works	3.59																
Service charge	0.01																
Unallocated	0.40																
2.2 Prepare resettlement plan and implement relocations according to plan by end Q4 2013 for primary canal, Q2 2014 for secondary canals, and Q3 2014 for tertiary canals.																	
2.3 Call for bids by end of Q3 2013 for primary canal, Q4 2013 for secondary canals, and Q2 2014 for tertiary canals.																	
2.4 Contract for construction works by Q1 2014 for primary canal, Q3 2014 for secondary canals, and Q4 2014 for tertiary canals.																	
2.5 Undertake construction works by Q1 2014.																	
2.6 Commission structures and undertake acceptance trials by mid-2018.																	
3. Enhanced capacity for community-based disaster risk management	ADB SCF grant: \$5.80 million																
3.1 Establish farmer water user committees at Damnak Cheukrom irrigation system by 2014.	<table><tr><th>Item</th><th>Amount (\$ million)</th></tr><tr><td>Works, vehicles, equipment and office operations for NFFC</td><td>0.76</td></tr><tr><td>Consulting services</td><td>1.23</td></tr><tr><td>National training</td><td>0.40</td></tr><tr><td>Service contracts</td><td>2.86</td></tr><tr><td>Unallocated</td><td>0.55</td></tr></table>	Item	Amount (\$ million)	Works, vehicles, equipment and office operations for NFFC	0.76	Consulting services	1.23	National training	0.40	Service contracts	2.86	Unallocated	0.55				
Item	Amount (\$ million)																
Works, vehicles, equipment and office operations for NFFC	0.76																
Consulting services	1.23																
National training	0.40																
Service contracts	2.86																
Unallocated	0.55																
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.																	
4. Effective project implementation	Government: \$2.95 million																
4.1 Appoint implementation management consultants by Q2 2013.	<table><tr><th>Item</th><th>Amount (\$ million)</th></tr><tr><td>Land acquisition and resettlement</td><td>2.95</td></tr></table>	Item	Amount (\$ million)	Land acquisition and resettlement	2.95												
Item	Amount (\$ million)																
Land acquisition and resettlement	2.95																
4.2 Establish two project implementation units by Q2 2013.																	
4.3 Establish national project performance monitoring and evaluation mechanisms by Q3 2013.																	
4.4 Complete central project management unit staff capacity building by Q3 2014.																	

ADB = Asian Development Bank, CBDRM = community-based disaster risk management, ha = hectare, MOWRAM = Ministry of Water Resources and Meteorology, MRC = Mekong River Commission, NCDM = National Committee for Disaster Management, NFFC = National Flood Forecasting Center, O&M = operation and maintenance, Q = quarter, SCF = Strategic Climate Fund.

Source: ADB estimates.

B. Monitoring

1. Project performance monitoring

152. A PPMS will be developed on the basis of project design and monitoring framework to record the project's technical performance, evaluate delivery of project facilities, assess achievement of project objectives and measure the project's social, economic, financial and institutional impacts. The EA will be responsible for developing and operating the PPMS with assistance from the PIC and information provided by the PIUs, and will report monthly to ADB. Progress monitoring, safeguard monitoring and benefit monitoring and evaluation will be carried out regularly during project implementation. Post-evaluation will be carried out three years after project completion. A baseline survey covering both target and control groups, and periodic surveys will be carried out by collecting data disaggregated by income group, sex, and other characteristics as appropriate. The EA will maintain a project-specific web-page, in English and Khmer, on its official web-site, for wider dissemination of procurement and distribution related information, and to provide a feedback mechanism.

2. Compliance monitoring

153. A number of assurances have been given by the Government to ensure the smooth implementation of the project. Those are subject to Loan covenants (Loan Agreement - Schedule 5) and are summarized below. The ADB will monitor compliance with those covenants throughout project effectiveness and implementation via regular review missions, quarterly progress reports submitted by the CPMU, and review of project accounts and procurement procedures.

3. Project Specific Assurances

a. Implementation Arrangements

154. The Borrower 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 EA and ADB. In the event of any discrepancy between the PAM and the Loan Agreement, the provisions of the Loan Agreement shall prevail.

b. Environment

155. The Borrower shall ensure that the project facilities are constructed and operated in compliance with the Borrower's applicable environmental laws and regulations and ADB's SPS (2009), and that IEE and EMP will be updated based on the detail design to modify or incorporate any additional mitigation and monitoring measures.

c. Resettlement

156. Prior to the commencement of any resettlement activities under a Subproject with Category A resettlement criteria, the Borrower shall prepare or update as the case may be, and submit to ADB for approval, the relevant resettlement plans in accordance with the RP as agreed between the Borrower and ADB, the Borrower's relevant laws and regulations and ADB's SPS. The Borrower shall not issue a notice to commence civil works in a particular Subproject, until (a) compensation payment and relocation of the affected people in such particular Subproject, if any, have been completed satisfactorily in accordance with the respective resettlement plan; (b) rehabilitation assistance has been in place; and (c) such Subproject is free of all encumbrances.

d. Gender and Development

157. The Government through MOWRAM will ensure that the gender action plan prepared for the project will be fully implemented and the resources needed for its implementation will be made available in a timely manner, and specifically that: (a) CBRM training modules are gender sensitive and address the needs of women; (b) data disaggregated by sex and ethnic origin will be collected in all communities covered by the project and analyzed to verify effective and equitable implementation of the GAP and project activities; (c) at least 40% of workers employed in civil works financed by the project are women; and (d) at least 30% of CBDRM committee members are women.

e. Governance and Anticorruption

158. The Borrower shall ensure that (i) periodic inspections of the project contractor's activities related to fund withdrawals and settlements are carried out; (ii) relevant provisions of ADB's *Anticorruption Policy* (1998, as amended to date) are included in all bidding documents for the project; and (iii) contracts, financed under the project, include provisions specifying the right of ADB to audit and examine the records and accounts of MOWRAM and project provinces, contractors, suppliers, consultants, and other service providers as they relate to the project.

159. Within 2 months of the Effective Date, MOWRAM shall create a project website, accessible by the general public, to disclose information about various matters concerning the project, including general project information, procurement, project progress, and contact details in the English and Khmer languages. The website shall also provide a link to ADB's Integrity Unit (<http://www.adb.org/Integrity/complaint.asp>) for reporting to ADB any grievances or allegations of corrupt practices arising out of the project and project activities. With regard to procurement, the website shall include information on 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, Works and Consulting Services procured.

f. Community Awareness and Beneficiary Participation

160. MOWRAM shall ensure that project provinces promote active community awareness and stakeholder participation in the design, implementation and performance monitoring of subprojects, though (i) disseminating the nature of the proposed project works in open public forums, and (ii) establishing a mechanism for public consultation. Bidding documents financed under the project shall include provisions to ensure contractors' preferential hiring of local labor and to comply with the Borrower's Labor Code and labor regulations including guaranteeing equal opportunities for female workers to work with the principle of equal pay for work of equal value.

g. Operation and Maintenance of Project Facilities

161. The Borrower shall ensure that each project province executes with MOWRAM a memorandum of understanding, acceptable to ADB, providing such province shall (i) prepare a maintenance management plan that includes estimates of the physical works and associated costs required for routine and periodic maintenance, as well as provisions for emergency repairs for the whole life of the project facilities; (ii) include the maintenance management plans in its annual budgets; (iii) provide adequate funds in a timely manner from provincial budgets to implement the maintenance management plan; and (iv) establish mechanisms for the safe and proper use for each of the project facilities in accordance with national regulations and practice, such as posting signs on roads and bridges of maximum weight limits, and as necessary to alert users of hazards or establishing physical barriers prohibit vehicles with above a certain size to pass.

h. Monitoring of Project Benefit and Resettlement

162. Within 12 months of the Effective Date, MOWRAM, through CPMU, shall execute a contract with suitably qualified institutions such as social science institutes, universities, consulting firms, NGOs or other institutions acceptable to ADB, for project benefit monitoring and the monitoring of the implementation of the resettlement plans. Such contract shall be submitted to ADB, and regular reports from the contracted institution shall be included in the quarterly reports to be submitted to ADB.

i. Unexploded Ordnance

163. The Government will ensure that, all contracts contain a provision, that in the event unexploded ordnance (UXO) clearance is needed, the services of a reputable and experienced mine security organization, acceptable to ADB, will be engaged to carry out and then certify subproject area is clear of UXO.

j. Labor

164. The Government will ensure that women and men will be paid equal remuneration for the work of equal value. Child labor will not be allowed; and the measures included in the gender action plan prepared for the project will be undertaken, and the resources needed for their implementation will be made available, in a timely manner.

k. HIV/AIDS and human trafficking

165. The Government will ensure that an HIV/AIDS and human trafficking program within the project's social support programs is implemented in the construction camps, towns, and rural areas of the project area, and PDWRAMs/PIUs will monitor the operation and effectiveness of the program.

l. Project Website

166. In addition to these requirements, to deter corruption and increase transparency, the Government will 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, will be provided detailed information on procurement on public notice boards in their respective provinces.

C. Evaluation

167. ADB will conduct regular (at least twice per year) reviews throughout project implementation to review and assess implementation performance and achievement of project outcomes and objectives; examine financial progress; and identify issues and constraints affecting the project and work out time-bound action plans for their resolution.

168. Apart from regular reviews, a comprehensive mid-term review will be jointly undertaken by the Government and ADB within 36 months of the effectiveness to identify implementation problems and to revise the PAM and other arrangements as necessary to resolve problems identified. These reviews will include a comprehensive evaluation of project implementation arrangements, detailed evaluation of the scope and implementation process and progress of subprojects, feedback from the PPMS, performance of consultants, capacity building progress, and possible reallocation of loan proceeds. During this more significant review, the impact from the pro-poor initiatives linked to infrastructure development will be assessed as will the allocation by local administrations for the maintenance of the infrastructure developed under the project. Remedial action will be instituted as required.

169. Within 6 months of physical completion of the project the ADB will conduct a project completion mission to carry out a preliminary assessment of the success of the project to achieve its physical, and socio-economic developmental objectives, as well as to review compliance with ADB requirements and loan covenants.

D. Reporting²⁴

170. The CPMU will prepare and submit to MOWRAM and ADB within 30 days of the end of each calendar quarter, consolidated quarterly progress reports in a format consistent with ADB's project performance reporting system. These progress reports are designed to allow ADB staff to readily capture key information to record in ADB's project reporting system.

171. In addition to these quarterly progress reports, the CPMU will prepare consolidated annual reports, which will include (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) an updated procurement plan; and (d) an updated implementation plan for the next 12 months. To ensure projects continue to be both viable and sustainable, project accounts and the executing agency annual financial statements, together with the associated auditor's report, should be adequately reviewed.

172. Within 6 months of physical completion of the project, the CPMU will submit to ADB a completion report that describes the physical achievements of the project, actual costs incurred in relation to cost estimates, the results of project activities, a preliminary assessment of achieved benefits, and other relevant project implementation matters requested by ADB.²⁵

173. To ensure projects continue to be both viable and sustainable, project accounts and the executing agency AFSs, together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

1. Community Consultation

174. The project has been designed to improve the well-being of poor people through a number of investments in priority rural infrastructure. During the project, the process of consultation will continue throughout the detailed design phase of each subproject to afford community groups the opportunity to voice their views on how the subproject is to be designed, implemented and operated. This will be accomplished through a series of community consultation meetings at commune and district level. The community consultation meetings will be carried out by the PIU and their design consultants as well as the national safeguard consultants. It will include the participation of representatives from the local government and mass organizations such as the Women's Unions, the Farmers' Union, the Youth Union. The communities will be briefed on all aspects of the subproject including safeguard issues of environment, resettlement. Women will be particularly encouraged to actively participate in the consultation meetings and voice their opinions and views about the subproject design and implementation arrangements.

175. The community will also be informed of the O&M arrangements for the subproject and their expected participation in kind or otherwise in this aspect of the work. They will be encouraged to provide ideas and feedback to the design team and raise their concerns

²⁴ Reporting will be in accordance with Decision 803 issued in 30 July 2007 as agreed between the Government and ODA donors including ADB

²⁵ Project completion report format available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

regarding potential negative impacts of the subproject design on the environment and the welfare of the community.

176. The process of consultation is expected to build ownership of the subprojects by the community and hence foster better sustainability of the investment.

2. Community Participation

177. It is anticipated that the community will be mobilized in a number of different ways during subproject design, implementation and operation. Since most of the subprojects involved rehabilitation of existing infrastructure, there is limited scope for the community to participate in the selection of the site and alignment for instance. At this stage the community participation will consist mostly to their contribution during consultation meetings.

178. During the construction phase, a significant opportunity for active participation, and for many poor households to benefit from the subproject, is in providing wage labor. This will be encouraged through the bidding documents which will request the contractors to investigate this option whenever possible. Women and men will be employed on the basis of “equal pay for equal work”. No child shall be employed by any contractor or Government agency for this project.

179. The community will also be required to participate in the O&M of the completed infrastructure whenever possible through provision of labor or in some cases funds.

3. Community Awareness

180. Experience has demonstrated the importance of community participation in achieving sustainable development including appropriate and well-designed infrastructure. To ensure adequate participation of the community, it must first be well-informed and there must be adequate opportunities for everyone to participate if they wish.

181. Information about the project and the subprojects in particular, including the objectives, potential environmental impact, implementation arrangements, resettlement and compensation matters, and gender issues will be provided to beneficiaries. The PIUs will design a community awareness program for each subproject and each community and will make this information available to the commune in Khmer language.

182. Awareness programs will take advantage of existing social development systems such as commune /village meetings and announcements on commune speaker systems, but may also include different and more innovative approaches. The community will be fully informed of issues such as their right to participate in this subproject and to be compensated for any loss of property including productive land and / or assets; as well as gender equity and other relevant policies. Separate meetings and discussions will be arranged with the people who are directly affected by land acquisition and/or resettlement issues. The community and particularly the affected households will be provided with detailed guidance and procedures regarding resettlement and compensation.

X. ANTICORRUPTION POLICY

183. ADB's *Anticorruption Policy* (1998, as amended to date) was explained to and discussed with MOWRAM and PDWRAM. Consistent with its commitment to good governance, accountability, and transparency, ADB reserves the right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive, or coercive practices relating to the project.²⁶

184. To support these efforts, relevant provisions of ADB's *Anticorruption Policy* are included in the loan regulations and the bidding documents for the project. In particular, all contracts financed by ADB in connection with the project shall include provisions specifying the right of ADB to audit and examine the records and accounts of MOWRAM, CPMU, PDWRAMs, PIUs, all contractors, suppliers, consultants, and other service providers as they relate to the project. Individuals/ entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.²⁷ The project design and implementation arrangements provide for mitigation of corruption risks. Risks associated with project management, including procurement and disbursement, will be mitigated by (i) engaging an international consultant and a national consultant to advise and assist in the procurement of goods and services, procurement and supervision of civil works, and the engagement of other consultants; (ii) introducing a dual signing system in which the civil works contractor awarded the contract will also sign an anticorruption contract with the employer; and (iii) periodic inspection by the CPMU of the contractor's activities relating to fund withdrawals and settlements. References on ADB's Anticorruption Policy can be accessed through the following link: <http://www.adb.org/Integrity/>.

185. The project will also establish a website in which it will disclose implementation progress; bid notifications and their results; and provides grievance mechanism against any corrupt practice.

XI. ACCOUNTABILITY MECHANISM

186. People who are, or may in the future be, adversely affected by the project may address complaints to ADB, or request the review of ADB's compliance under the Accountability Mechanism.²⁸

XII. RECORD OF PAM CHANGES

187. All revisions/updates during the course of implementation will be retained in this Section to provide a chronological history of changes to implemented arrangements recorded in the PAM.

#	Description of Revision	Date
1	Initial draft for discussion prepared	May 2011
2	Revised including suggestions from CARM PAU	June 2011
3	Revised with MOWRAM comments and revised costing	October 2012
4	Revised after updating of subproject costs and ADB peer review	July 2012
5	Revised to reflect agreements during technical discussions/loan negotiations	October 2012

²⁶ Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

²⁷ ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

²⁸ For further information see: <http://compliance.adb.org/>.