

Project Administration Manual

Project Number: 40190

Loan: LXXXX

September 2012

Greater Mekong Subregion: Flood and Drought
Management and Mitigation Project – Lao People's
Democratic Republic

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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 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 statement
AP	=	affected people
CAW	=	committee for advancement of women's affairs
CBDRM	=	community based disaster risk management
CCC	=	commune coordinating committee
CF	=	commune facilitator
CQS	=	consultants' qualification selection
DAFO	=	District Agriculture and Forestry Office
DMF	=	design and monitoring framework
DMH	=	Department of Meteorology and Hydrology
DOI	=	Department of Irrigation
DOW	=	Department of Waterways
EA	=	executing agency
EIA	=	environmental impact assessment
EMP	=	environmental management plan
FGIA	=	first generation imprest account
FMMP	=	Flood Management and Mitigation Program (of the MRC)
GMS	=	greater Mekong subregion
GAP	=	gender action plan
ICB	=	international competitive bidding
IEE	=	initial environmental examination
IPP	=	indigenous people plan
IPPF	=	indigenous people planning framework
LARP	=	land acquisition and resettlement plan
LWU	=	Lao Women's Union
MAF	=	Ministry of Agriculture and Forestry
MFA	=	Ministry of Foreign Affairs
MOF	=	Ministry of Finance
MONRE	=	Ministry of Natural Resources and Environment
MPI	=	Ministry of Planning and investment
MPWT	=	Ministry of Public Works and Transport
MRC	=	Mekong River Commission
NCB	=	national competitive bidding
NDMO	=	National Disaster Management Office
NEWC	=	national early warning center
NGOs	=	nongovernment organizations
NLMA	=	National Land Management Authority
NPC	=	national project coordinator
NPCO	=	National Project Coordination Office
NSC	=	national steering committee
PAFO	=	Provincial Agricultural and Forestry Office
PAM	=	project administration manual
PIC	=	project implementation consultants
PIO	=	project implementation office
PPMS	=	project performance management system
PSC	=	project steering committee
QBS	=	quality based selection

QCBS	=	quality- and cost based selection
RP	=	resettlement plan
RRP	=	report and recommendation of the President
SBD	=	standard bidding document
SGIA	=	second generation imprest account
SIA	=	social impact assessment
SOE	=	statement of expenditure
SPS	=	safeguard policy statement
SPRSS	=	summary poverty reduction and social strategy
TA	=	technical assistance
TOR	=	terms of reference
UXO	=	unexploded ordnance
WREA	=	Water Resources and Environmental Administration

I. PROJECT DESCRIPTION

A. Project's Rationale, Location and Beneficiaries¹

1. The Project will support the Government of Lao PDR to undertake structural and non-structural measures to prepare for and manage disaster risks linked to floods and droughts.² Project interventions will (i) enhance regional data and knowledge for the management of floods and droughts; (ii) upgrade or develop water management infrastructure; and (iii) prepare communities to manage disasters such as flood and drought and adapt to climate change. The Project will improve flood and drought risk management on over 20,000 ha in Vientiane Capital and reduce the vulnerability to floods of over 61,500 people.

B. Impact and Outcome

2. The Project impact will be reduced losses resulting from flood or droughts. The Project outcome will be improved capacity and preparedness to manage and mitigate the impacts of flood and drought events.

C. Outputs

3. The project will have four key outputs:

1. Enhanced Regional Data, Information, and Knowledge Base for the Management of Flood and Droughts

4. The project will assist the government of Lao PDR to strengthen its national flood and drought forecasting capacities.

2. Upgraded Water Management Infrastructure

5. The project will support: (i) rehabilitation of flood control embankments, associated water control structures, and access roads; (ii) rehabilitation of drainage canals, including increasing flow capacity and improving water control infrastructure; and (iii) rehabilitation and extension of canals, water control structures and irrigation distribution networks. Specifically, in Lao PDR, the subprojects include the Vientiane Flood Protection Embankment and the Irrigation Development Subproject in Vientiane Capital.

3. Enhanced Capacity of Community Based Disaster Risk Management

6. Community based disaster risk management (CBDRM) forms an important strategy for enhancing the impact of the structural investments supported by the Project. In each of the communities where infrastructure development is undertaken, CBDRM actions will be implemented to ensure that communities are able to obtain the full benefit from the improved water control infrastructure and improved flood warnings. Community-driven flood and drought

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.

² "Structural measures refer to any physical construction to reduce or avoid possible impacts of hazards, which include engineering measures and construction of hazard-resistant and protective structures and infrastructure. Non-structural measures refer to policies, awareness, knowledge development, public commitment, and methods and operating practices, including participatory mechanisms and the provision of information, which can reduce risk and related impacts", UN/ISDR Geneva, 2004.

risk reduction measures will be implemented based on participatory local level disaster risk reduction and management plans.

4. Effective Project Implementation

7. The project will support the executing agencies to undertake overall project oversight and strengthen the project planning, implementation and management capacities of implementing agencies.

II. IMPLEMENTATION PLAN

A. Project Readiness Activities

Indicative Activities	2012								Who responsible
	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	
Advance contracting actions									SEER/MAF/DOI
Establish project implementation arrangements									MAF/DOI
Technical discussions (to be upgraded to loan negotiations upon ADB Management approval)									MOF and ADB
ADB Board approval (November 2012)									SEER
Loan signing									SEER/OGC/MOF
Government legal opinion provided									MAF/MOF
Government budget inclusion									MAF/MOF
Loan effectiveness									SEER/OGC

DOI = Department of Irrigation; MAF = Ministry of Agriculture and Forestry; MOF = Ministry of Finance of Lao PDR; OGC = Office of the General Counsel (ADB); SEER = Southeast Asia Department, Environment, Natural Resources and Agriculture Division (ADB).

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

Project Organizations	Management Roles and Responsibilities
<ul style="list-style-type: none"> • Ministry of Finance 	<ul style="list-style-type: none"> ➤ Establishment and management of first generation imprest accounts.
<p>Executing agency (EA)</p>	<p>The Ministry of Agriculture and Forestry (MAF) will be the executing agency and will be responsible for overall project management and coordination through its Department of Irrigation (DOI).</p>
<ul style="list-style-type: none"> • Ministry of Agriculture and Forestry 	
<ul style="list-style-type: none"> • National Project Coordination Office 	<p>MAF will establish a National Project Coordination Office (NPCO) in Vientiane led by a National Project Coordinator (NPC). The NPCO will be responsible for day to day implementation of project activities including:</p> <ul style="list-style-type: none"> ➤ overall coordination and management of the Project including coordination between the Project Implementation Offices (PIO); ➤ establishment and management of second generation imprest accounts; ➤ prepare and submit withdrawal applications to ADB; ➤ submit financial statements to ADB; ➤ selection and recruitment of project implementation consultants (PIC); ➤ recruitment of national consultants for preparation of detailed design, preparation of bid documents, and construction supervision; ➤ recruitment of safeguard monitoring entities; ➤ recruitment of NGO for CBDRM; ➤ coordination of community development activities for CBDRM; ➤ procurement of civil works, goods and equipment following international competitive bidding (ICB) and national competitive bidding (NCB) procedures; ➤ procurement of training services upon approval of the training plan by the NSC; ➤ implementation of the Project Performance Management System (PPMS); ➤ preparation of contract awards and disbursements forecasts; ➤ arrangement for annual audit of project accounts, and ➤ preparation of quarterly project progress reports, completion report, and other reports as required. <p>The NPCO will also provide secretariat services to the National Steering Committee (NSC)</p>

Steering Committee

- National Steering Committee

A NSC will be established. The Chair of the NSC will be the Vice Minister, MAF and the vice-chairs will be the Vice Governor of Vientiane Capital, DG Department of Waterways (MPWT), Secretary General (SG) of the Lao National Mekong Committee Secretariat. Members of the NSC will include: DG of Department of Irrigation (MAF) as Secretary of the NSC, DG Department of Planning (MAF), DG Department of Meteorology and Hydrology (MONRE), DG Department of Water Resources (MONRE), DG of Department of Natural Disaster Management and Climate Change (MONRE), DG of Planning and Cooperation (MONRE), DG Department of International Cooperation (MPI), Department of External Finance Relations (MOF), Governors of project districts, Heads of Vientiane Capital Departments: Agriculture and Forestry, Public Works and Transport, Natural Resources and Environment.

The NSC will meet twice a year. It will ensure interagency cooperation at national level; review and advise on policy issues and implementation constraints; and ensure integration with other donor and government development activities. Specifically, the NSC will:

- review implementation progress;
- authorize allocation of funds for subprojects based on approved feasibility studies;
- approve detailed design of subprojects;
- approve annual work-plans and budgets;
- approve training and capacity building plans;
- set up a procurement committee for the project comprising representatives from concerned agencies including: MOF, MAF, MPWT and DMH;
- approve civil works contracts for all subprojects; and
- provide overall guidance on implementation of the Project.

Implementing agencies (IA)

Three Implementing Agencies (IA) will be established. MAF will establish a PIO in the Provincial Agriculture and Forestry Office (PAFO) of Vientiane Capital to manage and supervise implementation of the Vientiane Irrigation Development Subproject; the Ministry of Public Works and Transport (MPWT) will establish a PIO within its Department of Waterways (DOW), to manage and supervise the implementation of the Flood Protection Embankment Subproject; and the Department of Meteorology and Hydrology (DMH) will establish a PIO for implementation of the National Early Warning Center (NEWC) in Vientiane. The IAs will be responsible for day to day implementation and management of their respective subprojects and components as follows:

- Provincial agriculture and forestry office
 - PAFO - PIO will be responsible for implementation of the Irrigation Development subproject as follows:
 - establishment and management of two second generation imprest accounts (SGIA);
 - financial management of the subproject;
 - procurement of goods and equipment following Shopping procedures as per the procurement plan;
 - coordination and management of implementation of the subproject;
 - implementation of resettlement plan (RP) related to the subproject;
 - implementation of environment management plan (EMP) related to the subproject; and
 - implementation of gender action plan (GAP) related to the subproject;

- Ministry of Public Works and Transport/ Department of Waterways
 - MPWT/DOW - PIO will be responsible for implementation of the Vientiane Flood Protection Embankment subproject as follows:
 - establishment and management of two SGIAs;
 - financial management of the subproject;
 - procurement of goods and equipment following Shopping procedures as per the procurement plan;
 - coordination and management of implementation of the subproject;
 - implementation of RP related to the subproject;
 - implementation of EMP related to the subproject; and
 - implementation of GAP related to the subproject;

- Ministry of Natural Resources and Environment/ Department of Meteorology and Hydrology
 - DMH - PIO will be responsible for day to day implementation and management of the output 1. The PIO will be responsible to:
 - identify and assign staff resources and recurrent operational budget to maintain the NEWC services beyond the project implementation period;
 - establish and manage one SGIA;
 - procure goods and equipment following Shopping procedure;
 - manage and implement works, including improvement of forecasting models and procedures for DMH disaster early warning dissemination and services.

- **Financier**
 - Asian Development Bank
 - provide financing of the Project cost through an ADF Loan (65% of total project cost) and through an ADF Grant (33% of total project cost);
 - monitor project implementation arrangements, disbursement, procurement, consultant selection, and reporting;
 - monitor schedules of activities, including funds flow;

- review compliance with agreed procurement procedures;
- review compliance with loan and grant covenants;
- monitor effectiveness of safeguard procedures;
- analyze the outcome of the capacity building and training programs;
- monitor project conformity with ADB anti-corruption policies;
- undertake a periodic review missions;
- undertake a joint midterm review mission with the Government.

B. Key Persons Involved in Implementation

Executing Agency
MAF

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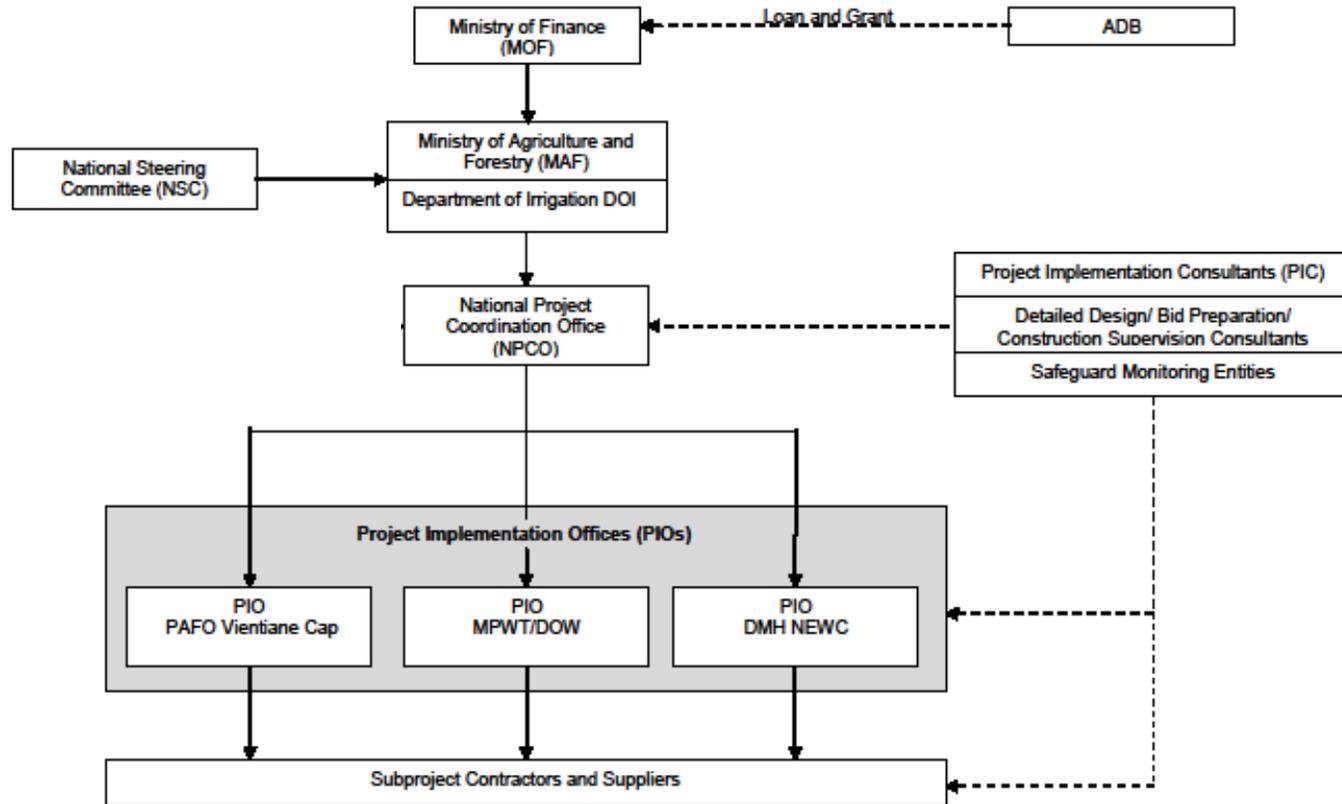
C. Project Management Structure

8. MAF is the executing agency for the Project. MAF will delegate the responsibility for overall project coordination and management to its DOI. MAF will establish a NPCO headed by a NPC that will be responsible for project coordination and management, including financial management of project accounts, procurement of goods and works, recruitment of consultants, and monitoring and reporting.

9. To ensure inter-agency cooperation at the national level, a NSC will be established by the Government. The NSC will be chaired by the Vice Minister of MAF. The Vice Chairs will be the Vice Governor of Vientiane Capital, DG Department of Waterways (MPWT) and Secretary General (SG) of the Lao National Mekong Committee Secretariat. Members will include: Members of the NSC will include: DG of Department of Irrigation (MAF) as Secretary of the NSC, DG Department of Planning (MAF), DG Department of Waterways (MPWT), DG Department of Meteorology and Hydrology (MONRE), DG Department of Water Resources (MONRE), DG of Department of Natural Disaster Management and Climate Change (MONRE), DG of Planning and Cooperation (MONRE), DG Department of International Cooperation (MPI), Department of External Finance Relations (MOF), Governors of project districts, Heads of Vientiane Capital Departments: Agriculture and Forestry, Public Works and Transport, Natural Resources and Environment. The NSC will meet twice a year to review overall implementation progress, ensure interagency cooperation at national level and provide overall policy guidance. The NPCO will provide secretariat services to the NSC.

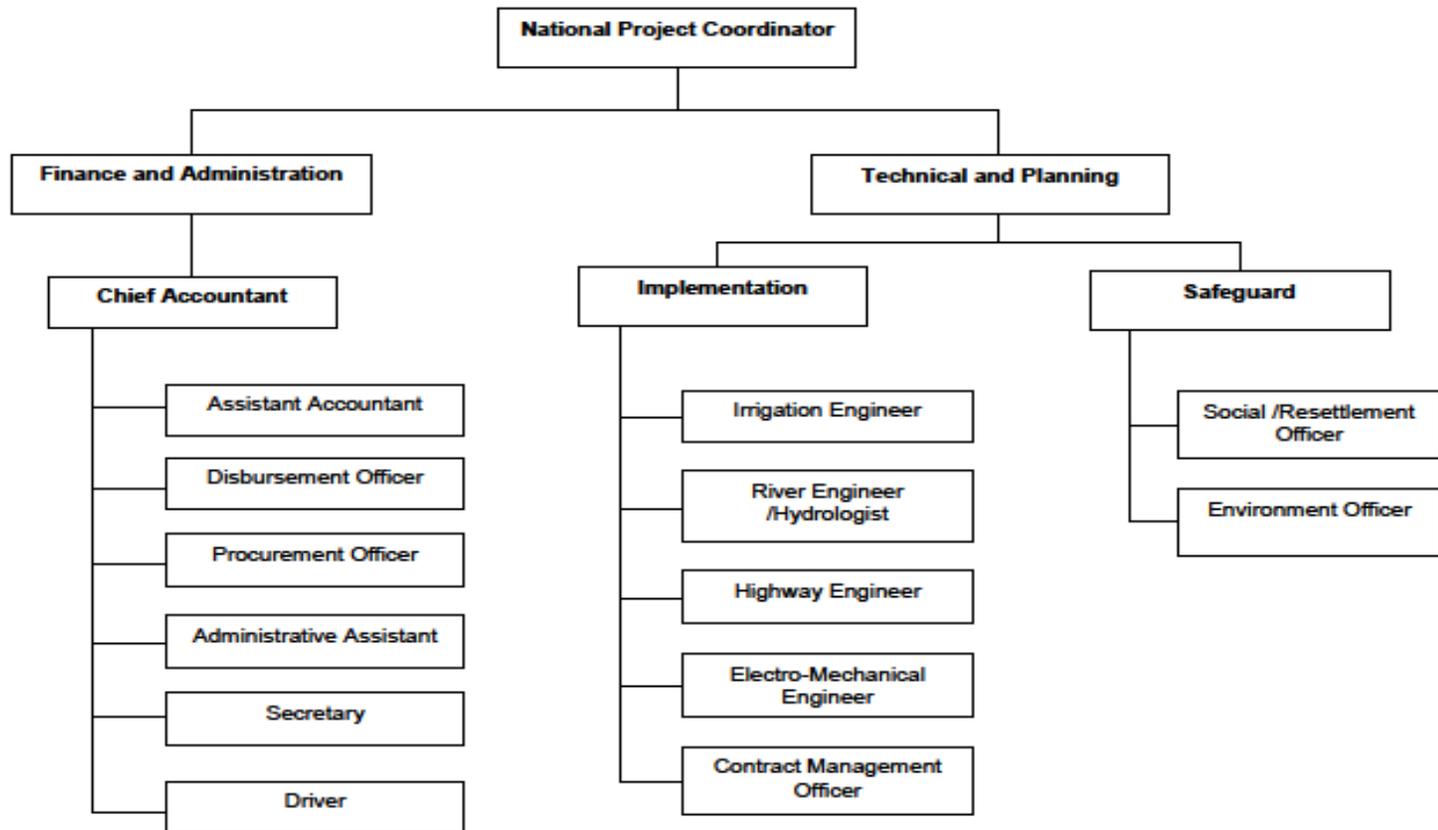
10. The IAs will be PAFO of Vientiane Capital, MPWT through its DOW, and DMH. Each IA will establish a PIO to be responsible for financial management, coordination and management of implementation of their respective component or subproject including community development activities; coordination of resettlement activities; coordination of environment management activities; coordination of indigenous people development activities; coordination of gender action plan activities; and monitoring and reporting on physical progress of implementation.

D. Project Organization Structure

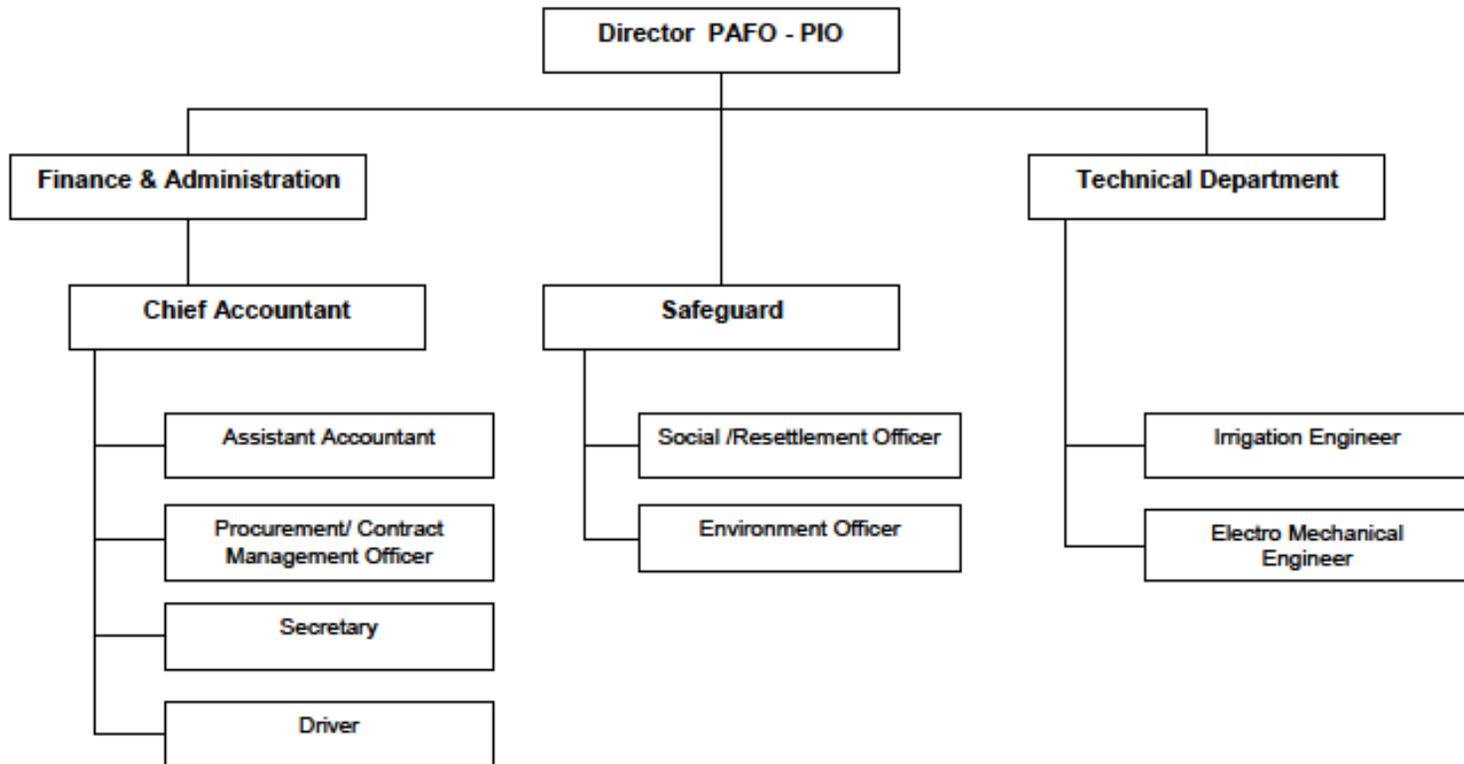


PAFO = Provincial Agriculture and Forestry Office
 MPWT = Ministry of Public Works and Transport
 DOW = Department of Waterways
 DMH = Department of Meteorology and Hydrology
 NEWC = National Early Warning Center

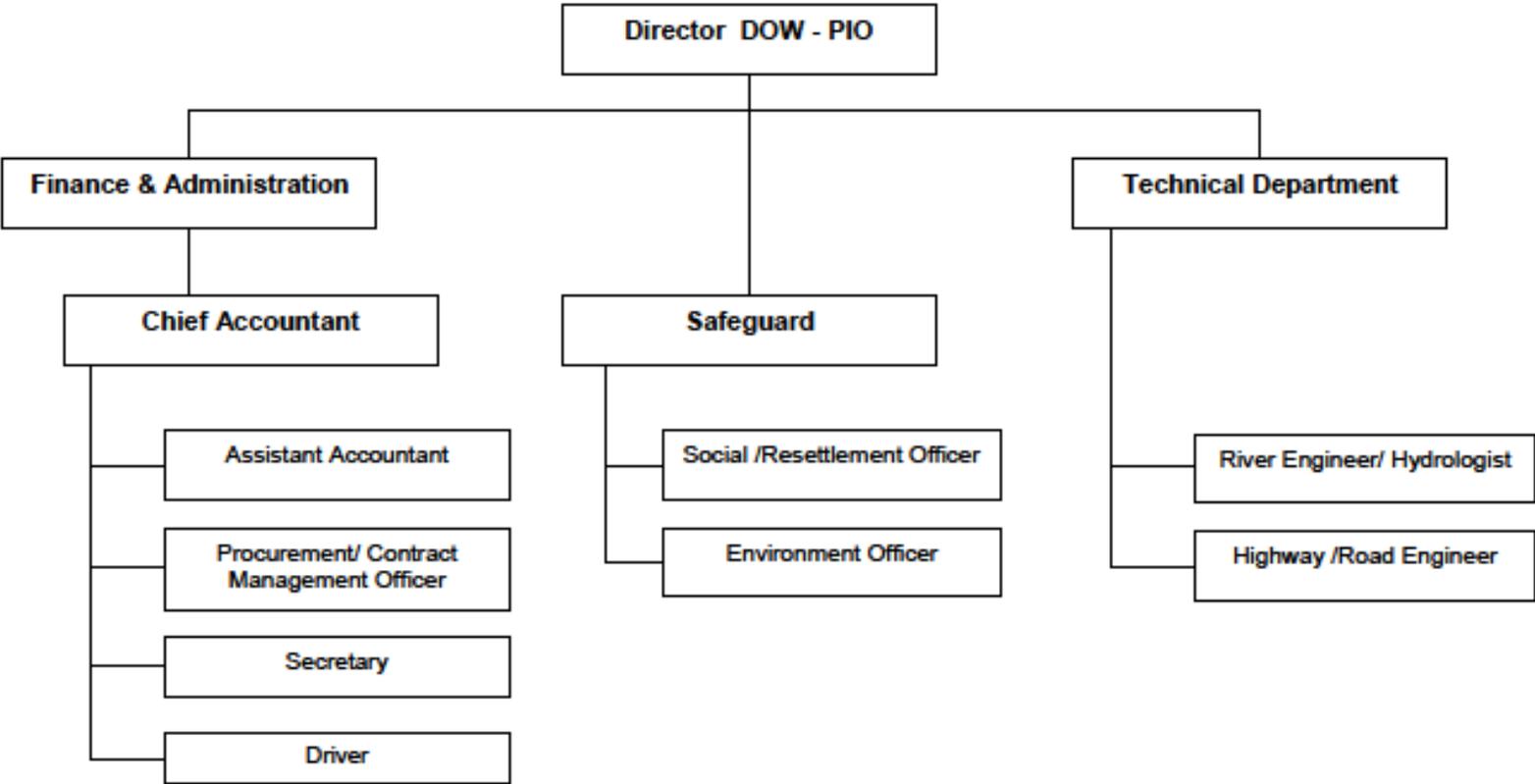
National Project Coordination Office



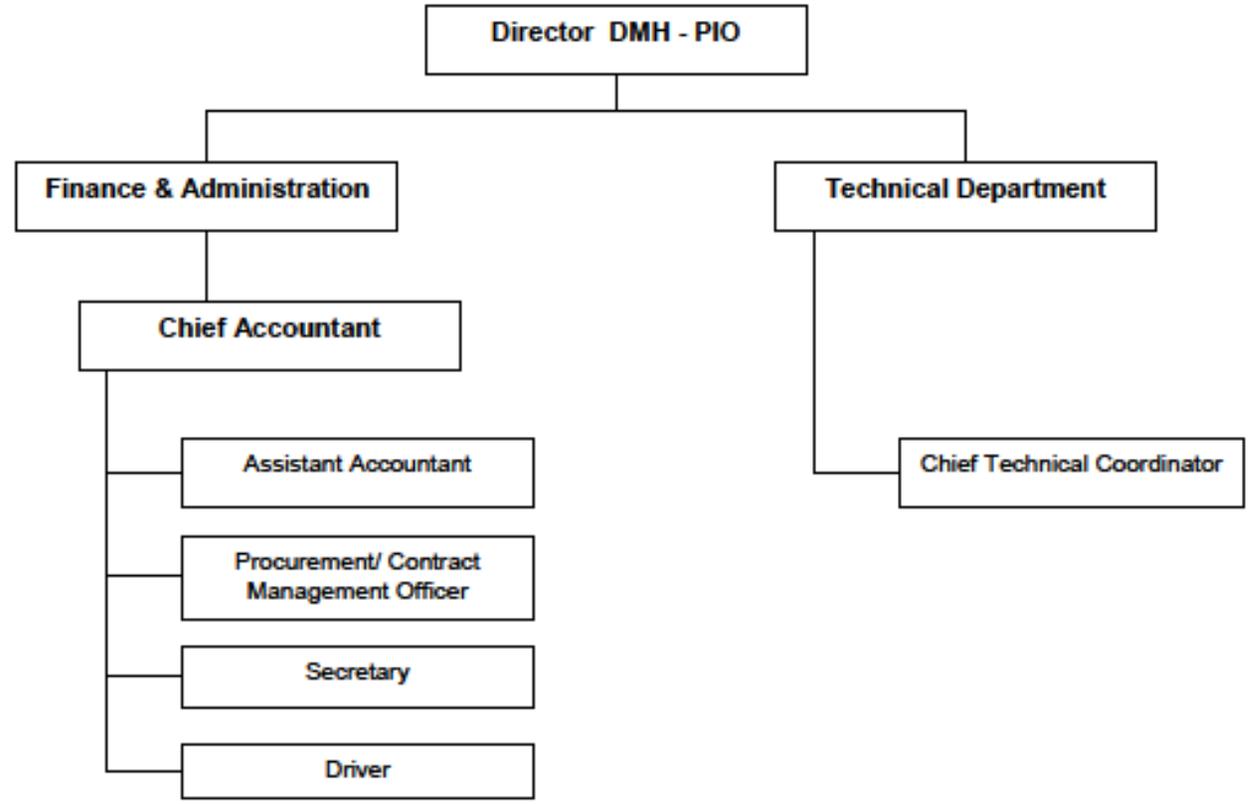
**Project Implementation Office
(PAFO - PIO)**



Project Implementation Office
(DOW - PIO)



Project Implementation Office
(DMH - PIO)



E. Implementation Arrangements

1. Subproject Preparation and Approval

11. Careful planning of project 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, preparation of bidding documents and supervision of construction, will begin shortly after appointment of the PIC who will be responsible to prepare the TORs for those consultants. Subproject implementation will include the following steps:

- (i) Survey and preparation of Detailed Engineering Design;
- (ii) Updating of resettlement plans and preparation of environment management plans;
- (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.

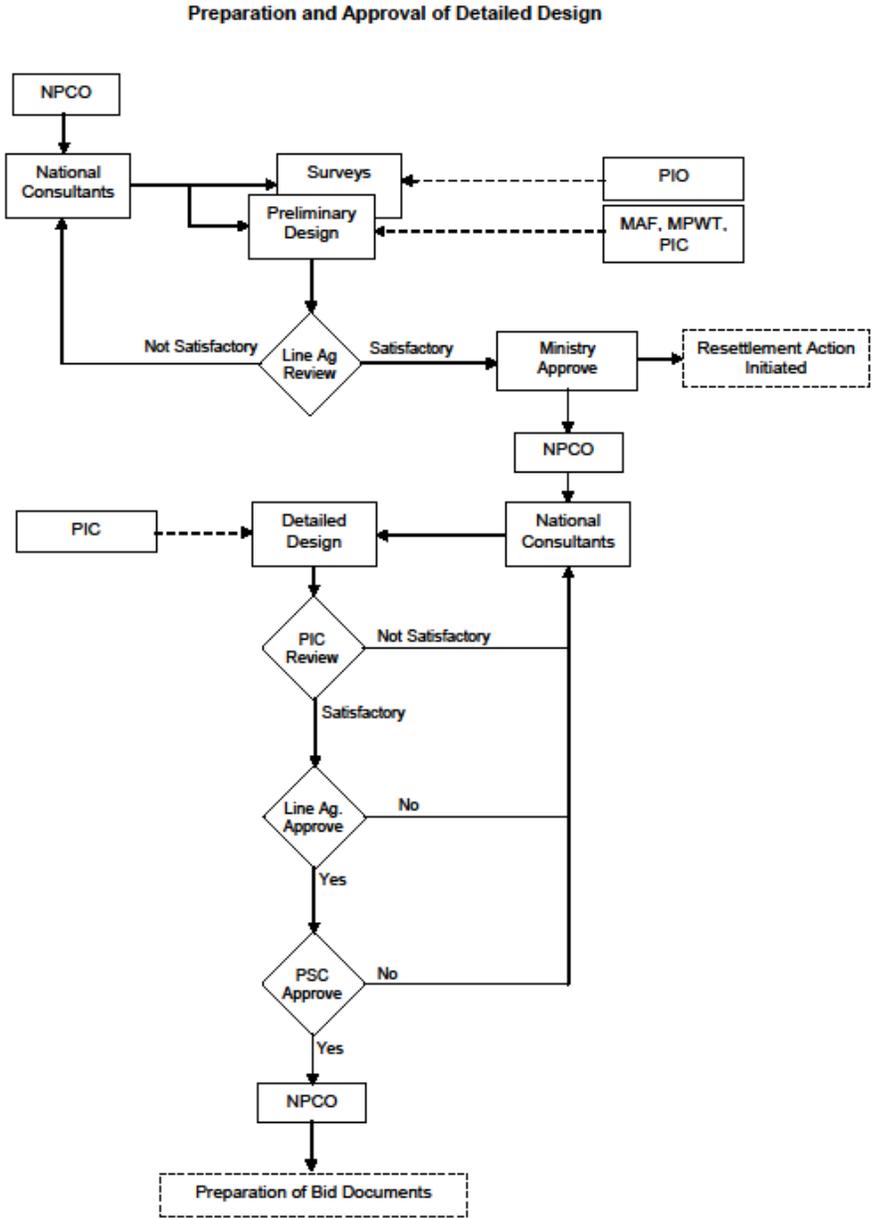
12. The preparation of detailed design, preparation of bidding documents and supervision of construction will be carried out by national consulting firms to be recruited by the NPCO following Consultants' Qualifications Selection (CQS) or Quality Based Selection (QBS) procedures depending on the estimated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

13. The social and environmental safeguard officers of the NPCO with assistance from the PIC will be responsible for updating and finalizing the RP in consultation with the PIOs, 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. Initial Environment Examination (IEE) reports for each subproject have been prepared and it was determined that the expected environmental impact were not significant and there was no need for an Environmental Impact Assessment (EIA). The environment officer of the NPCO with assistance from the PIC will prepare a 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 safeguard officers from the PIOs with guidance from the NPCO safeguard officers and the PIC. The NPCO 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 Subprojects

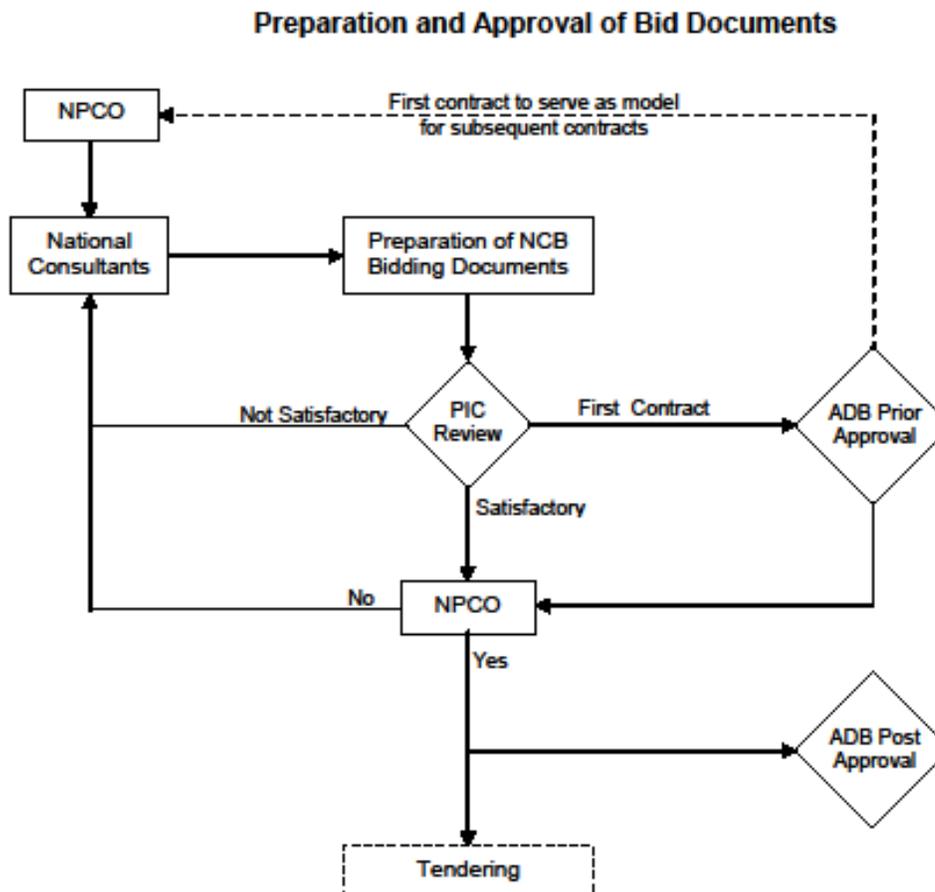
14. NPCO will recruit national consultants to carry out surveys and detailed engineering designs of civil works component. The PIOs will assist in carrying out the surveys as necessary

and the relevant line agencies as well as the PIC will provide support to the national consultants as required during preliminary design. The preliminary designs will be reviewed by the relevant line agency and if found satisfactory will be submitted to the relevant Ministry for approval. Once the approval of the Ministry has been obtained, resettlement action will be initiated by the Ministry through the district authorities. The NPCO will then give the national consultants the order to proceed with the detailed design. The detailed design will be reviewed by the PICs, and if satisfactory will be submitted to the relevant line agencies for approval to ensure that the subproject design meets the required Lao standards and specifications for its type of infrastructure. Once approved by the relevant line agencies it will be submitted to PSC for approval. The diagram below shows a summary work flow for the preparation and approval process for detailed design of subprojects:



3. Preparation of Bidding Documents

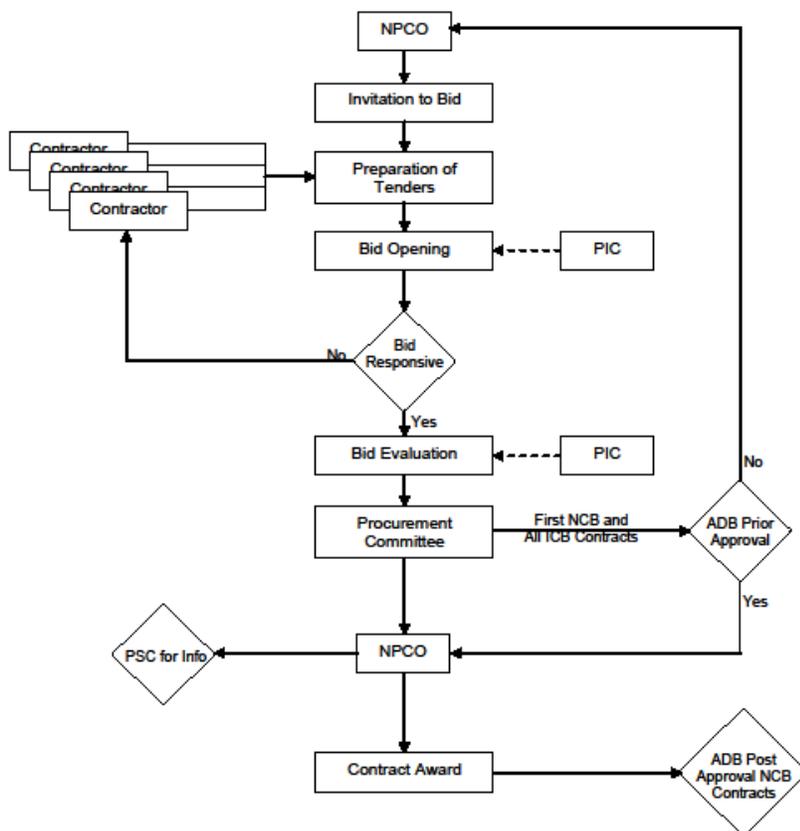
15. Once the detailed designs are approved, NPCO will give the order to proceed to the national consultants to prepare bid documents following ICB or NCB procedures depending of the estimated value of the work. The bid documents will be prepared using ADB standard format documents. The draft English 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. Documents for ICB procurement will require prior approval of ADB. Documents for NCB procedures will require prior approval of ADB for the first contract for each agency, and all subsequent contracts of similar nature will require post approval. The PIC will review the bidding documents before they are submitted to NPCO. The diagram below shows a summary work flow for the preparation and approval of bidding documents for subprojects:



4. Procurement of Works Contracts

16. Procurement of civil works contracts for the subprojects will be carried out by NPCO following international competitive bidding (ICB) or national competitive bidding (NCB) procedures depending of the estimated value of the work, in accordance with ADB's Procurement Guidelines (2010, as amended from time to time) and the procurement plan in Section VI below. 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 NPCO in the opening and evaluation of tenders. The NSC will set up a Procurement Committee for the Project comprising representatives from the NPCO and the three PIOs (DOI, MPWT/DOW and DMH), MOF, and MPI. The NPC of the NPCO will act as the secretary of the Procurement Committee. The Procurement Committee will be chaired by the representative of the agency for which the proposed contract award is submitted. For instance if the contract is for civil works for the Flood Protection Embankment, the representative of MPWT/DOW on the Procurement Committee will act as the chairman of the committee for that session. The NPCO will provide all contracts to the NSC for information. Civil works contracts for the rehabilitation of flood control embankments, associated water control structures, and access roads will be co-signed by NPCO and MPWT. The diagram below shows a summary work flow for the tendering and contract award process.

Tendering and Contract Award



5. Construction Supervision

17. Upon award of contract to the contractors, the NPCO will issue an order to proceed to the national consulting firm to carry out supervision of construction works. The NPCO will also recruit safeguard monitoring entities to monitor the implementation of social and environmental safeguard measures identified in the RP, the EMP, and the GAP. 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 respective PIO 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

18. The total project cost is estimated at \$37.09 million. The Government has requested a loan not exceeding \$24.00 million equivalent and a grant of \$12.50 million both from ADB's Special Funds resources to help finance the Project. The Loan and the Grant will be used for financing of resettlement and land acquisition, works for subprojects, equipment, operations and maintenance during implementation, project management and consulting services, inclusive of taxes and duties on ADB financed expenditure and interest during construction.

19. The Government will finance the equivalent of \$0.59 million, from the central government allocation. The government contribution will be utilized to pay for salaries of NPCO staff, excluding staff secondment, to assist with overall Project implementation and technical coordination/facilitation of detailed designs of subprojects. The NPCO will be responsible for the local costs including staff costs for staff assigned to assist with subproject implementation in its area of authority, subproject management and implementation.

A. Detailed Cost Estimates by Expenditure Category

	(Kip Billion)					(US\$ '000)				
	Local	Foreign	Total	%	% Total	Local	Foreign	Total	%	% Total
				Foreign Exchange	Base Costs				Foreign Exchange	Base Costs
I. Investment Costs										
A. Civil Works										
Construction Contracts	62.4	41.6	104.0	40	42	7,767.7	5,178.5	12,946.1	40	42
Works for NEWC	0.8	0.5	1.3	40	1	96.0	64.0	160.0	40	1
Survey, Design and Supervision	8.1	0.9	9.0	10	4	1,009.5	112.2	1,121.7	10	4
Subtotal	71.3	43.0	114.3	38	46	8,873.2	5,354.6	14,227.8	38	46
B. Resettlement	20.5	-	20.5	-	8	2,554.3	-	2,554.3	-	8
C. Environment	2.9	-	2.9	-	1	360.0	-	360.0	-	1
D. Vehicles and Equipment										
Vehicles	0.8	1.2	2.0	60	1	102.0	153.0	255.0	60	1
Vehicles for NEWC	0.3	0.5	0.8	60	-	40.8	61.2	102.0	60	-
Motorcycles	0.0	0.0	0.1	65	-	3.2	5.9	9.0	65	-
Motorcycles for NEWC	0.0	0.1	0.1	65	-	5.3	9.8	15.0	65	-
Equipment	2.9	11.5	14.3	80	6	356.3	1,425.2	1,781.5	80	6
Equipment for NEWC	1.0	4.1	5.1	80	2	126.2	504.8	631.0	80	2
Subtotal	5.1	17.4	22.4	77	9	633.7	2,159.8	2,793.5	77	9
E. Consulting Services										
International Consultants	-	10.7	10.7	100	4	-	1,330.0	1,330.0	100	4
National Consultants	2.7	-	2.7	-	1	342.0	-	342.0	-	1
Consultant Support Costs	1.4	0.3	1.7	18	1	169.6	37.4	207.0	18	1
Subtotal	4.1	11.0	15.1	73	6	511.6	1,367.4	1,879.0	73	6
F. Training										
National Training	15.9	1.8	17.7	10	7	1,981.5	220.2	2,201.7	10	7
G. Service Contracts	18.0	2.9	20.9	14	8	2,240.0	360.0	2,600.0	14	8
H. Implementation and Supervision										
Government Staff	3.9	-	3.9	-	2	480.0	-	480.0	-	2
Incremental Staff	3.8	-	3.8	-	2	473.4	-	473.4	-	2
M&E surveys and reporting	7.2	-	7.2	-	3	900.0	-	900.0	-	3
Office Operation	6.8	1.4	8.1	17	3	840.4	169.6	1,010.0	17	3
Office Operation for NEWC	3.3	0.8	4.1	20	2	408.0	102.0	510.0	20	2
Vehicle and MC Operation	0.8	0.8	1.5	50	1	93.9	93.9	187.8	50	1
Subtotal	25.7	2.9	28.6	10	12	3,195.7	365.5	3,561.2	10	12
I. Operation and Maintenance During Implementation	5.3	-	5.3	-	2	661.4	-	661.4	-	2
Total BASELINE COSTS	168.8	79.0	247.8	32	100	21,011.4	9,827.5	30,838.8	32	100
Physical Contingencies	14.9	8.4	23.3	36	9	1,857.4	1,042.2	2,899.6	36	9
Price Contingencies	22.7	1.8	24.6	8	10	2,542.8	115.1	2,657.8	4	9
Total PROJECT COSTS	206.5	89.2	295.7	30	119	25,411.5	10,984.8	36,396.3	30	118
Interest During Implementation	-	5.6	5.6	100	2	-	691.1	691.1	100	2
Total Costs to be Financed	206.5	94.8	301.3	31	122	25,411.5	11,675.9	37,087.4	31	120

^a All taxes and duties on ADB financed expenditures will be financed from the Loan and Grant.

Source: Staff estimates

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 (SDR '000)		Percentage and Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Works	[\$14,067.8]		
1A	Construction contracts		[12,946.1]	100 percent of total expenditures claimed
1B	Survey, design, supervision		[1,121.7]	100 percent of total expenditures claimed
2	Equipment	[1,798.6]		100 percent of total expenditures claimed
3	Resettlement	[2,554.3]		100 percent of total expenditures claimed
4	Operations and maintenance during implementation	[661.4]		100 percent of total expenditures claimed
7	Interest During Construction	[691.1]		100 percent of total amount due
8	Unallocated	[4,226.9]		
	Total	[24,000.0]		

ALLOCATION AND WITHDRAWAL OF GRANT PROCEEDS				
Greater Mekong Subregion - Flood and Drought Risk Management and Mitigation Project				
CATEGORY				ADB FINANCING
Number	Item	Total Amount Allocated for ADB Financing \$'000		Percentage and Basis for Withdrawal from the Grant Account
		Category	Subcategory	
1	Works for NEWC*	160.0		100 percent of total expenditures claimed
2	Environment	360.0		100 percent of total expenditures claimed
3	Vehicles and Equipment	1,012.0		100 percent of total expenditures claimed
3A	Vehicles		264.0	100 percent of total expenditures claimed
3B	Vehicles for NEWC		117.0	100 percent of total expenditures claimed
3C	Equipment for NEWC*		631.0	100 percent of total expenditures claimed
4	Consulting Services	1,879.0		100 percent of total expenditures claimed
5	Training	2,201.0		100 percent of total expenditures claimed
6	Service Contracts	2,600.0		100 percent of total expenditures claimed
7	Implementation and Supervision	3,081.0		100 percent of total expenditures claimed
8	Unallocated	1,207.0		
	Total	12,500.0		

* No funds will be disbursed for works and equipment for the NEWC to be financed under the Project until the Government, through MONRE and DMH, confirms that (i) in the event that the World Bank's Mekong Integrated Water Resources Management Project has not provided the planned building to house the NEWC, alternate suitable air-conditioned office space has been allocated and is available; and (ii) an adequate complement of staff, including a designated forecaster, has been allocated to the NEWC.

C. Detailed Cost Estimates by Financier

		(US\$ '000)						
		The Government		ADF loan		ADF Grant		
		Amount	%	Amount	%	Amount	%	Total
I. Investment Costs								
A. Civil Works								
	Construction Contracts	-	-	12,946.1	1.000	-	-	12,946.1
	Works for NEWC	-	-	-	-	160.0	100%	160.0
	Survey, Design and Supervision	-	-	1,121.7	1.000	-	-	1,121.7
	Subtotal			14,067.8	0.989	160.0	1%	14,227.8
	B. Resettlement	-	-	2,554.3	1.000	-	-	2,554.3
	C. Environment	-	-	-	-	360.0	100%	360.0
D. Vehicles and Equipment								
	Vehicles	-	-	-	-	255.0	100%	255.0
	Vehicles for NEWC	-	-	-	-	102.0	100%	102.0
	Motorcycles	-	-	-	-	9.0	100%	9.0
	Motorcycles for NEWC	-	-	-	-	15.0	100%	15.0
	Equipment	-	-	1,798.6	1.000	-	-	1,781.5
	Equipment for NEWC	-	-	-	-	631.0	100%	631.0
	Subtotal			1,798.6		1,012.0		2,793.5
	E Consulting Services					1,879.0	100%	1,879.0
F. Training								
	National Training	-	-	-	-	2,201.0	100%	2,201.0
	G. Service Contracts	-	-	-	-	2,600.0	100%	2,600.0
H. Implementation and Supervision								
1	Government Staff	480.0	100%	-	-	-	-	480.0
2	Implementation and Supervision (excluding Government staff)							
	Incremental Staff	-	-	-	-	473.2	100%	473.2
	M&E surveys and reporting	-	-	-	-	900.0	100%	900.0
	Office Operation	-	-	-	-	1,010.0	100%	1,010.0
	Office Operation for NEWC	-	-	-	-	510.0	100%	510.0
	Vehicle and MC Operation	-	-	-	-	187.8	100%	187.8
	Subtotal					3,081.0	100%	3,081.0
	I. Operation and Maintenance During Implementation			661.4	1.000	-	-	661.4
Total BASELINE COSTS		480.0		19,082.1				30,838.8
	Contingencies	107.3		4,226.9		1,207.0		5557.4
Total PROJECT COSTS		587.3		23,309.0		1,207.0		36,396.3
	Interest During Implementation	-	-	691.0		-	-	691.0
Total Costs to be Financed		587.3		24,000.0		12,500.0		37,087.4

All taxes and duties incurred on expenditure financed by ADB will be financed from the Loan and Grant.
Source: Staff estimates.

D. Detailed Cost Estimates by Outputs/Components

	Enhanced regional data, information and knowledge base for the management of F&D	Upgraded water management infrastructure	Capacity Enhancement for CBDRM	Effective project managemen	Total
I. Investment Costs					
A. Civil Works					
Construction Contracts	-	16,087.9	-	-	16,087.9
Works for NEWC	159.2	-	-	-	159.2
Survey, Design and Supervision	-	1,316.7	-	-	1,316.7
Subtotal	159.2	17,404.6	-	-	17,563.8
B. Resettlement	-	3,018.2	-	-	3,018.2
C. Environment	-	451.3	-	-	451.3
D. Vehicles and Equipment					
Vehicles	-	225.2	-	51.2	276.4
Vehicles for NEWC	113.5	-	-	-	113.5
Motorcycles	-	9.9	-	-	9.9
Motorcycles for NEWC	16.7	-	-	-	16.7
Equipment	-	2,017.7	-	30.0	2,047.8
Equipment for NEWC	698.9	-	-	-	698.9
Subtotal	829.0	2,252.9	-	81.2	3,163.1
E. Consulting Services					
International Consultants	-	-	-	1,335.3	1,335.3
National Consultants	-	-	-	373.0	373.0
Consultant Support Costs	-	-	-	228.8	228.8
Subtotal	-	-	-	1,937.1	1,937.1
F. Training					
National Training	989.1	-	-	1,191.2	2,180.3
G. Service Contracts	687.3	-	2,301.3	-	2,988.6
H. Implementation and Supervision					
Government Staff	-	372.9	-	214.5	587.3
Incremental Staff	-	285.4	-	286.4	571.8
M&E surveys and reporting	-	380.5	-	691.8	1,072.3
Office Operation	-	761.7	-	427.8	1,189.5
Office Operation for NEWC	618.4	-	-	-	618.4
Vehicle and MC Operation	-	151.2	-	65.0	216.2
Subtotal	618.4	1,951.7	-	1,685.4	4,255.5
I. Operation and Maintenance During Implementation	-	838.3	-	-	838.3
Total PROJECT COSTS	3,283.1	25,916.9	2,301.3	4,895.0	36,396.3
Taxes	200.4	2,598.3	-	186.6	2,985.3
Foreign Exchange	1,329.0	8,019.1	-	1,636.7	10,984.8

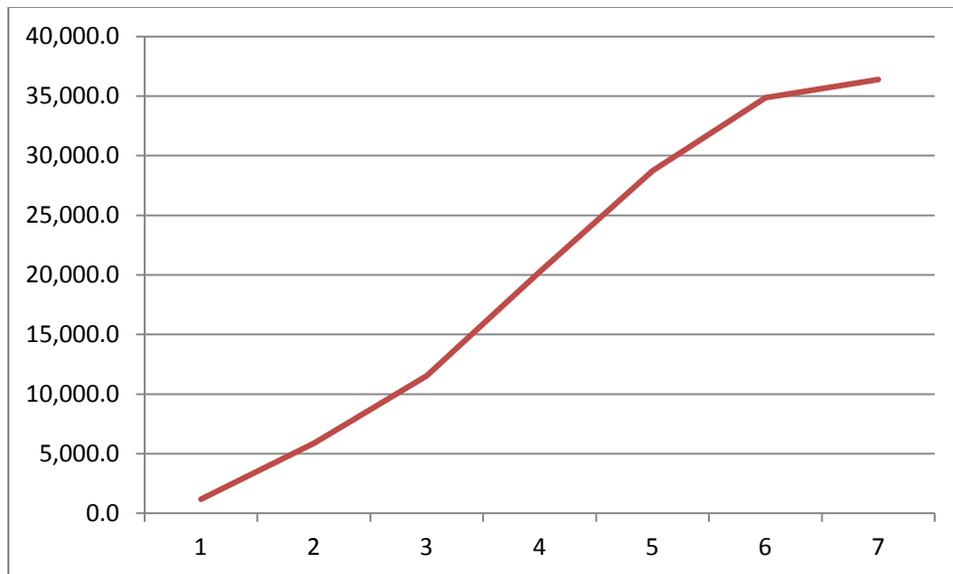
^a All taxes and duties incurred on ADB financed expenditure will be financed from the Loan and Grant.
Source: Staff estimates

E. Detailed Cost Estimates by Year

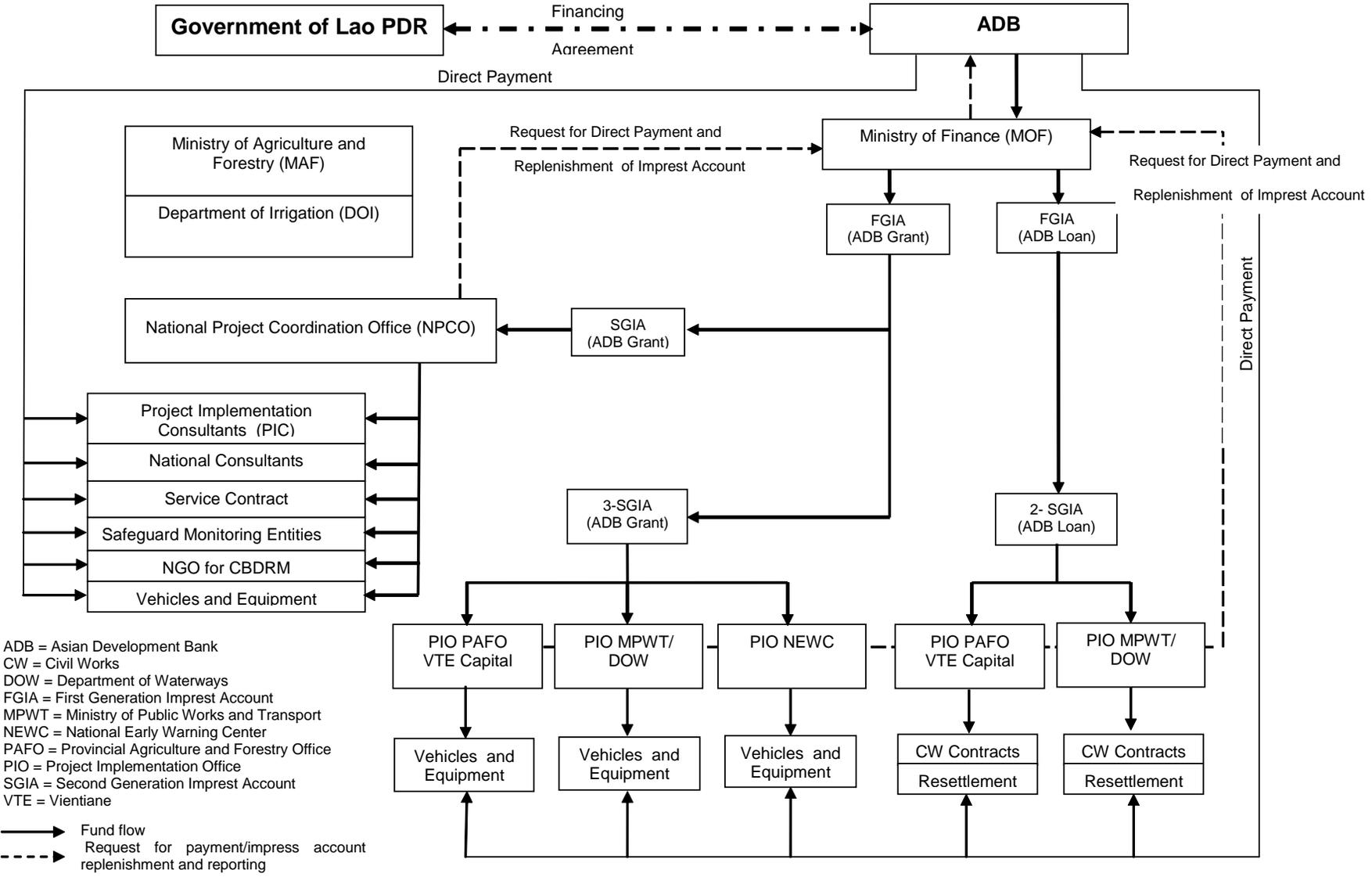
				Totals Including Contingencies					
	2013	2014	2015	2016	2017	2018	2019	Total	
I. Investment Costs									
A. Civil Works									
Construction Contracts	0.0	0.0	624.0	5,101.0	6,133.6	3,383.4	845.9	16,087.9	
Works for NEWC	50.0	59.7	49.4	0.0	0.0	0.0	0.0	159.2	
Survey, Design and Supervision	66.3	265.0	867.3	34.1	47.0	29.5	7.4	1,316.7	
Subtotal	66.3	265.0	1,541.4	5,194.9	6,230.1	3,412.9	853.2	17,563.8	
B. Resettlement	603.6	2,414.6	0.0	0.0	0.0	0.0	0.0	3,018.2	
C. Environment	21.1	84.2	110.8	115.4	119.7	0.0	0.0	451.3	
D. Vehicles and Equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Vehicles	55.3	221.1	0.0	0.0	0.0	0.0	0.0	276.4	
Vehicles for NEWC	113.5	0.0	0.0	0.0	0.0	0.0	0.0	113.5	
Motorcycles	2.0	7.9	0.0	0.0	0.0	0.0	0.0	9.9	
Motorcycles for NEWC	0.0	0.0	16.7	0.0	0.0	0.0	0.0	16.7	
Equipment	6.0	24.0	1,005.1	1,012.7	0.0	0.0	0.0	2,047.8	
Equipment for NEWC	0.0	0.0	504.4	194.5	0.0	0.0	0.0	698.9	
Subtotal	63.3	253.1	1,639.6	1,207.2	0.0	0.0	0.0	3,163.1	
E. Consulting Services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
International Consultants	164.4	657.8	316.7	169.8	0.0	21.2	5.3	1,335.3	
National Consultants	24.7	98.6	107.1	57.4	63.1	17.7	4.4	373.0	
Consultant Support Costs	8.7	34.8	43.2	44.8	46.2	41.0	10.2	228.8	
Subtotal	197.8	791.2	467.0	272.0	109.3	79.9	20.0	1,937.1	
F. Training	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
National Training	48.1	192.3	490.3	486.8	481.5	385.2	96.3	2,180.3	
G. Service Contracts	27.6	110.4	678.7	700.7	721.0	600.2	150.0	2,988.6	
H. Implementation and Supervision	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Government Staff	17.4	69.8	91.8	95.6	99.2	170.8	42.7	587.3	
Incremental Staff	17.0	67.9	89.4	93.1	96.6	166.3	41.6	571.8	
M&E surveys and reporting	31.9	127.4	167.6	174.6	181.1	311.8	78.0	1,072.3	
Office Operation	74.1	296.3	152.0	157.5	162.6	277.5	69.4	1,189.5	
Office Operation for NEWC	66.5	132.9	206.3	212.7	0.0	0.0	0.0	618.4	
Vehicle and MC Operation	6.8	27.1	34.8	35.6	36.3	60.5	15.1	216.2	
Subtotal	147.1	588.6	735.0	762.7	788.5	986.9	246.7	4,255.5	
I. Operation and Maintenance During Implementation	0.0	0.0	0.0	0.0	0.0	670.7	167.7	838.3	
Total PROJECT COSTS	1,174.8	4,699.4	5,662.8	8,739.7	8,450.0	6,135.7	1,533.9	36,396.3	

Note: These are only estimates, taking into account the time normally needed for procurement and recruitment actions. Should the EA and IAs be able to progress faster on the procurement and recruitment actions, they will be encouraged to do so. All taxes and duties on ADB-financed expenditures will be financed from the Loan and Grant.

Source: Staff estimates

F. Contract and Disbursement S-curve

G. Fund Flow Diagram



V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

20. A risk assessment was carried out for the Project and a risk management plan was prepared. The main findings of the risk assessment regarding financial management are summarized below.

21. There is a risk associated with lack of accountability with respect to utilization of public and donor funds. To reduce this risk, financial management training will be provided to accounting and financial management personnel appointed to the NPCO, as well as to the PIOs immediately upon project effectiveness. In addition financial management will be monitored closely and corrective actions such as incremental training and/or commendation will be implemented as needed.

22. Project offices have been established in DOI and at the IAs in the past. However, there are not enough accountants for the EA and IAs for the Project. The current accountants only have capacity for the existing entity and their existing projects. Although most accountants in the EA and IAs have degrees in accounting and finance, they are only familiar with entity accounting rather than project accounting. In addition, most accountants at the IAs are not qualified and experienced for both entity accounting and project accounting. Additional accounting staff with experience in project accounting and electronic accounting will be engaged for the Project at the EA and each IA. Although most accountants in DOI and MPWT have received training in ADB loan disbursement procedures, most accountants at PAFO and DOW have not been trained in ADB loan disbursement procedures.

23. The Project with assistance from the PIC will provide training and written guidelines, especially in ADB procedures, particularly to the IAs. The Project with assistance from the PIC will prepare terms of reference that define duties, responsibilities, lines of supervision, and limits of authority for all officers, managers, and staff. 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.

24. Controls will be in place for the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained. The chart of accounts will be able to account for and report 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. Accounting software to standards acceptable to ADB for the NPCO and PIOs that can accommodate electronic transfer of accounting data from PIOs to the NPCO will be used to facilitate timely reporting. All accounting and supporting documents will be retained on a permanent basis in a defined system that allows authorized users easy access. Regular monitoring and internal audit functions will be built up to monitor transactions along the line from central government to provincial, and subproject levels. Such control procedures will be documented in the project finance and administration manual.

B. Disbursement

25. The Loan and 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.

26. 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.

1. Imprest Accounts

27. After ADB Loan and ADB Grant Effectiveness, MOF will establish two first generation imprest accounts (FGIA) in US dollar in the Bank of Lao PDR to receive respectively ADF loan and grant funds for the Project. Although NPCO will be responsible to consolidate and submit withdrawal applications through MOF to ADB for the FGIA, MOF regulations do not allow the EAs to operate the FGIA to pay directly for project expenditures. The NPCO will therefore require one SGIA. In addition five SGIA's will be opened for the PIOs as follows: (i) three SGIA's in US dollar currency will be opened for each of the PIOs to receive funds from the ADB Grant; (ii) two SGIA's in US dollar currency will be opened for PAFO and DOW to receive funds from the ADB loan. The SGIA's will be opened at commercial banks acceptable to ADB.⁵ The imprest accounts will be replenished in accordance with standard procedures outlined in the ADB's *Loan Disbursement Handbook*. All accounts will be audited annually by an independent auditor.

28. The aggregated amount to be deposited into the imprest accounts will not at any time exceed the estimated ADB financed expenditures to be paid from the respective imprest accounts for the next 6 months or 10% of the respective loan and grant amount, whichever is lower. The FGIA's will be audited annually by an independent auditor acceptable to ADB. Funds in the FGIA's will be used to establish advances in the respective SGIA's. The ceiling will be \$20,000 for the PMU's SGIA and each PPMU's SGIA. If the EA finds it necessary to increase the ceiling of the PMU's SGIA based on three months estimated expenditures, the ceiling shall be increased promptly upon request by the EA. For every liquidation and replenishment request of FGIA's, the borrower will furnish to ADB (i) Statement of Account (Bank Statement) where the imprest account is maintained, and (ii) the Imprest Account Reconciliation Statement reconciling the above mentioned bank statement against the executing agency's records.⁶

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

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>

⁵ ADB may finance bank charges.

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

30. The request for initial advance to each FGIA should be accompanied by an Estimate of Expenditure Sheet⁷ 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.

2. Direct payment and Statement of Expenditures

31. If required, loan proceeds may be disbursed directly to contractors for works and consulting services by ADB in accordance with the approved contracts between the executing agency and the contractors, using direct payment procedures. For payments up to \$50,000 from the FGIAs or SGIAs, ADB's Statement of Expenditures (SOE) procedure may be used to reimburse eligible expenditures and to liquidate advances. Sample forms for withdrawal of grant proceeds, replenishment of imprest accounts, and SOE can be downloaded from the ADB website.⁸ 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.⁹ NPCO will be responsible for ensuring that SOEs are operated in accordance with ADB's requirement.

3. Disbursement and Liquidation Procedures for Counterpart Funds

32. Government counterpart funds will finance salaries of staff seconded to the Project which will be financed through the regular payroll mechanism for Government employees.

4. Condition for Disbursement for National Early Warning Center

33. No ADB grant funds will be disbursed for works and equipment for the NEWC to be financed under the Project until the Government, through MONRE and DMH, confirms that (i) in the event that the World Bank's Mekong Integrated Water Resources Management Project has not provided the planned building to house the NEWC, alternate suitable air-conditioned office space has been allocated and is available; and (ii) an adequate complement of staff, including a designated forecaster, has been allocated to the NEWC.

C. Accounting

34. The EA and the IAs will maintain separate project accounts and records by funding source for all expenditures incurred on the Project. Project accounts will follow international accounting principles and practices.

D. Auditing

35. The Government will (i) ensure that MAF conducts periodic inspections of the contractors' activities related to fund withdrawals and settlements; and (ii) ensure and cause MAF to ensure that all contracts financed by ADB in connection with the Project include

⁷ Available in Appendix 29 of the *Loan Disbursement Handbook*.

⁸ Available at: http://www.adb.org/documents/handbooks/loan_disbursement/default.asp

⁹ 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

provisions specifying the right of ADB to audit and examine the records and accounts of the EA and all contractors, suppliers, consultants and other service providers as they relate to the Project.

36. The NPCO will cause the detailed consolidated project accounts to be audited in accordance with international standards on auditing by an auditor acceptable to ADB. The audited accounts will be submitted in the English language to ADB within 6 months of the end of the fiscal year by the executing agency. 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 SGAs; (ii) the statement of expenditures, including whether the amount claimed is duly supported and verified; (iii) whether the NPCO and each PIO are operating the imprest and advance accounts in accordance with ADB procedures; and (iv) compliance with financial covenants specified in the loan agreements. 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.

37. Audit reports, management letter, and related financial statements will be submitted to ADB in the English language not 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.

38. 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 NPCO 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 Contracting¹⁰

39. All advance contracting will be undertaken in conformity with ADB's *Procurement Guidelines* (April 2010, as amended from time to time) (ADB's *Procurement Guidelines*)¹¹ and ADB's *Guidelines on the Use of Consultants* (April 2010, as amended from time to time) (ADB's *Guidelines on the Use of Consultants*).¹² The issuance of invitations to bid under advance contracting will be subject to ADB approval. The borrower, MAF/NPCO, PAFO, MPWT/DOW, and DMH have been advised that approval of advance contracting does not commit ADB to finance the Project.

40. To facilitate rapid start up, the government and ADB agreed to a number of advance actions to expedite (i) the establishment of a functional NPCO with sufficient number of qualified and experienced staff; and (ii) recruitment of PIC.

41. The NPCO will conduct advance action for the recruitment of PIC. Consulting services are necessary for smooth implementation of the Project and to strengthen community participation in subproject design and subsequent operations and maintenance. Prompt appointment of consultants for implementation support is critical to ensure efficient implementation. Late recruitment of consultants is a significant factor in delayed project implementation and is also likely to have a negative impact on achievement of project benefits. The NPCO will initiate recruitment of PIC consultants including issuing invitation for Expressions of Interests, short-listing of potential firms, invitation to submit proposals and evaluation of proposal. ADB support of advance contracting does not commit ADB to approve the project or to finance the recruitment cost.

B. Procurement of Goods, Works and Consulting Services

1. Procurement of Goods and Works

42. All procurement of goods and works to be financed under the ADB loan and grant will be undertaken in accordance with ADB's *Procurement Guidelines (2010)*, as amended from time to time. Civil works packages will comprise works associated with raising and strengthening the embankment on the bank of the Mekong River to the south of Vientiane, and upgrading of the Vientiane Capital Irrigation development subproject. Civil works packages valued at \$1.0 million and above and packages for goods valued at \$0.5 million and above will be procured following International Competitive Bidding (ICB) procedures. Civil works packages valued at less than \$1.0 million equivalent but more than \$100,000 equivalent, and packages for goods valued at less than \$0.5 million equivalent but more than \$100,000 equivalent, will be procured following national competitive bidding (NCB) procedures described in Section D below. For goods and works packages valued at \$100,000 and below, shopping procedures acceptable to ADB will be followed. Prior and post review thresholds are included in the procurement plan in Section C below.

43. Before the start of any procurement, ADB and the Government will review the public procurement laws of the Government to ensure consistency with ADB's *Procurement*

¹⁰ There will be no retroactive financing under the Project

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

¹² Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

Guidelines. 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.

2. Consulting Services

44. All consultants will be recruited according to ADB's *Guidelines on the Use of Consultants*.¹³ The proposed Project will require a number of consulting services to assist the NPCO and PIOs with: (i) project implementation support; (ii) preparation of subprojects; (iii) strengthening of the NEWC; (iv) external safeguard monitoring; (v) implementation of CBDRM; and (vi) audit of project accounts. The outputs and deliverables from all consulting services shall be in accordance with the Government policies, and in support of the provincial development strategies and the needs of the beneficiaries.

45. The NPCO will be responsible for recruiting the PIC through an international consulting firm following QCBS procedures with a standard quality cost ratio of 80:20.¹⁴ The NPCO will also recruit consultants through national consulting firms to assist in the preparation of detailed design, preparation of bidding documents, and supervision of construction of subprojects, using QCBS procedures with a standard quality cost ratio of 80:20. The NPCO will also be responsible to recruit consultants for strengthening of the NEWC following QBS procedures. In addition, the NPCO will be responsible for recruitment of national institutes such as NGOs and/or universities to monitor implementation of social and environmental safeguard measures, and to assist with the CBDRM component. These institutes will be recruited following QBS or CQS procedures depending on the values of the contracts. For consulting contracts valued at less than \$200,000, CQS procedures are justified because: (i) the work to be carried out requires specialized expertise which is not widely available in Lao; (ii) the quality of the output is critical for the assessment of the subprojects' environmental and social impacts, as well as the design of necessary mitigation measures; and (iii) recruitment time will be critical to ensure expeditious and efficient project implementation. The detailed terms of reference (TOR) for the PIC and for strengthening of the NEWC are in Section E below other TORs will be developed by the PIC and will be incorporated in the PAM at a later date.

C. Procurement Plan

1. Basic Data

Project Name: GMS - Flood and Drought Management and Mitigation Project – LAO PDR	
Country: LAO – PDR	Executing Agency: Ministry of Agriculture and Forestry/ Department of Irrigation
Loan Amount: US\$24,000,000 Grant Amount: US\$12,500,000	Loan Number: Loan 40190-013
Date of First Procurement Plan: 30 August 2011	Date of this Procurement Plan: July 2012

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/>

¹⁴ ADB's reference documents on consulting services are available online and can be downloaded from <http://www.adb.org/Consulting/documents.asp>

2. Process Thresholds, Review and 18-month Procurement Plan

a. Project Procurement Thresholds

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

Procurement of Goods and Works	
Method	Threshold
International Competitive Bidding (ICB) for Works	US\$ 1,000,000 and above
International Competitive Bidding for Goods	US\$ 500,000 and above
National Competitive Bidding (NCB) for Works	US\$ 100,000 to US\$ 1,000,000
National Competitive Bidding for Goods	US\$ 100,000 to US\$ 500,000
Shopping for Goods	Up to US\$ 100,000
Shopping for Works	Up to US\$ 100,000
Community Participation in Procurement for Works	Up to US\$ 30,000

3. ADB Prior or Post Review

47. 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		
ICB Works	Prior	
ICB Goods	Prior	
NCB Works	Prior/Post The first contract for each component regardless of value will be subject to ADB's prior review and approval, subsequent contracts for similar work will be subject to post-review	The draft English language version of the procurement documents should be submitted for ADB review and approval regardless of the estimated contract amount. The first ADB-approved procurement documents should be used as a model for all subsequent procurement of similar work financed by ADB.
NCB Goods	Prior/Post Same as NCB Works above	Same as NCB Work above
Shopping for Works	Prior/Post The first contract for each component regardless of value will be subject to ADB's prior review and approval, subsequent contracts for similar work will be subject to post-review	The draft English language version of the first procurement documents should be submitted for ADB review and approval regardless of the estimated contract amount. The first ADB-approved procurement documents should be used as a model for all subsequent procurement of similar work financed by ADB.
Shopping for Goods	Prior/Post Same as Shopping for Works above	Same as Shopping for works above
Community Participation in Procurement for Works	Prior/Post	The first contract regardless of price will be subject to ADB Prior review
Recruitment of Consulting Firms		
QCBS (80:20)	Prior	NPCO will recruit i) PIC from a firm using FTP; and ii) Engineering Design and Supervision Consultants using FTP;

QBS	Prior	NPCO will recruit one NGO for implementation of CBDRM using FTP. Contract valued at more than \$200,000 for national consultants, NGOs and similar organizations will be recruited by NPCO.
CQS	Prior	Contract valued at less than \$200,000 for national consultants, NGOs and similar organizations will be recruited by NPCO.

CBDRM = Community Based Disaster Risk Management; CQS = Consultants' Qualification Selection; FTP = Full Technical Proposal; ICB = International Competitive Bidding; MRC = Mekong River Commission; NGO = non-government organization; NCB = National Competitive Bidding; NPCO = National Project Coordination Office; PIC = Project Implementation Consultants; QBS = Quality Based Selection; QCBS = Quality- and Cost-Based Selection

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

48. 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
Rehabilitation of Vientiane Flood Protection	12,770.0	ICB	N	Q3 / 2013	- Single-stage, one-envelope bidding procedure - By NPCO.
Equipment associated with Vientiane Irrigation works	2,043.2	ICB	N	Q3 / 2013	- Single-stage, one-envelope bidding procedure - (ADB finances \$706.0) - By NPCO.
Excavation of irrigation canals and installation of gates and weirs	3,552.1	ICB	N	Q3 / 2013	- Single-stage, one-envelope bidding procedure - By NPCO.

DMH = Department of Meteorology and Hydrology; ICB = International Competitive Bidding; NCB = National Competitive Bidding; NPCO = National Project Coordination Office; PIO = Project Implementation Office.

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

49. 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 (US\$,000)	Recruitment Method	International or National Assignment	Advertisement Date (quarter/year)	Comments
Project implementation consultants	1,937.1	QCBS (80:20)	114 pm Nat'l and 52 pm Int'l	Q3 / 2012	By NPCO
Service contract for support to NEWC	687.3	QBS	44 pm Nat'l and 28 pm Int'l	Q4 / 2012	By NPCO
Service contracts with NGO or specialised organizations to support CBDRM	2,035.1	QBS	National	Q3 / 2013	By NPCO

NGO or similar organization for safeguard monitoring	341.7	CQS/QBS	National	Q2/2013	By NPCO
Engineering Design and Supervision Consultants – Irrigation Development	525.4	QCBS(80:20)	National	Q1 / 2013	By NPCO
Engineering Design and Supervision Consultants – VTE Embankment	732.5	QCBS(80:20)	National	Q1/ 2013	By NPCO
Project Financial Audit (Annual)	103.8	CQS	National	Q3/ 2013	Six packages (one each year) to be recruited by NPCO

CBDRM = community-based disaster risk management; CQS = Consultants' Qualification Selection; MRC = Mekong River Commission; NEWS = National Early Warning Center; NGO = non-government organization; NPCO = National Project Coordination Office; QBS = Quality Based Selection; QCBS = Quality- and Cost-Based Selection; VTE = Vientiane.

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

50. 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 (US\$,000)	Number of Contracts	Procurement / Recruitment Method	Comments
Hydro-meteorological Equipment for NEWC	698.9	4	NCB / Shopping	Multiple Packages estimated at \$100,000 or more will be procured by NPCO following NCB Packages estimated at less than \$100,000 will be procured by NPCO/PIOs following Shopping Procedures
Office Equipment	96.1	4	Shopping	To be procured by NPCO/PIOs
Vehicles	381.0	3	NCB / Shopping	Packages estimated at \$100,000 or more will be procured by NPCO following NCB Packages estimated at less than \$100,000 will be procured by NPCO/PIO following Shopping Procedures.

NCB = National Competitive Bidding; NEWC = National Early Warning Center; NPCO = National Project Coordination Office; PIO = Project Implementation Office.

7. Indicative List of Packages Required Under the Project

51. 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) (US\$,000)	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable	Comments
Goods					
Hydro-meteorological Equipment	698.9	4	NCB / Shopping	n.a.	By NPCO

General Description	Estimated Value (cumulative) (US\$,000)	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable	Comments
Office Equipment	96.1	4	Shopping	n.a.	By NPCO/PIOs
Vehicles	381.0	3	NCB/ Shopping	n.a.	By NPCO/PIOs
Equipment associated with Vientiane Irrigation Works	2,043.2	1	ICB	n.a.	By NPCO
Works					
VTE Embankment	12,770.0	1	ICB	n.a.	By NPCO
VTE Irrigation	3,552.1	1	ICB	n.a.	By NPCO
General Description	Estimated Value (cumulative) (US\$,000)	Estimated Number of Contracts	Recruitment Method	Type of Proposal	Comments
Consulting Services					
Project implementation consultants	1,937.1	1	QCBS (80:20) International and National	FTP	By NPCO
Service Contracts – NEWC	687.3	1	QBS	FTP	By NPCO
Service Contracts – CBDRM	2,025.1	1	QBS National	FTP	By NPCO
External Monitoring of Safeguard	341.7	2	CQS/QBS	BTP/FTP	By NPCO
Engineering Design and Supervision Consultants – VTE Embankment	732.5	1	QCBS(80:20) National	FTP	By NPCO
Engineering Design and Supervision Consultants – Irrigation Development	525.4	1	QCBS(80:20) National	FTP	By NPCO
Project Financial Audit	103.8	6	CQS	BTP	By NPCO

D. National Competitive Bidding

1. General

52. The procedures to be followed for NCB procurement shall be those set forth for “Public Bidding” in Prime Minister’s Decree No. 03/PM of the Lao People’s Democratic Republic,

effective 9 January 2004, and Implementing Rules and Regulations effective 12 March 2004, with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the Procurement Guidelines.

2. Application

53. Contract packages subject to NCB procedures will be those identified as such in the Project 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.

3. Eligibility

54. 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.

4. Advertising

55. Bidding of NCB contracts estimated at \$500,000 or more for goods and related services or \$1,000,000 or more for civil works shall be advertised on ADB's website via the posting of the Procurement Plan.

5. Procurement Documents

56. The standard procurement documents provided with MOF, Procurement Monitoring Office shall be used to the extent possible. The first draft English language version of the procurement documents shall be submitted for ADB review and approval, regardless of the estimated contract amount, in accordance with agreed review procedures (post and prior review). The ADB-approved procurement documents will then be used as a model for all procurement financed by ADB for the Project, and need not be subjected to further review unless specified in the procurement plan.

6. Preferences

57. Preferences as follows:

- (i) No preference of any kind shall be given to domestic bidders or for domestically manufactured goods.
- (ii) Suppliers and contractors shall not be required to purchase local goods or supplies or materials.

7. Rejection of all Bids and Rebidding

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

8. National Sanctions List

59. National sanctions lists may be applied only with prior approval of ADB.

9. Anti-Corruption Policy

60. A bidder declared ineligible by ADB, based on a determination by ADB that the bidder has engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing an ADB-financed contract shall be ineligible to be awarded ADB-financed contract during the period of time determined by ADB.

10. Disclosure of Decisions on Contract Awards

61. At the same time that notification on award of contract is given to the successful bidder, the results of the bid evaluation shall be published in a local newspaper or well-known freely accessible website identifying the bid and lot numbers and providing information on (i) name of each Bidder who submitted a Bid, (ii) bid prices as read out at bid opening, (iii) name of bidders whose bids were rejected and the reasons for their rejection, and (iv) name of the winning Bidder, and the price it offered, as well as the duration and summary scope of the contract awarded. The executing agency/implementing agency shall respond in writing to unsuccessful bidders who seek explanations on the grounds on which their bids are not selected.

11. Member Country Restrictions

62. 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

63. Consultants to be financed from ADB resources include the PICs; national consultants to assist in the preparation and supervision of subproject works; service contract for strengthening of the NEWC; and institutions to monitor the implementation of social and environmental safeguard measures and assist in the implementation of the CBDRM. All consultants and institutes will be selected and engaged in accordance with the *ADB's Guidelines on the Use of Consultants*. The NPCO will recruit the PICs from an international consulting firm following QCBS (80:20) procedures. National consultants for preparation of detailed design and bidding documents and supervision of construction will be recruited by the NPCO following QCBS (80:20) procedures. The safeguard monitoring and CBDRM entities will be recruited by the NPCO following QBS procedures. The TOR outlined herein relate to the PICs and the contract service for strengthening of the NEWC. TORs for the other packages will be developed by the PIC, these detailed TORs will then be incorporated in the PAM at a later date. The outputs and deliverables from all consulting services shall be in accordance with the Government policies, and in support of the provincial development strategies and the needs of the beneficiaries.

2. Project Implementation Consultants

64. To assist in the implementation of the Project, the NPCO will engage a qualified international consulting firm (including national consultants) to provide consulting services in a range of specialties including (i) project management; (ii) technical engineering-flood and drought management including flood drainage and irrigation canal, river bank protection, bridges, embankments, mechanical structures; and (iii) safeguard requirements of ADB and the Government. National specialists will be required in similar technical areas to facilitate technology transfer from international specialists. Under the supervision of the Team Leader, national specialists will also lead activities on contract management, economic analysis and financial management, and monitoring and evaluation activities.

65. The PICs comprise a total of 166 person-months including 52 person-months of international specialists and 114 person-months of national specialists. Advance action for recruitment of PIC has been approved by ADB to facilitate the timely mobilization of consultants and the advertisement for their recruitment was posted on ADB's website on <date>. Consulting services will not only support the NPCO in technical areas of engineering design and construction, but will also be instrumental in introducing a more consultative approach during subproject design to improve sustainability. Consultants will be posted with the NPCO, but some consultants will be posted with DMH and MPWT.

66. Advance action will be initiated to ensure that the team is fielded shortly after loan effectiveness to provide continuous support and advice to the NPCO and the PIOs throughout the project, with a greater concentration in the first 3 years of implementation. Approximately 85% of the person-months are planned to be utilized by 2015. After this initial intensive support, the NPCO and PIOs will have built the necessary capacity to carry out all duties independently and with minimum support.

a. Recent Experiences

67. The complex government procedures and approval processes for the selection of consultants together with the process of ratification by ADB often leads to extensive delays in

the recruitment of consulting services. This process is particularly more complex for QCBS procedures and there is a risk that PICs may not be mobilized on a timely basis and will not be available in the early period of implementation when they are most needed. Such delays will have repercussions in the preparation of subprojects and subsequently on loan disbursement. National staff appointed to project management structures often lack familiarity with ADB procedures and PICs are needed to perform a very necessary function filling this capacity deficit in the early implementation of the Project.

b. Subproject Preparation

68. National consultants to be recruited by the NPCO will be responsible to prepare detailed technical designs and social and environmental safeguard studies as well as economic analysis of each subproject. Previous experience suggests that local companies lack the experience to prepare such studies to a standard acceptable to ADB. The PICs are expected to play an important role in guiding and reviewing the studies prepared by the national consultants to ensure that their work meet the ADB requirements. It is therefore necessary for specialists experienced in ADB social and environmental safeguards to be recruited to ensure that ADB's specific areas of interest are accommodated. By providing external technical assistance in these critical areas, there are less likely to be delays in approvals needed from ADB.

**Table 1: Indicative Timetable of Project Implementation Consultant Inputs
(person months)**

	Unit	2013	2014	2015	2016	2017	2018	Total
1. International Consultants								
a. Flood/Drought Risk Management								
Specialist / Team Leader	Months	6	7	7	-	-	-	20
b. Irrigation Engineer	Months	4	-	-	-	-	-	4
c. Hydrologist	Months	4	-	-	-	-	-	4
d. Structural Engineer	Months	4	-	-	-	-	-	4
e. Environment Specialist	Months	2	2	-	-	1	-	5
f. Social Safeguards/Resettlement Spec.	Months	6	2	-	-	-	-	8
g. Economist	Months	2	-	-	-	-	-	2
h. Procurement Specialist	Months	3	2	-	-	-	-	5
Subtotal		31	13	7	-	1	-	52
2. National Consultants								
a. Irrigation Engineer/ Deputy Team								
Leader	Months	6	7	7	6	-	-	26
b. Hydrologist	Months	4	2	-	-	-	-	6
c. Community Based Disaster								
Specialist/Gender and Development								
Specialist	Months	4	2	2	2	-	-	10
d. Structural Engineer	Months	4	4	-	-	-	-	8
e. M&E Specialist	Months	2	1	1	2	1	-	7
f. Environment Specialist	Months	2	2	-	-	1	-	5
g. Social Safeguards	Months	4	2	2	2	-	-	10
h. Procurement Specialist	Months	4	2	-	-	-	-	6
i. Financial Management Specialist	Months	2	2	-	-	-	-	4
j. River Engineer (MPWT)	Months	4	2	-	-	-	-	6
k. Civil Engineer (Highway) (MPWT)	Months	2	8	6	6	4	-	26
Subtotal		38	34	18	18	6	-	114
Total		69	47	25	18	7	-	166

Source: ADB Staff Estimates

3. Terms of Reference (PIC)

a. Flood and Drought Risk Management Specialist/ Team Leader (20 p-m international)

69. This position will provide implementation support to the NPCO after loan effectiveness and will coordinate the other specialist inputs under the project. The Team Leader will take overall responsibility for the activities of all consultants and ensure the timely completion and quality of activities. The specialist will be based in the NPCO and directly support the NPC and the NPCO staff. The candidate will have a post graduate degree in water resources/hydrologist/river engineering so he/she can also support technical specialists in their respective areas. The specialist will have a minimum of 15 years experience in flood risk management and mitigation and a sound knowledge and understanding of project implementation and administration of ADB-financed projects. Experience in Lao PDR or other Southeast Asian country will be considered an asset.

70. Duties of the specialist will include the following:

- (i) Establish the overall Project Quality Assurance program;
- (ii) Supervise the consulting team and ensure that inputs and activities of both the international and national consultants are of a high quality and effectiveness;
- (iii) Assist the NPCO in the scheduling and planning of project implementation activities;
- (iv) Ensure overall coordination of the Project including inter-agency coordination as well as with ADB, NPCO, and PIOs;
- (v) Prepare TORs for detailed design, supervision consultants and safeguard monitoring entities;
- (vi) Review and update the TORs for the MRC support to DMH;
- (vii) Supervise preparation of tender and bid documents and procurement for works and goods;
- (viii) Supervise and monitor overall project implementation activities;
- (ix) Provide advice and guidance on procurement, disbursement and liquidation of expenditures following ADB procedures;
- (x) Ensure that baseline surveys and annual surveys are carried out to obtain the necessary information to measure implementation progress and impact;
- (xi) Report on progress of project implementation through quarterly and annual progress report to ADB and NPCO;
- (xii) Ensure pro-poor measures identified in the community consultations are designed and carried out;
- (xiii) Supervise the training consultants and ensure that the training program is properly prepared and implemented;
- (xiv) Ensure that safeguard officers are appointed to and operational in each PIO and that the safeguard studies are undertaken for each of the subprojects;
- (xv) Together with the O&M consultants, assist the NPCO in addressing O&M issues in subprojects and at the broader provincial level;
- (xvi) Assist in the preparation of community-based disaster management plans;
- (xvii) Assist the NPCO and PIOs in the supervision of works implementation by providing specialized expertise as and when required;
- (xviii) Bring safeguard issues identified by other consultants, safeguard officers or the monitoring teams to the attention of the NPCO and PIOs, accompanied by recommendations for action;

- (xix) Bring project implementation or O&M issues identified by other consultants or the monitoring teams to the attention of the NPCO and relevant PIOs, accompanied by recommendations for action;
- (xx) Assist the NPCO and PIOs resolve safeguard and implementation problems and issues;
- (xxi) Participate in the mid-term review and project reviews; and
- (xxii) Lead a team to prepare the project completion report.

b. Irrigation Engineer (4 p-m international and 26 p-m national/Deputy Team Leader)

71. The irrigation engineers are required to assure that design quality will be maintained and that there is adequate technical support available during the preparation of subproject detailed designs and their subsequent review based on technical criteria. The international candidate will have a post graduate degree in civil/irrigation engineering or related discipline and a minimum of 15 years experience in civil/irrigation engineering. Experience in Lao PDR or other Southeast Asian country will be considered an asset. The national specialists will have post graduate qualifications in irrigation engineering and a minimum 15 years experience in a related field. He/she will be fluent in the English language. Individual specialists will be familiar with working in large multinational teams.

72. Duties of the specialists will include the following:

- (i) Establish the Quality Assurance Program for the irrigation subprojects;
- (ii) Prepare the TOR for the design of irrigation components of subprojects including irrigation water requirement analysis, design and construction of head works, regulating structures, canals, and access roads and installation of pumps to carry out detailed studies by the detailed design consultants;
- (iii) Prepare construction supervision quality control guidelines to be followed by the national consultants appointed to carry out this task. This shall specifically address the quality control of materials and the construction processes;
- (iv) Provide written comments and recommendations to the NPCO on each subproject reviewed detailing any changes or modifications to the technical design;
- (v) Ensure that canal design is appropriate given the characteristics of the command area; the hydrological analysis prepared by the provincial consultants is current and future demands anticipated from the water source will be accommodated given the runoff and other catchment characteristics;
- (vi) Recommend improvements in the design of structures to improve efficiency of water utilization and facilitate efficient water management during the operational phase;
- (vii) In coordination with the training coordinator: (a) Prepare training courses for using the quality control guidelines; (b) Carry out the training; and (c) Build upon successful flood and drought experiences in Lao PDR, review and assess O&M requirements and arrangements and make recommendations for optimum O&M practice;
- (viii) Assist in the preparation of the bid and contract documents, selection of the contractors for the construction works;
- (ix) Assist NPCO in the technical supervision of the irrigation component, including contract management; and
- (x) Assisting PIC in preparation of progress and other reporting as required.

73. The Irrigation Engineer (national) will be designated as Deputy Team Leader and will support the Team Leader to provide implementation support after loan effectiveness and to coordinate the other specialists' inputs under the project. In addition to the duties as a irrigation engineer, as deputy team leader the candidate will:

- (i) With the Team Leader, supervise the consulting team and ensure that inputs and activities of both the international and national consultants are of a high quality and effective;
- (ii) Fill the position and duties of the Team Leader when the Team Leader is out of the country;
- (iii) Conduct overall coordination of the project especially inter-agency as well as with ADB, NPCO, and PIOs;
- (iv) Prepare TORs of detailed design, supervision and safeguard consultants and their recruitment and supervision;
- (v) Prepare tender and bid documents and procurement for civil works and goods.
- (vi) Supervision of the social and environmental safeguards and the Environmental Management Plan activities;
- (vii) Financial management and accounting of the project expenditures; and
- (viii) Report the progress of the project through Inception Report after 3 months, quarterly and annual progress report, and project completion report to ADB and NPCO.

c. Hydrologists (4 p-m of international and 6 p-m national)

74. The Hydrologists will support the EA and IA technical specialists in their respective areas. The specialist will be based in the NPCO and directly support the NPC and the NPCO staff. The international specialist will have a post graduate degree in hydrology or other relevant discipline and a minimum of 15 years experience in hydrological studies, modeling and early warning system development. Experience in Lao PDR or other Southeast Asian country will be considered an asset. The national specialist will have a post graduate degree in hydrology or other relevant discipline and a minimum of 10 years experience in a related field.

75. Duties of the specialists:

- (i) Review detailed design of subprojects related to flood risk management and mitigation including the river bank protection, cross-border flood management and design criteria for flood and drought risk management subprojects;
- (ii) Provide technical and management assistance to PAFOs and District Agriculture and Forestry Offices (DAFO) on O&M of flood embankment and flood control gates of the subprojects;
- (iii) Advise and assist PAFOs and DAFO in the establishment of manual stream gauges and rainfall gauges at the project site;
- (iv) Train PAFOs and DAFO staff and Water User Associations at subproject sites in the daily recording of stream flow and rainfall data.
- (v) Assist and supervise bid document preparation and construction works.
- (vi) Assist in preparation of progress and technical reports as required.

d. Structural Engineer (4 p-m international and 8 p-m national)

76. With the emphasis being on quality of design and construction, the specialists will review infrastructure designs prepared by national design consultants with particular attention to local conditions and specifications. The review process is necessary to ensure that standard designs are not blindly applied in this challenging environment and that designs are not dominated by the budget limitations of the subproject and provincial cost norms but provide for anticipated volumes of traffic under conditions of minimal maintenance. The international structural engineer will have a degree in civil/structural engineering with a minimum of 10 years relevant experience in structural engineering and cost estimation. Experience in Lao PDR or other Southeast Asian country will be considered an asset. The national specialist will have post graduate qualifications in structural engineering and a minimum of 10 years of relevant experience. The specialists will be familiar with working in large multinational teams.

77. Duties of the specialist will include the following:

- (i) Prepare the TOR for preparations of layouts maps, design drawings of structures, and cost estimates of subprojects by detailed design consultant for constructions of the structures;
- (ii) Following site investigations, provide written comments and recommendations on each subproject reviewed detailing recommended changes to the technical design parameters;
- (iii) Assist in the preparation of TOR of construction supervision consultant.
- (iv) Assist in the preparation of construction supervision guidelines to be followed by the national consultants appointed to carry out this task. This should nominate the types and frequency of materials testing such as routine quality monitoring of compaction etc.;
- (v) Review and provide recommendations regarding the quality of completed subprojects and O&M arrangements during the commissioning period;
- (vi) Provide assistance to the NPCO in the technical supervision of construction works of the projects, including contract management;
- (vii) Assist in the preparation of the bid and contract documents, selection of the contractors for the construction works;
- (viii) Review detail design of subprojects related to mechanical items/structures such as gates, sluice, bridges, and other structures; and
- (ix) Assisting PIC in preparation of progress and other reporting as required.

e. Environment Specialist (5 p-m international and 5 p-m national)

78. The environment specialists will have post graduate qualifications in environmental science or natural resource management from a recognized institution and will have more than 15 years experience working in the field of environmental management for internationally funded development projects, some of which will have been undertaken in Lao PDR. Experience in Lao PDR or other Southeast Asian country will be considered an asset. The national specialist will also have considerable experience in environmental monitoring and will be familiar with the laws of Lao PDR associated with the environment as well as having had experience in internationally funded development projects as an environmentalist. Training skills would also be an advantage to the international and national specialists.

79. Duties of the specialists will include the following:

- (i) Review the IEEs prepared during project preparation, resolve any information gaps, and initiate a program of preconstruction monitoring if it has not already begun;
- (ii) Review and provide recommendations regarding the environmental recommendations of the PPTA Final Report and the formats for environmental examinations contained therein;
- (iii) Assist in ensuring compliance with all environmental legislation during the identification, preparation, design, implementation and operation of subprojects;
- (iv) Prepare the TOR for detailed environmental study of the project and ensure that the subprojects will not have any adverse environmental impacts;
- (v) Brief the PIOs and participating district staff in participating provinces on environmental procedures and requirements for subproject preparation;
- (vi) Visit subprojects during the subproject preparation to ensure environmental safeguards are being properly conducted;
- (vii) Liaise with the safeguards officers in each PIO and make spot checks during implementation to ensure that environmental plans are being properly implemented;
- (viii) Assist in the preparation and implementation of training activities with regard to the environmental aspects of the Project;
- (ix) Assist in the preparation of bid documents and construction contracts to ensure that environmental safeguards are incorporated;
- (x) Supervise construction work and monitor the implementation of mitigation measures under the Environmental Management Plan; and
- (xi) Assisting PIC in preparation of progress and other reporting as required.

f. Social Safeguards/Resettlement Specialist (8 p-m international and 10 p-m national)

80. The social safeguard specialist will assume responsibility for the training of NPCO and PIO staff in resettlement and social issues and procedures. 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 international specialist will have post graduate qualifications in an appropriate discipline and a minimum of 15 years of relevant experience in the field of resettlement, community mobilization of development projects, social and poverty analysis, and gender for internationally funded development projects, some of which will have been undertaken in Lao PDR. The specialist will be based in the NPCO and will travel throughout the project area as required.

81. Duties of the specialists will include the following:

- (i) Review and provide recommendations regarding the PPTA consultant's Final Report and the recommendations on land acquisition and resettlement therein;
- (ii) Review and provide recommendations regarding the land acquisition and resettlement plan (LARP) prepared by the NPCO safeguard officer;
- (iii) Prepare TOR for external safeguard monitoring entities to be recruited by the NPCO;
- (iv) Make recommendations to develop the LARPs to a standard acceptable to ADB;
- (v) Visit all participating provinces and brief the PIOs and participating district staff on the land acquisition and resettlement requirements and, specifically how they differ from standard government procedures in light of ADB policies;

- (vi) Brief local consultants recruited to undertake LARP in the preparation and reporting procedures to be followed;
- (vii) Review and provide recommendations regarding random selected LARP as they are being prepared and make suggestions for improvements;
- (viii) Liaise with the safeguards officer in each PIO and randomly review LARP being undertaken by the provincial and district governments and report anomalies to the NPCO and relevant PIO;
- (ix) 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.
- (x) Train relevant staff of PIOs, DAFOs and district Lao Women's Union and assist them in carrying out community consultations;
- (xi) Assist the development of village groups and identification of community activities;
- (xii) Review existing training materials aimed at water user group (WUG) establishment and community preparation and make recommendations for improvements as appropriate;
- (xiii) Assist in establishing WUGs and upgrading them to water user associations (WUA);
- (xiv) Conduct training for domestic social safeguard specialists in all aspects of community activities;
- (xv) Conduct a one-day workshop for NPCOs staffs and staffs of PAFOs and DAFOs on the proposed activities of the community mobilization component;
- (xvi) Facilitate the initial social assessment of project communities with local organizations to determine ability and willingness to participate in project, including an assessment of absorptive capacity;
- (xvii) Provide trainings to local organizations and other stakeholder groups in participatory tools and techniques;
- (xviii) Provide required support to the local organizations in facilitating the development of WUGs and farmer production groups;
- (xix) Work with local communities to develop a participatory based system of monitoring and evaluation;
- (xx) Assist in developing and implementing the training program on the land acquisition and resettlement aspects of the Project;
- (xxi) Assist in the preparation of bid documents for the construction works;
- (xxii) Assist NPCO and PIOs in the implementation of land acquisition and resettlement plans in the subprojects; and
- (xxiii) Assist PIC in preparation of progress and other reporting as required.

g. Economist (2 p-m international)

82. In order to have subproject economic analysis properly prepared, it is proposed that the team will include a suitably qualified project economist to review completed subproject investment reports to ensure that they meet the adequate standard in assessing the real economic benefits of the subprojects. The economists will have post graduate qualifications in economics or agricultural economics and a minimum of 15 years experience in economic analysis and financial management of rural infrastructure development projects preferably financed by ODA donors, preferably in the Southeast Asian and in Lao PDR.

83. Duties for the position include the following:

- (i) Assist the team leader to assess the economic conditions of present production systems and the impact of irrigation and flood control components of the subprojects and changes of the production system recommended and implemented by the Project.
- (ii) Assess the impact of flood and drought risks management and its related costs for construction, rehabilitation and O&M on the income situation of the farming families.

h. Financial Management Specialist (4 p-m national)

84. The financial management specialist will assist the NPCO in the setting up of budgeting and financial management systems. The specialist will have graduate qualifications in economics, financial management or other relevant field, with a minimum of 15 years experience in financial management of development projects preferably financed by external donors.

85. Duties for the position include the following

- (i) In coordination with the training coordinator, conduct a training needs assessment of the NPCO and PIOs staff and the provincial consultants to ascertain the gaps in their project financial management skills, and carry out on-the-job training for the NPCO and PIOs financial staff;
- (ii) Ensure appropriate baseline and annual indicators are identified and measured. Undertake regular field visit to provide this support;
- (iii) Assist in the management of the project's fund flow and imprest accounts;
- (iv) Assist in preparing budgets for project activities including civil works and other procurement;

i. Procurement Specialist (5 p-m international and 6 p-m national)

86. The procurement specialists will be responsible for developing proforma contracts for use by the PIOs in preparation of works contracts and will ensure that ADB procedures are incorporated into the processing procedures developed by the NPCO for approving and implementing subprojects. The procurement specialists will have tertiary qualifications in an appropriate discipline and 15 years experience in undertaking or supervising procurement under internationally funded development projects, preferably ADB financed projects.

87. Duties of the specialists will include the following:

- (i) In association with the NPCO, develop procedures to ensure that ADB's procurement guidelines (2010, as amended from time to time) are incorporated into subproject processing and implementation;
- (ii) With the cooperation of the structural engineer, develop pro-forma contracts that can be used by PIOs for civil works construction;
- (iii) Ensure that all contracts contain a provision that, in the event unexploded ordinance (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.
- (iv) Support the NPCO in the preparation of standard bidding documents for civil works contracts in accordance with national competitive bidding procedures specified in the Project Administration Manual;

- (v) Assist with advertisements, preparation of request for proposals, developing evaluation criteria, shortlisting of consultants, pre-bid meetings, evaluation of technical and financial bids, preparation of bid evaluation reports, contract negotiations and preparation of documentation for contract signing, and advice on submission of documents to ADB for review and approval.
- (vi) Assist the NPCO in recruitment of consultants and contractors in accordance with ADB's procedures and guidelines.
- (vii) Assist in the capacity building training activities to ensure that PIO staff are familiar with procurement procedures and documents needed for the smooth implementation of the proposed Project; and
- (viii) Assisting PIC in preparation of progress and other reporting as required.

j. Community-Based Disaster Risk Management/Gender and Development Specialist (10 p-m national)

88. The CBDRM specialist will be responsible for ensuring that community based disaster risk management strategies are built into all subprojects to reduce vulnerability of persons and assets in the identified communes to the impacts of flood and drought hazards. The specialist will increase the capacity of the communes for decentralized and participatory planning in flood and drought risk assessment and management; developing and implementing risk reduction strategies appropriate to local hazards and conditions. He/she will be responsible for : (i) ensuring that the GAP is being implemented in accordance with ADB policies on gender ; (ii) reviewing gender analysis, prepare consultation GAP workshop with stakeholders and update GAP (if necessary); (iii) prepare gender-sensitive indicators and checklist for evaluation of gender responsiveness of proposed subprojects. (iv) Work closely with other specialists to ensure gender is integrated in all training components; and advise CBDRM committee on gender issues and enhance capacity of women involved in the committee.

89. The specialist will work with the PAFOs and DAFOs to introduce the integration of flood and drought risk management strategies into local development planning and system. The specialist will have a degree in a social related discipline and at least 5 years of experience in community based flood and drought risk management in Lao PDR through managing and supervising projects and programs. The specialist will have excellent oral and written communication skills in both English and Laotian and a demonstrated capacity in independent report preparation. The specialist must be prepared to travel and live in rural areas of Lao PDR.

k. Monitoring and Evaluation Specialist (7 p-m national)

90. The M&E specialist will assist in overall benefit monitoring survey design and provide the principles for analyzing the results. In addition, the specialist will be responsible for establishing performance monitoring of the implementation of subprojects to facilitate reporting to the Government and ADB. The specialist will have tertiary qualifications in rural development or a related field and have at least 10 years experience as Project Benefit Monitoring and Evaluation specialist or in a related area.

91. Duties of the specialists will include the following:

- (i) Review and provide recommendations regarding the monitoring and evaluation recommendations in the PPTA consultant's Draft Final Report;

- (ii) Together with the NPCO staff and the consulting team leader determine the optimum type of monitoring program for project implementation, safeguards and benefits;
- (iii) Together with NPCO staff, and with reference to the Project DMF, design a monitoring system based on measurable inputs, outputs and outcomes. The system shall include: household, origin-destination, market, and traffic characteristic surveys disaggregated by gender and age;
- (iv) Together with NPCO staff, brief PIOs on their duties and responsibilities under the project monitoring system;
- (v) Assist in recruiting an agency or institution to undertake benefit monitoring;
- (vi) Guide the benefit monitoring agency in undertaking baseline surveys, developing monitoring parameters and scheduling monitoring activities; and,
- (vii) Periodically review monitoring activities during project implementation and report any deficiencies, problems, issues or shortcomings to the NPCO.
- (viii) Review subproject profile including baseline data and detail design for construction works from the viewpoint of project monitoring and evaluation.
- (ix) Promote stakeholder consultation and assist in collecting necessary data for project performance monitoring and evaluation.
- (x) Assist in the preparation and review of the inception report, progress reports, and final report and ensure that these reports meet monitoring and evaluation requirements.

I. River Engineer (MPWT/DOW) (6 p-m national)

92. The River Engineer will be based in the PIO of MPWT/DOW. The specialist will assist the NPCO and the PIO MPWT/DOW and will support the national consultants - to be recruited by the NPCO - in carrying out the detailed design for the flood protection embankment. In addition, the specialist will be responsible in collaboration with the Civil Engineer (Highway) for establishing the design parameters for the flood protection infrastructure. The specialist will have an engineering degree with specialization in hydrology and waterway structures, or other relevant field, and a minimum of 15 years experience in hydrological studies and design of waterway structures. Experience with overseas supported projects and multinational teams will be considered an asset.

93. Duties of the specialists will include the following:

- (i) Review the feasibility studies and reports from the PPTA as well as other relevant project related literature, data including hydrological data, studies and reports;
- (ii) Coordinate with the Hydrologist, the MRC and DMH for data regarding the water regime of the river;
- (iii) Establish design criteria and parameters for the proposed flood protection embankment works and related structures;
- (iv) Assist the NPCO in selection of national consultants for the detailed design and construction supervision of the flood protection works;
- (v) Support and guide the national consultants for detailed design of the flood protection work to ensure compliance with the latest technology, the Government Standards, and the ADB and Government's regulations regarding environment protection;

- (vi) Review the preliminary design of the flood protection embankment works prepared by the national consultants to ensure compliance with design parameters as well as the relevant Government standards for such work;
- (vii) Review the detailed design of the flood protection embankment works prepared by the national consultants to ensure compliance with the Government standards as well as the Government and the ADB regulations regarding environment protection; and
- (viii) Review cost estimates for the proposed flood protection embankment.

m. Civil Engineer (Highway) (MPWT) (26 p-m national)

94. The Civil Engineer (Highway) will be based in the PIO of MPWT/DOW. The specialist will assist the NPCO and the PIO MPWT/DOW and will support the national consultants - to be recruited by the NPCO - in carrying out the detailed design for the flood protection embankment. In addition, the specialist will be responsible in collaboration with the River Engineer, for establishing the design parameters for the flood protection embankment and the associated road and structure. The specialist will have an engineering degree with specialization in roads and highway, with a minimum of 15 years experience in design and construction supervision of roads, highways and associated structures. Experience with overseas supported projects and working with multinational teams will be considered an asset.

95. Duties of the specialists will include the following:

- (i) Review the feasibility studies and reports from the PPTA as well as other relevant project related literature, data, studies and reports;
- (ii) Establish design criteria and parameters for the proposed embankment, road works and related structure;
- (iii) Assist the NPCO in selection of national consultants for the detailed design and construction supervision of the embankment and road works;
- (iv) Support and guide the national consultants for detailed design of the embankment and road works to ensure compliance with Government Standards, and the ADB and Governments regulations regarding environment protection;
- (v) Review the preliminary design of the embankment and road works prepared by the national consultants to ensure compliance with design parameters as well as the Government standards for such work;
- (vi) Review the detailed design of the embankment and road works prepared by the national consultants to ensure compliance with the Government standards as well as the Government and the ADB regulations regarding environment protection;
- (vii) Review cost estimates for the proposed flood protection embankment;
- (viii) Assist the national consultants and the NPCO in the preparation of bid documents for the embankment and road works;
- (ix) Assist NPCO in the evaluation of tenders for the construction of the embankment and road works;
- (x) Assist in the supervision of construction, including measurement and calculation of quantities, and ensuring that construction work is carried out in accordance with the technical specifications;
- (xi) Establish and implement a quality control and assurance program;
- (xii) Coordinate the site sampling and analysis of samples;

- (xiii) Assist the PIO in the management of the contract including preparation of variation orders as required;
- (xiv) Supervise the contractor in all matters concerning safety and care of the works and the worksite; and
- (xv) Maintain a daily record of construction, testing and administration activities.

NOTE: For all consultants, fluency in both spoken and written English will be required.

4. Service Contract for Output 1 (NEWC capacity building)

a. Background

96. Floods and droughts have great impact on social, environmental and economic conditions in urban and rural Lao. In recent years, the total damage caused by flood in Lao PDR has been significant, tens of thousands of people were seriously affected, large cropped area were damaged, and many people were killed or injured. Reliable hydro-meteorological data and the development of an effective early warning system is essential to mitigate the losses from flood and drought disasters. To achieve this goal, improvement of the hydro-meteorological network, effective data transmission and management system, development of forecasting models, early warning and public awareness, and effective communication system are necessary. Capacity building and upgrading of DMH facilities is critical for risk management (early warning) and water resources development.

b. Technical Consideration

97. To improve the management and operation of an early warning system, investments are required to strengthen the hydro-meteorological network and to support data capturing, receiving, processing, forecasting and dissemination.

98. The project will improve DMH's capacity on data acquisition, transmission, processing, archiving, forecasting and early warning. The priority basins for hydro-meteorological data collection and early warning system development are: Sebangfai and Sebanghien River Basins because these two basins are most floods affected river basins of Lao PDR. The objectives of this investment are:

- (i) To support water resources planning and management to NEWC and other concerned agencies by providing necessary and reliable hydro-meteorological information.
- (ii) To enhance early warning system for floods and droughts by strengthening hydro-meteorological monitoring system in basin as well as in national levels.
- (iii) To build technical capability of DMH on forecasting of floods, droughts, extreme weather events and on seasonal climate prediction at basin and national levels.
- (iv) To increase awareness and responsiveness to floods, drought and other extreme weather events for the selected provinces, districts and communities.
- (v) To strengthen information dissemination with the National Disaster Management Committee and its related agencies.

**Table 2: Indicative Timetable of Service Contract For Capacity Building for NEWC
(person months)**

	Unit	2013	2014	2015	2016	2017	2018	Total
1. International Consultants								
a. Hydro-Meteorological Advisor / Team Leader	Months	6	6	2	-	-	-	14
b. Meteorologist (Meteorological Network Improvement)	Months	2	-	-	-	-	-	2
c. Meteorologist (Weather Forecast)	Months	2	-	-	-	-	-	2
d. Hydrological Modeling Expert	Months	-	3	-	-	-	-	3
e. Hydraulic Modeling Expert	Months	-	3	-	-	-	-	3
f. Forecast and Warning Dissemination Expert	Months	-	2	-	-	-	-	2
g. Institutional Specialist	Months	2	-	-	-	-	-	2
Subtotal		12	14	2	-	-	-	28
2. National Consultants								
a. Hydro-Meteorological Advisor/Deputy Team Leader	Months	6	6	6	2	-	-	20
b. Meteorologist	Months	4	2	-	-	-	-	6
c. Hydrological Modeling Specialist	Months	-	6	-	-	-	-	6
d. Hydraulic Modeling Specialist	Months	-	6	-	-	-	-	6
e. Forecast and Warning Dissemination Specialist	Months	-	4	-	-	-	-	4
f. Institutional Specialist	Months	2	-	-	-	-	-	2
Subtotal		12	24	6	2	-	-	44
Total		24	38	8	2	-	-	72

Source: ADB Staff Estimates

5. Terms of Reference

99. DMH will be responsible for implementation of this component. The technical services described below will be provided as a service contract. DMH will appoint a Project Director to work closely with the service contractor team. The TOR of the service contract is as follows:

a. International Hydro-Meteorological Advisor/Team Leader (14 p-m international)

100. The International Hydro-Meteorological Advisor will be a qualified hydrologist with approximately 20 years practical experience in data collection, processing and management; capacity building for hydro-meteorological organizations preferably in developing countries; and hydrologic and hydraulic modeling applications. Experience in the Mekong region and preferably Lao PDR will be an asset. He/she must have strong interpersonal and communication skills, and be fluent in oral and written English. Specifically the specialist will:

- (ii) Prepare a plan with specifications for upgrading the hydro-meteorology field network (rehabilitation, additional stations, data transmission system, staff training) for the two priority basins.
- (iii) Prepare a plan with specifications for improved data acquisition, processing and management.
- (iv) Develop a training plan for the field and data management functions
- (v) Prepare a plan for improvements to forecast operations including the selection of appropriate hydrologic and hydraulic models.
- (vi) Prepare a training plan for hydrologic forecasting and calibration of models.

- (vii) Prepare specifications for procurement of instrumentation and equipment for upgrading and expansion of the early warning field network.
- (viii) Complete field installation and upgrades and begin preliminary operations with the early warning system to debug the field, data processing, and forecasting systems and to assess the integration of the early warning system.
- (ix) Prepare draft awareness plan for flood prone areas.
- (x) Conduct mock drill of the early warning system to assess interconnections with the local and national disaster emergency organizations.
- (xi) Update and refine the early warning system and implement improvements based on lessons learned from preliminary operations.
- (xii) Implementing awareness plan and develop communications strategy.

b. Meteorologist 1 (Meteorological Network Improvement) (2 p-m international)

101. The International Meteorologist (Meteorological Network Improvement) will be a qualified meteorologist with 15 years practical experience in meteorological network improvement; data acquisition, transmission, receiving and processing system; and developing field data management plan. Experience in the Mekong region and preferably in Lao PDR will be considered an asset. He /she must have strong interpersonal and communication skills and and be fluent in oral and written English. Specifically the specialist will:

- (i) Prepare a plan with specifications for upgrading the hydro-meteorology field network (rehabilitation, additional stations, data transmission system, staff training) for the two priority basins.
- (ii) Prepare a plan with specifications for improved data acquisition, processing and management.
- (iii) Develop a training plan for the field and data management functions.

c. Meteorologist 2 (Weather Forecast) (2 p-m international)

102. The Specialist will be a qualified meteorologist with 15 years practical experience in: improvement of weather forecast system and operations; data processing and weather forecast model development; and preparation of training plan for weather forecast operations. Experience in the Mekong region and preferably in Lao PDR will be considered an asset. The candidate must have strong interpersonal and communication skills and be fluent in oral and written English. Specifically the specialist will:

- (i) Prepare a plan for improvements to weather forecast operations including the selection of appropriate weather forecast models, and
- (ii) Develop training plan for the weather forecast operations and models.

d. Hydrological Modeling Expert (3 p-m international)

103. The International Hydrological Modeling will be a qualified hydrologist with approximately 15 years practical experience in: hydrological modeling; data processing and hydrological models development; and developing training plans for capacity building for hydrological modeling. Experience in the Mekong region and preferably in Lao PDR will be considered an asset. The candidate must have strong interpersonal and communication skills and be fluent in both oral and written English. Specifically the specialist will:

- (i) Prepare a plan for improvements to forecast operations including the selection of appropriate hydrologic models.
- (ii) Develop hydrological models for pilot sub-basins.
- (iii) Develop training plan for the hydrological model operations.

e. Hydraulic Modeling Expert (3 p-m international)

104. The International Hydraulic Modeling Expert will be a qualified hydraulic engineer with 15 years practical experience in: hydraulic modeling; data processing and hydraulic model development; and developing training plans for capacity build up on hydraulic modeling. Experience in the Mekong region and preferably in Lao PDR will be considered an asset. The candidate will have strong interpersonal and communication skills and will be fluent both in oral and written English. Specifically the specialist will:

- (i) Prepare a plan for improvements to forecast operations including the selection of appropriate hydraulic models;
- (ii) Develop hydraulic models for pilot sub-basins; and
- (iii) Develop training plan for the hydraulic model operations.

f. Forecast and Warning Dissemination Expert (2 p-m international)

105. The International Forecast and Warning Dissemination Expert will have a post-graduate degree in a relevant discipline and will have 15 years of practical experience in: forecast and warning dissemination systems; developing communication strategy for forecast and warning dissemination; and developing plan for awareness progress in pilot sub-basins. Experience in the Mekong region and preferably in Lao PDR will be considered an asset. The candidate must have strong interpersonal and communication skills and be fluent in both oral and written English. Specifically the specialist will:

- (i) Prepare a plan for improvements to weather forecast and warning dissemination operations including the selection of appropriate communication system.
- (ii) Develop plan for public awareness program in the pilot sub-basins on forecast and warning system.

g. Institutional Specialist (2 p-m international)

106. The International Institutional Specialist will have a tertiary degree in a relevant discipline and will have approximately 15 years of practical experience in: institutional strengthening of similar organizations; and preparing the plan for institutional strengthening for achieving effective forecast and warning dissemination. Experience in the Mekong region and preferably in Lao PDR will be considered an asset. The candidate must have strong interpersonal and communication skills and be fluent in both oral and written English. Specifically the specialist will:

- (i) Assess the situation of human resources and organizational set up of DMH and the planned NEWC;
- (ii) Prepare a plan for institutional strengthening to achieve an effective forecast and warning system and dissemination of forecast and warnings to target groups;

h. Hydro-Meteorological Advisor (20 p-m national)

107. The National Hydro-Meteorological Advisor will be a qualified meteorologist with 15 years of practical experience in: data collection, processing and management; capacity building for hydro-meteorological organizations; and meteorological forecasting and awareness communications. Experience with overseas supported projects and working with multinational teams will be considered an asset. The candidate must have strong interpersonal and communication skills and be fluent in both oral and written in English. Specifically the specialist will:

- (i) Prepare a plan with specifications for upgrading the hydro-meteorology field network (rehabilitation, additional stations, data transmission system, staff training) for the two priority basins
- (ii) Prepare a plan with specifications for improved data acquisition, processing and management.
- (iii) Develop training plan for the field and data management functions
- (iv) Prepare a plan for improvements to forecast operations including the selection of appropriate hydrologic and hydraulic models.
- (v) Prepare training plan for hydrologic forecasting and calibration of models.
- (vi) Prepare specifications for procurement of instrumentation and equipment for upgrading and expansion of the early warning field network.
- (vii) Complete field installation and upgrading and beginning preliminary operations with the early warning system to debug the field, data processing, and forecasting systems and to assess the integration of the early warning system.
- (viii) Prepare draft awareness plan for flood prone areas.
- (ix) Conduct mock drill of the early warning system to assess interconnections with the local and national disaster emergency organizations.
- (x) Update and refining the early warning system and implement improvements based on lessons learned from preliminary operations.
- (xi) Implement awareness plan and develop communications strategy

i. Meteorologist (6 p-m national)

108. The National Meteorologist will be a qualified meteorologist with 15 years practical experience in: meteorological network improvement; data acquisition, transmission, receiving and processing system; developing field data management plan; and weather forecast models operations. Experience with overseas supported projects and working with multinational teams will be considered an asset. The candidate must have strong interpersonal and communication skills and be fluent in both oral and written in English. Specifically the specialist will:

- (i) Prepare a plan with specifications for upgrading the hydro-meteorology field network (rehabilitation, additional stations, data transmission system, staff training) for the two priority basins
- (ii) Prepare a plan with specifications for improved data acquisition, processing and management.
- (iii) Develop training plan for the field and data management functions
- (iv) Prepare a plan for improvements in weather forecast operations including the selection of appropriate weather forecast models
- (v) Develop training plan for the weather forecast operations and models

j. Hydrological Modeling Specialist (6 p-m national)

109. The National Hydrological Modeling Specialist will be a qualified hydrologist with 15 years practical experience in: hydrological modeling; data processing and hydrological models development; developing training plans for capacity build up on hydrological modeling. Experience with overseas supported projects and working with multinational teams will be considered an asset. The candidate must have strong interpersonal and communication skills and be fluent in both oral and written in English. Specifically the specialist will:

- (i) Prepare a plan for improvements to forecast operations including the selection of appropriate hydrologic models.
- (ii) Develop hydrological models for pilot sub-basins.
- (iii) Develop training plan for the hydrological model operations.

k. Hydraulic Modeling Specialist (6 p-m national)

110. The National Hydraulic Modeling Specialist will be a qualified hydraulic engineer with 15 years practical experience in: hydraulic modeling; data processing and hydraulic models development; and developing training plans for capacity build up on hydraulic modeling. Experience with overseas supported projects and working with multinational teams will be considered an asset. The candidate must have strong interpersonal and communication skills and be fluent in both oral and written in English. Specifically the specialist will:

- (i) Prepare a plan for improvements to forecast operations including the selection of appropriate hydraulic models.
- (ii) Develop hydraulic models for pilot sub-basins.
- (iii) Develop training plan for the hydraulic model operations.

l. Forecast and Warning Dissemination Specialist (4 p-m national)

111. The National Forecast and Warning Dissemination Specialist will have a tertiary degree in a relevant discipline with approximately 15 years of practical experience in: forecast and warning dissemination system; developing communication strategy for forecast and warning dissemination; and developing plan for awareness progress in pilot sub-basins. Experience with overseas supported projects and working with multinational teams will be considered an asset. The candidate must have strong interpersonal and communication skills and be fluent in both oral and written in English. Specifically the specialist will:

- (i) Prepare a plan for improvements in weather forecast and warning dissemination operations including the selection of appropriate communication system
- (ii) Develop plan for public awareness program in the pilot sub-basins on forecast and warning system

m. Institutional Specialist (2 p-m national)

112. The National Institutional Specialist will have a tertiary degree in a relevant discipline with 15 years of practical experience in: institutional strengthening of similar organizations ; preparation of plans for institutional strengthening for achieving effective forecast and warning dissemination. Experience with overseas supported projects and working with multinational teams will be considered an asset. The candidate must have strong interpersonal and

communication skills and be fluent in both oral and written in English. Specifically the specialist will:

- (i) Assess the situation of human resources and organizational set up of the DMH and the planned NEWC;
- (ii) Prepare a plan for institutional strengthening to achieve an effective forecast and warning system and dissemination of forecast and warnings to target groups.

6. Outline Terms of Reference for NGO or Similar Organization Providing Services to Support the CBDRM Output 3.

113. 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 Communities
- (vi) Local Facilitators recruited and trained to support village and commune planning and implementing risk reduction strategies in participating communes
- (vii) A CBDRM model will be formulated and proposed to expand to a larger scale in the subproject areas.

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

- (i) Assisting the CPMU and PIOs 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 Lao.
- (iii) Gathering and collecting the materials on CBDRM in country, studying it and if possible use it as basis for production of training manuals.
- (iv) Coordinating with the CPMU, PIOs, 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
- (x) Assisting the local level CCs and the local facilitators in monitoring the implementation of the investment plan.

7. Draft Terms of Reference for Audit Firm/Institution

a. The Project

115. The project that will be audited, the executing agency (EA) and some audit information are summarized in Annex 1.

116. This TOR is for the audit of the annual project financial statements (APFS).

b. The Objective of the Audit

117. The objective of is to enable the auditor to express a professional opinion on the use of loan and/or grant proceeds from the Asian Development Bank (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.

118. 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.

c. The Conduct of the Audit

119. 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.

120. In complying with ISA, the auditor shall:

- (i) Review ISA 240¹⁵ (Annex 2), ISA 200¹⁶ (Annex 3), ISA 315¹⁷ (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 250¹⁸ (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 PAFS as required by ISA 250.

¹⁵ The Auditor's Responsibility to Consider Fraud in an Audit of Financial Statements.

¹⁶ Overall Objectives of Independent Auditors.

¹⁷ Identifying and Assessing the Risks of Material Misstatements.

¹⁸ Consideration of Laws and Regulations in an Audit of Financial Statements.

- (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 260¹⁹, 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 330²⁰, 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 402²¹, as given in Annex 8, if certain aspects of an entity's operations are performed by a third party service provider.
- (vi) Obtain written representations from management and, where appropriate, those charged with governance as required by ISA 580²², as given in Annex 9, as part of the audit process.

d. Audit Procedures

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

- (i) Review the Report and Recommendation of the President (RRP), 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 withdrawal applications 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;
- (viii) Determine whether accounting policies are appropriate and consistently applied; and determine whether all financial statement disclosures are adequate.

¹⁹ Communication of Audit Matters with Those Charged with Governance.

²⁰ The Auditor's Procedures in Response to Assessed Risks.

²¹ Audit Considerations Relating to an Entity Using a Service Organization.

²² Written representation.

e. Audit Scope in Compliance with Financing Arrangements

122. 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.

123. 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);
- (vi) The Imprest Accounts and sub-accounts have been maintained and operated in accordance with the provisions of the relevant financing agreements.

f. Project Accounts Financial Statements (PAFS)

124. 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.

125. 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.

g. Audit Methodology

126. 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.

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

h. The Audit Report

128. 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.

129. 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.

130. Where the Loan or Grant Agreement of a project requires the separate audit of the Statement of Expenditures (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.

131. 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.

132. 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.

i. Management Letter

133. 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;
- (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.

j. Exit Conference

134. 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.

k. Access to Information and Records

135. 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.

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

137. 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*.

l. Deliverables and Timing

138. 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.

m. Annexes

139. 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

140. The structural sub-projects are related to upgrading and rehabilitation of an existing water resource (flood and drought management) system and constructing irrigation schemes to enhance the expected outputs and outcomes of the systems. Environmental impacts expected in the subprojects are mostly occurring during the construction phase. Safeguard officers will be appointed within the NPCO and each PIO and safeguard specialists will be recruited as part of the PIC to monitor and review safeguard issues that may arise during subproject design. Capacity building will be provided in safeguards and gender equity as well as pro-poor development initiatives. There are no indigenous peoples located in the subprojects. The safeguard categorizations are B for Environment, A for Involuntary Resettlement; and C for Indigenous Peoples.

A. Land Acquisition and Resettlement

141. Negative impacts for the project are considered significant with an estimated 277 affected HHs (around 1843 people). Out of the total of affected HHs, 54 HH are severely affected (losing more than 10% of their productive land and/or productive assets); and 223 HH are marginally affected. Out of the total HH, there are 138 HHs considered vulnerable, including households headed by the elderly, women, landless and households below the poverty line. Total land take is 10.1 hectares, all officially classified as agricultural land, but a few (13 HH) also use it as a residential land. In accordance with ADB's resettlement procedure, the project is classified as Category A, requiring a full RP. The RPs have been prepared and agreed between government and ADB. RP is included as linked document 20. The draft RPs will be updated following completion of detailed engineering design for ADB review prior to implementation.

142. The NPCO is the responsible ministerial authority for resettlement planning, coordination and implementation. As such, NPCO, through the PAFO-DAFO and DOW as IAs will oversee RP activities with WREA/MONRE providing technical assistance when necessary. The designated Resettlement Officer of the Safeguards unit will be responsible for organizing the affected districts and villages to implement the RPs. To ensure that the implementation of RPs is transparent and conducted in a participatory manner, the IA provincial Resettlement Officer and IA district focal persons will work closely with the APs and concerned local administrative/government authorities.

143. The Project Implementation Consultant (PIC) will include one international resettlement specialist and a national social development specialist to assist the EA, IA and local authorities in the preparation and implementation of the RP. The PIC resettlement specialists will assess the capacity of the implementing agencies and to provide the necessary capacity building on safeguards for Government staff and the members of the PRC, DRC and village taskforces. The PIC will assist the local officials to carry out replacement cost survey for land and non-land assets.

144. The NPC Monitoring Unit (NPCMU) will serve as the Project Internal monitoring body. Semi-annual reports will be submitted to MAF starting from the commencement of RP preparation at the conduct of census, detailed measurement survey to completion of implementation of the RP activities.

145. The independent or external monitoring agency (EMA) will be an independent organization not involved in implementation of the Project with experience in resettlement

monitoring and evaluation in Lao PDR. The EMA will monitor compliance with ADB and Government requirements during implementation of resettlement.

146. The MAF through its NPMO, will not issue a notice-of-possession of site until the head of district resettlement committee confirms in writing that (i) payment has been fully disbursed to the affected persons and rehabilitation measures are in place as set out in the RP agreed between MAF and ADB; (ii) displaced persons are already compensated; and (iii) the area is free from any encumbrances.

B. Indigenous People

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

C. Environmental Impact

148. The Project is categorized as environmental category B. The Government will ensure that the subprojects are implemented in strict conformity with relevant laws and regulations, the requirements of ADB's Safeguard Policy Statement (2009), and all measures and requirements set forth in the IEE and the EMP. If there is any discrepancy between the Government's relevant laws and regulations and the requirements of ADB's Safeguard Policy Statement (2009), ADB's policy shall apply. Furthermore, the Government through the EA will ensure that all civil works contracts contain provisions requiring the contractor to reinstate to at least their pre-project condition all land temporarily used during civil works construction.

149. The bank erosion protection and flood control subproject in Vientiane Capital encompasses the That Luang wetland, an important water source for agriculture, ground water recharge, wastewater treatment and filtration and flood protection for the city.²³ The operational parameters of structures provided through the Project will be designed to ensure that the hydrological flows of the wetland will maintain its three main ecosystem services, including (i) natural wastewater treatment; (ii) flood retention; and (iii) livelihoods in terms of fisheries and other wetland products. The specific indicators of ecological protection for the That Luang wetland (based on the acceptable degree of departure from the natural seasonal fluctuations and flow regime) will be derived from the scientific literature.²⁴ Detailed on-site rainfall, stage, and/or flow data will be collected to calibrate and develop water budget models that are used to implement adequate flows in the That Luang wetland. The Government will ensure that prior to operation of the Project at Houei Mak Hiao, DOI and the Municipality of Vientiane enter into an agreement on (a) the operation of the sluice gates and pumps in accordance with year-round release and flood pulse parameters (one in two year flood return period) that ensure that a minimum flood condition is maintained in the That Luang wetland to ensure the continued provision of its ecosystem services; and (b) arrangements for monitoring the same. The parameters of water quality, quantity and its timing of release will be reassessed during the initial period of implementation (first year) to ensure consistency with the ecological structure and functioning of the That Luang wetland.

²³ The direct and indirect benefits of the That Luang Marsh have been valued at around US\$4.8 million annually (see Gerrard, P., 2004, Integrating Wetland Ecosystem Values into Urban Planning: The Case of That Luang Marsh, Vientiane, Lao PDR, IUCN - The World Conservation Union Asia Regional Environmental Economics Programme and WWF Lao Country Office, Vientiane.

²⁴ Ibid and Kyophilavong, P., 2008, The Impact of Irrigation On Aquatic Wetland Resources - A Case Study of That Luang Marsh, Lao PDR, Phouphet Kyophilavong, Faculty of Economics and Business Management National University of Laos.

150. Other impacts on the environment from the project are generally positive, and the potential adverse impacts can be mitigated by adoption of specific measures, including specific environmental safeguards to confine the impacts below threshold level or at the minimum. All identified adverse impacts due to the location, design, construction and operation are expected to be small to moderate and none of them are deemed significant. Water quality may be affected, but this would be limited to the vicinity of the construction sites during the construction period. The Project's approach to riverbank protection is also to stabilize the bank line along the naturally developing alignment, and as such any external impacts are anticipated to be localized. Other adverse impacts are mainly foreseen during the construction phase through increase of dust and noise levels from excavation, filling and transport of materials, potential interruption of waterways and obstruction of fish passages due to operation of sluice gates. However, these impacts are confined spatially and temporally and can be addressed through proper and timely implementation of mitigation provisions that will be established in the EMP.

D. Grievance Redress Mechanism

151. Any person who has complaint regarding the environmental and involuntary resettlement performance of the subproject during pre-construction, construction and operation phases shall have access to the grievance redress mechanism described in the subsequent section. The NPCO, the PAFO-PIO and the DOW-PIO will nominate and train; (i) their environment officer to be a Grievance Point Person (GPP) for environment; and (ii) social/resettlement officer to be a GPP for resettlement issues.

152. The NPCO, PAFO-PIO and DOW-PIO through their GPPs shall ensure that:

- (i) the grievance redress mechanism and the contact details of the GPPs are publicly disclosed, and posted in the offices of the affected communes and in strategic places of the Sub-project's area of influence;
- (ii) the grievance redress mechanism is accessible to all affected villages/communes;
- (iii) the public, especially the residents and passers-by in the vicinities of influence of the Sub-project, is aware of their rights to access, and shall have access to, the mechanism free of administrative and legal charges; and
- (iv) a registry of grievances received is maintained for reporting to ADB and higher Government authorities on associated follow-up, resolution or non-resolution of issues.

153. Households or groups of households wishing to complain about the effects of involuntary resettlement and construction works on their property, production system, economic well-being, spiritual life, quality of surface and ground water, quality of air, health, safety, welfare, or any other assets of their lives shall make their complaint using the standard Complaints forms provided by the GPPs.

154. The Grievance Investigation and Resolution process is outlined below:

- Step 1: Complaint form will be sent by APs, Affected households (AHs) or groups of households to the GPP of the relevant PIO.
- Step 2: If the complaint is judged as valid, within 15 days from the date the complaint is received, the relevant PIO will organize meetings with the relevant agencies/contractors/sub contractors to discuss how to resolve the matter. All meetings will be recorded and copies of the minutes of meetings will be provided to APs/AHs.

- Step 3: The relevant PIO shall take such mitigation measures as agreed in meetings from step 2 within 15 days, or some other period acceptable to the parties referred to in step 2.
- Step 4: When the complaint is resolved, the Complaint Form need to be signed by Complainer/ head of Household, the PIO and annotated at each stage of process by the relevant PIO with copies to be sent to NPCO.
- Step 5: If no understanding or amicable solution is reached, or if no response is received from the relevant PIO within 15 days after the registration of complaint, the APs/ AHs can appeal to the NPCO through their GPP. The APs/AHs must lodge the complaint within 30 days of registering the original complaint and must produce documents with copies of appeal that support his/her claim. The NPCO will provide a decision within 1 month of receiving the appeal.
- Step 6: When the complaint is resolved, the Complaint Form need to be signed by Complainer/ head of Household, the relevant PIO, the NPCO, and annotated at each stage of process by the GPP of the NPCO with copies to be sent to ADB.
- Step 7: If the AP is still not satisfied with the decision of the NPCO or in the absence of any response within the stipulated time, the AP as a last resort may submit his/her case to the court, in which decision is final. However, filing of complaints with the Court of Law may be done separately and independent of the project organized grievance resolution process at any stage of the process.

VIII. GENDER AND SOCIAL DIMENSIONS

155. To ensure benefits accrue to women, a social impact assessment (SIA) and GAP has been prepared for the project. Specific attention will be given to ensure women participate in district and community focused technical training events and are employed on an equal pay for equal work basis in construction works. Gender awareness raising events and training will be provided for project officers and youth. The National Gender Specialist and the Community Based Disaster Risk Management (CBDRM) Specialist will support the NPCO to ensure the GAP is fully implemented. The Specialists will work closely with the Province, District and Community women's unions in the Project area and seek cooperation and synergy with other ADB Technical Assistance (TA 7624) projects, CDTA Building capacity for gender mainstreaming in agriculture sector with the CAW, and the TA for gender and climate change for the implementation of GAP and further gender mainstreaming efforts. Project progress reports will provide regular updates on the implementation and impact of the GAP.

156. A Gender/CBDRM Specialist will be included in the PIC team for 10 person months and gender mainstreaming training will be delivered for the project at national, provincial and local level which will focus on data collection, social/gender analysis and monitoring and evaluation needs of the GAP. Women will be provided with participation and negotiation skills workshops that will help women to participate in subproject and community decision-making in a meaningful way. An awareness raising campaign will be undertaken for each subproject on issues identified during the consultation process, commencing prior to the start of any civil works, and sanitation awareness raising campaigns will be undertaken.

157. The Project is classified as Effective Gender Mainstreaming and resources are adequately provided in the Project for implementation of the GAP. MAF, as the Project Executing Agency, will have the overall responsibility of implementing the GAP. The WREA and National Project Director will also be involved at all stages of GAP implementation. A

Gender/CBDRM Specialist will be hired to support the implementation of all features/activities of the GAP. A focal person will be assigned in the NPCO to ensure coordination and linkage across the various GAP activities. The Project Management Unit, Project Consultants Team Leader, and Deputy Team Leader will provide additional support.

GENDER ACTION PLAN

Project Outputs	Gender design features/activities
1. Enhanced regional data, information, and knowledge base for management of flood and drought events	At least 2 qualified female staff in the project areas will be trained in forecasting models and will attend climate change workshop.
2. Water Management infrastructure upgraded	<p>Ensure at least 40% female participants in consultation workshops/events (including resettlement planning, subproject design and implementation, etc.); and at least one workshop of this kind per commune will be organized by commune women unions.</p> <p>Gender sensitive technical training will be prepared and conducted, and at least 40% of the participants will be women.</p> <p>Contractors will prioritize the use of local unskilled labor for civil works and at least 20% unskilled laborers will be women and equal pay for equal work will be ensured.</p> <p>Facilitate access of women and families to service providers (extension service, credit, water and sanitation facilities)</p>
3. Community capacity for disaster risk management enhanced	<p>Ensure at least 40% female trainees in all training on disaster risk assessment and analysis; prioritization and implementation of locally appropriate risk management measures.</p> <p>Ensure at least 40% of the participants in all public consultations for the development of safer village and commune plans are women;</p> <p>Ensure that at least 40% of community facilitators of the public consultation will be women.</p> <p>At least 50% implementers of the CBDRM measures will be women</p> <p>Gender sensitive materials on CBDRM will be prepared in the local language and distributed</p> <p>At least 40% of Commune CBDRM Coordination Committee (CCCC) members are women.</p>

4. Effective implementation	<p>project</p> <p>Integrate gender related activities into work plans and budget allocation, and ensure adequate funds are allocated for GAP implementation.</p> <p>Tailor GAP to national and provincial context, and introduce GAP to all stakeholders</p> <p>Ensure qualified women are encouraged to apply for positions in the project; and at least 30% of staff are women</p> <p>Ensure baseline data is sex-disaggregated and conduct gender analysis for each output, adjust GAP as required to ensure effective gender mainstreaming actions are implemented;</p> <p>Provide at least three gender awareness training workshops for management and staff;</p> <p>Appoint gender representative/focal person in the NPCO , and each PMU/PIU</p> <p>Include gender based performance indicators in project M/E framework</p>
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CBDRM = Community Based Disaster Risk Management, CDD= Community Driven Development, CPMU = Central Project Management Unit, GAP = gender action plan, NPCO = National Project Coordination Office, PMU = Project Management Unit, WREA = Water Resources and Environment Administration, MAF = Ministry of Agriculture and Forestry.

158. Ministry of Agriculture and Forestry, as the Project Executing Agency, will have the overall responsibility of implementing the GAP. A gender focal person will be assigned in the CPMU to ensure coordination and linkage across the various GAP activities. CAW, commune and village officials, and representatives from the MOE and women's groups will be involved in different stages of GAP implementation. A social development/gender specialist will be hired to support GAP implementation.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

Design Summary	Performance Targets and Indicators	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Reduced economic and human life losses resulting from flood or drought events	By 2020 (from 2000-2010 baselines) Average annual economic losses reduced by 50%	National and provincial monitoring statistics	Assumptions O&M budgets sufficient to maintain infrastructure Risks Frequency and severity of flood and drought events exceed capacity of infrastructure due to climate change
Outcome Improved preparedness to manage and mitigate the impacts of flood and drought events	By 2017 NEWC operational and issuing flood warnings to NDMO by 2015 Gender sensitive district disaster risk management plans implemented 20,000 ha of irrigation and drainage upgraded 61,500 people have improved flood protection	Project monitoring reports EA's project completion report Provincial records in each country National Disaster Management organization reports MRC Annual Flood Report	Assumptions MRC FMMP/RFFC continue to operate and provide daily regional flood forecasts
Outputs (LAO PDR) 1. Strengthening regional coordination for management of F&D events	NEWC established by 2013 NEWC staff trained and operational by 2014 NEWC forecasting models calibrated and operational by 2014	MRC and national flood management organization reporting National disaster risk management plans	Assumptions Regional cooperation through MRC remains effective MRC procedures for data exchange are fully implemented
2. Water management infrastructure upgraded	Over 2,130 ha of irrigation command area improved 20 water management structures built or rehabilitated 30.4 km of river bank flood protection built or rehabilitated At least 20% of workers are female on an equal pay for equal work basis O&M plans for each unit of upgraded infrastructure adopted	Project M&E system ADB supervision mission reports Mid-term review report EA's quarterly and annual progress reports Consultants progress reports	Assumptions Construction not delayed by extreme climate events (floods)
3. Capacity for community	54 communes have	Commune and provincial	Risks

Design Summary	Performance Targets and Indicators	Data Sources and Reporting Mechanisms	Assumptions and Risks
based F&D management enhanced	<p>disaster risk management plans and organizations to coordinate response</p> <p>200 number of women are trained on CBRM and at least 50% of CBDRM implementers and 40% of CBDRM Coordinating Committee members are female</p>	<p>minutes confirming acceptance of the plans</p> <p>Project M&E system</p>	MRC FMMP does not attract sustainable financing to enable regional forecasting
4. Effective project implementation	Project implementation is completed within 6 years and all accounts are closed with 6.5 years.	EA project completion reports	<p>Assumptions</p> <p>Consultants, EAs and IAs establish mechanisms to coordinate investments</p>
<p>Activities with Milestones</p> <p>1. Strengthening regional cooperation in Lao PDR</p> <p>1.1 Equip National Early Warning Center mid 2013</p> <p>1.2 Appoint NEWC staff by early 2013</p> <p>1.3 Install MRC/FMMP software and calibration for selected basins by 2014</p> <p>1.4 Calibration and test forecasts in flood season 2014-2015</p> <p>2. Water management infrastructure works in Lao PDR upgraded</p> <p>2.1 Prepare detailed engineering design – by end Q2 2013</p> <p>2.2 Prepare resettlement plan and implement relocations according to plan by end Q2 2013</p> <p>2.3 Call for bids by end Q2 2013</p> <p>2.4 Contract for construction works by end Q4 2013</p> <p>2.5 Undertake construction works by end Q4 2015</p> <p>2.6 Commission structures and undertake acceptance trials by mid 2016.</p> <p>3. Capacity for community based F&D management developed in Lao PDR</p> <p>3.1 Implement training for children, women and men in all project villages, including preparation of flood management plans, O&M plans and training for water control structures, road safety training for communities with new road access etc, by 2015</p> <p>4. Effective Project Management</p> <p>4.1 Appoint implementation management consultants by 2/2013</p> <p>4.2 Establish NPCO in Vientiane by December 2012</p> <p>4.3 Establish PIOs by December 2012</p> <p>4.4 Establish national PPME mechanisms by 4/2013</p> <p>4.5 NPCO staff capacity building (continuous)</p>			<p>Inputs</p> <p>ADB \$24.0 million (ADF loan) equivalent</p> <p>ADB \$12.5 million (ADF grant)</p> <p>Government \$0.59 million equivalent</p>

ADB – Asian Development Bank; DMH – Department of Meteorology and Hydrology, Lao PDR; CBRM – community based risk management; EA – executing agency; F&D flood and drought; FMMP – MRC Flood Management and Mitigation Program; IA – implementing agency; Lao PDR – Lao People’s Democratic Republic; MOWRAM – Ministry of Water Resources and Meteorology, Cambodia; MRC – Mekong River Commission; NCDM – National Committee for Disaster Management; NEWC – National Early Warning Center, Lao PDR; NPCO – national project management office; PIO – project implementation office; PPME – project performance monitoring and evaluation; RBO – river basin organization; RFMC – regional flood management center; TBC – to be confirmed.

Source: Asian Development Bank estimates.

B. Monitoring

1. Project Performance Monitoring²⁵

159. A PPMS will be developed on the basis of the 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. MAF will be responsible for developing and operating the PPMS, with information provided by the PIOs and assistance from the PIC, and will report quarterly to ADB.

160. The PPMS will collect information at subproject level to identify the current socio-economic conditions of target beneficiaries and to assess the impact of the subprojects. The PPMS will be based on measurable inputs, outputs and outcomes to be collected during baseline surveys and throughout project implementation. 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. MAF will maintain a Project-specific web-page, in English and Laotian, on its official web-site, for wider dissemination of procurement and distribution related information, and to provide a feedback mechanism.

161. The GMS Division of the Lao National Mekong Committee Secretariat will: (i) monitor alignment of the project with the National Disaster Management Plan and Decree including priority programs on National Disaster and Climate Change Management as stipulated in the National Climate Change Strategy and Adaptation Plan; (ii) alignment with the GMS Strategic Framework 2012-2022; (iii) coordinate with key stakeholders at the central and provincial levels and (iv) ensure that the project Monitoring Evaluation Systems (MES) is harmonized with national MES being set up by MoF and MPI. The NPCO will be responsible for ensure that there is no duplication of monitoring efforts and that data collected is harmonized with the PPMS.

162. The Natural Resource and Environment Department of Vientiane Capital is responsible for monitoring the implementation of the IE and Resettlement Plan. The NPCO will be responsible for ensure that there is no duplication of monitoring efforts and that data collected is harmonized with the PPMS.

2. Compliance Monitoring

163. 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. ADB will monitor compliance with those covenants throughout project effectiveness and implementation via regular review missions, quarterly progress reports submitted by the NPCO, and review of project accounts and procurement procedures.

²⁵ ADB's project performance reporting system is available at:
<http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

3. Project Specific Assurances

a. Implementation Arrangements

164. The Government will 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 this Loan Agreement, the provisions of this Loan Agreement shall prevail.

b. Future Operation

165. The Government through MAF, DOI and relevant provincial administrations will make the necessary budgeting and operational arrangements acceptable to ADB to manage operations of the hydraulic structures developed under the Project. In addition, the Government will ensure that adequate resources are allocated and maintenance work done on the hydraulic structures and flood embankment constructed or upgraded under the Project to ensure their sustainability. The Government through MONRE and DMH will also provide adequate resources for the operation of the NEWC to be established under the Project and financial support for the acquisition of technical support and software updates supplied by the RFFC.

c. Community Based Disaster Risk Management Groups

166. At the community level, CBDRM groups will be established at each Subproject site and will be the focal point for consultation and training. At least 40% of members of the CBDRM groups will be women. In communities where ethnic groups reside, the Government will ensure that representatives of each ethnic group will be included as members of the CBRM group.

d. Unexploded Ordnance (UXO)

167. The Government, through MAF, will ensure that all civil works contracts contain a provision that in the event UXO clearance is needed, the services of a reputable and experienced mine security organization, acceptable to ADB, will be engaged to carry out and then certify that the subproject area is clear of UXO.

e. Environment

168. The Government through MAF will ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Beneficiary relating to environment, health and safety; (b) the Environmental Safeguards; and (c) all measures and requirements set forth in the respective IEE and EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.

f. That Luang Wetland

169. The Government will ensure and cause MAF to ensure that, prior to operation of the sluice gates and pumps at Houei Mak Hiao, DOI and Vientiane Capital will enter into an agreement acceptable to ADB on (a) the operation of the sluice gates and pumps in accordance with year-round release and flood pulse parameters (one in two year flood return period) which

ensure the continued provision of its ecosystem services; and (b) arrangements for monitoring the same by the Natural Resources and Environment Department of Vientiane Capital.

g. Land Acquisition and Involuntary Resettlement

170. The Government through MAF will ensure that all land and all rights-of-way required for the Project, each Subproject and all Project facilities are made available to the civil works contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the Government relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; and (e) all measures and requirements set forth in the respective RP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.

171. The Government through MAF will ensure that no physical or economic displacement takes place in connection with the Subprojects and NPCO will not issue a notice to proceed to the contractors for specific sections of the civil works of a subproject until: (i) compensation and other entitlements have been provided to affected people in accordance with the RP; and (ii) a comprehensive income and livelihood restoration program has been established in accordance with the RP.

h. Ethnic Groups

172. The Government, through MAF, will ensure that the Project does not have any impact on indigenous peoples within the meaning of the Safeguard Policy Statement. In the event that the Project does have such impact, MAF will take all steps required to ensure that the Project complies with the applicable laws and regulations of the Government and with the Safeguard Policy Statement.

i. Resources to Implement Safeguard Requirements

173. The Government through MAF will make available necessary budgetary and human resources to fully implement the EMP and the RP.

j. Safeguard Provisions in Bidding Documents and Contracts

174. The Government through MAF will ensure that all bidding documents and contracts for civil works contain provisions that require contractors to: (i) comply with the measures and requirements relevant to the contractor set forth in the IEE, the EMP, and the RP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report; (ii) make available a budget for all such environmental and social measures; (iii) provide MAF with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, or the RP; (iv) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and (v) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.

k. Safeguard Monitoring and Reporting

175. The Government through MAF will: (i) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission; (ii) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, or the RP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; (iii) no later than the commencement of land acquisition and resettlement activities, engage a qualified and experienced external expert or qualified NGO under a selection process and terms of reference acceptable to ADB, to verify information produced through the Project monitoring process, and facilitate the carrying out of any verification activities by such external expert; and (v) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP, or the RP promptly after becoming aware of the breach.

l. Labor

176. The Government through MAF, will ensure that the civil works contractors (i) provide timely payment of wages and safe working conditions to all workers; (ii) maximize the employment of local poor people who meet the job and efficiency requirements for the civil works of the Project, including at least 30% women; (iii) pay equal wages to men and women employees for equal work; (iv) do not employ child labor, as required by the relevant laws and regulations of the Government; (v) carry out HIV/AIDS, STI and human trafficking education and awareness campaigns in the construction sites; and (vi) include specific provisions to give effect to this clause in the civil works contracts and monitor their compliance.

m. Gender Action Plan

177. The Government, through MAF, 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: (i) members of the district and/or village women's unions are consulted during the conduct of detailed designs for the Subprojects and during land acquisition and resettlement planning; (ii) CBDRM training modules are gender sensitive and address the needs of women; (iii) 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; (iv) at least 20% of workers employed in civil works financed by the Project are women (equal pay for equal work); and (iv) at least 40% of CBRM group members are women.

n. Condition for Award of Civil Works Contracts

178. The NPCO or PIO will not award any civil works contract under a Subproject until an environmental screening has been carried out in accordance with the environmental assessment and review framework agreed upon by the Government and ADB; an EMP has been developed and approved by ADB following the completion of detailed designs for each Subproject; and the Government has incorporated relevant provisions of the EMP and provided adequate budget for the performance of the same into the civil works contracts.

o. Governance and Anticorruption

179. The Government through MAF and all implementing agencies will ensure that anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of the executing and implementing agencies and all contractors, suppliers, consultants, and other service providers as they relate to the Project. MAF will conduct periodic inspections of the contractors' activities related to fund withdrawals and settlements.

180. The Government through MAF shall establish and publicize the existence of a grievance redress mechanism to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the Project's performance, including possible corruption, and environmental, social, and other concerns.

4. Safeguards Monitoring

181. The Project will support the recruitment of Safeguard Monitoring entities from domestic universities and institutes, to ensure that all recommendations and mitigation measures under the EMPs, the IPPs, and the RPs, of each subproject are being implemented in accordance to the plans.

5. Gender and Social Dimensions Monitoring

182. All data, in accordance with Prime Minister's Decree No.140/PM dated 20 August 2002 and guideline paper No. 018/PMO of 10 January 2005, will be disaggregated by sex and age, urban and rural women, and women of ethnic groups. Routine monitoring by the safeguard monitoring entities to be recruited under the Project will focus on assessing progress and compliance with GAPs, identifying constraints and developing remedial actions to effectively address these. Monitoring results will be part of the six monthly progress reports and assessment / evaluations of the GAP will be an essential element of all reviews.

C. Evaluation

183. ADB will conduct regular joint reviews, at least twice a year, throughout project implementation to 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. More specifically, the reviews will: (i) examine the appropriateness of implementation arrangements and schedule of activities, (ii) assess the effectiveness of technical assistance and consultancy inputs, (iii) review compliance with agreed procurement procedures; (iv) analyze the outcome of capacity building and training programs, and (v) monitor the effectiveness of safeguard procedures.

184. A Midterm Review will also be jointly undertaken by the Government and ADB within 36 months of loan effectiveness. This review will include a comprehensive evaluation of project implementation arrangements, detailed evaluation of the scope and implementation process and progress of subprojects, feedback from the PBME, performance of consultants, capacity building progress, possible reallocation of loan proceeds, revision of the PAM, and other arrangements necessary to resolve problems identified. 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.

185. Within 6 months of physical completion of the Project, NPCO will submit a project completion report to ADB.²⁶

186. Within 12 months of physical completion of the Project, 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. Reporting

187. The NPCO will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) updated procurement plan and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the Project. 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. Consultation

188. The Project has been designed to improve the well-being of poor people through a series of investments in priority rural infrastructure. Project preparation has been conducted with stakeholder agencies in the Government of Lao PDR at national, provincial and district levels including MAF, MPI, MPWT, and the then WREA (now DWR, MONRE). Consultations have also been held with the mass organizations, the LWU and the Lao National Front which has responsibility for ethnic minority affairs. 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 PIOs and their design consultants as well as the national safeguard consultants. It will include the participation of representatives from the District People's Committee, the Commune People's Committee, and mass organizations such as the WU, the Farmers' Union, and the Youth Union. The communities will be consulted 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.

189. The community will also be consulted 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 regarding potential negative impacts of the subproject design on the environment and the welfare of the community.

²⁶ Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

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

2. Participation

191. It is anticipated that the community will be mobilized in a number of different ways during subproject design, implementation and operation. During subproject design and preparation stages community participation will consist primarily of their contribution through the consultation process.

192. During the construction phase, significant opportunities for active participation, particularly for poor household to benefit from the subproject through provision of wage labor to the contractors. This will be encouraged through the bidding documents which will request the contractors to investigate this option, whenever possible. It will also be possible for communities to participate effectively in the supervision of the construction work through the CSB. 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.

193. 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. Awareness

194. 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.

195. Information about the Project and the subprojects in particular, including the objectives, potential environmental impact, implementation arrangements, resettlement and compensation matters, gender issues, issues of concerns for ethnic minorities will be provided to beneficiaries. Information will be provided through village meetings, pamphlets, and other announcements in both Lao language and the language(s) of the communities whenever appropriate. 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

196. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the Project.²⁷ All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all Project contractors, suppliers, consultants and other service providers. 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.²⁸

197. To support these efforts, relevant provisions 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 MAF, NPCO, and PIOs as well as 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.²⁹ 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 the engagement of PIC to advise and assist in the procurement of goods and services, and the engagement of other consultants.

198. To deter corruption and increase transparency the Project will also establish a website or establish a subpage under the existing MAF's website in which it will disclose implementation progress; and 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. bid notifications and their results; and provide grievance mechanism against any corrupt practice. References on ADB's Anticorruption Policy can be accessed through the following link: <http://www.adb.org/Integrity/>.

²⁷ Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

²⁸ ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

²⁹ ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

XI. ACCOUNTABILITY MECHANISM

199. 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.³⁰

XII. RECORD OF PAM CHANGES

200. 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	June 2011
2	Second draft prepared incorporating Government comments on the initial draft, findings from the first special project consultation mission (Feb 2012) and the second special project consultation mission (June 2012)	June 2012
3	Third draft refining procurement plan following internal ADB peer review and updating project implementation plan due to change Board approval date and hence expected effectiveness	July 2012
4	Updates during technical discussions	August 2012

³⁰ For further information see: <http://compliance.adb.org/>.