

Project Administration Manual

Project Number: 45301
Grant Number:
August 2018

Proposed Administration of Grant for Additional
Financing Lao People's Democratic Republic: Water
Supply and Sanitation Sector Project

ABBREVIATIONS

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
AF	–	additional financing
AFS	–	audited financial statements
CQS	–	consultant qualification selection
DHUP	–	Department of Housing and Urban Planning
DMF	–	design and monitoring framework
DPWT	–	Department of Public Works and Transport
DWS	–	Department of Water Supply
EARF	–	environmental assessment and review framework
EIA	–	environmental impact assessment
EMP	–	environmental management plan
ESMS	–	environmental and social management system
GACAP	–	governance and anticorruption action plan
GDP	–	gross domestic product
ICB	–	international competitive bidding
IEE	–	initial environmental examination
IPP	–	indigenous people plan
IPPF	–	indigenous people planning framework
LAR	–	land acquisition and resettlement
LIBOR	–	London interbank offered rate
MPWT	–	Ministry of Public Works and Transport
NCB	–	national competitive bidding
NGOs	–	nongovernment organizations
OPWT	–	office of public works and transport
PAI	–	project administration instructions
PAM	–	project administration manual
PCU	–	project coordination unit
PIA	–	project implementation assistance (consultant)
PIU	–	project implementation unit
PNP	–	provincial <i>nam papa</i>
PP	–	participation plan
QBS	–	quality based selection
QCBS	–	quality- and cost -based selection
RRP	–	Report and Recommendation of the President to the Board
SBD	–	standard bidding documents
SCS	–	stakeholder communication strategy
SOE	–	statement of expenditure
SPS	–	Safeguard Policy Statement
SPRSS	–	summary poverty reduction and social strategy
TOR	–	terms of reference
WSRC	–	Water Supply Regulatory Committee

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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 the policies and procedures of the government and Asian Development Bank (ADB). The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Ministry of Public Works and Transport (Executing Agency) and the Provincial Departments of Public Works and Transport together with the Provincial *Nam Papas* or provincial water utilities (Implementing Agencies) are wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by the executing and implementing agencies of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At loan negotiations, the borrower and ADB shall agree to the PAM and ensure consistency with the grant 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 grant agreement, the provisions of the grant 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.

I. PROJECT DESCRIPTION

A. Summary

1. The project will improve the performance of provincial water utilities or provincial *nam papas* (PNPs) and expand access to improved water supply and sanitation for urban residents in the country's small towns, including Lamam, Namthouam, Samakhixai, Sopbao, Viangkham and Xam-Nua in addition to the towns covered by the current project— Boten, Dakchung, Long, New Namtha, Pakkading, Pakxan, Pha-Oudom, Sanamxai and Xaignabouli.

B. Impact and Outcome

2. The impact of the overall project remains unchanged: urban access to quality and reliable piped water supply and sanitation services in the Lao PDR improved. The outcome of the overall project also remains unchanged: performance of the participating PNPs in delivering sustainable water supply and sanitation services improved. In terms of beneficiaries, the number of urban population with access to safe piped water supply will increase from 100,000 to 200,000, while the number of urban residents with access to improved sanitation facilities will increase from 170,000 to 210,000. Currently, the overall project is estimated to benefit about 15 towns.

C. Outputs

3. **Output 1: Improved sector coordination and policy implementation.** Output 1 will continue the reforms introduced under previous projects and implement new policy reforms improving the performance from six PNPs in the current project to eight PNPs under the overall project. These include (i) continued implementation of policy reforms (including service agreements between PNPs and provincial governments), PNP training on corporate planning and financial management, tariff adjustments, free upfront payment connection policy, issuance of district sanitation regulations, the use of simplified corporate plans and integrating disaster preparedness measures in the corporate planning process; (ii) expanded policy implementation, including nationalizing a policy for sanitation regulations and inclusive connection fees, wider coordination of NRW management, asset management, and water safety plans; and (iii) through capacity development, including safeguards and O&M service contracts for participating PNPs (e.g., incremental administration support for project vehicles, project office equipment, and PNP operational and leak-detection equipment) for two additional PNPs under the additional financing.

4. **Output 2: Improved nonrevenue water management and water supply development.** Output 2 will integrate a comprehensive NRW reduction program in the existing system with water supply expansion for non-covered areas, reducing average NRW levels to 20%. The current project covers three towns while the additional financing will cover three towns totaling six towns. The overall project will expand 250 kilometers (km) of water supply distribution pipelines: 150 km under the current project and 100 km under the additional financing.

5. **Output 3: Developed new water supply systems in small towns.** PNPs participating in outputs 1 and 2 will be eligible for financing to build a new water system in a small district town in the same province, acquire related O&M equipment, and offer upfront free payment domestic metered connections to households during construction. Special attention will be paid to ensure that the infrastructure is in least-risk area and the proposed structures are built to withstand floods and geophysical hazards common to the area. The current project covers six towns while the additional financing will cover three additional towns. The overall project will construct 150 km of

new water distribution system: 100 km under the current project and 50 km under the additional financing.

6. **Output 4: Enhanced community action in water supply and sanitation.** Output 4 will continue to sustain the benefits from investments in small town water supply systems in 15 towns (nine towns from the current project and six towns from the additional financing) through complementary sanitation and awareness activities, including (i) village environmental improvement (VEI) grants¹ (including improvements of drainage, village access roads, etc.) for core villages according to agreed eligibility criteria; (ii) household sanitation grants for the poor² without a sanitary private latrine (construct a new or upgrade existing) to improve household sanitation; (iii) new or rehabilitated public sanitation facilities, where O&M can be contracted to a business or social entity, and new septage disposal facilities where they are unavailable in the subproject area; and (iv) increased project and hygiene awareness through stakeholder consultations and community participation aiming at improved sanitation and hygiene behavior change. Access to sanitation will be expanded in participating towns with beneficiaries financing their individual units since water supply connections will be provided to those households with improved sanitation facilities. Output 4 will also strengthen the capacity of the communities to understand the factors contributing to disaster and climate risks through improvements on community-level infrastructure.³ The community engagement process will allow identifying and prioritizing resilient community infrastructure that can be funded through the small-grants provided through the overall project.

7. **Output 5: Strengthened capacity for project implementation, operation, and maintenance.** Output 5 will be delivered through capacity development programs that include safeguards, O&M training for the participating PNPs, and incremental administration support for project vehicles, project office equipment, and PNP operational and leak detection equipment. Regular ADB review missions confirm that established financial, administrative, procurement, and reporting systems are effective and, thus, will be continued. The contract of the current project's consultant for implementation support, capacity development and O&M strengthening, which now covers nine towns, will be extended to include six additional towns, increasing the total number of towns covered to 15.

¹ The project will contribute up to 80% of the cost of improvements (about \$25 per capita), local governments at least 10%, and the village at least 10% in cash. Percentages exclude taxes and duties, which the government will finance.

² The poor households will be identified in accordance with the criteria set forth in the Prime Minister's Decree No. 285, dated October 2009, or otherwise agreed to in advance with ADB. Each eligible will receive materials for the construction of durable water seal pit latrine amounting to \$140. Construction materials will be procured through shopping and handed to the poor.

³ The project will contribute up to 80% of the cost of improvement (from \$10 per capita to \$25 per capita), local government at least 10%, and the village at least 10% in cash. Percentages exclude taxes and duties, which the government will finance.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Indicative Activities	2018											2019	Responsible Party
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan		
Advance contracting actions	X	X	X	X	X								
Grant negotiations				X									ADB and MOF/MPWT.
President Approval						X							ADB
ADB Board approval							X						ADB
Grant signing								X					ADB and MPWT/MOF
Government legal opinion provided								X					MPWT and MOF
Government budget inclusion									X				MPWT and MOF
Grant effectiveness											X		ADB and MPWT/MOF

ADB = Asian Development Bank, MOF = Ministry of Finance, MPWT = Ministry of Public Works and Transport.
Source: Asian Development Bank

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Summary implementation arrangements

Aspects	Arrangements		
Implementation period	January 2019–March 2023 (additional financing physical completion)		
Estimated completion date	31 March 2023 (grant closing date: 30 September 2023)		
Management			
(i) Project steering committee and subcommittee on corporatization	Vice minister, MPWT (chair); representatives from MOF, MPI, MONRE, and DHUP; PCU director and deputy director; Lao Women’s Union (members). The subcommittee will include director general, MPWT (chair); deputy director general, MPWT; PCU project director (Secretariat); and representatives from NCB (PMO), and the Department of State-Owned Enterprise and Financial Management (MOF)		
(ii) Project coordination unit	Project director, deputy project directors, senior engineer, corporate planner, safeguard and procurement specialist, HRD specialist, and chief accountant; support staff and service contracts as per PAM		
(iii) Executing agency	MPWT/DWS		
(iv) Provincial project steering committee	Vice provincial governor (chair); district governor (vice chair), representatives from PIUs, DPWT, PNP, DOF, DPI, DONRE, and provincial Lao women’s union (members)		
(v) Key implementing agencies	DWPT and PNPs. DWS is the sector agency responsible for sector planning and development; PNP is the water supply utility responsible for development, management, and O&M of water supply systems in the province.		
(vi) Project implementation unit (main office)	Project manager, deputy project manager, engineer, accountant, community development and resettlement officer, health officer, Lao women’s union representative, and education officer; support staff as per PAM		
(vii) Project implementation units (satellite offices)	Deputy project manager, community development and resettlement officer, engineer, accounts clerk, health officer, Lao women’s union representative, and education officer; support staff as per PAM		
(viii) Village development committees	Village development committees will facilitate output 4; members may be assigned to work specifically on water and sanitation aspects.		
Procurement	International competitive bidding	4 contracts	\$17.90 million
	National competitive bidding	10 contracts	\$3.80 million
	Shopping	Various	\$0.45 million
Consulting services	Contract variation to existing PIA consultant contract	515 person-months (90 international and 425 national)	\$5.57 million
	Financial project audit (State Audit Office)	4 years	\$0.03 million
	Independent PNP audit (CQS, biodata proposal)	Accounting firm	\$0.61 million
Advance contracting	Advance actions to procure services, goods, and civil works will be conducted for selected subprojects for awarding of contracts immediately after grant effectiveness.		
Disbursement	The loan and grant proceeds will be disbursed in accordance with ADB’s <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

B. Project Implementation Organizations: Roles and Responsibilities

Project Implementation Organizations	Management Roles and Responsibilities
Ministry of Finance	<ul style="list-style-type: none"> - Administer advance account
Project steering committee	<ul style="list-style-type: none"> - Hold periodic steering meeting to address project implementation issues - Provide strategic guidance and support to the PCU and PIUs - Ensure compliance with loan covenants as agreed with ADB - Facilitate interagency and inter-ministerial coordination - Oversee project implementation and administration
Executing agency	
Ministry of Public Works and Transport	<ul style="list-style-type: none"> - Provide policy guidance during implementation - Serve as focal agency to ADB and development partners, government offices whose coordination, endorsement or approval and monitoring activities are required and/or mandated by existing policies or laws - Procurement of civil works and consulting services - Administration of loan disbursements - Assist Provincial PIUs as required
Project Coordination Unit (PCU) under the Department of Water Supply (DWS)	<p>Project Management and Administration</p> <ul style="list-style-type: none"> - Responsible for project implementation and management - Liaison/coordination with ADB, MOF, provincial governments and PIUs - Establish and oversee project accounting and auditing - Administer subaccounts - Ensure adequate counterpart funds allocation - Budgeting and financial planning/management, disbursement - Provide to ADB all disbursement-related documentation - Preparation of reports mandated under the loan agreements and the framework financing agreement to ADB - Establish, maintain and update the project performance monitoring system - Carry out periodic quality audits of the civil works contracts - Coordinate Project Steering Committee meetings and secretariat to sub-committee on corporatization and to the sub-technical working group on water and sanitation - Communicate with all stakeholders <p>Procurement of Goods, Works, and Services:</p> <ul style="list-style-type: none"> - Invite bids and evaluate/prepare bid evaluation reports for further approval - Conduct procurement and consulting service recruitment activities including advertisement, evaluation, negotiation and contract award <p><i>Note: The PCU will be supported by the PIAC.</i></p>
Implementing Agencies	
Provincial Project Steering Committee	<ul style="list-style-type: none"> - Approve and allocate counterpart budget for the PIUs - Assist interdepartmental coordination within the province - Communicate with the PMU for project implementation progress and activities - Provide support and coordination for land acquisition and resettlement activities

Project Implementation Organizations	Management Roles and Responsibilities
Project Implementation Unit (Main Office)	<ul style="list-style-type: none"> - With the PIU, responsible for day-to-day coordination and supervision of subproject implementation - Participate in subproject planning, feasibility studies, design, and bid evaluation; undertake all necessary activities to meet ADB's Safeguard Policy; oversee construction activities; and report to the PCU on progress. PIU team members will work closely with communities and especially VDCs to mobilize local communities in the planning and implementation of the subproject.
Project Implementation Units (district level) – Satellite office	<p>Project Management and Administration:</p> <ul style="list-style-type: none"> - Implement day-to-day project implementation in project towns - Liaise with PCU on project implementation - Work closely with communities and especially VDCs to mobilize local communities in the planning and implementation of the subproject - Open and maintain subaccount and contract level accounting - Manage detailed surveys, investigations, and engineering designs for all subcomponents - Supervise contractors and ensure the quality of works - Prepare and submit quarterly reports to PCU - Implement and monitor safeguards compliance (Resettlement Plan, Environmental Management Plans) <p>Safeguards Compliance:</p> <ul style="list-style-type: none"> - Implement and monitor safeguards compliance (Environmental Management Plans) prepare quarterly reports for submission to the PMU - Monitor compliance with Resettlement Plans, and coordinate with PMU and GDR on any land acquisition or resettlement issues directly or indirectly relating to the project. - Prepare monthly monitoring reports and submit to PCU <p>Capacity Building:</p> <ul style="list-style-type: none"> - Propose and participate in training and capacity building programs - Ensure and participate in public awareness campaigns - Implement gender action plan and stakeholder communication strategy
Village Development Committees	<ul style="list-style-type: none"> - With the PIU, responsible for implementation of village environmental improvements in each core village (Output 4) - Take the lead role in village consultation activities, mobilizing community participation, community awareness activities and communications between PNPs, PIUs, district authorities, construction contractors and the village communities - Inform the village communities about the project opportunities, activities and safeguards - Together with the PIU, assist the villagers to identify priorities, select, plan and design VEI components - Assist the PIU to manage the village VEI contributions and sanitation grant for poor households; - Identify the sanitation needs of poor households and assist them to improve or construct their sanitation facilities; - Facilitate construction of water supply facilities and VEI infrastructure in the village in coordination with the PIU; - Collaborate with the PIU and DOH to implement hygiene promotion, environmental and sanitation awareness activities in the village, assist with dissemination of IEC materials and facilitate related campaigns and events;

Project Implementation Organizations	Management Roles and Responsibilities
	<ul style="list-style-type: none"> - Collaborate with the PIU and DRC to disseminate information and undertake consultations for resettlement, ensure that APs are notified about resettlement activities and that women and all ethnic minority groups are targeted for information about the subproject and land acquisition activities; - On behalf of the village, enter into an agreement with OPWT for O&M of the VEI facilities constructed by the project; - Develop O&M capacities and mobilize the village communities to operate and maintain village infrastructure and on-site water and sanitation facilities; and - Work with DONRE and PIU to conduct awareness amongst villagers about the importance of protecting the source and area around the water treatment plant intake.
Asian Development Bank	
ADB	Responsible for administering the project including, procurement review and support, public financial management, safeguards and social monitoring and supervision.

PIAC = project implementation assistance consultants.

Source: Asian Development Bank.

C. Key Persons Involved in Implementation

Executing Agency

Ministry of Public Works and Transport (Department of Water Supply)

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Project Coordination unit

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Asian Development Bank

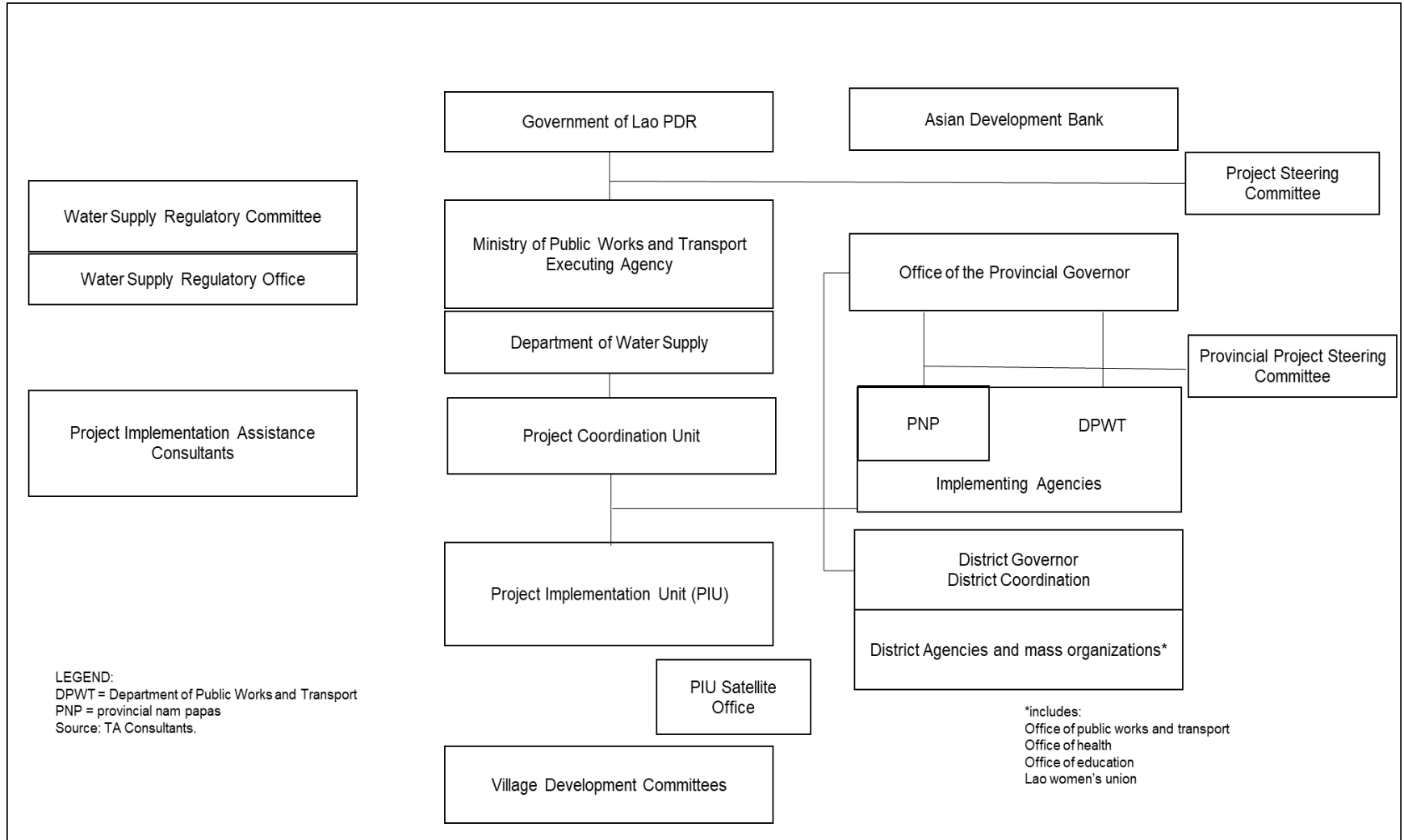
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D. Project Organization Structure



IV. COSTS AND FINANCING

8. Additional financing is estimated to cost \$35.93 million (Table 4.1), including government financing for taxes, duties, beneficiary contributions, and physical and price contingencies. The financing plan is in table below.

Table 4.1: Project Investment Plan
(\$ million)

Item	Current Amount ^a	Additional Financing ^b	Total
A. Base Cost^c			
1. Output 1: Improved sector coordination and policy implementation	0.20	0.21	0.41
2. Output 2: Improved nonrevenue water management and water supply development	12.85	18.55	31.40
3. Output 3: Developed new water supply systems in small towns	6.28	2.65	8.93
4. Output 4: Enhanced community action in water supply and sanitation	2.58	2.41	4.99
5. Output 5: Strengthened capacity for project implementation, operation, and maintenance	12.39	5.92	18.31
Subtotal (A)	34.30	29.74	64.04
B. Contingencies^d	5.16	4.77	9.93
C. Financing Charges During Implementation	1.16	1.42	2.58
Total (A+B+C)	40.62	35.93	76.55

^a Refers to the original amount and reallocation processed in January 2018.

^b Government will finance taxes and duties of \$3.07 million as exemption. ADB may finance taxes and duties on recurrent costs in case they not exempted. Such amount does not represent an excessive share of the project cost.

^c In April 2018 prices.

^d Under the additional financing, physical contingencies are computed at 10%. Price contingencies computed at 1.5% on foreign exchange costs from 2019 to 2020 and 1.6% in 2021 and thereafter; and 2.5% on local currency costs in 2019 and 3.0% in 2020 and thereafter; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate. Source: Asian Development Bank.

9. The government requested a grant not exceeding \$30.50 million from ADB's Special Funds resources (Asian Development Fund) for the additional financing. The grant will finance expenditures parallel to the loan.

Table 4.2: Financing Plan

Source	Current		Additional Financing		Total	
	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)
Asian Development Bank						
Special Funds resources (loan)	35.00	86.2	0.00	0.0	35.00	45.7
Special Funds resources (grant) ^a	0.00	0.0	30.50	84.9	30.50	40.0
Government ^b	4.27	10.5	3.38	9.4	7.65	9.9
Beneficiaries ^c						
Village environmental improvements	0.09	0.2	0.09	0.2	0.18	0.2
Household sanitation ^c	1.26	3.1	0.54	1.5	1.80	2.3
Participating <i>nam papas</i>	0.00	0.0	1.42	4.0	1.42	1.9
Total	40.62	100.0	35.93	100.0	76.55	100.0

^a Climate adaptation is estimated to cost \$7.36 million, which will be financed by ADB through a grant from the ADF 12 Disaster Risk Reduction funding.

^b Government will provide in-kind contribution with no incremental cost for the project management unit and project implementation units, office space for the consultants, and audit costs.

^c Beneficiaries will provide a monetary contribution towards the village environmental improvements or road enhancement and drainage in critical community flooded places. A transparent and equitable co-payment scheme will be developed during implementation yielding about \$0.09 in beneficiaries' funding.

^d Beneficiaries will finance their own units, since only households with improved sanitation facilities will receive free upfront payment for water supply connections.

Source: Asian Development Bank.

A. Cost Estimates Preparation and Revisions

10. The cost estimates have been prepared by the PIA consultant based on Feasibility Study reports and detailed engineering designs using unit prices of recent bids for other similar water supply and sanitation projects. The physical contingencies have been estimated by the level of accuracy of the data by subproject estimated at 10%.

B. Key Assumptions

11. The following key assumptions underpin the cost estimates and financing plan:

- (i) Exchange rate: KN8,296.00 = \$1.00 (as of 23 March 2018).
- (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

Table 4.3: Escalation Rates for Price Contingency Calculation

Item	2018	2019	2020	2021	2022	Average
Foreign rate of price inflation	1.5%	1.5%	1.6%	1.6%	1.6%	1.56%
Domestic rate of price inflation	2.0%	2.5%	3.0%	3.0%	3.5%	2.80%

Source: Asian Development Bank.

- (iii) In-kind contributions (incremental administration salaries) were estimated based on prevailing rates.
- (iv) The Government will cover taxes and duties through exemption, incremental administration salaries in-kind and cash contribution for Output 4.
- (v) Government will finance taxes and duties of \$3.07 million as exemption. ADB may finance taxes and duties on recurrent costs in case they are not exempted. Such amount does not represent an excessive share of the project cost.
- (vi) For the beneficiaries, contribution towards VEIs is in cash.

C. Detailed Cost Estimates by Expenditure Category

Table 4.4: Detailed Cost Estimates by Expenditure Category

Item	Total Cost ^a million \$	% of Total Base Cost
A. Investment Costs^b		
1 Civil Works		
a. Water Supply	19.57	65.6%
b. Village Environmental Improvements	0.88	3.0%
c. Household and Public Sanitation	1.42	4.8%
2 Mechanical and Equipment	1.42	4.8%
3 Social Mitigation		
a. Community Education and Awareness	0.11	0.4%
b. Land and Compensation	0.08	0.3%
4 Consultants		
a. Project Management Consultants	3.70	12.5%
b. Capacity Development Consultants	1.63	5.4%
5 Surveys & Investigations	0.14	0.5%
Subtotal (A)	28.95	97.4%
B. Recurrent Costs (PCU and PIU)		
1 Salaries	0.15	0.5%
2 Mechanical and Equipment	0.30	1.0%
3 Running Costs	0.20	0.7%
4 Service Contracts	0.10	0.3%
Subtotal (B)	0.75	2.4%
C. Recurrent Costs (subsector coordination)		
1 Mechanical and Equipment	0.00	0.0%
2 Running Costs	0.05	0.2%
Subtotal (C)	0.05	0.2%
Total Base Cost (A+B+C)	29.74	100.0%
D. Contingencies	4.77	
1 Physical ^c	3.54	11.9%
2 Priced ^d	1.22	4.1%
Financing Charges During Implementation	1.42	4.8%
Total Project Cost (A+B+C+D+E)	35.93	120.8%

Note: Numbers may not sum precisely due to rounding.

^a Includes taxes and duties of \$3.07 million government financed as tax exemption.

^b In April 2018 prices.

^c Physical contingencies computed at 10%.

^d Price contingencies are 2.0% in 2019, 2.5% in 2020 and thereafter; and foreign inflation rates: 1.5% in 2019-2020, 1.6% in 2021 and thereafter.

PCU = project coordination unit, PIU = project implementation unit.

Source: Asian Development Bank.

D. Allocation and Withdrawal of Grant Proceeds

Table 4.5: Allocation and Withdrawal of Grant Proceeds

Amount Allocated for ADB Financing (USD Million)			
No	Items	Total Amount Allocated for ADB Financing	Percentage and Basis for Withdrawal from the Grant
1	Works, Goods, Consulting Services	25.57	100% of total expenditure claimed*
2	Recurrent Costs	0.60	100% of total expenditure claimed**
3	Unallocated Costs	4.33	
		30.50	

Source: Asian Development Bank estimates.

* Exclusive of taxes and duties imposed within the territory of the Recipient.

**Recurrent costs include vehicles, office equipment, computers, furniture, and vehicle rental.

E. Detailed Cost Estimates by Financier

Table 4.6: Detailed Cost Estimates by Financier (Loan and Grant)

	ADB Loan		ADB Grant (ADF)		PNPs		Beneficiaries		Amount (Costs)	Government		% of Cost Category	Total Cost incl tax	VAT Rate %
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category		Amount (Taxes & Duties)	Amount (Total)			
A. Investment Costs														
1 Civil Works														
a. Water Supply	16.05	43.1%	17.79	47.8%	0.00	0.0%	0.00	0.0%	0.00	3.38	3.38	9.1%	37.22	10.0%
b. Village Environmental Improvements	0.64	36.0%	0.62	35.1%	0.00	0.0%	0.18	10.0%	0.18	0.16	0.34	19.1%	1.78	10.0%
c. Household and Public Sanitation	0.25	8.4%	0.80	27.0%	0.00	0.0%	1.80	0.0%	0.00	0.11	0.11	3.6%	2.96	10.0%
2 Mechanical and Equipment	1.23	44.4%	1.29	46.6%	0.00	0.0%	0.00	0.0%	0.00	0.25	0.25	9.1%	2.77	10.0%
3 Social Mitigation														
a. Community Education and Awareness	0.09	43.3%	0.10	47.2%	0.00	0.0%	0.00	0.0%	0.00	0.02	0.02	9.1%	0.21	10.0%
b. Land and Compensation	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.43	0.00	0.43	100.0%	0.43	0.0%
4 Consultants														
a. Project Management Consultants	7.24	62.0%	3.37	28.8%	0.00	0.0%	0.00	0.0%	0.00	1.06	1.06	9.1%	11.67	10.0%
b. Capacity Development Consultants	0.68	28.6%	1.48	62.3%	0.00	0.0%	0.00	0.0%	0.00	0.22	0.22	9.1%	2.38	10.0%
5 Surveys & Investigations	0.46	70.8%	0.13	19.5%	0.00	0.0%	0.00	0.0%	0.00	0.06	0.06	9.1%	0.65	10.0%
Subtotal (A)	26.64	44.4%	25.57	42.6%	0.00	0.0%	1.98	3.3%	0.61	5.26	5.85	9.8%	60.06	
B. Recurrent Costs (PCU and PIU)														
1 Salaries	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.58	0.00	0.58	100.0%	0.58	0.0%
2 Mechanical and Equipment	0.56	60.9%	0.27	29.6%	0.00	0.0%	0.00	0.0%	0.00	0.08	0.08	9.1%	0.92	10.0%
3 Running Costs	1.03	77.4%	0.18	13.7%	0.00	0.0%	0.00	0.0%	0.00	0.12	0.12	9.1%	1.33	10.0%
4 Service Contracts	0.74	81.3%	0.09	10.0%	0.00	0.0%	0.00	0.0%	0.00	0.08	0.08	9.1%	0.91	10.0%
Subtotal (B)	2.33	62.3%	0.55	14.6%	0.00	0.0%	0.00	0.0%	0.58	0.29	0.87	23.2%	3.74	
C. Recurrent Costs (subsector coordination)														
1 Mechanical and Equipment	0.01	90.9%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00	0.00	9.1%	0.01	10.0%
2 Running Costs	0.17	70.8%	0.05	18.9%	0.00	0.0%	0.00	0.0%	0.00	0.02	0.02	9.1%	0.24	10.0%
Subtotal (C)	0.18	71.6%	0.05	18.2%	0.00	0.0%	0.00	0.0%	0.00	0.02	0.02	9.1%	0.25	
Total Base Cost (A+B+C)	29.15	45.5%	26.16	4.08%	0.00	0.0%	1.98	3.1%	1.19	5.57	6.75	10.5%	64.05	
D. Contingencies														
1 Physical	2.43	39%	3.22	52%	0.00	0.0%	0.00	0%	0.00	0.57	0.57	9.1%	6.22	10.0%
2 Price	2.26	61%	1.11	30%	0.00	0.0%	0.00	0%	0.00	0.34	0.34	9.1%	3.70	10.0%
Subtotal (D)	4.69	47.2%	4.34	43.7%	0.00	0.0%	0.00	0.0%	0.00	0.90	0.90	9.1%	9.92	
E. Financing Charges During Implementation	1.16	45.0%	0.00	0.0%	1.42	55.0%	0.00	0.0%	0.00	0.00	0.00	0.0%	2.58	
Total Project Cost (A+B+C+D+E)	35.00	45.7%	30.50	39.8%	1.42	1.9%	1.98	2.6%	1.19	6.47	7.65	10.0%	76.55	

Note: Numbers may not sum precisely due to rounding.

Source: Asian Development Bank.

*Loan and Grant financing will be parallel.

Table 4.7: Detailed Cost Estimates by Financier (Loan)

	ADB Loan (ADF)		Beneficiaries		Amount (Costs)	Government		% of Cost Category	Total Cost incl tax	VAT Rate %
	Amount	% of Cost Category	Amount	% of Cost Category		Amount (Taxes & Duties)	Amount (Total)			
A. Investment Costs										
1 Civil Works										
a. Water Supply	16.05	90.9%	0.00	0.0%	0.00	1.60	1.60	9.1%	17.65	10.0%
b. Village Environmental Improvements	0.64	71.1%	0.09	10.0%	0.09	0.08	0.17	18.9%	0.90	10.0%
c. Household and Public Sanitation	0.25	16.2%	1.26	81.8%	0.00	0.03	0.03	1.9%	1.54	10.0%
2 Mechanical and Equipment	1.23	91.1%	0.00	0.0%	0.00	0.12	0.12	8.9%	1.35	10.0%
3 Social Mitigation										
a. Community Education and Awareness	0.09	90.0%	0.00	0.0%	0.00	0.01	0.01	9.1%	0.10	10.0%
b. Land and Compensation	0.00	0.0%	0.00	0.0%	0.35	0.00	0.35	100.0%	0.35	0.0%
4 Consultants										
a. Project Management Consultants	7.24	90.8%	0.00	0.0%	0.00	0.72	0.72	9.0%	7.97	10.0%
b. Capacity Development Consultants	0.68	90.7%	0.00	0.0%	0.00	0.07	0.07	9.3%	0.75	10.0%
5 Surveys & Investigations	0.46	90.2%	0.00	0.0%	0.00	0.05	0.05	9.1%	0.51	10.0%
Subtotal (A)	26.64	85.6%	1.35	4.3%	0.44	2.68	3.12	10.0%	31.12	
B. Recurrent Costs (PCU and PIU)										
1 Salaries	0.00	0.0%	0.00	0.0%	0.43	0.00	0.43	100.0%	0.43	0.0%
2 Mechanical and Equipment	0.56	90.3%	0.00	0.0%	0.00	0.06	0.06	9.7%	0.62	10.0%
3 Running Costs	1.03	91.2%	0.00	0.0%	0.00	0.11	0.10	9.1%	1.13	10.0%
4 Service Contracts	0.74	91.4%	0.00	0.0%	0.00	0.07	0.07	8.6%	0.81	10.0%
Subtotal (B)	2.33	77.9%	0.00	0.0%	0.43	0.24	0.67	22.2%	2.99	
C. Recurrent Costs (subsector coordination)										
1 Mechanical and Equipment	0.01	90.9%	0.00	0.0%	0.00	0.00	0.00	9.1%	0.01	10.0%
2 Running Costs	0.17	89.5%	0.00	0.0%	0.00	0.02	0.02	9.1%	0.19	10.0%
Subtotal (C)	0.18	89.5%	0.00	0.0%	0.00	0.02	0.02	9.1%	0.20	
Total Base Cost (A+B+C)	29.15	85.0%	1.35	3.9%	0.87	2.94	3.81	11.1%	34.30	
D. Contingencies										
1 Physical	2.43	90.7%	0.00	0.0%	0.00	0.24	0.24	9.0%	2.68	10.0%
2 Price	2.26	91.1%	0.00	0.0%	0.00	0.23	0.23	9.3%	2.48	10.0%
Subtotal (D)	4.69	90.9%	0.00	0.0%	0.00	0.47	0.47	9.1%	5.16	
E. Financing Charges During Implementation	1.16	100.0%	0.00	0.0%	0.00	0.00	0.00	0.0%	1.16	
Total Project Cost (A+B+C+D+E)	35.00	86.2%	1.35	3.3%	0.87	3.41	4.28	10.4%	40.62	

Note: Numbers may not sum precisely due to rounding.

Source: Asian Development Bank.

Table 4.8: Detailed Cost Estimates by Financier (Grant)

	ADB Grant (ADF)		PNPs		Beneficiaries		Amount (Costs)	Government		% of Cost Category	Total Cost incl tax	VAT Rate %
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category		Amount (Taxes & Duties)	Amount (Total)			
A. Investment Costs												
1 Civil Works												
a. Water Supply	17.79	90.9%	0.00	0.0%	0.00	0.0%	0.00	1.78	1.78	9.1%	19.57	10.0%
b. Village Environmental Improvements ^a	0.62	70.9%	0.00	0.0%	0.09	10.0%	0.09	0.08	0.17	19.1%	0.88	10.0%
c. Household and Public Sanitation ^b	0.80	56.1%	0.00	0.0%	0.54	38.2%	0.00	0.08	0.08	5.6%	1.42	10.0%
2 Mechanical and Equipment	1.29	90.9%	0.00	0.0%	0.00	0.0%	0.00	0.13	0.13	9.1%	1.42	10.0%
3 Social Mitigation												
a. Community Education and Awareness	0.10	90.9%	0.00	0.0%	0.00	0.0%	0.00	0.01	0.01	9.1%	0.11	10.0%
b. Land and Compensation	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.08	0.00	0.08	100.0%	0.08	0.0%
4 Consultants												
a. Project Management Consultants	3.37	90.9%	0.00	0.0%	0.00	0.0%	0.00	0.34	0.34	9.1%	3.70	10.0%
b. Capacity Development Consultants	1.48	90.9%	0.00	0.0%	0.00	0.0%	0.00	0.15	0.15	9.1%	1.63	10.0%
5 Surveys & Investigations	0.13	90.9%	0.00	0.0%	0.00	0.0%	0.00	0.01	0.01	9.1%	0.14	10.0%
Subtotal (A)	25.57	88.3%	0.00	0.0%	0.63	2.2%	0.17	2.57	2.74	9.5%	28.94	
B. Recurrent Costs (PCU and PIU)												
1 Salaries ^c	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.15	0.00	0.15	100.0%	0.15	0.0%
2 Mechanical and Equipment	0.27	90.9%	0.00	0.0%	0.00	0.0%	0.00	0.03	0.03	9.1%	0.30	10.0%
3 Running Costs	0.18	90.9%	0.00	0.0%	0.00	0.0%	0.00	0.02	0.02	9.1%	0.20	10.0%
4 Service Contracts	0.09	90.9%	0.00	0.0%	0.00	0.0%	0.00	0.01	0.01	9.1%	0.10	10.0%
Subtotal (B)	0.55	72.7%	0.00	0.0%	0.00	0.0%	0.15	0.05	0.20	27.3%	0.75	
C. Recurrent Costs (subsector coordination)												
1 Mechanical and Equipment	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	10.0%
2 Running Costs	0.05	90.9%	0.00	0.0%	0.00	0.0%	0.00	0.00	0.00	9.1%	0.05	10.0%
Subtotal (C)	0.05	90.9%	0.00	0.0%	0.00	0.0%	0.00	0.00	0.00	9.1%	0.05	
Total Base Cost (A+B+C)	26.16	88.0%	0.00	0.0%	0.63	2.1%	0.32	2.63	2.95	9.9%	29.75	
D. Contingencies												
1 Physical	3.22	90.9%	0.00	0.0%	0.00	0.0%	0.00	0.32	0.32	9.1%	3.54	10.0%
2 Price	1.11	90.9%	0.00	0.0%	0.00	0.0%	0.00	0.11	0.11	9.1%	1.22	10.0%
Subtotal (D)	4.34	90.9%	0.00	0.0%	0.00	0.0%	0.00	0.43	0.43	9.1%	4.77	
E. Financing Charges During Implementation	0.00	0.0%	1.42	100.0%	0.00	0.0%	0.00	0.00	0.00	0.0%	1.42	
Total Project Cost (A+B+C+D+E)	30.50	84.9%	1.42	4.0%	0.63	1.8%	0.32	3.07	3.38	9.4%	35.93	

Note: Numbers may not sum precisely due to rounding.

^a Village Environmental Improvement will be financed in parallel by the government.

^b Household and Public Sanitation will be financed in parallel by the beneficiaries.

^c Salaries will be in-kind.

Source: Asian Development Bank.

F. Detailed Cost Estimates by Outputs and/or Components

Table 4.9: Detailed Cost Estimates by Outputs and/or Components
(\$ million)

	Detailed Cost Estimates by Outputs and/or Components (\$ million)																							
	Output 1 Improved sector coordination and policy implementation				Output 2 Improved NRW management and water supply development				Output 3 Developed water supply systems in small towns				Output 4 Enhanced Community Action in urban water supply and sanitation				Output 5 Strengthened capacity for project implementation and O&M							
	Overall Project	Loan	Grant	Loan		Grant		Loan		Grant		Loan		Grant		Loan		Grant		Loan		Grant		
Amount million \$	Amount million \$	Amount million \$	Amount million \$	% of Cost Category	Amount million \$	% of Cost Category	Amount million \$	% of Cost Category	Amount million \$	% of Cost Category	Amount million \$	% of Cost Category	Amount million \$	% of Cost Category	Amount million \$	% of Cost Category	Amount million \$	% of Cost Category	Amount million \$	% of Cost Category	Amount million \$	% of Cost Category		
A. Investment Costs																								
1 Civil Works																								
a. Water Supply	37.21	17.65	19.57	0.00	0%	0.00	0%	11.90	67%	17.17	88%	5.75	33%	2.40	12%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	
b. Village Environmental Improvements	1.78	0.90	0.88	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.90	100%	0.88	100%	0.00	0%	0.00	0%	
c. Household and Public Sanitation	2.96	1.54	1.42	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	1.54	100%	1.42	100%	0.00	0%	0.00	0%	
2 Mechanical and Equipment	2.77	1.35	1.42	0.00	0%	0.00	0%	0.75	57%	1.21	85%	0.38	28%	0.21	15%	0.05	4%	0.00	0%	0.17	13%	0.00	0%	
3 Social Mitigation																								
a. Community Education and Awareness	0.21	0.10	0.11	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.11	100%	0.00	0%	0.00	0%	
b. Land and Compensation	0.43	0.35	0.08	0.00	0%	0.00	0%	0.20	57%	0.05	63%	0.15	43%	0.03	37%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	
4 Consultants																								
a. Project Management Consultants	11.67	7.97	3.70	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.10	100%	0.00	0%	7.97	100%	3.70	100%	
b. Capacity Development Consultants	2.38	0.75	1.63	0.00	0%	0.16	10%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.75	100%	1.47	90%	
5 Surveys & Investigations	0.65	0.51	0.14	0.00	0%	0.00	0%	0.00	0%	0.12	88%	0.00	47%	0.02	12%	0.00	0%	0.00	0%	0.51	100%	0.00	0%	
Subtotal (A)	60.06	31.12	28.95	0.00	0%	0.16	0.56%	12.85	41.29%	18.55	64.09%	6.28	20.19%	2.65	9.16%	2.59	8.34%	2.41	8.32%	9.40	30.19%	5.17	17.86%	
B. Recurrent Costs (PCU and PIU)																								
1 Salaries	0.58	0.43	0.15	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.43	100%	0.15	100%	
2 Mechanical and Equipment ^a	0.92	0.62	0.30	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.62	100%	0.30	100%	
3 Running Costs ^a	1.33	1.13	0.20	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	1.13	100%	0.20	100%	
4 Service Contracts ^a	0.91	0.81	0.10	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.81	100%	0.10	100%	
Subtotal (B)	3.74	2.99	0.75	0.00	0%	0.00	0%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	2.99	100%	0.75	100.00%	
C. Recurrent Costs (subsector coordination)																								
1 Mechanical and Equipment ^b	0.01	0.01	0.00	0.01	100%	0.00	100%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	
2 Running Costs ^b	0.24	0.19	0.05	0.19	100%	0.05	100%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	
Subtotal (C)	0.25	0.20	0.05	0.20	100%	0.05	100%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	
Total Base Cost (A+B+C)	64.05	34.31	29.74	0.20	0.58%	0.21	0.72%	12.85	37.45%	18.55	62.39%	6.28	18.31%	2.65	8.92%	2.59	7.56%	2.41	8.10%	12.39	36.10%	5.92	19.90%	
D. Contingencies																								
1 Physical	6.23	2.68	3.54	0.01	0.41%	0.02	0.60%	1.29	48%	2.48	69.99%	0.63	23.51%	0.35	10.00%	0.13	4.85%	0.10	2.70%	0.62	23.13%	0.59	16.70%	
2 Price	3.69	2.48	1.22	0.01	0.21%	0.01	1.04%	0.98	40%	0.70	57.23%	0.48	19.35%	0.10	8.18%	0.10	4.03%	0.06	4.70%	0.90	36.29%	0.35	28.86%	
Subtotal (D)	9.92	5.16	4.77	0.02	0.31%	0.03	0.71%	2.27	44%	3.18	66.72%	1.11	21.51%	0.45	9.53%	0.23	4.46%	0.15	2.97%	1.52	29.46%	0.95	19.82%	
E. Financing Charges During Implementation	2.58	1.16	1.42	0.01	0.86%	0.01	0.69%	0.46	40%	0.87	61.52%	0.22	18.97	0.13	9.40%	0.05	4.31%	0.11	9.67%	0.42	36.21%	0.29	20.12%	
Total Project Cost (A+B+C+D+E)	76.55	40.62	35.93	0.23	0.56%	0.26	0.71%	15.57	38.33	22.61	62.93%	7.61	18.74%	3.24	9.02%	2.87	7.08%	2.67	7.44%	14.34	35.29%	7.15	19.91%	

Note: Numbers may not sum precisely due to rounding.

^a These comprise computers, vehicles, electricity, fuel and training for PCU staff.^b These comprise computers and venue rentals for sector coordination activities.

Source: Asian Development Bank.

G. Detailed Cost Estimates by Year

Table 4.10: Detailed Cost Estimates by Year

Item	Overall Project	Amount million \$	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
A. Investment Costs													
1	Civil Works												
	a. Water Supply	33.84	0.00	0.00	0.00	1.65	4.01	4.49	4.71	8.36	7.28	2.82	0.52
	b. Village Environmental Improvements	1.26	0.00	0.00	0.00	0.00	0.00	0.06	0.31	0.47	0.30	0.10	0.02
	c. Household and Public Sanitation	1.05	0.00	0.00	0.00	0.00	0.00	0.03	0.17	0.37	0.33	0.13	0.02
2	Mechanical and Equipment	2.52	0.00	0.00	0.00	0.13	0.31	0.34	0.35	0.62	0.53	0.20	0.04
3	Social Mitigation												
	a. Community Education and Awareness	0.19	0.00	0.00	0.00	0.01	0.01	0.03	0.06	0.04	0.03	0.01	0.00
	b. Land and Compensation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Consultants												
	a. Project Management Consultants	10.61	0.00	0.00	0.51	1.01	1.23	1.38	2.51	1.93	1.04	0.67	0.34
	b. Capacity Development Consultants	2.16	0.00	0.00	0.07	0.14	0.14	0.14	0.36	0.66	0.44	0.15	0.07
5	Surveys & Investigations	0.59	0.00	0.00	0.05	0.14	0.14	0.14	0.05	0.04	0.03	0.01	0.00
	Subtotal (A)	52.21	0.00	0.00	0.62	3.07	5.84	6.60	8.52	12.48	9.98	4.09	1.01
B. Recurrent Costs (PCU and PIU)													
1	Salaries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Mechanical and Equipment	0.83	0.00	0.00	0.17	0.17	0.06	0.17	0.11	0.11	0.03	0.03	0.00
3	Running Costs	1.21	0.00	0.00	0.10	0.15	0.15	0.15	0.19	0.19	0.19	0.04	0.04
4	Service Contracts	0.83	0.00	0.00	0.04	0.07	0.11	0.17	0.17	0.13	0.13	0.02	0.02
	Subtotal (B)	2.88	0.00	0.00	0.31	0.40	0.32	0.47	0.47	0.43	0.35	0.08	0.05
C. Recurrent Costs (subsector coordination)													
1	Mechanical and Equipment	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Running Costs	0.22	0.00	0.01	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.01	0.01
	Subtotal (C)	0.22	0.00	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.01	0.01
	Total Base Cost (A+B+C)	55.31	0.00	0.02	0.95	3.49	6.18	7.09	9.02	12.95	10.35	4.18	1.07
D. Contingencies		9.03	0.00	0.00	0.15	0.56	0.99	1.14	1.47	2.12	1.71	0.69	0.18
E. Financing Charges During Implementation		1.16	0.01	0.09	0.15	0.19	0.15	0.18	0.17	0.17	0.05	0.00	0.00
	Total Project Cost (A+B+C+D+E)	65.50	0.01	0.11	1.26	4.25	7.33	8.42	10.66	15.24	12.11	4.87	1.25
	% of Total Project Cost	100%	0%	0%	2%	6%	11%	13%	16%	23%	18%	7%	2%

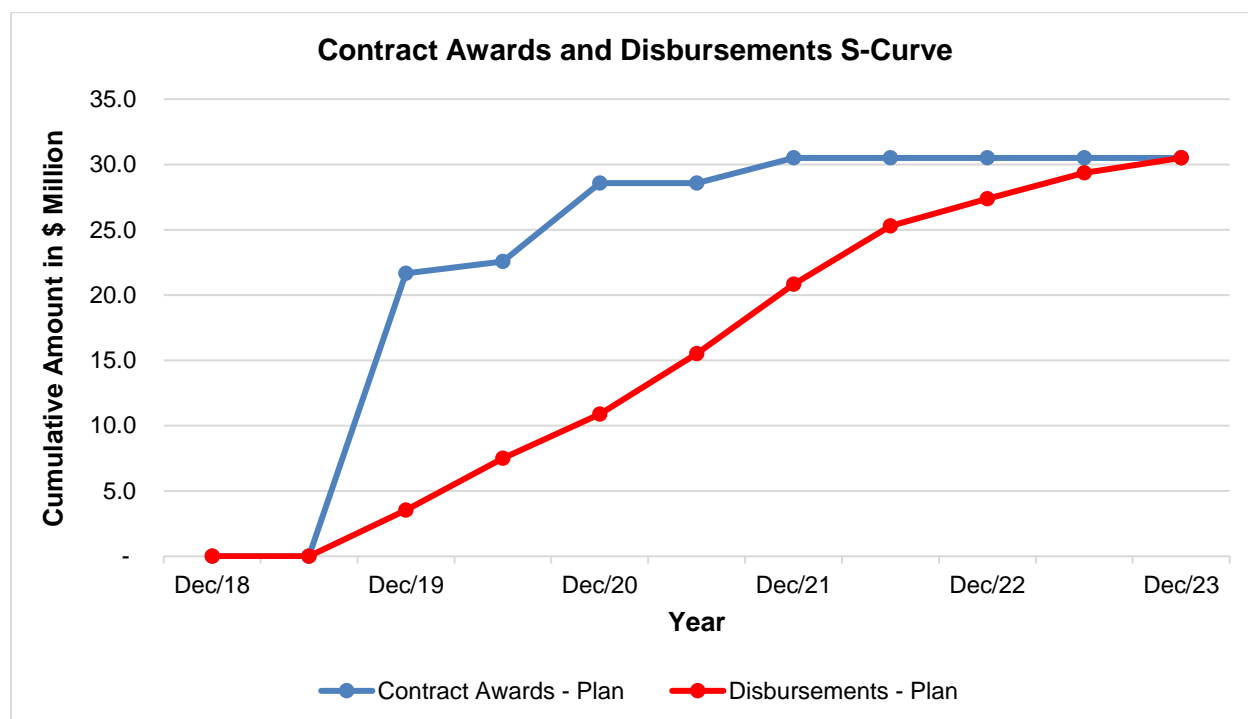
Note: Numbers may not sum precisely due to rounding.

Source: Asian Development Bank.

H. Contract and Disbursement S-Curve

Table 4.11: Contract Awards for Grant
(\$ million)

	Q1	Q2	Q3	Q4	Total
2019	0.000	0.000	16.612	5.060	21.672
2020	0.901	0.000	4.500	1.500	6.901
2021	0.000	0.000	1.927	0.000	1.927
2022	0.000	0.000	0.000	0.000	0.000
				Total:	30.500

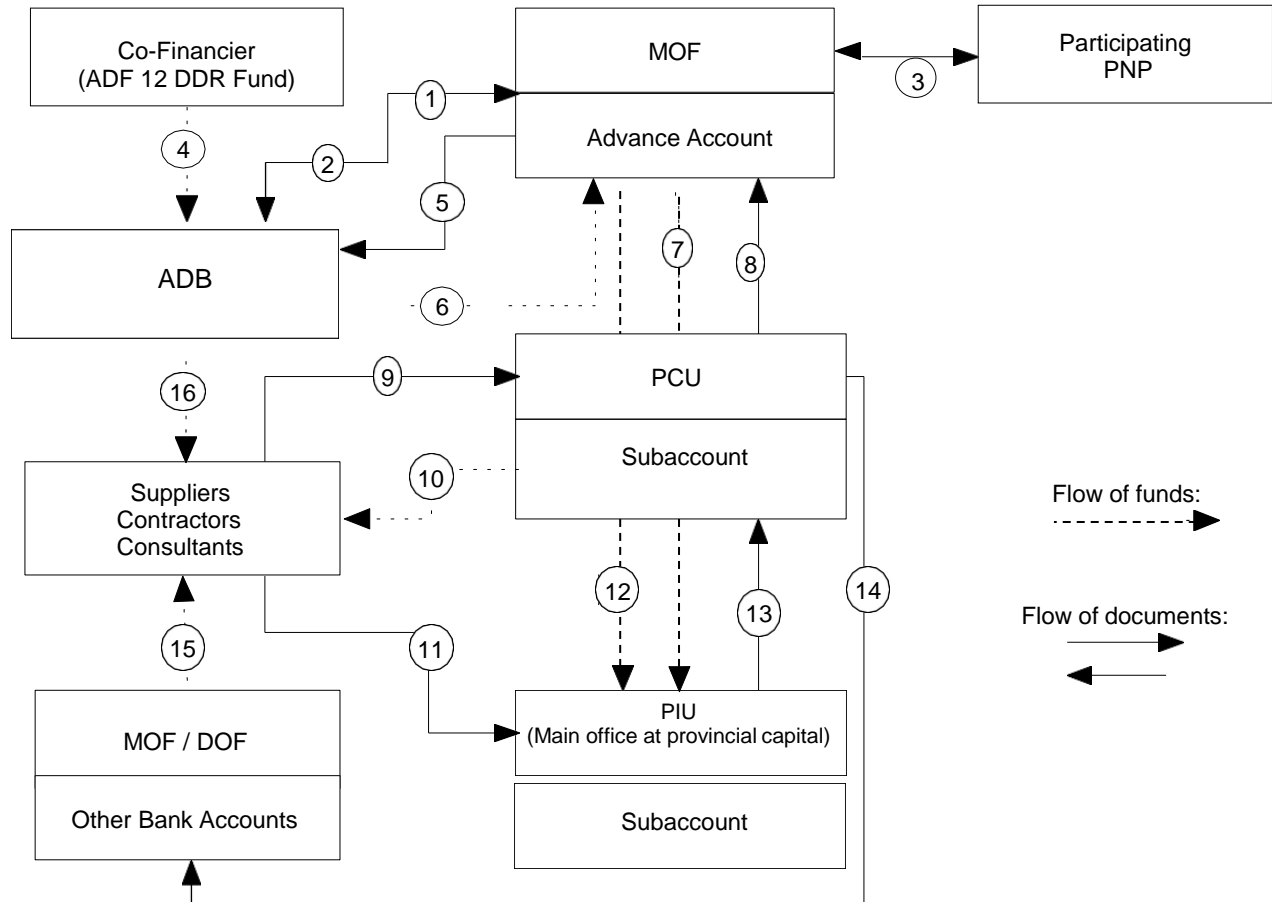


Source: Asian Development Bank.

Table 4.10: Disbursements for Grant
(\$ million)

	Q1	Q2	Q3	Q4	Total
2019	0.000	0.000	1.635	1.897	3.532
2020	1.987	1.987	1.762	1.627	7.363
2021	2.227	2.393	2.596	2.731	9.947
2022	2.731	1.717	1.084	0.994	6.526
2023	0.994	0.994	1.144	0.000	3.132
				Total:	30.500

I. Fund Flow Diagram



ADB=Asian Development Bank, GOL=Government of Lao PDR, MOF=Ministry of Finance, PNP=provincial *nam papa* (provincial water utility), PCU=project coordination unit, PIU=project implementation unit, DOF=department of finance

Fund Flow Arrangements:

1. GOL through the MOF signs a grant agreement with ADB
2. GOL through the MOF signs a loan agreement with the ADB
3. Participating PNP signs sub-loan agreement with the MOF
4. Cofinancier provides the grant funds to ADB for its administration
5. MOF submits to ADB withdrawal applications for advance account advance, replenishments, statements of expenditures and liquidation of advance account
6. ADB deposits advance account advance and replenishments
7. MOF deposits account advance and replenishments
8. PCU submits to MOF for review and approval requests for subaccount advance, replenishments, statements of expenditure and liquidation of advance accounts
9. Suppliers, contractors and consultants submit payment claims to PCU
10. PCU processes and pays claims of suppliers, contractors and consultants from the subaccount
11. Suppliers and contractors submit payment claims to PIU to be endorsed to PCU for payment
12. MOF deposits funds to PIU subaccount for PIU administration and recurrent expenditures
13. PIU submits to PCU for review and approval requests for advance and replenishments; endorses to PCU claims for payments by suppliers and contractors
14. PCU reviews and endorses to MOF/DOF claims for counterpart fund portion payments
15. MOF/DOF pays suppliers and contractors for counterpart fund portion payments
16. ADB pays directly claims of suppliers, contractors and consultants after receipt of MOF requests for direct payment and required supporting documents.

Source: Asian Development Bank and Executing Agency.

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

12. A detailed assessment at the country, sector and project level was conducted for the current project in 2013. The financial management assessment (FMA) was updated in March 2018 in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects and the Financial Due Diligence: A Methodology Note.⁴ The FMA considered the capacity of the Ministry of Public Works and Transport (MPWT) as the Executing Agency (EA) and the Department of Public Works and Transport (DPWT) of participating provinces as the Implementing Agencies (IA), including funds-flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements, and the performance of the EAs, the IAs and the State Audit Organization (SAO) with the financial management and reporting obligations since the existing loan and grant agreements were signed in 2013.

13. Based on the assessment, the key financial management risks identified are described in Table 5.1. The risk management plan is outlined in Table 5.2. It is concluded that the overall pre-mitigation financial management risk of MPWT and the DPWTs is moderate.

Table 5.1: Risk Assessment

Weakness	Risk and Impact	Likelihood	Rating
MPWT and the provinces have weak PFM systems, particularly accounting, budget preparation and execution, cash planning and performance measurement.	High – <i>Chances of error, fraud or misappropriation remaining undetected.</i>	Likely	High
Shortage of skills in financial management, including financial analysis, management accounting, budgeting, financial reporting, internal controls and audit at MPWT and DPWT. Project reports may not meet ADB requirements.	High – <i>Chances of project delays and non-compliance with ADB project requirements.</i>	Likely	High
Delay in the submission of externally audited project accounts due to heavy workload of the SAO; annual audit may not meet ADB requirements.	Moderate – <i>Chances of error, fraud or misappropriation remaining undetected.</i>	Likely	Moderate
Government may be unable to meet funding obligations due to budget constraints.	Moderate – <i>Delays in implementation.</i>	Unlikely	Moderate

ADB = Asian Development Bank; PCU = project coordination unit; PIU = project implementation unit; SAO = State Auditing Organization; PFM = public financial management
Source: PIA Consultant.

⁴ The updated Financial Management Assessment is available as a supplementary document to the RRP.

Table 5.2: Time-bound Financial Management Action Plan

Weakness	Mitigation Action	Responsibility	Timeframe
<p>MPWT and the provinces have weak PFM systems, particularly accounting, budget preparation and execution, cash planning and performance measurement.</p>	<p>The Department of Water Supply (DWS) of the MPWT shall issue a decision letter establishing the existing PCU of the current project (ADB Loan 3041–WSSP) as the same PCU for the Additional Financing Project. The PCU and PIUs will adopt and use tested and reliable project accounting system, ADB disbursement arrangements, advance and subproject accounts' procedures, and procurement guidelines separate from the EA/IAs existing PFM systems. These systems are compliant and have been acceptable to ADB for several years now. The separate systems, records and documents will be subject to a periodic inspection by the MPWT's Department of Inspection. The project accounts will be audited annually by the SAO.</p> <p>The project accounting books, records and documents for the additional financing will be kept and maintained separately from the books, records and documents of the current project.</p> <p>The PCU and PIUs will be supported by the Financial Management Specialist of the Project Implementation Assistance Consultant regarding issues related to financial management.</p>	<p>DWS-MPWT</p>	<p>Before grant effectiveness</p>
<p>Shortage of skills in financial management, including financial analysis, management accounting, budgeting, financial reporting at MPWT and DPWTs. Project reports may not meet ADB requirements.</p>	<p>The decision letter of the DWS-MPWT shall state that the existing staff of the PCU under Loan 3041–WSSP shall likewise be used to manage the implementation of the Additional Financing Project.</p> <p>For additional participating provinces, project accounts staff shall be recruited by the PCU and PIUs exclusively to handle separate accounts and related records for the Project to ensure accounts and records are always up-to-date. Project accounts staff must have experience in project or enterprise accounting, budgeting and financial planning. They must be skilled in computer use,</p>	<p>DWS-MPWT PCU and PIUs</p>	<p>Before grant effectiveness</p>

Weakness	Mitigation Action	Responsibility	Timeframe
	specifically MS Excel and Word. Upon recruitment, they will be trained in ADB procurement, disbursement and reporting procedures and the use of project accounting software. They must be contracted several weeks before start of Project implementation to undergo appropriate training.		
Delay in the submission of externally audited project accounts due to heavy workload of the SAO; annual audit may not meet ADB requirements.	If the workload of the SAO is heavy and submission of audited project accounts could be possibly delayed, the DWS-MPWT shall appoint a qualified external auditor with the concurrence by SAO. The qualifications and TOR of the external auditor shall be acceptable to ADB.	DWS-MPWT and SAO	3 months before the end of each fiscal year subject to audit to give ample time for audit preparation

Table 5.3: Risk Assessment and Risk Management Plan

Risk Description	Risk Assessment	Mitigation Measures or Risk Management Plan
Inherent Risk		
Country Specific - weak PFM system, particularly accounting, budget preparation and execution, cash planning and performance measurement	High	ADB, World Bank and other development partners continue to support on-going efforts to strengthen PFM arrangements, through technical assistance
Entity Specific - shortage of skills in financial management, including financial analysis, management accounting, financial reporting and audit	High	Existing PCU under Loan 3041-LAO will continue to be used whose staff have been trained in ADB project accounting and reporting requirements. Support will be provided by a financial management consultant, member of the project implementation support consulting team.
Overall Inherent Risk	High	
Project Risk		
Implementing Entity - malpractice and abuse of PFM rules by employees.	Moderate	Since 2007, significant progress has been made in strengthening the State Audit Organization (SAO). The new State Audit Law 2007 enhances its independence by having the SAO report to the National Assembly. Staffing has been doubled and regional offices opened outside Vientiane. The SAO has already started capacity-building activities to improve financial audits with support from development partners. An action plan for 2009–2020 focuses on building its capacity and defining its resource requirements with support from development partners. ^a
Funds Flow - government may be unable to meet funding obligations due to budget constraints.	Moderate	Project financing plan for capital contribution has been formulated to limit government contribution to salaries of government counterpart staff, land and compensation, duties and taxes to ensure affordable counterpart financing.
Staffing - PCU and PIUs have limited staff capability in financial management, accounting, budgeting, internal controls and financial reporting.	Moderate	Existing PCU under Loan 3041-LAO will continue to be used whose staff have been trained in ADB project accounting and reporting requirements. Support will be provided by a financial management consultant, member of the project implementation support consulting team.
Accounting Policies and Procedures - maintenance of	Moderate	Existing project accounting system under Loan 3041-LAO will continue to be used. Separate project accounts for the current project and Additional Financing (AF) project will be used to

Risk Description	Risk Assessment	Mitigation Measures or Risk Management Plan
project accounts does not meet ADB requirements.		identify the: (i) goods and services financed from loan and grant proceeds; (ii) financing resources received; (iii) expenditures incurred on each component; and (iv) counterpart and co-financier funds received and expended.
Internal Audit - weak capacity in the Internal Audit department at MPWT and provinces.	Moderate	Adequate internal control procedures are in place under Loan 3041–LAO. These arrangements will continue under the AF project. On-going and planned efforts by ADB and other development partners to strengthen PFM arrangements include improved internal controls.
External Audit - delay in the submission of externally audited project accounts due to heavy workload of the SAO; annual audit may not meet ADB requirements.	Moderate	The SAO is the agency responsible for auditing the project accounts. Under the STWSP and current project, the SAO has submitted annual audit reports on time. This arrangement will continue under the AF project.
Reporting and Monitoring - unreliable reports due to errors and limited staff capability in ADB financial reporting requirements.	Moderate	Existing PCU under Loan 3041–LAO will continue to be used whose staff have been trained in ADB project accounting and reporting requirements. Support will be provided by a financial management consultant, member of the project implementation support consulting team.
Information Systems - accounting data not adequately safeguarded.	Low	PCU and PIUs will undertake regular backups of all financial, accounting and project related data and appropriate security measures over backed-up data shall be in place.
Overall Project Risk	Moderate	
Overall (Combined) Risk	Moderate	

^a ADB. 2011. Country Partnership Strategy 2012-2016 for Lao People's Democratic Republic, Appendix 2, No. 2 of linked documents: Risk Assessment and Risk Management Plan (Summary). Manila.

ADB = Asian Development Bank; PCU = project coordination unit; PIU = project implementation unit; SAO = State Auditing Organization; AF = Additional Financing; PFM = public financial management; TOR = Terms of Reference
Source: PIA Consultant.

B. Disbursement

1. Disbursement Arrangements for ADB Funds

14. The grant proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (2017, as amended from time to time)⁵, and detailed arrangements agreed upon between the government and ADB. Online training for project staff on disbursement policies and procedures is available.⁶ Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

15. **Advance fund procedure.** The government will establish a new advance fund at the Bank of Lao PDR. The currency of the advance account is the US dollar. The advance account is to be used exclusively for ADB's share of eligible expenditures. The MOF who established the advance account is accountable and responsible for proper use of advances to the advance account including advances to any sub-accounts.

16. The PCU will establish a sub-account.⁷ The amount to be deposited into the sub-account at the PCU will be based on 6 months of the projected expenditure of the PCU to be funded from the sub-account. The PCU will manage the sub-account.

17. An additional sub-account, funded by the PCU sub-account, will be established in each participating province (4 in total). The main PIU office in the provincial capital will manage the sub-account in the province. The account will be for receiving fund remittances to meet administration and recurrent costs of the PIU main office in the provincial capital and in the PIU satellite office in the small town. Other project expenditures incurred by the PIUs may be paid and liquidated using the PCU's sub-account. All sub-accounts are to be used exclusively for ADB's share of eligible expenditures.

18. The total outstanding advance to the advance account should not exceed the estimate of ADB's share of expenditures to be paid through the advance account for the forthcoming 6 months. The executing agency may request for initial and additional advances to the advance account based on an Estimate of Expenditure Sheet⁸ setting out the estimated expenditures to be financed through the account(s) for the forthcoming 6 months. Supporting documents should be submitted to ADB or retained by the borrower in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) when liquidating or replenishing the advance account.

19. **Statement of expenditure procedure.**⁹ The SOE procedure may be used for reimbursement of eligible expenditures or liquidation of advances to the advance accounts. The ceiling of the SOE procedure is the equivalent of \$100,000 per individual payment." Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's

⁵ The handbook is available electronically from the ADB website (<http://www.adb.org/documents/loan-disbursement-handbook>)

⁶ Disbursement eLearning. http://wpqr4.adb.org/disbursement_elearning

⁷ The PCU sub-account will be set up upon grant effectiveness, and the PIU sub-accounts will be set up after the relevant subproject is approved by ADB. New PIUs will receive training on disbursement arrangements, and existing PCU and PIUs will receive refresher training.

⁸ Estimate of Expenditure sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

⁹ SOE forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

request for submission of supporting documents on a sampling basis, and for independent audit. Reimbursement and liquidation of individual payments in excess of the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB.

20. Before the submission of the first withdrawal application (WA), the borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per WA is stipulated in the *Loan Disbursement Handbook* (2017, as amended from time to time). Individual payments below such amount should be paid (i) by the executing agency and subsequently claimed to ADB through reimbursement, or (ii) through the advance fund procedure, unless otherwise accepted by ADB. The borrower should ensure sufficient category and contract balances before requesting disbursements. ADB reserves the right not to accept withdrawal applications below the minimum amount.

2. Disbursement Arrangements for Counterpart Funds

21. The PCU and PIUs will be responsible for the disbursement and liquidation procedures for government funds and will (i) prepare disbursement projections, and (ii) request budgetary allocations for counterpart funds. Government counterpart funds will finance the following: (i) project-related taxes and duties (in-kind¹⁰); (ii) land acquisition and resettlement costs, which are expected to be financed from provincial budget allocations (in cash); (iii) incremental administration salaries (in-kind); and (iv) government contribution of 10% for output 4 on village environmental improvements (in cash). Government counterpart funds will be disbursed following government disbursement regulations and procedures.

C. Accounting

22. The MPWT/PCU will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project following the government's financial regulation on cash-based accounting. The PCU will prepare consolidated project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

D. Auditing and Public Disclosure

23. The MPWT will cause the detailed consolidated project financial statements to be audited in accordance with International Standards on Auditing and with the Government's audit regulations, by the State Audit Organization or an independent auditor acceptable to ADB. The audited project financial statements together with the auditor's opinion will be presented in the English language to ADB within 6 months from the end of the fiscal year (i.e., 31 December of each year) by the executing agency.

24. The MPWT will also cause the entity-level financial statements to be audited in accordance with International Standards on Auditing and with the Government's audit regulations, by an independent external auditor acceptable to ADB. The audited entity financial statements, together with the auditor's report and management letter, will be submitted in the English language to ADB within 1 month after their approval by the relevant authority but within 6 months from the end of the fiscal year.

¹⁰ "In-kind" for taxes and duties would be a numeric transaction between the EA and Ministry of Finance.

25. The audit report for the project financial statements will include a management letter and auditor's opinions, which cover (i) whether the project financial statements present an accurate and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting standards; (ii) whether the proceeds of the {loan} {grant} were used only for the purpose(s) of the project; and (iii) whether the borrower or executing agency was in compliance with the financial covenants contained in the legal agreements (where applicable).

26. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

27. The government, the MPWT and PNPs have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.¹¹ ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. 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.

28. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Public Communications Policy 2011.¹² After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.¹³

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

29. All advance contracting and retroactive financing will be undertaken in conformity with ADB Procurement Guidelines (2015, as amended from time to time) and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower, the MPWT, and implementing agencies have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

¹¹ ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 months, requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- (ii) When audited project financial statements are not received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (a) inform the executing agency of ADB's actions; and (b) advise that the loan may be suspended if the audit documents are not received within the next 6 months.
- (iii) When audited project financial statements are not received within 12 months after the due date, ADB may suspend the loan.

¹² Public Communications Policy: <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>.

¹³ This type of information would generally fall under public communications policy exceptions to disclosure. ADB. 2011. *Public Communications Policy*. Paragraph 97(iv) and/or 97(v).

30. **Advance contracting.** A firm was recruited under Loan 3041–LAO following competitive processes (QCBS procedure) and its performance has been satisfactory throughout the duration of the services. It is proposed that services be extended under the new grant using a contract variation.

31. Draft subproject feasibility studies for Batch 4 towns (first batch of additional financing) have been completed, which identify the subprojects to be procured using and detailed designs completed by May 2018. ICB for Xam-Nua subproject and NCB package for Sopbao subproject will likely be contracted during Q3 of 2018. Specifications for vehicles and IT equipment have been drafted and procurement of equipment under Shopping and NCB procedures may commence after the ADB staff review meeting. Draft bidding documents for ICB civil works have been prepared and submitted to ADB for review against the most recent standard bidding documents, to allow procurement to commence.

B. Procurement of Goods, Works, and Consulting Services

32. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (2015, as amended from time to time).

33. International competitive bidding (ICB) will be used for works contracts estimated to cost \$3 million and above. National competitive bidding (NCB) will be used for works contracts estimated to cost over \$100,000 equivalent up to below \$3 million. For NCB, the first draft English language of the procurement documents (bidding documents, and draft contract) should be submitted for ADB approval regardless of the estimated contract amount. Subsequent procurements are subject to post review. All ICB packages (bidding document, bid evaluation report, and draft contract) are subject to ADB prior review and approval.

34. 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.

35. All consultants will be recruited according to ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).¹⁴

36. As indicated in para. 30, a contract variation to the existing contract will be used for the engagement of consultants under the additional financing. The tasks to be delivered by the consultants are a natural continuation of previous work carried out by the firm, which was previously selected using competitive processes. Continuity for downstream work is essential to the project and in particular, continuity in the technical approach, experience acquired, and professional liability. The list of key consulting services and estimated person-months needed to (i) facilitate project management and implementation, and (ii) strengthen the institutional and operational capacity of the executing agency are detailed in the Consultant's Terms of Reference.

C. Procurement Plan

37. The Procurement Plan is included in Annex A.

¹⁴ 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/>.

D. Consultant's Terms of Reference

38. To be processed as a contract variation to the existing consulting firm's contract. Therefore, only minor changes to the TOR have been made and these changes to the TOR are detailed in Annex B.

VII. SAFEGUARDS

39. **ADB safeguard classifications.** All safeguard documents have been prepared in accordance with ADB's *Safeguard Policy Statement* (SPS, 2009).¹⁵ In compliance with ADB's information disclosure and consultation requirements, the safeguard documents will be disclosed on ADB project website.¹⁶ The safeguard classifications are B for environment and involuntary resettlement and C for indigenous peoples. All components and non-sample subprojects to be financed under the additional financing shall be screened and categorized for Environment, IR, and IP impacts in accordance with SPS, 2009. Appropriate safeguards documents will be prepared and finalized for the non-sample subprojects, for review and concurrence by ADB prior to implementation.

40. Relevant safeguard documents were prepared which include: (i) initial environmental examination (IEE) and environmental management plan (EMP) for Sopbao; (ii) initial environmental examination (IEE) and environmental management plan (EMP) for Xam-Nua (ii) environmental assessment and review framework (EARF); (iii) land acquisition and compensation plan (LACP) for Sopbao; (iv) land acquisition and compensation plan for Xam-Nua; and (v) an updated land acquisition and resettlement framework (LARF) for additional financing which removes voluntary donation mechanisms in relation to the water supply component. Refer to safeguard plans in the EMPs, LACP and updated LARF for detailed implementation guidance. The MPWT and PNPs have committed to implementing the plans and adhering to ADB and the government's safeguard policies. See Section IX. Performance Monitoring, Evaluation, Reporting and Communication for safeguard monitoring and reporting requirements. At the detailed design stage, as IEEs and EMPs are updated and finalized, the proposed mitigation measures will be reviewed to ensure that environmental receptors are not adversely affected. The final EMPs, cleared by ADB, will form part of the contract bidding documents. During implementation, if unanticipated impacts are encountered, a corrective action plan will be prepared.

41. **Project safeguards grievance redress mechanism.** ADB SPS requires that Government establishes and maintains a grievance redress mechanism to receive and facilitate resolution of affected peoples' concerns about project social and environmental performance. The grievance redress mechanism is described in the Land Acquisition and Compensation Framework and Initial Environmental Examination.¹⁷

42. **Public consultation and information disclosure.** The EARF was disclosed on ADB website on 13 April 2018, while the LARF was disclosed on ADB website on 24 April 2018. The draft IEEs were also disclosed on ADB website on 13 April 2018, while the LACPs were disclosed on ADB website on 26 April 2018. The final IEEs and LACPs will be updated following detailed engineering design and will be disclosed prior to civil works contract awards. The final LACPs

¹⁵ Available at: <http://www.adb.org/documents/safeguard-policy-statement>

¹⁶ Public Communications Policy available at <https://www.adb.org/sites/default/files/institutional-document/32904/files/pcp-2011.pdf>

¹⁷ These are available as linked documents to the Reports and Recommendations of the President.

will updated after detailed engineering design, and disclosed in English and Lao, and provided to PNPs to be made available to interested stakeholders on request. Semi-annual safeguard monitoring reports will be disclosed following review. Consultation with affected persons and key stakeholders has been carried out during project preparation and will be ongoing during implementation as described in the safeguard documents and the Stakeholder Communication Strategy.

43. **Prohibited investment activities.** Pursuant to ADB's Safeguard Policy Statement (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the Safeguard Policy Statement (2009).

A. Environment

44. The project is classified as **Category B** for environment in accordance with the ADB's SPS 2009. An updated Environmental Assessment and Review Framework (EARF), together with two Initial Environmental Examination (IEE) reports and Environmental Management Plans (EMPs) have been prepared.¹⁸

B. Involuntary Resettlement and Indigenous Peoples

45. Pursuant to ADB's Safeguard Policy Statement (2009) (SPS), ADB funds may not be applied to the activities described in the ADB Prohibited Investment Activities List. All EA and IAs will ensure that their investments are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list to subprojects financed by ADB.

46. The project is classified as Category B for resettlement and C for Indigenous People in accordance with ADB's SPS 2009. Two Land Acquisition and Compensation Plans (LACPs) have been developed for two sub-projects. Refer to the respective plans for the detailed implementation guidelines.¹⁹

47. Two sample representative subprojects will have an impact on a total of 1,144 households:
- (i) There are 320 affected households (AHs) or 1,800 affected persons (APs) in Sopbao, of which 214 are due to minor impacts from meter installation that will be addressed through the EMP, and 106 are also minor impacts but are addressed through the LACP. No land acquisition is required in Sopbao.
 - (ii) There are 824 AHs or 4,182 APs in Xamnuua, of which 414 are minor impacts from meter installation that will be addressed through the EMP, and 410 are also minor impacts but are addressed through the LACP. There are no severely affected households.
 - (iii) Some seasonal crops and trees may be removed during construction. There will also be temporary disturbances during construction (e.g., interruption of business and access to property).
 - (iv) A total of 284 m² of land will be acquired from two households in the two towns but this represents only a 2.94% and 1% of each household's total land property.

¹⁸ These are available as linked documents to the Reports and Recommendations of the President.

¹⁹ These are available as linked documents to the Reports and Recommendations to the President.

48. The two sample sub projects require minimal land acquisition and therefore principles and procedures have been set out in a Land Acquisition and Resettlement Framework (LARF) consistent with the provisions of ADB SPS which prohibits physical or economic displacement until compensation and assistance at full replacement cost is made and comprehensive livelihood restoration plan with adequate budget is prepared. The LARF will be the basis of updated LACPs for each subproject. No sub-projects with safeguards category “A” will be financed.

49. The updated LARF and LACPs, available as linked documents to the Report and Recommendation of the President, detail the role of the PCU, PIUs, PSC in land acquisition and resettlement for the project.

VIII. GENDER AND SOCIAL DIMENSIONS

50. A Summary Poverty Reduction and Social Strategy (SPRSS) has been prepared and is available as a linked document to the RRP. The SPRSS includes key actions required under the project, roles and responsibilities for these actions, and the resources required. A Stakeholder communication strategy, to guide engagement of stakeholders, including in the action items under the SPRSS, has been prepared and is available as a linked document to the RRP.

51. A Gender Action Plan is available as a linked document to the RRP.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

A. Project Design and Monitoring Framework

52. The design and monitoring framework (DMF) is available in the report and recommendation of the President (RRP).

B. Monitoring

53. **Project performance monitoring.** The system was established under Loan 3041–LAO. Project performance monitoring will be based on the new targets for existing indicators, and risks in the DMF. Disaggregated baseline data for output and outcome indicators will be gathered for all new subprojects prior to implementation and will be updated and reported through the Project quarterly progress reports and after each ADB review mission. These quarterly progress reports will provide information necessary to update ADB’s project performance reporting system.

54. **Compliance monitoring.** The status of compliance with grant covenants will be reviewed at each ADB review mission. Any non-compliance issues will be specified in the quarterly progress reports together with remedial actions.

55. **Safeguards monitoring.** PCU will provide ADB as part of the feasibility studies with safeguard screening checklists and proposed categorizations for all subprojects. Any deviations from these plans will be summarized in quarterly monitoring reports for each batch. PCU will also ensure that, consistent with commitments made in grant covenants, safeguards monitoring

reports covering environment and land acquisition are submitted semi-annually. Safeguards semi-annual monitoring reports will summarize issues and corrective actions undertaken. Due diligence reports are required to confirm subprojects that have no LAR impacts. PCU will submit semi-annual reports to ADB, within 30 days of the end of reporting period, for review and disclosure, which will be prepared with assistance from the PIA consultants.

56. **Gender and social dimensions monitoring.** The monitoring of impacts on the social and gender aspects, including social and gender benefit monitoring, will be incorporated into the overall project monitoring and evaluation. Assisted by the social and gender specialists in the consultant team, the PCU/PIUs will be responsible for analyzing and consolidating the performance data. The social and gender monitoring will be designed to allow adequate flexibility to adopt remedial actions regarding the project design, schedules, activities, and development impact. Specific indicators in the SPRSS and the GAP will be further during the detailed design phase. Quarterly GAP monitoring will be carried out in accordance with ADB GAP Progress Report template.

C. Evaluation

57. A project inception mission will be scheduled shortly after project effectiveness, expected in late 2018. Implementation review missions will be held every three to six months. A midterm review is tentatively scheduled for mid-2021. Within 6 months of physical completion of the project, MPWT will submit a project completion report to ADB.²⁰

D. Reporting

58. The MPWT 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 the next 12 months; (iii) integrated semi-annual safeguards monitoring reports; and (iv) a project completion report within 6 months of physical completion of the project. To ensure that projects will continue to be both viable and sustainable, project accounts and the executing agency audited financial statement together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

59. The preparation and adoption of a stakeholder communication strategy (SCS) is required by the ADB to ensure inclusiveness, transparency, timeliness and the meaningful participation of stakeholders in the project. The SCS promotes select messages targeted at key stakeholders consistent with established communication objectives as to what perspectives; actions and changes should be promoted to ensure the project's success. The SCS ensures that vulnerable groups, such as the poor, elderly, indigenous and ethnic groups, and women, who risk being marginalized, are provided with opportunities.

60. The Stakeholder Communication Strategy is available as a supplementary document to the RRP.

²⁰ Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

X. ANTICORRUPTION POLICY

61. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.²¹ 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 and/or 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.²²

62. To support these efforts, relevant provisions are included in the grant agreement and the bidding documents for the project. The Government will ensure that all PCU and PIU project staff are fully aware of and comply with the Government's and ADB's procedures.

XI. ACCOUNTABILITY MECHANISM

63. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.²³

XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL

64. The PAM is a living document and is subject to change after ADB Board approval of the Project. Hence, all revisions or updates during course of project implementation should be retained in this Section to provide a chronological history of changes to implemented arrangements recorded in the PAM. The PAM was discussed and initialed during grant negotiations on 15 June 2018.

²¹ Anticorruption Policy: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

²² ADB's Integrity Office web site: <http://www.adb.org/integrity/unit.asp>

²³ Accountability Mechanism. <http://www.adb.org/Accountability-Mechanism/default.asp>.

ANNEX A: PROCUREMENT PLAN

Project Name: Water Supply and Sanitation Sector Project	
Project Number: 45301-003	Approval Number: ADB Grant XXX
Country: LAO PEOPLE'S DEMOCRATIC REPUBLIC	Executing Agency: Ministry of Public Works and Transport
Project Procurement Classification: B	Implementing Agency: Provincial Departments of Public Works and Transport/Provincial Nam Papa
Procurement Risk: Low	
Project Financing Amount: \$33.97 million ADB Grant Financing: \$30.5 million Non-ADB Financing: \$3.38 million (Government); \$0.09 million (Beneficiaries)	Project Closing Date: 30 September 2023
Date of First Procurement Plan: 28 August 2018	Date of this Procurement Plan:

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

1. Procurement and Consulting Methods and Thresholds

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

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding for Goods	US\$ 500,001 and Above	
National Competitive Bidding for Goods	Between US\$100,001 and \$500,000	The first NCB is subject to prior review, thereafter post review. Harmonized NCB Bidding Documents.
Shopping for Goods	Up to \$100,000	
International Competitive Bidding (ICB) for Works	\$3,000,001 and above	
National Competitive Bidding (NCB) for Works	Between US\$100,001 and US\$3,000,000	The first NCB is subject to prior review, thereafter post review. Harmonized NCB Bidding Documents.
Shopping for Works	Up to \$100,000	

Consulting Services	
Method	Comments
Consultant's Qualification Selection for Consulting Firm	for service contracts, e.g., website administration
Quality- and Cost-Based Selection for Consulting Firm	None
Single Source Selection for Consulting Firm	Refers to Government initiated or provided services, e.g., audit, MOU
Individual Consultants Selection for individual Consultant	Prior approval

2. Goods and Works Contracts Estimated to Cost \$1.0 Million or More

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

Package Number	General Description	Estimated Value	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
WS-CW33	Rehabilitation and expansion of water supply systems and public sanitation in Lamam.	4,000,000	ICB	Prior	1S1E	Q4 2018	Prequalification of Bidders: N Domestic preference: N Bidding Document: Large Works
WS-CW35	Rehabilitation and expansion of water supply systems and public sanitation in Samakkhyxay	5,000,000	ICB	Prior	1S1E	Q4 2018	Prequalification of Bidders: N Domestic preference: N Bidding Document: Large Works
WS-CW37	Rehabilitation and expansion of water supply systems and public sanitation in Xam-Nua	4,400,000	ICB	Prior	1S1E	Q4 2018	Prequalification of Bidders: N Domestic preference: N Bidding Document: Large Works
WS-CW38	Construction of new water supply system and public sanitation in Sopbao.	1,000,000	NCB	Post	1S1E	Q4 2018	Prequalification of Bidders: N Domestic preference: N Bidding Document: Large Works

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

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

Package Number	General Description	Estimated Value (\$)	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
FA 1	Independent audit of PNP's	612,000	CQS	Prior	Q3 2018	BTP	Assignment: National Comments: National accounting firm for independent audit of PNP's as in original PAM/Procurement Plan
FA 2	Financial project audit (State Audit Office)	30,000	SSS	Post	Q1 2019	FP	
PIA	Consulting services for Project Implementation Assistance and Sector Reform.	5,470,000	SSS	Prior	Q3 2018		Contract variation to current contract
RE 2	Service contract for PNP's operational staff O&M training	100,000	ICS	Prior	Q2 2018	FTP	Assignment national or regional
HHS 2	Household sanitation under (grants to poor households Batch 4)	30,000	Shopping	Post	Q3 2019		

4. Goods and Works Contracts Estimated to Cost Less than \$1.0 million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

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

Goods and Works								
Package Number	General Description	Estimated Value (\$)	Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
OFCW 8 to 11	Office modifications for PIUs (Batch 4)	40,000	4	Shopping	Post		Q4 2018	
VEH PIU 4	Vehicles (1) for PIU (Batch 4)	30,000	1	Shopping	Post		Q2 2018	
MOT VEH 4	Motorbikes (4) for PIUs and PIA (Batch 4)	6,000	1	Shopping	Post		Q2 2018	
SPEC VEH 4	Two 1- tone flatbed trucks for PNPs (Batch 4)	40,000	1	Shopping	Post		Q2 2018	

B. Indicative List of Packages Required Under the Project

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

Goods and Works							
Package Number	General Description	Estimated Value (\$ cumulative)	Estimated Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure	Comments
WS-CW39	Rehabilitation and expansion of water supply systems and public sanitation in Namthouan	4,500,000	1	ICB	Prior	1S1E	Small Works
WS-CW40	Construction of new water supply system and public sanitation in Viengkham.	1,500,000	1	NCB	Prior	1S1E	Small Works
COM 2-4	Community consultation events and hygiene awareness campaigns (Batch 3 to 5)	80,000	4	Shopping	Post		Comments: Q4 2018 – Q2 2019; 1 package per province
HHM 4	Supply and delivery of household Class	240,000	2	NCB	Post	1S1E	

Goods and Works							
Package Number	General Description	Estimated Value (\$ cumulative)	Estimated Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure	Comments
	C water meters Batch 4 and 5.						
IEC 4	IEC Materials for community subproject information and hygiene awareness (Batch 4 and 5)	72,000	2	Shopping	Post		Comments: Batch 4 and 5; One contract per province
NRW-G02	Leak detection equipment (electronic listening stick and ground microphone) and meter test bench (for Batch 4&5 PNPs) Lot 1: Batch 4 Lot 2: Batch 5	120,000 60,000 60,000	2	NCB	Post	1S1E	Prequalification of Bidders: N Domestic preference: N Bidding Document: Small Works
OFCW 12	Office modifications for PIUs (Batch 5)	20,000	1	Shopping	Post		
VI-CW33 VI-CW35 VI-CW37&38 VI-CW39&40	Civil works for VEI and supply of small scale O&M equipment for OPWT Batch 4 Lot 1: Lamam Lot 2: Samakkhyxay Lot 3: Xam-Nua & Sopbao Lot 4: Namthouan & Viengkham	940,000 190,000 260,000 240,000 250,000	4	NCB	Post	1S1E	Prequalification of Bidders: N Domestic preference: N Bidding Document: Small Works
HHS 2	Household sanitation under (grants to poor households Batch 4&5)	30,000	3	Shopping	Post		One package per province.
VEH PIU 5	Vehicles (2) for PIU (Batch 5)	60,000	1	Shopping	Post		
MOT VEH 5	Motorbikes (4) for PIUs and PIA (Batch 5)	6,000	1	Shopping	Post		
SPEC VEH 5	Two 1- tone flatbed trucks for PNPs (Batch 3 and 4)	40,000	1	Shopping	Post		

C. National Competitive Bidding

C1. Regulation and References Documents

1. The procedures to be followed for National Competitive Bidding (NCB) shall be those set forth for "Public Bidding" in Prime Minister's Decree No. 03/PM of the Lao People's Democratic Republic, effective 09 January 2004, and Implementing Rules and Regulations effective 12 March 2004, with update 0861/MOF of 05 May 2009 entitled "Amendments of Some Articles of Implementing Rules and Regulations on Decree Of Government Procurement Of Goods, Works, Maintenance And Services", with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the Procurement Guidelines.

C2. Procurement Procedures

a. Procurement Plan

2. Contract packages subject to NCB procedures will be those identified as such in the project Procurement Plan. Any changes to the method 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.

b. Eligibility

3. The eligibility of bidders shall be defined under Section I of the Procurement Guidelines; accordingly, no bidder or potential bidder should be declared ineligible for reasons other than those provided in Section I of the Guidelines, as amended from time to time.

c. Preferences

4. No preference of any kinds shall be given to domestic bidders or for domestically manufactured goods.

5. Suppliers and contractors shall not be required to purchase local goods or supplies or materials.

d. National Sanctions List

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

e. Advertising

7. The posting of NCB specific notices for contracts valued at less than \$1 million on ADB's website is not required but is highly recommended.

C3. Procurement Documents

f. Use of Harmonized Documents

8. The harmonized standard bidding documents entitled "Procurement of Works, NCB-SBD, Harmonized Bidding Documents, December 2015" and "Procurement of Goods, NCB-SBD,

Harmonized Bidding Documents, December 2015" approved by the Ministry of Finance through 3246/MOF dated 28 September 2015, and approved by ADB by *OSFMD/OSP2* dated 7 June 2016, shall be used for all procurement by NCB unless exceptions are specifically identified in the Procurement Plan.

g. Rejection of all Bids and Rebidding

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

h. Disclosure of Decisions on Contract Awards

10. 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, (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.

i. ADB Policy Clauses

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

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

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

ANNEX B: UPDATED TERMS OF REFERENCE FOR CONSULTING SERVICES

A. Introduction

1. Consulting services for the additional financing of Water Supply and Sanitation Sector Project (the Project) will be provided over a period of five years from 2018 to 2023. The services will be provided by an association of an international consulting company and a national consulting company. The consulting package will cover (i) improved sector coordination and policy implementation, and (ii) project implementation assistance (PIA). In addition to this package, national consultants, nongovernment organizations (NGOs) or academics will be recruited separately to undertake training and consulting activities. All consultants will be selected and engaged in accordance with the *ADB Guidelines on the Use of Consultants* (March 2013, as amended from time to time).²⁴ Since the project is financed with ADB-administered cofinancing resources as well as Asian Development Fund resources, universal procurement will apply to all contract packages financed under the project.²⁵

2. A total of 515, person-months of consulting services (90 person-months international and 425 person-months national) will be required to support the Additional Financing Project. To ensure that all Project outputs are properly integrated and coordinated, the consulting services will be managed by a single Team Leader reporting to the Project Coordination Unit (PCU) in the Ministry of Public Works and Transport (MPWT). This arrangement is necessary to ensure that the consulting services are efficient, effective and properly coordinated especially since the project implementation assistance and sector strengthening will run concurrently in the same Project provinces throughout the project implementation. The Team Leader will also assist to coordinate between the components of the Project and between the various levels of Government administration—national, provincial, district and village levels.

3. Consulting services will also include a set of individual consultant contracts and service contracts for project accounting, external resettlement monitoring, project audit requirements, provincial *nam papa* (PNP, or provincial water utility) audit requirements, and twinning arrangements with a service provider to be identified for operation and maintenance (O&M). Terms of reference for these contracts will be prepared as part of the consulting services. A provisional sum is allocated for the capacity building activities, surveys and investigations.

B. Implementation Arrangements

4. The overall Project is scheduled for implementation over ten (10) years. PIA will cover (i) overall management of the consulting services; (ii) improved sector coordination and policy implementation; (iii) project implementation assistance (PIA) for implementing the subprojects in the subproject towns; (iv) enhanced community action in urban water supply and sanitation; and (v) strengthened capacity for project implementation and operations and maintenance.

5. MPWT will provide PIA with a base office in Vientiane, and the participating provincial and district agencies will provide suitable office accommodation for PIA as and when required. PCU, provincial agencies and each PIU will make available to PIA all relevant data, maps, and reports, and ensure access to all equipment purchased under the Project at no cost to PIA, including vehicles, computing, and communication equipment. PCU and provincial and district authorities in participating province will provide counterpart and support staff to work with PIA and will arrange necessary introductions to concerned government organizations, ministries, and departments.

²⁴ Available at <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>.

²⁵ ADB. 2013. *Blanket Waiver of Member Country Procurement Eligibility Restrictions in Cases of Cofinancing for Operations Financed from Asian Development Fund Resources*. Manila.

6. The total consulting inputs for PIA are summarized in table below.

Project Implementation Assistance - Consulting Services (inputs 15 towns)

Position	Current Project ^(a)			Additional Scope			Overall Project		
	Foreign	National	Total	Foreign	National	Total	Foreign	National	Total
I. IMPROVED INSTITUTIONAL EFFECTIVENESS AND POLICY REFORMS									
Team Leader - Water Supply Sector Specialist	6		6	2		2	8	0	8
Water Supply Sector Expert		3.5	3.5		1	1	0	4.5	4.5
Financial Analysis/Management Specialist	2		2	1		1	3	0	3
Accounting Exoert/Specialist		69.5	69.5		12	12	0	81.5	81.5
SUB-TOTAL I	8	73	81	3	13	16	11	86	97
II. PROJECT IMPLEMENTATION ASSISTANCE									
(a) Project Implementation Support to PCU and PIUs									
Team Leader - Overall Project Management	38		38	26		26	64	0	64
Deputy Team Leader - Water Supply Designer		72	72		24	24	0	96	96
Feasibility Study Quality Assurance Specialist	6		6	4		4	10	0	10
Procurement Specialist	10		10	6		6	16	0	16
NRW Management (Leak Detection) Specialist ^(b)	15		15	-5		-5	10	0	10
NRW (Leak Detection) Technicians		70	70		8	8	0	78	78
PPMS Expert		39	39		8	8	0	47	47
Subtotal (a)	69	181	250	31	40	71	100	221	321
(b) Engineering Design & Feasibility Studies									
Water Supply Design Engineer	15		15	9		9	24	0	24
Economist & Financial Analyst	8		8	3		3	11	0	11
Water Supply Engineers		65	65		9	9	0	74	74
Municipal Engineer		18	18		3	3	0	21	21
Structural Engineer		11	11		2	2	0	13	13
Electrical and Mechanical Engineer	8		8	2	2	4	10	2	12
Electrical Engineer		11	11		2	2	0	13	13
Geotechnical Engineer		11	11		2	2	0	13	13
AutoCAD Operators		65	65		72	72	0	137	137
Subtotal (b)	31	181	212	14	92	106	45	273	318
(c) Contract Management & Supervision									
Senior Contracts Manager		62	62		24	24	0	86	86
Construction Engineers (2)		132	132		44	44	0	176	176
Construction Supervisors		231	231		159	159	0	390	390
Subtotal (c)	0	425	425	0	227	227	0	652	652
(d) Social & Environmental Assessments									
Resettlement Specialist	11		11	6		6	17	0	17
Resettlement Expert		22	22		4	4	0	26	26
Social/Gender Specialist	11		11	2		2	13	0	13
Social/Gender Expert		22	22		22	22	0	44	44
Environmental Specialist	11		11	6		6	17	0	17
Environmental Expert		22	22		4	4	0	26	26
Subtotal (d)	33	66	99	14	30	44	47	96	143
(e) Support to PIUs and VDCs									
Community Development Specialist	11		11			0	11	0	11
Community Development Expert		22	22		4	4	0	26	26
Asset Management Specialist	8		8	18		18	26	0	26
Un allocated		11	11		19	19	0	30	30
Subtotal (e)	19	33	52	18	23	41	37	56	93
(f) Capacity Development for PNPs									
Regional O&M Facilitator	9		9	10		10	19	0	19
Subtotal (f)	9	0	9	10	0	10	19	0	19
SUB-TOTAL II	161	886	1047	87	412	499	248	1298	1546
GRAND TOTAL FOR PIA CONSULTING SERVICES	169	959	1128	90	425	515	259	1384	1643

Source: PIA Consultants.

C. Reporting

7. PIA will produce the following reports in the English language (i) an inception report within 3 months of mobilization; (ii) investigation reports, including the results of geotechnical and topographical surveys; and (iii) a feasibility report on each subproject including cost estimates and the cost implications of the recommended works. In addition to the above reports, PIA will assist PCU and PIUs to produce the following reports (i) inception and annual progress reports; (ii) quarterly progress reports within two weeks of the end of each quarter; and (iii) a project completion report, within three months of physical completion of the Project.

D. Improved institutional effectiveness and policy reforms (Outputs 1 and 5)

8. Consulting services will be provided to improve institutional effectiveness within the water supply sector. The services will assist the Department of Water Supply (DWS) to strengthen sector coordination through support for (i) setting up a water supply and sanitation sector project website (i) regular coordination meetings between DWS and consultants providing assistance to PNPs with corporate planning;²⁶ and (iii) adoption of a common approach, format guidelines for corporate plans and data collection.

9. Consulting services will also provide support to the preparing capacity building to the PNPs through assisting in preparation for packages service contracts to improve corporate planning and financial management, nonrevenue water management, and institutionalizing appropriate drinking water standards. Activities will build on the efforts and achievements of the previous ADB-funded sector projects, and will take into account any key lessons. The PIA consultants will be expected to draw on the project completion report for the Northern and Central Regions Water Supply and Sanitation Sector Project (Grant 0016-LAO and Grant 0205-LAO). PIA consultants will also be required to monitor ongoing developments in the evolution of the water sector, including any legal, regulatory or institutional issues. The output will depend on the outcomes of the current Small Towns Water Supply and Sanitation Sector Project (Grant 0143-LAO).

10. Consultants under these outputs will comprise an estimated 3 person-months of international and 13 person-months of national consultants.

(i) Team Leader/Water Supply Sector Specialist (International)

11 The Team Leader will manage and coordinate the overall consulting services and provide project management support to the Executing Agency (EA), PCU and PIUs. S/he will provide advice and guidance on sector coordination, policy implementation, sector regulation and other key water sector issues to Government, ADB and team members. The Team Leader will have a bachelor's degree in civil/municipal engineering or similar and be a chartered/professional engineer with broad experience in the implementation of water sector projects, including sector reform and infrastructure, as well as water sector planning and management. S/he will have a minimum of 20 years' experience in water supply development, including at least ten years' experience in Southeast Asia, and with sound experience of managing a culturally diverse team. Duties of the Team Leader will include the following:

- (i) Assess the current state of sector coordination and the mechanisms involved, and review the extent and progress of policy reform under NCRWSSP and STWSP, especially with respect to issues such as subsidiary loan agreements, service agreements, free

²⁶ Three groups of consultants provide assistance on corporate planning funded by ADB, JICA and NORAD.

connection policy, sanitation regulations, corporate planning and financial accounting and management. Provide ongoing support for the continued development and implementation of these reforms;

- (ii) Review legal and regulatory framework, and identify any gaps and/or discrepancies.
- (iii) Monitor developments in the water sector and keep EA, ADB and other development partners informed;
- (iv) Facilitate Project orientation/awareness workshops to facilitate dialogue with respect to sector coordination, policy development and implementation, and the introduction of new concepts such as nonrevenue water management;
- (v) Assist around 8 PNPs and PCU to develop/update their corporate plans, with an emphasis on minimizing the volume of the plan;
- (vi) Assist EA in the adoption of a common approach, format and guidelines for corporate plans and data collection;
- (vii) Attend coordination meetings arranged by PCU with other implementation teams;
- (viii) Prepare quarterly progress reports to PCU, based on data to be provided by PIUs/PNPs.
- (ix) Assist PCU/ADB for the mid-term and project completion reviews, as well as all intermediate loan reviews; and
- (x) Assist PCU to arrange regional/national workshops as a forum for discussion of policy development and implementation, particularly on issue such as nonrevenue water, account management, asset management, etc.

(ii) Water Supply Sector Expert (National)

12. The national water supply sector expert will have postgraduate qualifications in civil/municipal engineering and at least 10 years' experience in water supply engineering in the Lao PDR. S/he will report to and provide full support to the Team Leader, especially on technical issues, to fulfil the tasks outlined in paras. 3-5. Specifically, S/he will:

- (i) Undertake detailed reviews and assessments of sector coordination, legal, regulatory and institutional frameworks.
- (ii) Provide close support to EA and PCU on the preparation/facilitation of all subsector workshops and meetings for water supply and sanitation;
- (iii) Provide technical support at workshops on concepts of nonrevenue water management, sanitation regulation, asset management, etc.;
- (iv) Provide technical support in the preparation of corporate plans for participating PNPs;
- (v) Provide technical support to participating PNPs to develop technical, asset management and O&M plans;
- (vi) Arrange for the development/procurement and commissioning of a water supply sector web site, and the regular uploading of relevant data from various stakeholders;
- (vii) Provide technical support to EA and PNPs to institutionalize appropriate drinking water standards consistent with the capacity of the PNPs and the water quality testing facilities available in the provinces; and
- (viii) Provide detailed and close support in the preparation of all progress and other reports, as well as support to ADB loan review missions.

(iii) Financial Analysis/Management Specialist (International)

13. The international financial analysis/management specialist (FAM) will have a business management/financial accounting/accounting/finance and economics postgraduate qualification from an internationally recognized institution with a minimum of 20 years' experience in the water supply industry, and at least 7 years in the Southeast Asia. The specialist will report to the Team Leader and work closely with the Accounting Specialist (National). Specific tasks will include:

- (i) Review most recent WSRC/WASRO Annual Performance Report and assess/analyze changes and trends in PNP corporate management, financial and technical performance;
- (ii) Provide assistance in the preparation of and participate in all relevant workshops and meetings;
- (iii) Provide guidance and assistance in the preparation of corporate plans, with particular emphasis on the development of a common approach, and concise format and guidelines for corporate plans and data collection, and assist in their adoption by PNPs;
- (iv) Provide guidance and assistance in the preparation of annual performance reports;
- (v) Provide guidance and assistance on the 3-yearly tariff reviews, as well as annual adjustments;
- (vi) Provide guidance and assistance to PCU in creating a greater awareness of the financial benefits of a "free connections" policy;
- (vii) Provide guidance and assistance to PCU in creating a greater awareness within PNPs of the need to set up dedicated accounts for depreciation, expansion, etc.;
- (viii) Provide guidance and assistance on corporate and financial management for non-financial managers
- (ix) Provide guidance and assistance in the installation of appropriate billing and accounting systems in PNPs; and
- (x) Prepare specifications, selection criteria and bid documents for the procurement of consulting services for establishment of accounting standards and templates for the PNPs, in close coordination with MOF's just-starting WB-funded project, to map out an action plan for the Accounting Law passed in 2014, and assist in the evaluation and selection of the preferred software packages

(iv) Accounting Expert (National)

14. The national accounting expert must have a bachelor degree or equivalent and/or training in accounting, and preferably with experience in designing and implementing accounting and billings systems over a period of at least 10 years. The expert must have good working knowledge of English, and work experience within a utility is an advantage. The expert will report to the Team Leader and Financial Analysis/management Specialist. Specific tasks will include:

- (i) Provide detailed support to FAM in the review of WSRC/WASRO Annual Performance report and in the assessment of changes and trends in PNP corporate management, financial and technical performance;
- (ii) Support FAM in the preparation of and participate in all relevant workshops and meetings;
- (iii) Provide detailed support to FAM in the preparation of corporate plans including the review

the existing systems, policies and procedures on general accounting, customer billing and collection, financial planning and budgeting, inventory accounting, fixed assets accounting, financial information reporting and monitoring, and overall internal control of the participating PNPs;

- (iv) Provide detailed assistance to FAM on the 3-yearly tariff reviews, as well as annual adjustments;
- (v) Provide support in the procurement and installation of appropriate billing and accounting systems for participating PNPs; and
- (vi) Assist to prepare specifications, selection criteria and bid documents for the procurement of consulting services for establishment of accounting standards and templates for the PNPs, in close coordination with MOF's just-starting WB-funded project, to map out an action plan for the Accounting Law passed in 2014, and assist in the evaluation and selection of the preferred software packages.

E. Improved water supply and sanitation services (Outputs 2, 3 and 4)

15. The Team Leader of PIA will be responsible for managing the overall consulting services, including project implementation assistance and capacity development for operation and maintenance (O&M). PIA will assist PCU, project implementation units (PIUs) and the village development committees (VDCs) to implement the Project in about six subproject towns in 4 provinces. PIA inputs for Output 2 3 and 4 will comprise an estimated 87 person-months of international and 413 person-months of national consultants.

16. PIA will assist PCU and PIUs to undertake project management, engineering investigations and surveys, feasibility studies, design and construction supervision of water supply systems, contract administration, O&M manual preparation, drainage and sanitation improvements, resettlement, environmental management and monitoring, community planning, health awareness support program, and village environmental improvements.

17. It is anticipated that PIA will engage subcontractors for specialized services such as (i) groundwater surveys including drilling and pump tests; (ii) topographic surveys; (iii) water quality testing; (iv) socio-economic surveys; (v) geotechnical investigations and soils testing; and (vi) unexploded ordnance (UXO) pathfinding. Provision for these subcontracts will be included in the main consulting contract as provisional cost items and will be subject to competitive bidding during Project implementation.

18. PIA will be based in PCU's office in Vientiane, but will have full-time construction supervisors on each subproject during the construction stage. Vientiane-based team members will undertake field work as necessary during the implementation of the Project.

19. PIA will provide capacity development to PCU, PIUs, PNPs and OPWTs principally through on-the-job training, and supported through more formalized training sessions as required. Support to PNPs for O&M will be provided through an agreement with a service provider of a regional utility. PIA will provide assistance to this arrangement. PIA will also provide support to VDCs to enhance their capacities to maintain sanitation facilities.

20. Arrangements for detailed design and construction supervision are as follows: The PIA's team comprises of international and national team members to ensure a thorough knowledge of both ADB's requirements and Government procedures, respectively. The Team Leader will

manage all activities and all inputs of team members to ensure PIA fully meets its terms of reference. During the Team Leader's absence from the Project, the Deputy Team leader will assume the role of Team Leader (designate). PIA will develop all feasibility studies and designs in full consultation with PCU and PIUs/PNPs/OPWTs. All feasibility studies, subproject appraisal reports, designs and bidding and contract documents will be subject to ADB review. The PIA shall follow the format of existing feasibility studies and subproject appraisal reports for Grant 0143-LAO and make improvements, as needed. Information on social development and safeguards shall be included in feasibility studies and approved by ADB. Subproject appraisal reports should be a short summary of the feasibility report confirming that it meets the selection criteria (i.e., evaluation criteria) for each subproject.

Consultants for Project Implementation Assistance

1. Team Leader/Water Supply Sector Specialist (International)

21. The Team Leader will manage and coordinate the overall consulting services and provide project implementation assistance to the Executing Agency (EA), PCU and PIUs. S/he will provide technical and capacity development inputs to support the various technical and management specialists and provide advice on all aspects of sector regulation, corporatization, sector reform and implementation to EA/PCU, ADB and team members. The Team Leader will have a bachelor's degree in civil/municipal engineering or equivalent and be a chartered/professional engineer with broad experience in the implementation of water sector projects, including sector reform and infrastructure, as well as water sector planning and management. S/he will have a minimum of 20 years' experience in water supply development, including at least ten years' experience in Southeast Asia, and with sound experience of managing a culturally diverse team. Duties of the Team Leader will include the following:

- (i) Manage, coordinate and supervise all consulting services for the Project to ensure that (a) inputs and activities of both the international and national consultants are of high quality and effective; and (b) all consulting components and project components are fully integrated and properly coordinated.
- (ii) Assist PCU and PIUs to manage all aspects of project implementation, including (a) overall project planning, scheduling, management and coordination; (b) subproject selection; (c) feasibility studies; (d) detailed design and documentation; (e) bidding, evaluation and contract award; (f) contract management and construction supervision; (g) project forecasting and monitoring; (e) safeguard compliance; and (f) progress reporting.
- (iii) Assist PCU to assess the readiness and capacities of PIUs to implement the subproject(s).
- (iv) Assist PCU to set up subproject accounts and reporting systems.
- (v) Provide assistance and guidance to PCU and PIUs on administrative procedures, project accounts, procurement, report preparation, project performance monitoring and evaluation, and ADB procedures.
- (vi) Assist PCU to conduct initial Project orientation and information meetings with key stakeholders at central, provincial, district and village levels, and ensure clear understanding by the stakeholders of the objectives, scope, organization and work plan of the Project, and their roles and responsibilities.
- (vii) Assist PCU to prepare Subsidiary Loan Agreements (SLAs), Service Agreement and Amortization Schedules, and conduct workshops and meetings with participating provincial government agencies.
- (viii) Assist PCU to help district administrations adopt sanitation regulations.
- (ix) Assist PCU to facilitate adoption of free connections policy for each subproject.
- (x) Assist PCU and PIUs to prepare operational budgets, disbursement projections, and

withdrawal applications, and provide ongoing support for project accounting and reporting systems.

- (xi) Assist PCU and PIUs to identify, prioritize, select, prepare and evaluate subprojects according to the selection processes and criteria agreed between EA and ADB.
- (xii) Assist PCU to develop capacity development activities based on the capacity development framework.
- (xiii) Provide support to PCU and the regional twinning authority to build capacity in operations and maintenance.
- (xiv) Participate in Loan reviews, mid-term review and assist with preparation of the project completion report.
- (xv) Prepare, monitor, and update as necessary Project implementation schedules.
- (xvi) Provide guidance on all procurement matters.
- (xvii) Provide guidance on all contract management matters.
- (xviii) Supervise, inspect, measure, and control the quality of the construction works and the installation of equipment to ensure compliance with contract drawings and specifications, and make recommendations to PCU on the issuance of the certificates of completion.
- (xix) Assist PCU and PIUs to (a) administer the construction and procurement contracts; (b) commission and evaluate the performance of completed facilities and new equipment; and (c) review and validate any proposed design modification.
- (xx) Assist PCU and PIUs to prepare progress reports, project completion report and PPMS reports.
- (xxi) Oversee compliance with safeguard policy requirements.

2. Deputy Team Leader/Water Supply Engineer (National)

22. The Deputy Team Leader will support and be directly responsible to the Team Leader in the overall implementation of the Project and provide specialist inputs in water supply and sanitation engineering. S/he will have a bachelor degree an engineer with at least 10 years' experience in the water supply sector, including no less than 15 years on design. S/he will assist the Team Leader to manage and coordinate the inputs of team members for feasibility studies, subproject appraisal reports, engineering designs and documentation, and will provide specialist inputs on construction supervision. The specialist will undertake the following tasks:

- (i) Assist the Team Leader to manage all aspects of project implementation, including (a) overall project planning, scheduling, management and coordination; (b) town and subproject selection; (c) feasibility studies, subproject preparation and appraisal; (d) detailed design and documentation; and (e) monitoring progress and costs; and (f) project reporting.
- (ii) Assist the Team Leader in the management of the team members working on subproject preparation and designs.
- (iii) Assist the Team Leader and Senior Contracts Manager with contract management and construction supervision. Undertake periodic technical inspections of construction to ensure the quality of the works.
- (iv) Ensure the quality of designs and documents and provide timely inputs to the Team Leader for the required reports and documents.
- (v) Undertake an initial rapid assessment of potential raw water sources for all candidate subprojects and prepare a comprehensive investigations program to confirm water supply yield and quality of the preferred sources.
- (vi) Identify potential groundwater sources, prepare contract documents for groundwater investigations, supervise the investigations and assess and report on the results.
- (vii) Identify requirements for topographic surveys, geotechnical investigations, water quality testing to obtain necessary information for subproject design and monitoring. Specify the

necessary investigations, prepare the contract documents and call quotations. Evaluate and supervise the investigation and survey contracts, and assess and report on the data obtained.

- (viii) Assist the Team Leader to identify the need for UXO pathfinding, survey and clearance. Specify the scope of investigations, prepare the contract documents and call quotations. Supervise the investigation contracts, and report on the data obtained.
- (ix) Assist the Team Leader to undertake engineering assessments for all participating subprojects, recommend appropriate technologies, taking into consideration economic development status, urban scale, population density, affordability, and standards.
- (x) Manage the production of documents for feasibility studies, detailed engineering designs engineering specifications and drawings for all infrastructure and investigations contracts, with assistance of various specialists.
- (xi) Manage the preparation of feasibility level and detailed cost estimates.
- (xii) Participate in capacity development and training programs.
- (xiii) Participate in workshops and discussions with the EA, PCU, PNPs, and provincial governments. Make presentations concerning the Project as required by the Team Leader.
- (xiv) Act as Team Leader (designate) during the Team Leader's absence from the Project.

3. Procurement Expert (National)

23. The procurement expert will assist the Team leader and Senior Contracts Manager on all aspects of procurement under the Project. S/he will have a bachelor's degree and at least 10 years' experience in procurement in Lao PDR, with at least 5 years on externally-assisted projects. Experience on ADB-funded projects will be highly regarded. Specifically, the Procurement Specialist will:

- (i) Assist the Team Leader and Senior Contracts Manager to prepare and compile all bidding documents for ICB, LIB, NCB and Shopping packages, based on the latest requirements of ADB and the Government of Lao PDR.
- (ii) Liaise with ADB and the EA/PCU to secure approval for all bidding documents on a timely basis.
- (iii) Assist the Team leader and Senior Contracts Manager in supporting PCU/PIUs to conduct all pre-bid meetings, bid openings, bid evaluations and contract negotiations.
- (iv) Assist the Team Leader and Senior Contracts Manager in any procurement capacity development and training programs.
- (v) Participate in workshops and discussions with the EA, PCU, PNPs, and provincial governments in the area of procurement. Make presentations concerning procurement as required by the Team Leader.

4. Nonrevenue Water Management (Leak Detection) Specialist (International)

24. The Nonrevenue Water Management Specialist will help to establish leak detection and repair teams within the participating PNPs, and assist in setting up leak detection/household surveys/meter testing programs in seven provincial capital water supply systems. S/he will be an experienced engineer with a bachelor's degree or equivalent and over 15 years' experience in the water supply industry, with no less than 7 years proven experience in leak detection and at least 10 years' experience in Southeast Asia. Specifically, the Leak Detection Specialist will:

- (i) Work with Nam Papa Nakhon Luang (NPN, Vientiane Capital Water Utility) to identify suitable personnel to be seconded to the Project as leak detection technicians.
- (ii) Provide awareness raising on leak detection and repair to provincial and district agencies

- and PNP staff;
- (iii) Provide on-the-job training to the NPN technicians and to PNP managerial, technical, and commercial staff on leak detection and repair.
 - (iv) Identify suitable personnel within each PNP to form the core of the proposed leak detection and repair teams.
 - (v) Develop a scope of services, work plan and targets for the teams, other PNP managerial, technical and commercial staff as well as duty statements for all personnel.
 - (vi) Advise the design team on the establishment of district metering areas, as well as the installation of all necessary valves and meters and the replacement of pips, meters and valves.
 - (vii) Provide overall supervision of the leak detection programs for five provincial water supply systems, including water meter testing and identification of illegal connections;
 - (viii) Conduct regional workshops for the teams and senior PNP personnel to share experiences and lessons learned, as well as provide a forum for networking.

5. Nonrevenue Water Management (Leak Detection) Technicians (National)

25. The NRW Management (Leak Detection) Technicians (2 No.) will be seconded to the Project from NPN. It is expected that they will be experienced engineers with some understanding of nonrevenue water management and metering. Specifically, the NRW Management (Leak Detection) Technicians will:

- (i) Assist the NRW Management (Leak Detection) Specialist to identify suitable personnel within each PNP and establish leak detection and repair teams.
- (ii) Assist the NRW Management (Leak Detection) Specialist to develop scope of services, work plans and duty statements and provide on-the-job training in the processes of identifying and managing real losses and apparent losses.
- (iii) Assist in the conduct of workshops for the teams and senior PNP personnel.

6. Project Performance Monitoring System (PPMS) Expert (National)

26. Project performance monitoring systems (PPMS) are required to monitor the progress of project implementation and monitor the delivery of outputs, outcomes and impacts under the Project. The PPMS will be based on the designs used for NCRWSSP and STWSP, and will be based on the design and monitoring framework for the Project. The specialist will have postgraduate degree in social sciences or a related field; at least ten years' experience on international development projects or a related field and have at least 5 years' experience as a PPMS expert or related area. S/he will be responsible to the Team Leader and be based in PCU, with frequent travel to the target provinces as required. Duties of the specialist will include the following:

- (i) Assist the Team Leader and PCU to design a PPMS framework, based on the Design and Monitoring Framework (DMF).
- (ii) Assist in the work shopping of the PPMS, and help obtain ADB approval.
- (iii) Assist in the design of socio-economic and other surveys to ensure an adequate baseline can be established.
- (iv) Assist the PCU and PIUs to collect, record and analyze all necessary data, including baseline data.
- (v) Provide training and guidance to PCU and PIUs on their duties and responsibilities under the PPMS.
- (vi) Prepare annual PPMS reports for submission to the Team Leader and PCU.

- (vii) Prepare abridged PPMS quarterly reports to support quarterly progress reports.
- (viii) Prepare a final PPMS report to supplement the project completion report.

a. Subproject Design - Feasibility Studies and Detailed Design

27. PIA will assist EA, PCU and PIUs to prepare detailed feasibility studies, detailed engineering design, and bidding and contract documentation for about six subprojects. The feasibility studies will be based on the detailed feasibility studies for sample subprojects prepared during project implementation. Although the feasibility studies will require the inputs of a range of specialists, they will be compiled and scrutinized by the Feasibility Study Specialist under the overall supervision and guidance of the Team Leader.

7. Feasibility Study Quality Assurance Specialist (International)

28. A dedicated Feasibility Study Quality Assurance Specialist is required to provide close supervision and guidance on the development and production of feasibility studies for subprojects. S/he will interact closely with all other specialists, and will be responsible for the final product to be submitted to ADB, as well as respond to all ADB comments. She/he will have a bachelor's degree in social sciences or engineering, with at least 5 years of experience. She/he should be diligent and have demonstrated good organizational skills. Specifically, the Feasibility Study Specialist will:

- (i) Work closely with all other specialists at the commencement of the feasibility study to ensure the data to be collected is adequate, and provide a framework for the overall approach, as necessary.
- (ii) Provide ongoing support to the other specialists during the conduct of the feasibility studies.
- (iii) Review the inputs of all other specialists for feasibility studies, scrutinize for consistency and finalize.
- (iv) Under the guidance of the Team Leader, prepare the main reports of the feasibility studies, based on the specialist inputs, and assist PCU in submission to ADB.
- (v) Respond to all queries from EA and ADB, and incorporate relevant comments into the feasibility studies as necessary.

8. Water Supply Engineer (International)

29. The water supply engineer (international) will provide quality assurance for the Team Leader and Deputy Team Leader on the preliminary designs for the feasibility studies and detailed designs of all water supply systems in about six subproject towns. S/he will have at least a bachelor's degree or equivalent in civil/environmental engineering and will be an internationally recognized chartered professional engineer with at least ten (10) years' experience on water supply engineering projects; at least five (5) years' experience in design/implementation of water supply projects in southeast Asia is required. Specific duties include:

- (i) Review available water supply technologies and recommend appropriate options.
- (ii) Review the designs of previously built water supply systems and recommend the most cost-effective and appropriate technology.
- (iii) Confirm or develop appropriate design criteria, design concepts and methodologies.
- (iv) Confirm or develop procedures for all topographic surveys and geotechnical investigations
- (v) Develop procedures for the conduct of field surveys to assess service levels, physical and environmental conditions, and operation and maintenance of existing water supply infrastructure.

- (vi) Develop procedures for raw water assessments and analysis of topography, natural drainage flows, and the layout of water supply systems.
- (vii) Confirm service areas, design population, design criteria and standards for design of water supply systems in each subproject town.
- (viii) Provide quality assurance for all preliminary designs, costs, quantities and least cost analyses for water supply in about six towns for the feasibility studies.
- (ix) Assist the PNPs to prepare and implement water safety plans and O&M plans for the new or improved water supply systems, coordinating with other development partners such as WHO, as required;
- (x) Provide quality assurance for detailed engineering designs for all subproject works, technical specifications, performance specifications, detailed cost estimates and quantities.
- (xi) Undertake periodic inspections during construction to ensure that the constructed works comply with the design intent.
- (xii) Prepare final design report.
- (xiii) Contribute to all necessary reporting under the Project.

9. Deputy Team Leader/Water Supply Engineer and Water Supply Engineer (National)

30. The Deputy Team Leader will also serve as a water supply design engineer (see previous skills and qualifications). The terms of reference below therefore also apply to the Deputy Team Leader as well as the water supply engineer (national). They will have at least a bachelor's degree or equivalent in civil/environmental engineering with at least seven (7) years' experience on water supply engineering projects. These two engineers will assist in preparing detailed feasibility assessments, cost estimates, detailed engineering design and bidding documents for water supply, sanitation and village environmental improvements in about six subproject towns. The engineers have identical terms of reference, the only difference being they will have different geographic areas of responsibility. Detailed duties of these engineers are as follows:

- (i) Assist to review available water supply technologies and recommend appropriate options.
- (ii) Assist to review the designs of previously built water supply systems and recommend the most cost-effective and appropriate technology.
- (iii) Assist to confirm or develop appropriate design criteria, design concepts and methodologies.
- (iv) Using guidelines and procedures agreed, closely supervise all topographic surveys and geotechnical investigations.
- (v) Conduct field surveys to assess service levels, physical and environmental conditions, and operation and maintenance of existing water supply infrastructure.
- (vi) Undertake raw water assessments and analysis of topography, natural drainage flows, and the layout of water supply systems.
- (vii) Undertake all preliminary designs, costs, quantities and least cost analyses for water supply in about six towns for the feasibility studies.
- (viii) Undertake detailed engineering designs for all subproject works, technical specifications, performance specifications, detailed cost estimates and quantities.
- (ix) Assist the PNPs to prepare and implement O&M plans for the new or improved water supply systems, coordinating with other development partners such as WHO, as required.
- (x) Provide technical support to contract administration and construction supervision to ensure that the constructed works comply with the design intent.
- (xi) Closely supervise the work of all AutoCAD draft persons, conduct detailed reviews of their work, and provide quality assurance to the final design outputs.

- (xii) Provide inputs to the preparation of the final design report.
- (xiii) Contribute to all necessary reporting under the Project.

10. Municipal Engineer (National)

31. The municipal engineer will be responsible for the preparation of preliminary designs and cost estimates for feasibility studies, detailed engineering design and quantities for village environmental improvements and public sanitation in about six subproject towns. S/he will have at least a bachelor's degree or equivalent in civil/municipal engineering with at least seven (7) years' experience on urban infrastructure engineering projects. Detailed duties are as follows:

- (i) Conduct field surveys to assess physical and environmental conditions, and operation and maintenance of existing small-scale urban infrastructure.
- (ii) Analyze topography and natural drainage flows.
- (iii) Review and assess design standards, and recommend the most cost-effective and appropriate technology.
- (iv) Arrange for and supervise all topographic surveys and geotechnical investigations.
- (v) Discuss village environmental improvement investment needs with local communities and OPWTs.
- (vi) Prepare preliminary designs, costing and least cost analyses for village environmental improvements and public sanitation in about six towns for the feasibility studies.
- (vii) Assist with assessment of land acquisition and compensation and environmental impacts.
- (viii) Carry out detailed engineering designs for all village environmental improvements, technical specifications, performance specifications for subproject works and equipment, prepare detailed cost estimates, and supervise preparation of drawings.
- (ix) Prepare bills of quantity and bid documents in English and Lao languages for each contract package, including technical specifications, conditions of contract, contract schedules, and Annexes.
- (x) Provide technical support to contract administration and construction supervision to ensure that the constructed works comply with the design intent.
- (xi) Undertake periodic inspections of during construction to ensure that the constructed works comply with the design intent;
- (xii) Provide inputs to the final design report.
- (xiii) Contribute to all necessary reporting under the Project.

11. Economist and Financial Specialist (International)

32. The Economic and Financial Specialist will determine the economic and financial viability of the proposed subprojects, including their sustainability and the required tariff levels to meet the financial objectives of the sector. S/he must have an economics or finance postgraduate degree or its equivalent with extensive experience (minimum 15 years) in economic and financial analysis of water supply and sanitation projects. Work experience in Lao PDR or similar developing countries is an advantage. The specialist must be familiar with the ADB's Guidelines for the Economic Analysis of Projects, Handbook for Integrating Poverty Impact Assessment in the Economic Analysis of Projects, Handbook Guidelines for the Economic Analysis of Water Supply Projects, Handbook for Integrating Risk Analysis in the Economic Analysis of Projects, Framework for the Economic and Financial Appraisal of Urban Development Sector Projects, and ADB's Guidelines for Financial Governance and Management of Investment Projects and Criteria for Subsidies. The specialist will report to the Team Leader. Specifically, she/he will perform the following tasks:

- (i) Prepare the economic analyses for the subprojects in form and substance agreeable to

- ADB, covering demand forecast, least economic cost analysis, economic cost and benefit analysis, economic internal rates of return, average incremental economic costs, sensitivity analysis, benefit distributional analysis, poverty impact ratio and subsidies.
- (ii) Prepare the financial analyses for the subprojects in form and substance agreeable to ADB, covering financial cost and benefit analysis, financial internal rates of return, weighted average cost of capital, average incremental financial costs, sensitivity analysis with respect to major project design and implementation risks, water tariff recommendations, willingness to pay assessment, affordability analysis, performance and indicators of the PNPs, and financial projections of the PNPs;
 - (iii) Assess the financial performance of the PNPs and formulate recommendations including actions plans for their financial sustainability;
 - (iv) Analyze the cost of all technically feasible alternatives and assess whether the subproject proposals are the least cost options or establish other (non-cost) factors that favor choosing another alternative;
 - (v) Review current accounting and administrative capacities within each PNP, the internal control system employed and internal and external auditing procedures; recommend any changes as appropriate;
 - (vi) Establish financial objectives and targets and prepare financing plans and projections, including income statements, balance sheets, cash-flow statements, and other relevant financial statements for operations for a period of 10 years after subproject completion to demonstrate financial viability;
 - (vii) Prepare inputs to feasibility studies;
 - (viii) Prepare progress reports for inclusion in the team progress reports to be prepared by the Team Leader;
 - (ix) Prepare inputs to Project completion report; and
 - (x) Produce the following outputs: Detailed Economic Analysis by Subproject; Detailed Financial Analysis by Subproject; Assessment of Financial Performance and Recommendations for Financial Sustainability of the PNPs.

12. Electrical and Mechanical Engineer (International)

33. The electrical/mechanical engineer (international) will provide quality assurance for the Team Leader and Deputy Team Leader on the preliminary designs for the feasibility studies and detailed electrical/mechanical designs of all water supply systems in about six subproject towns. S/he will have at least a bachelor's degree or equivalent in electrical/mechanical engineering with at least ten (10) years' experience on the electrical/mechanical design of water supply engineering projects; at least five (5) years' experience in this type of work in southeast Asia is required. Specific duties include:

- (i) Review available electrical and mechanical technologies and recommend appropriate options.
- (ii) Review the electrical/mechanical designs of previously built water supply systems and recommend the most cost-effective and appropriate technologies.
- (iii) Confirm or develop appropriate electrical/mechanical design criteria, design concepts and methodologies.
- (iv) Develop procedures for the conduct of field surveys to assess service levels, and operation and maintenance of existing water supply infrastructure.
- (v) Provide quality assurance for all electrical/mechanical preliminary designs, costs, quantities and least cost analyses for water supply in about six towns for the feasibility studies.
- (vi) Provide quality assurance for detailed electrical/mechanical engineering designs for all subproject works, technical specifications, performance specifications, detailed cost

estimates and quantities, including all process and instrumentation drawings, surge analyses and remote control and monitoring systems.

- (vii) Undertake periodic inspections during construction to ensure that the electrical/mechanical works comply with the design intent.
- (viii) Contribute to final design report.
- (ix) Contribute to all necessary reporting under the Project.

13. Electrical Engineer (2 persons - National)

34. The electrical engineer (national) will undertake preliminary designs for the feasibility studies and detailed electrical designs of all water supply systems in about six subproject towns. S/he will have at least a bachelor's degree or equivalent in electrical engineering with at least five years' experience on the electrical design aspects of water supply engineering projects. Specific duties include:

- (i) Assist with the review of available electrical technologies and recommend appropriate options.
- (ii) Assist with the review of the electrical designs of previously built water supply systems and recommend the most cost-effective and appropriate technologies.
- (iii) Assist with the development of appropriate electrical design criteria, design concepts and methodologies.
- (iv) Conduct field surveys to assess operation and maintenance of the electrical components of existing water supply works.
- (v) Prepare all electrical preliminary designs, costs, quantities and least cost analyses for water supply in about six towns for the feasibility studies.
- (vi) Prepare detailed electrical engineering designs for all subproject works, technical specifications, performance specifications, detailed cost estimates and quantities, including all process and instrumentation drawings and remote control and monitoring systems.
- (vii) Undertake periodic inspections during construction to ensure that the electrical works comply with the design intent.
- (viii) Contribute to final design report.
- (ix) Contribute to all necessary reporting under the Project.

14. Structural Engineer (National)

35. The structural engineer (national) will undertake all necessary structural investigations and analysis for the feasibility studies, detailed engineering designs and, where necessary, periodic inspections during construction. S/he will have a bachelor's degree or equivalent in civil/structural engineering with at least seven (7) years' experience, of which at least three (3) years on the design and implementation of water retaining structures. Specific duties will be:

- (i) Review the structural designs of previously built water supply systems and recommend the most cost-effective approaches, where appropriate.
- (ii) Confirm or develop appropriate structural design criteria, design concepts and methodologies.
- (iii) Prepare all structural preliminary designs, costs and quantities for water supply in about six towns for the feasibility studies.
- (iv) Prepare detailed structural engineering designs for all subproject works, technical specifications, performance specifications, detailed cost estimates and quantities.
- (v) Undertake periodic inspections during construction to ensure that the structural works comply with the design intent.

- (vi) Contribute to final design report.
- (vii) Contribute to all necessary reporting under the Project.

15. Geotechnical Engineer (National)

36. The geotechnical engineer (national) will undertake preliminary geotechnical designs for the feasibility studies and detailed engineering designs of all water supply systems in about six subproject towns. S/he will have at least a master's degree or equivalent in geotechnical engineering with at least ten (10) years' experience on geotechnical investigations and designs. Specific duties include:

- (i) Review the geotechnical designs of previously built water supply systems and recommend the most cost-effective approaches, where appropriate.
- (ii) Confirm or develop appropriate geotechnical design criteria, design concepts and methodologies.
- (iii) Prepare all preliminary geotechnical designs, costs and quantities for water supply in about six towns for the feasibility studies.
- (iv) Prepare detailed geotechnical designs for all subproject works, technical specifications, performance specifications, detailed cost estimates and quantities.
- (v) Undertake periodic inspections during construction to ensure that the geotechnical works comply with the design intent.
- (vi) Contribute to final design report.
- (vii) Contribute to all necessary reporting under the Project.

16. Senior Contracts Manager (National)

37. A National Senior Contracts Manager will take the lead role in assisting the Team Leader to administer and supervise the civil works contracts and construction work in general. The Deputy Team Leader/Water Supply Designer and Water Supply Designers, as well as other technical specialists, will provide technical support to the Senior Contracts Manager as required. S/he will be based in Vientiane, and will spend a significant amount of time in the field to inspect, monitor and report on construction activities. S/he will have a bachelor's degree in engineer with at least 20 years' experience in civil engineering, and no less than 10 years on contracts management, procurement and construction supervision. The Senior Contracts Manager will be directly responsible to the Team Leader (or his designate) for contract management and construction supervision, and will be supported by the Deputy Team leader. S/he will have the following specific duties:

- (i) Provide overall guidance and supervision to the contract management and construction supervision of all civil works contracts.
- (ii) Provide guidance and direction on the structure and content of all bidding and contract documentation.
- (iii) Provide guidance and direction on all procurement matters to the Procurement Specialist.
- (iv) Manage all aspects of bidding and contract award on all civil works contracts and report to Team Leader.
- (v) Manage and control the Construction Engineers and Construction Supervisors on the execution of all civil works contracts.
- (vi) Liaise with all other technical specialists as necessary on the execution of the civil works contracts.
- (vii) Set up and monitor a quality assurance system and report to Team leader.
- (viii) Set up a system to monitor the budget and schedule of all civil works contracts and report

to the Team Leader.

- (ix) Provide inputs to all progress reports, PPMS reports and the final completion report.

17. Construction Engineers (2 persons - National)

38. Two National Construction Engineers will report directly to the Senior Contracts Manager to manage construction and commissioning of the works. They will be based in Vientiane, and will spend a substantial amount of time in the field to inspect, monitor and report on construction activities. They will have a bachelor's degree in engineering with at least 12 years' experience in construction work on major infrastructure. Their specific tasks are as follows:

- (i) Monitor, and update as necessary construction schedules with recommendations on construction supervision and management.
- (ii) Monitor and update construction cost schedules and contract expenditures.
- (iii) Process and check the content of all payment claims by the contractors.
- (iv) Supervise, inspect, measure, and control the quality of the construction works and the installation of equipment to ensure compliance with contract drawings and specifications, and make recommendations to the Senior Contracts Manager on the issuance of Contract Notices, and payment certificates.
- (v) Assist the Senior Contracts Manager to (a) administer and supervise the construction and procurement contracts; (b) commission and evaluate the performance of completed facilities and new equipment; and (c) review and validate any proposed design modification.
- (vi) Assist the Senior Contracts Manager with inputs to progress and PPMS reports.

18. Construction Supervisors (11 persons - National)

39. Construction Supervisors will be engaged to supervise the construction activities in the subproject towns. They will work in the subproject towns full-time during the construction period. The Supervisors will be engineers with a bachelor degree or equivalent in engineering or technicians in a related field with at least 5 years construction supervision experience on major construction projects, preferably in water supply and drainage fields. Their specific tasks are as follows:

- (i) Monitor, observe, record and report on day-to-day construction activities;
- (ii) Supervise, inspect, measure, and control the quality of the construction works and the installation of equipment to insure compliance with contract drawings and specifications, and make recommendations to the Construction Engineers on the issuance of Contract Notices, and payment certificates.
- (iii) Assist the Senior Contracts Manager and Construction Engineers to (a) administer the construction and procurement contracts; and (b) commission and evaluate the performance of completed facilities and new equipment.
- (iv) Assist the Construction Engineers with progress reports and PPMS reports.

19. Social Resettlement Specialist (International, National)

40. The international resettlement specialist will assist the Team Leader to prepare, monitor and supervise all land acquisition and resettlement (LAR) activities. She/he will have a postgraduate degree in a relevant discipline such as social sciences or equivalent and at least 12 years of experience in LAR activities associated with infrastructure projects. The specialist will undertake field visits to assist with the preparation, updating and implementation of resettlement plans, conducting detailed measurement survey and replacement cost survey. Specific tasks are as

follows:

- (i) Plan data collection surveys for Land Acquisition and Resettlement (LAR) activities.
- (ii) Assist the PIUs to prepare and update land acquisition and compensation plans (LACP) for two subprojects following the principles of the LAR framework.
- (iii) Provide guidance to the Executing Agencies (EA), Project Implementing Agencies (PIAs), and Project Implementing Unit (PIU) on social safeguards aspects of the project with emphasis on land acquisition, compensation, livelihoods restoration, compliance monitoring and reporting;
- (iv) Provide trainings to project staff and Implementation Agency (IA), Project Implementing Unit, Project Management Unit on national safeguards policy and ADB safeguards policy and its applications. The training should include key concepts on Resettlement Management Process, demonstrating on how to implement the LARPs in a timely manner.
- (v) Based on approved technical design and bidding documents, review and update the LARP and carry out the following activities:
- (vi) Conduct detailed measurement survey (DMS) of affected assets and confirm the number of permanent and temporary loss of land and assets;
- (vii) Conduct asset registration survey to confirm all impacted assets, impacted households, and number of severely affected households due to the loss of productive agricultural land and residential structures;
- (viii) provide maps with geo references (e.g., MapInfo, GIS, AutoCAD) of the affected villages and all acquired land using unique household identifiers to link HH documents and surveys to land;
- (ix) provide photos of each surveyed household (preferably with all persons present) to be taken in front of their abode, with their household ID (unique identifier). Consent should be sought prior to photo taking and should the household refuse, a signed letter declining the photo is to be provided.
- (x) All documents (IoL, DMS, SESA, compensation forms, grievances, etc.) should include household IDs (unique identifier) both on the document and on e-files.
- (xi) Assist in the conduct of the information campaigns and public consultation.
- (xii) Assist PCU and PIUs to (a) supervise and monitor land acquisition and resettlement, in accordance with the approved provincial resettlement plans and ADB's Policy on Involuntary Resettlement, and; (b) implement the resettlement plans with a focus on community consultation, entitlement review, compensation assessment, and grievance procedures.
- (xiii) Ensure that grievances redress mechanisms are appropriate, and advise if necessary on speedy resolutions.
- (xiv) Assist PIUs, and local resettlement committees to establish their affected persons database, including records of compensation awards and grievances redress.
- (xv) Provide inputs to all progress reports and final completion report and provide information to IEM as necessary.
- (xvi) Prepare LACPs inventory of losses and public information booklets Provide inputs to feasibility studies and other documents as required by the Team Leader.
- (xvii) Establish and implement procedures for ongoing internal monitoring.
- (xviii) Assist PIU in preparing the internal monitoring reports.
- (xix) Provide orientation and capacity development on LAR, project policies, grievance redress procedure, public consultation process and effective RP implementation to staff of PCU, PIU and district agencies.

20. Social/Gender Specialist (International)

41. The Social/Gender Specialist (international) will prepare poverty and social analyses, gender strategy and action plans and ethnic groups development frameworks or plans for about six subprojects. In addition, s/he will promote mainstreaming of gender into the Project by advising the Team Leader and PCU on implementing the Gender Action Plan and delivering gender awareness training to improve understanding of gender issues. The specialist will have

tertiary qualifications in a relevant discipline such as social sciences or equivalent and at least 11 years' experience in social and gender issues associated with infrastructure projects. The services will include the following:

- (i) Review ADB's Handbook on Poverty and Social Analysis; Handbook on Strengthening Participation for Development Results: A Staff Guide to Consultation and Participation; Policy on Gender and Development and relevant ADB gender checklists; and operational manuals on indigenous peoples, and other topics.
- (ii) Review the Gender Plan prepared under the PPTA, including review of Government and ADB gender policies and objectives.
- (iii) Plan data collection surveys, including elements of gender and development, ethnic groups, and community development.
- (iv) Manage socio-economic surveys in about six subproject towns. Prepare survey methodology, engage surveyors and data processors, analyze, and report on survey results.
- (v) Prepare a socioeconomic profile for each town included in the sector project, with data disaggregated by sex, ethnicity, and income where possible.
- (vi) Consult with LWU, beneficiaries and staff of PNPs to ensure women's needs are addressed in project activities, and in the design and monitoring of the Project
- (vii) Provide advice on implementing the gender plan including data collection and monitoring, coordinating gender within the sector, technical design issues, gender sensitive communication, equal access to training and capacity development, and mentoring opportunities. Devise and measure gender indicators to differentiate outcomes of male and female beneficiaries.
- (viii) Prepare training courses relevant to the water and sanitation sector and appropriate for all project implementing agencies. Deliver gender awareness training to PIA team members, PCU, PNPs/PIUs, VDCs/WATSANs and other agencies and individuals as required.
- (ix) Integrate gender issues as part of the curriculum in all training courses.

21. Social/Gender Specialist (National)

42. The Social/Gender Specialist (national) will support the preparation of poverty and social analyses, gender strategy and action plans and ethnic groups development frameworks or plans for about six subprojects. In addition, S/he will support mainstreaming of gender into the Project through the Gender Action Plan and gender awareness training. The specialist will have tertiary qualifications in a relevant discipline such as social sciences or equivalent and at least 5 years' experience in social and gender issues associated with infrastructure projects. The services will include the following:

- (i) Implement the Gender Plan prepared under the PPTA, in accordance with Government and ADB gender policies and objectives.
- (ii) Implement socio-economic surveys in about six subproject towns to include gender and development, ethnic groups, and community development.
- (iii) Gather data for a socioeconomic profile for each town included in the sector project, with data disaggregated by sex, ethnicity, and income where possible.
- (iv) Consult with LWU, beneficiaries and staff of PNPs to ensure women's needs are addressed in project activities, and in the design and monitoring of the Project
- (v) Act as gender focal point and facilitator for gender mainstreaming in data collection and monitoring, coordination within the sector, technical design issues, communication, training and capacity development, and mentoring.
- (vi) Contribute to the preparation and delivery of training courses and stakeholder workshops to

- inform and raise awareness about gender in water and sanitation.
- (vii) Facilitate knowledge sharing of gender and social approaches in the sector, including through partner forums, web page and reports.

22. Environmental Specialist (International)

43. The environmental specialist will assist the Team Leader and Feasibility Study Specialist to prepare environmental assessments for the feasibility studies of about six subprojects and provide capacity development in environmental assessment and monitoring to PCU and PIU staff. The international environmental specialist will work closely with the national environmental expert.

44. The International Environment Specialist will have a postgraduate degree in a relevant discipline such as environmental engineering, engineering, or the biological sciences, and at least 12 years' experience in the environmental management of infrastructure projects, including environmental assessment, and works supervision (preferably, of donor-funded projects). S/he will primarily ensure that the various subprojects conform to ADB's Safeguard Policy Statement 2009 particularly to the environmental aspects. S/he will also assess compliance with applicable Lao PDR environment laws and update environmental safeguard documents and undertake field visits to assist with IEE and EMP preparation and with supervision of construction. Specific tasks include:

- (i) Provide initial orientation to PCU and PIU staff in environmental assessment and management. The capacity development should cover purposes, methods of assessment, reporting requirements, EMP preparation, inclusion of EMP into works contracts, and compliance monitoring during supervision. Further, the capacity development should be based on the EARF for the Project. Focus of capacity development should be on the PCU/PIUs Environmental Engineer/Officer and grievance point person.
- (ii) Provide advice and support to the National Environment Specialist and staff of PCU and PIU for the preparation of IEEs, providing guidance on site in the subproject towns.
- (iii) Assist PCU and PIUs prepare ADB's rapid environmental assessment (REA) checklists for each subproject, which will be included as part of each subproject feasibility study;
- (iv) Assist the PCU to prepare EMPs at feasibility stage to be upgraded as designs progresses; Include EMP requirements in the civil construction contract documents;
- (v) Assist PCU and PIUs to design and implement environmental monitoring programs;
- (vi) Assist PCU to prepare standard reporting formats for environmental monitoring reports.
- (vii) Assist PCU and PIUs to undertake consultations with local communities on environmental issues to ensure that their needs and concerns are incorporated in subproject design and implementation.
- (viii) Contribute to preliminary design and implementation, ensuring environment sustainability. Provide inputs on feasibility studies, progress reports and project completion report.
- (ix) Assist the PCU and PIU prepare an initial environmental examination (IEE), which includes an environmental assessment for each subproject identifying direct, indirect, cumulative and induced impacts of the project including the relevant climate and/or climate- induced impacts. The environmental assessment reports shall be in accordance with Lao PDR Government Laws and ADB's Safeguard Policy Statement 2009 (i.e., Safeguards Requirement 1: Environment.
- (x) Ensure that the IEEs/EMPs meet the requirements of the Government and ADB, and carry out or arrange for any further tasks such as site investigations, design of mitigation measures or additional reporting.
- (xi) Visit subproject towns during construction and provide guidance relating to supervision and compliance monitoring, advising PIUs of any actions required to ensure compliance with the EMP.

- (xii) Periodically review monitoring reports and identify any adaptations or improvements necessary in order to ensure that the EMP is being properly implemented.

23. National Environmental Expert (National)

45. The environmental expert will assist the Team Leader and Feasibility Study Specialist to prepare environmental assessments for the feasibility studies of about six subprojects and provide capacity development in environmental assessment and monitoring to PCU and PIU staff. S/he will work closely with the international environmental specialist.

46. The National Environment Specialist will have a postgraduate degree in a relevant discipline such as environmental engineering, engineering, or the biological sciences, be familiar with the Environmental Protection Law of Lao PDR and other relevant environmental legislation and have at least 7 years of experience of working on infrastructure projects involved in environmental assessment, monitoring, or carrying out mitigation measures. Also, fluency in English and proven report preparation skills is required. Specifically, S/he will:

- (i) Assist the International Environment Specialist, in designing and carrying out initial orientation to PCU and PIU staff in environmental assessment and management, including the preparation of material and instruction in the Lao language.
- (ii) Visit each subproject town and provide guidance on IEE/EMP report preparation, in accordance with the EARF for the Project.
- (iii) Participate in the design development of the ECA and VEI to ensure that adequate environmental consideration is incorporated into the designs.
- (iv) Coordinate with the social and resettlement specialists on stakeholder consultations related to environment aspects and/or address all of grievances through the grievance redress mechanism.
- (v) Assist with preparation and review of IEEs/EMPs and prepare ADB's rapid environmental assessment (REA) checklists for each subprojects, and co-ordinate with PIUs for any further investigations or reporting that may be necessary.
- (vi) Provide inputs to feasibility studies, progress reports and project completion report.
- (vii) Visit subproject towns during construction and provide guidance on supervision and compliance monitoring, advise PIUs of any actions required to ensure EMP compliance.
- (viii) Visit subproject towns where construction has been completed and assist with establishing environmental monitoring procedures for the operation phase of the subprojects.
- (ix) Review, revised and update the EMPs for each subproject.
- (x) Provide inputs to bidding and construction supervision team, design engineer and procurement specialist to ensure that EMPs are integrated in contract and bidding documents.
- (xi) Work with the Team Leader to ensure EMP implementation monitoring is included within the overall project monitoring progress reports.

24. Community Development Specialist (International)

47. The Community Development Specialist (international) will assist PIUs and VDCs to design and implement the Enhanced Community Actions (ECA) program in about six subproject towns. S/he will also provide capacity development to assist VDCs and communities to manage on-site sanitation systems, and contribute to the planning of the village environmental improvements component. The specialist will have tertiary qualifications in a relevant discipline such as social sciences or equivalent and at least 12 years' experience in community development/participation on infrastructure projects. The services will include the following:

- (i) Help to establish PIUs and VDCs;
- (ii) In collaboration with stakeholders, prepare and implement an agreed stakeholder participation plan to ensure stakeholder participation at all levels and at all stages of the Project.
- (iii) Provide training and assistance to PIUs to strengthen their capacity to plan, manage, and monitor community awareness and development activities, and the village environmental improvements.
- (iv) Prepare a budget for the ECA program in each town. Conduct orientation to launch the subproject and distribute project information. Document all procedures that will be necessary for PIU to manage and monitor the program.
- (v) Assist communities to identify, select, plan, design and implement the village environmental improvements through an iterative participatory process, involving (a) self- assessment of needs and demands; (b) costing of priority works; (c) prioritizing works to meet available budget; (d) final selection and design of works; (e) identifying means of project implementation and work program; (f) implementation with assistance of PIUs.
- (vi) Review awareness and communication strategies and materials, training manuals prepared under other projects or programs, and adapt these materials and manuals to local conditions in consultation with PIU teams, health and education offices, Women's Union and mass organizations. Develop and produce new project and hygiene awareness materials as needed, and assist PIUs and VDCs to raise awareness on these aspects.
- (vii) Provide ongoing support to PIUs and VDCs for implementing and monitoring the programs.
- (viii) Assist PIUs to prepare progress reports to PCU on community awareness and participation activities. Prepare guideline report formats for quarterly and annual reports to PIU and PCU.
- (ix) Provide training to PIUs in community consultation.
- (x) Assist the Team Leader to enhance the capacities of VDCs and communities to maintain on-site sanitation facilities.

25. Community Development Specialist (National)

48. The Community Development Specialist (national) will assist PIUs and VDCs to plan and implement the Enhanced Community Actions (ECA) program in about six subproject towns. They will develop the capacity of VDCs and communities to manage on-site sanitation systems, and contribute to the planning of the village environmental improvements component. The specialist will have tertiary qualifications in a relevant discipline such as social sciences or equivalent and at least 5 years' experience in community development/participation on infrastructure projects. The specialist will work closely with the PIU and community. The services will include the following:

- (i) Conduct orientation to launch the subproject and distribute information on the project, ECA scope, stakeholders and their responsibilities.
- (ii) With stakeholders, prepare and implement an agreed stakeholder participation plan to ensure stakeholder participation at all levels and at all stages of the Project.
- (iii) Provide training and advice to PIUs to strengthen their capacity to consult with the community; plan, budget, manage, and monitor community awareness and development activities, and the village environmental improvements. Provide the PIU with documentation and guidance on the procedures and records needed to manage and monitor the program.
- (iv) Guide communities in a process to identify, select, plan, design and implement the village environmental improvements.
- (v) Provide ongoing support and information to PIUs and VDCs for implementing and monitoring the programs.

- (vi) Assist PIUs to prepare progress reports to PCU on community awareness and participation activities.
- (vii) Develop and produce new project and hygiene awareness materials as needed, and assist PIUs and DVCs to raise awareness on these aspects.
- (viii) Assist the Team Leader to enhance the capacities of VDCs and communities to maintain on-site sanitation facilities.

26. Asset Management Specialist (International)

49. The Asset Management Specialist will assist the PNPs to improve its overall management of its asset base in the provincial capital. S/he will assist in the development of PNP staff capability. The specialist will have tertiary qualifications in a relevant discipline such as water supply engineering or equivalent and at least 10 years' experience in developing countries in the water supply sector. The tasks will include:

- (i) Establish an asset management task force with PNP;
- (ii) Develop a duty statement for the asset management task force;
- (iii) Develop an overall approach to asset management, including NRW management, and establish appropriate procedures;
- (iv) Develop asset management tools and train PNP staff on their use, such as asset database, GIS, customer registration, customer relations, disconnection policy, etc., and
- (v) Work closely with the leak detection specialist to ensure integration of the leak detection and repair program into the overall asset management and NRW management programs.

27. Regional O&M Facilitator (Regional)

50. The Regional O&M Facilitator will be the main linkage between the Provincial Waterworks Authority (PWA) of Thailand and DHUP in the proposed twinning arrangements to support capacity development in O&M for PNPs. S/he will have at least a bachelor's degree in engineering or equivalent, and have at least 15 years' experience in the water supply sector in southeast Asia. Previous experience on facilitation of a twinning arrangement will be a distinct advantage, as will experience in the water supply sectors in Thailand and Lao PDR. Specifically, s/he will:

- (i) Develop a work plan and cost estimates for the overall twinning arrangement, as well as for each phase of the operation.
- (ii) Develop and finalize a Collaborative Agreement between PWA, DHUP and ADB.
- (iii) Coordinate closely with PWA, DHUP and PNPs.
- (iv) Keep the team leader and PCU up to date on all twinning activities.
- (v) In close consultation with PCU assist with and supervise the implementation of all twinning activities.
- (vi) Facilitate a post evaluation workshop for each phase of the twinning and assist in feeding the lessons learned back into the program.
- (vii) Facilitate a final post evaluation workshop.
- (viii) Prepare a final report for each phase of the twinning program, as well as a final report for the overall program.
- (ix) Contribute to all reporting requirements under the Project.

ANNEX C: PARTICIPATION PLAN

1. The Participation Plan (PP) aims to maximize community involvement and ownership through (i) collaboration involving shared decision making between the PIU and VDCs, (ii) empowering community institutions by transferring control of decisions and actions to communities, including VEI activity prioritization, planning, operation and maintenance.
2. The objectives of PP include:
 - (i) Improve community representation in village development;
 - (ii) Motivate households (HHs) to make a piped water supply connection;
 - (iii) Motivate HHs to install/improve their toilet facilities;
 - (iv) Facilitate communities to plan, design, operate, supervise, maintain local infrastructure improvements; and
 - (v) Coordination and partnership with local authorities and agencies.
3. Participation activities include (i) project orientation workshops on Village Environment Improvements (VEI) for districts; (ii) organization of Village Development Committees (VDC); (iii) selection of VEI priority projects; and (iv) identification of poor HHs needing latrine grants.

Stakeholder group	Objective of their involvement (Why included)	Approach to participation and depth	Participation methods		Timing	Cost estimates
			Method	Responsibility		
Beneficiary communities, poor and vulnerable households, women	Direct beneficiaries of project, owners of the VEI projects	Partnership (medium)	<ul style="list-style-type: none"> • Information: on project scope, technical options and pricing of water and sanitation, participation mechanisms, entitlements for APs. Informed through meetings, information brochures. • Consultation: on affordability and willingness to pay and level of support for project, needs and impacts of subprojects. Consultation through surveys and inventories, village meetings, focus group discussions. • Decisions: on participation in the VDCs; ensure they are inclusive of female members • Decisions: on VEI priorities and level of community participation 	PNP PIU VDC PIA	From start of subproject feasibility study to post implementation of water supply systems	Included in PIA consultant budget
Village Development Committee (VDCs)	Members of VDCs with responsibility for government-public interaction on project implementation	Partnership (high)	<ul style="list-style-type: none"> • Decisions: Selection of VEIs: VDCs - hold public meetings in villages; explain the project, its participatory approach, and VEI selection criteria; - VDC to submit proposals on priority projects to PIU and PIAA team • Project implementation: through village level meetings, coordinate between project and community; mobilize community to participate in construction works (when project buys materials only), O&M; disseminate hygiene 	VDC PIU	From start of subproject feasibility study to post implementation of water supply systems	Included in PIA consultant budget, government budget for VDC mobilization

Stakeholder group	Objective of their involvement (Why included)	Approach to participation and depth	Participation methods		Timing	Cost estimates
			Method	Responsibility		
			and sanitation promotion information and project information <ul style="list-style-type: none"> • Monitoring: VDCs contribute to subproject progress reports 			and support, Project VEI works budget
Schools, Temples, Hospitals, Government Offices,	Direct beneficiaries of project	Collaboration (medium)	<ul style="list-style-type: none"> • Information: on project scope and timing, level of water supply service and commercial tariffs; septage services; sanitation regulations. Information provided through public meetings, announcements, public notices and leaflets, meetings with peak bodies and through business networks • 	PIUs PNP District Government PIA	During subproject feasibility study Periodically during project implementation	Included in Project works budget, PIA consultant budget,
Mass organizations	Representatives of civil society and the community	Collaboration medium	<ul style="list-style-type: none"> • Project management and implementation: identifying and screening potential subprojects, strengthening VDCs, and undertaking participatory feasibility assessments of subprojects, promotion of community participation. Mass organizations are consulted during feasibility and participate in implementation through VDCs, PIU. • Monitoring: representation on steering committees, and district level committees including District Resettlement Committee, Grievance Redress Mechanism 	District government PIU PIA	During subproject feasibility study and throughout project implementation	Included in PIA consultant budget, government budget for VDC mobilization and support,
Provincial <i>nam papa</i> (PNP)	Service provider for town water supply	Partnership (high)	<ul style="list-style-type: none"> • Project management and implementation: informing community about the project (through VAs/ VDCs) • Decision making: design of water supply schemes, decisions about resourcing and management of schemes; PIU participation 	PNP Manager	Throughout project	Project civil works budget
Water sellers, septic tank desludgers, plumbers and masons	Indirect beneficiaries of project; indirect promoters of water and sanitation services and products	Information (low)	<ul style="list-style-type: none"> • Information: on scope and timing of project, costs of water and type of service; sanitation regulations. Informed through direct approaches such as village meetings and printed information or other methods that help them to inform the public and consumers. • Consultation: consulted where available on needs and issues affecting businesses in subproject towns; how water/sanitation businesses can support objectives of the project 	PIU PIA	During subproject feasibility Periodic meetings during implementation	Included in cost estimate
District, Provincial Government	Representatives of government are responsible for project implementation, and representing	Collaboration (high)	<ul style="list-style-type: none"> • Approvals: review and approve safeguard documents • Project implementation: allocate staff to PIU to provide local sector inputs • Monitoring: oversee implementation and progress of subprojects through review and planning meetings; resettlement committees. Recommend and initiate remedial action; resolve disputes 	PIU	Ongoing during project planning and implementation	Government in-kind contribution

Stakeholder group	Objective of their involvement (Why included)	Approach to participation and depth	Participation methods		Timing	Cost estimates
			Method	Responsibility		
	provincial and district interests					
Government departments	Setting policy and guidelines, coordinating, issuing approvals or finance	Partnership (medium)	<ul style="list-style-type: none"> • Approvals and advice: coordination, direction and approval of technical and implementation matters. Participation is through review of key documents, safeguards, and proposals, issuing statements and directives, project management and coordination meetings 	PCU PIU	As required during project implementation	Government in-kind contribution

PCU=project coordination unit, PIA=project implementation assistance consultants, PIU=project implementation unit, PNP=provincial *nam papa* (provincial water utility), VDC=village development committee, VEI=village environmental improvement.

Source: Asian Development Bank.

ANNEX D: LOAN 3041 PROCUREMENT PLAN

Basic Data

Project Name: Water Supply and Sanitation Sector Project	
Project Number: 45301-002	Approval Number: ADB Loan 3041-Lao
Country: LAO PEOPLE'S DEMOCRATIC REPUBLIC	Executing Agency: Ministry of Public Works and Transport
Project Procurement Classification: B	Implementing Agency: Provincial Departments of Public Works and Transport/Provincial Nam Papa
Procurement Risk: Low	
Project Financing Amount: \$39.81 million ADB Loan Financing: \$35.0 million Non-ADB Financing: \$4,64 million (Government); \$0.17 million (Beneficiaries)	Project Closing Date: 31 March 2024
Date of First Procurement Plan: 9 October 2013	Date of this Procurement Plan: 11 Jul 2018 Version 7

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

1. Procurement and Consulting Methods and Thresholds

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

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding for Goods	US\$ 500,001 and Above	
National Competitive Bidding for Goods	Between US\$100,001 and \$500,000	The first NCB is subject to prior review, thereafter post review. Harmonized NCB Bidding Documents.
Shopping for Goods	Up to \$100,000	
International Competitive Bidding (ICB) for Works	\$3,000,001 and above	
National Competitive Bidding (NCB) for Works	Between US\$100,001 and US\$3,000,000	The first NCB is subject to prior review, thereafter post review. Harmonized NCB Bidding Documents.
Shopping for Works	Up to \$100,000	

Consulting Services	
Method	Comments
Consultant's Qualification Selection for Consulting Firm	for service contracts, e.g., website administration
Quality- and Cost-Based Selection for Consulting Firm	None
Single Source Selection for Consulting Firm	Refers to Government initiated or provided services, e.g., audit, MOU
Individual Consultants Selection for individual Consultant	Prior approval

2. Goods and Works Contracts Estimated to Cost More than \$1.0 Million

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

Package Number	General Description	Estimated Value	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
WS-CW34	Construction of new water supply system and public sanitation in Dakcheung.	1,300,000	NCB	Post	1S1E	Q3 2018	Prequalification of Bidders: N Domestic preference: N Bidding Document: Large Works
WS-CW36	Construction of new water supply system and public sanitation in Sanamxay.	2,000,000	NCB	Post	1S1E	Q3 2018	Prequalification of Bidders: N Domestic preference: N Bidding Document: Large Works

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

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

Package Number	General Description	Estimated Value (\$)	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
CS-03-TR	Training courses in computer, English language, financial management specialized services, etc. for (Batch 1 and 2).	158,000	CQS	Prior	Q4 2017	BTP	Assignment: National
RE	Service contract for PNP's operational staff O&M training	150,000	ICS	Prior	Q2 2018		Assignment: National or regional Expertise: Engineering

4. Goods and Works Contracts Estimated to Cost Less than \$1.0 million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

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

Goods and Works								
Package Number	General Description	Estimated Value (\$)	Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure	Advertisement Date (quarter/ year)	Comments
Construction Contracts (Works)								
WS-REHAB 1	Rehabilitation of water supply facilities and public sanitation in Pakxan (Batch 2)	3000,000	1	NCB	Post	1S1E	Q2 2018	Prequalification of Bidders: N Domestic preference: N Bidding Document: Small Works
VI-CW26 to 28	Civil works for VEI Batch 1	350,000	3	NCB	Post	1S1E	Q1 2018	Prequalification of Bidders: N Domestic preference: N Bidding Document: Small Works
VI-CW29 to 32	Civil works for VEI Batch 2	700,000	4	NCB	Post	1S1E	Q1 2018	Prequalification of Bidders: N Domestic preference: N Bidding Document: Small Works
VI-CW34 VI-CW 36	Civil works for VEI Batch 3 Lot 1: Dakcheung Lot 2: Sanamxay	120,000 30,000 90,000	2	NCB	Post	1S1E	Q1 2018	Prequalification of Bidders: N Domestic preference: N Bidding Document: Small Works To be procured same time as Batch 4
Supply and Delivery (Goods)								
NRW-G01	Leak detection equipment (electronic listening stick and ground microphone, meter test bench and portable flow meter for PCU, PIUs	200,000	1	Shopping/ LIB	Post	1S1E	Q1 2018	

Goods and Works								
Package Number	General Description	Estimated Value (\$)	Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
	and PIA (Batch 1 to 3)							
OFCW 1 to 7	Office modifications for PCU, PIA and PIUs (Batch 1&2: No. 7)	40,000	7	Shopping	Post	1S1E	Q1 2017 to Q4 2018	
VEH PIU 3	Vehicles (2) for PIUs (Batch 3)	60,000	1	Shopping	Post	1S1E	Q2 2018	
SPEC VEH 3	Four 1- tone flatbed trucks for PNPs (Batch 3)	80,000	1	Shopping	Post		Q2 2018	
MOT VEH 3	Motorbikes (8) for PIUs and PIA (Batch 3)	12,000	1	Shopping	Post		Q2 2018	
VI-G01 to 03	Small scale O&M equipment for OPWT (for VEI Batch 1)	45,000	1	Shopping	Post	1S1E	Q1 2018	For Batch 1 three sub projects
IEC 1	IEC Materials for community subproject information and hygiene awareness (Batch 1)	54,000	2	Shopping	Post	1S1E	Q2 2018	For Batch 1 three sub projects One contract per province
IEC 2	IEC Materials for community subproject information and hygiene awareness (Batch 2)	72,000	2	Shopping	Post	1S1E	Q4 2018	For Batch 2 Four sub projects One contract per province
COM 1	Community consultation events and hygiene awareness campaigns (Batch 2)	40,000	2	Shopping	Post	1S1E	Q2 2016 to Q2 2017	One contract per Province
HHM 2	Supply and delivery of household Class C water meters. (Batch 2)	356,000	4	Shopping	Post	1S1E	Q2 2018	
HHM 3	Supply and delivery of household	330,000	2	NCB	Post	1S1E	Q2 2018	

Goods and Works								
Package Number	General Description	Estimated Value (\$)	Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
	Class C water meters. (Batch 3)							
HHS 1	Household sanitation under (grants to poor households Batch 1 to 3)	30,000	4	Shopping	Post	1E1S	Q3 2018	One package per province
VI-G04 to 05	Small scale O&M equipment for OPWT (for VEI Batch 2)	60,000	2	Shopping	Post	1S1E	Q3 2018	One contract per Province

Consulting Services								
Package Number	General Description	Estimated Value (\$)	Number of Contracts	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments

B. Indicative List of Packages Required Under the Project

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

Goods and Works							
Package Number ⁵	General Description	Estimated Value (\$ cumulative)	Estimated Number of Contracts	Procurement Method	Review Prior / Post/Post (Sample)	Bidding Procedure ⁶	Comments ⁷
Construction (Works)	Contracts	None					
Supply (Goods)	and Delivery	None					

List of Awarded and On-going, and Completed Contracts

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

1. Awarded and On-going Contracts

Goods and Works							
Package Number	General Description	Estimated Value (\$)	Awarded Contract	Procurement Method	Advertisement Date	Date of ADB	Comments

			Value (\$)		(quarter/ year)	Approval of Contract Award	
WS-CW27	Development of new water supply systems and public sanitation in Long district town.	1,756,800	1,327,965	NCB	Q4 2016	28 Dec 2016	Viengkeo Engineering Construction Co., Ltd
WS-CW28	Development of new water supply systems and public sanitation in Pha Oudom district town, Bokeo Province	2,399,300	1,822,185	NCB	Q4 2016	14 Mar 2017	Viengkeo Engineering Construction Co., Ltd
WS-CW26	Rehabilitation and expansion of water supply systems and public sanitation in Namtha, Luang Namtha Province	3,800,000	2,813,898.48	ICB	Q3 2017	16 Jan 2018	Zhongmei Engineering Group Ltd China
WS-CW32	Development of new water supply systems and public sanitation in Botene, Xayabury	1,600,000	1,298,379.75	NCB	Q4 2017	23 Apr 2018	DM Group Sole Co., Ltd., Lao PDR
WS-CW30	Development of new water supply systems and public sanitation in Pakkading, Borikhamxay Province	2,200,000	1,801,422.20	NCB	Q4 2017	6 Jun 2018	DM Group Sole Co., Ltd., Lao PDR
WS-CW29	Rehabilitation and expansion of water supply systems and public sanitation in Pakxan	3,800,000	2,450,867.98	Prior	Q4 2017	22 Jun 2018	DM Group Sole Co., Ltd., Lao PDR
HHM 1	Supply and delivery of household Class C water	270,000	98,694.88	Shopping	Q4 2017	6 Apr 2018	Xaignavong Group Sole Co., Ltd.

	meters. (Batch 1)						
EQPT-6	Project accounting program (Batch 1&2 seven subprojects, One PCU and Combine data all	35,000	32,195	Shopping	Q3 2017	n/a	
WS-CW31	Rehabilitation and expansion of water supply systems and public sanitation in Xayabury.	4,500,00	4,563,412,95	ICB	Q4 2017	18 July 2018	Zhongmei Engineering Group Ltd China

Consulting Services							
Package Number	General Description	Estimated Value	Awarded Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award	Comments
PIA	Consulting services for Project Implementation Assistance and Sector Reform.		7,968,654	QCBS (90:10) FTP	Q2 2014	22 April 2015	LCG in joint venture with Nippon Koei in association with SK Consultant Co.
PA	Project accounting for PCU	230,000	174,800	ICS	Q1 2016	05 April 2017	Daosavanh Phouangkhamso
CS-01-IT	IT support for project and for establishing and maintaining sector website	65,000	62,780	CQS	Q1 2017	14 Jun 2017	Network Solution Service
EXTMON	External Monitor for Resettlement	90,000	47,960	ICS	Q2 2016	2 Jan 2018	Minavanh Pholsena

2. Completed Contracts

Goods and Works								
Package Number	General Description	Estimated Value	Contract Value	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award	Date of Completion	Comments
VEH PCU	Vehicles 5 for PCU and PIU 3 Mazda for PCU	80,000	70,530	Shopping	Q1 2015	26 Jan 2015	04 April 2015	KP Group
VEH PIU 1	2 ISUZU for PIU (Batch 1)	80,000	47,534	Shopping	Q1 2016	15 Jan 2016	22 April 2016	Isuzu
MOT VEH 1	Motorbikes (8) for PIU and PIA (Batch 1)	12,000	9,774	Shopping	Q1 2016	15 Jan 2016	22 Mar 2016	New Chipcin Co.
SPEC VEH 1	Three 1- tone flatbed trucks for PNPs (Batch 1)	60,000	53,852	Shopping	Q1 2016	15 Jan 2016	22 Apr 2016	Isuzu
VEH PIU 2	Vehicles (3) for PIUs (Batch 2)	96,000	78,656	Shopping	Q2 2017	05 Apr 2017		Isuzu
MOT VEH 2	Motorcycles (8) for PIUs (Batch 2)	12,000	9,722	Shopping	Q2 2017	05 Apr 2017		New Chipcin Co.
SPEC VEH 2	Four 1- tonne flatbed trucks for PNPs (Batch 2)	60,000	70,000	Shopping	Q2 2017	05 Apr 2017	31 Dec 2017	Isuzu
EQPT-1	Office equipment, computers, furniture PCU	45,000	9,389	Shopping	Q1 2015	26 Jan 2015	22 Apr 2015	Alice Computer
EQPT-2	Office equipment, computers, furniture PIA	30,000	23,682	Shopping	Q1 2016	15 Jan 2016	07 Apr 2016	Micro Info
EQPT-3	Office equipment, computers, furniture for subsector working group on water supply and sanitation PIUs (4 subprojects). (Batch 1)	30,000	21,507	Shopping	Q1 2016	18 Feb 2016	18 Feb 2016	Data Com
EQPT-4	Office equipment, computers, furniture for subsector working	30,000	28,943	Shopping	Q1 2017	05 Apr 2017	19 May 2017	Data Com

Goods and Works								
Package Number	General Description	Estimated Value	Contract Value	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award	Date of Completion	Comments
	group on water supply and sanitation PIUs (4 subprojects). (Batch 2)							
EQPT-5	Office tables and chairs for PCU	5,000	4,339	Shopping	Q1 2017	05 Apr 2017	20 May 2017	Savang Trading Co. Ltd.
EQPT-6	Accounting software for Batc1&2	35,000	32,195	Shopping	Q2 2017	14 Jun 2017	31 Jul 2018	Inter Computer Co. Ltd.